

“Let us also produce some bold act of our own – and join the ranks of
the most emulated.”

-Seneca, *Moral Letters*, 98.13b

EMPOWERED

*A Guide To Rediscovering
Your Health*



Dr. Ian Rassel

The guidelines put forth in this book should only be used as a reference and only used in the context of standard medical care with your physician.

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DEDICATION

First, gratitude to you, the reader! It's an honor to share the planet with so many like-minded souls.

Second, a portion of the author's royalties will be donated to these worthwhile causes:

- **Homes for Our Troops (hfotusa.org)**, which provides nationwide custom homes for post-9/11 severely injured veterans, so they can rebuild their lives.
- **H2H International (h2hint.org)**, which cares for abandoned infants and toddlers, provides education for school-aged children, and mentors and disciples older teens who have been institutionalized throughout their childhood in Romania.
- **Scientific Research at Institutions, such as Life Chiropractic College West (lifewest.edu) and Sherman College of Chiropractic (sherman.edu)**, where corrective chiropractic care is being studied for applications in Public Health and Health Services.

Third, for those of you seeking, may you find more than you are looking for when you search within. Here's to hoping this book will help.

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FOREWORD

As a society we are constantly looking for ways to improve our health. Hoping for answers, we seek out the doctor, the osteopath, the physical therapist, the chiropractor, watch YouTube videos online, and read the latest and greatest ways to improve our health.

But the question begs, do we really even know what health is?

A -D-I-O, or Above-Down, Inside-Out is a term coined by B.J. Palmer, the developer of Chiropractic, to describe how humans heal.

“Life flows from **ABOVE DOWN INSIDE OUT**” -Dr. B.J. Palmer.

You function with your brain directing messages from “**Above**,” “**Down**,” your spinal cord, “**Inside**” the nerves, and “**Out**” to every cell, tissue, and organ.

As we currently navigate life on this planet afraid of the tiniest of viruses decimating our population, we continue to search for healing on the outside. We are tired of being scared of the coronavirus. We are sick of living in fear of China, Russia, or Germany, creating a world war. We are fed-up with the fear of global warming, cooking our planet and grandchildren. We can easily stay up all night, worrying about at least ten things that could ruin our family's lives tomorrow. We can stay at home locked up with our news channels 24/7, debating politics, and finding fault with others.

I don't know about you, but I would much rather spend what few hours I have left on this planet figuring out ways to help and empower others instead of living in the constant state of fear as described above. What if, on our deathbed, we looked back on all the opportunities wasted because we were scared of taking risks? Risk, discomfort, and suffering

are a natural part of life. What if, at the end of all this, there was a scoreboard of who we could have been?

The main purpose of this book, the purpose of my life and MY MISSION is:

To empower people with understanding how the human body works to make wise decisions about the health and well-being for themselves and their families through Chiropractic.

A•D•I•O is a philosophy that goes deeper than just the human body. Most religions agree on a creator bigger than us, “Above,” and this is the wisdom that can be expressed from “Inside” of us and “Out.”

For the next 21 chapters, I will be discussing with you my version of health. It is based upon my predecessors in the field of Chiropractic and health.

Legendary Doctors of Chiropractic:

Reggie Gold

Sid E. Williams

BJ Palmer

Jon Baker

Clarence Gonstead

Ian Grassman

Fred Barge

Dan Murphy

Jean-guy Daigneault

Dennis Miller

Larry Rassel

Charles Rassel

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These dynamic individuals dared to take risks and spread their messages about the philosophy of health. They have ignited a desire to transform the quality of life for my family, our communities, and THE WORLD.

Part 1 of this book was created to explain crucial information that pertains to your well-being while at the same time gaining a deep understanding of Chiropractic. We will discuss what corrective Chiropractic really is and isn't. This includes how the allopathic method (utilizing drugs to combat disease) is crucial for emergencies. The emerging science of epigenetics is proving what the Vedas in India have been teaching for the last 5,153 years. This is the same knowledge that the sages, gurus, and seekers have known about for thousands of years and is, in fact, the same information that chiropractors have been sharing since 1895.

Part 2 is all about what you can do to navigate a challenging planet and utilize the incredible natural health approaches available to everyone.

Part 3 is a very special interview I will share with you. This is a discussion of a lifetime of pursuit towards health and wellness through chiropractic, nutrition, and biohacking from my father, Dr. Charles P Rassel.

I have had many aspirations in my life and all of them have been based around one major premise; **Life expresses intelligence**. I can remember growing up, watching my father, and witnessing his way of being. His passion was so bright it would illuminate you. I can remember learning to garden with Pops and how he would answer my questions and show me how to plant the tomato sprout gently. I could feel his attention and presence, like a laser beam. It was the spark to light the way for our family.

Everyone on this earth has a unique path. We all have to explore and connect to that path, confront our own fears, and challenge ourselves in our own unique ways.

It is clear that people desire to control and it is very obvious that the loss of control scares us. The coronavirus of 2020 is the perfect storm and has shown us so much. In this reflection, we realize an amazing truth: we were never really in control... at least not the kind we hoped we had in our daily lives.

Chiropractic dares to recognize this freedom, calling it **Innate Intelligence**. This Innate Intelligence is an involuntary gift to your body. It is contained within all living things. It beats your heart, oxygenates your blood, and digests your food. Innate Intelligence is not educated intelligence. Educated intelligence is what we can learn, and this does not run your body and its functions. It is your Innate Intelligence that is doing ALL the work. When this Innate Intelligence is not expressed freely and is being blocked, you will not heal properly or do what you were naturally designed to do. A loss of Innate Intelligence can occur in the spine by the bones of the spine pinching and choking the nerves. This is called a **SUBLUXATION**. The job of the corrective care chiropractor is to find these subluxations within the spine and release them. Then, the innate intelligence can flow like it was designed to, and all tissues, cells, and organs will have a better chance of receiving mental impulses from the brain.

In this book, I will remind you frequently that **Life expresses intelligence**.

I envision a world of natural health and healing from within, filled with communities where children play freely and live drug-free lives. I am on a mission to reach the world with corrective Chiropractic by helping as many families and children reach an optimal level of health through the correction of subluxations. When a child's body is working optimally with clear signals from the brain to body and body to the brain, Life expresses intelligence. Each of us has Innate Intelligence guiding and healing all the time. Much like a herd of elephants protecting and caring for their young, a matriarch elephant needs no guidance from the outside to help give birth to her offspring. Her Innate Intelligence will guide her. All of us carry an inborn love and recognition for the intelligence of life. Let us share it with the generation behind us.

There are many words to describe Innate Intelligence. Science would describe it as "energy." Christians might call it "Spirit." Others might call it "Love." "It is in all matter and it continually gives to it all its properties and actions, thus maintaining it in existence." This inborn intelligence cannot be seen in your blood or found in an autopsy. Innate Intelligence cannot be measured or weighed. You cannot see it, touch it, taste it, or feel it.

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Within your body, at this very moment, billions of embryonic stem cells are replacing damaged tissues and organs. The activity of these miraculous and regenerative cells is controlled epigenetically. This means they are immensely influenced by your thoughts and perceptions about the environment. Your belief about healing an injury can either hinder or enhance stem cell activation. YOU choose whether you will heal or not. It turns out the modern science of epigenetics is proving Darwin wrong. Struggle and competition have taken the human species this far. Continuing our evolution as a species, we now thrive on cooperation and community. These are the underlying principles of evolution and cellular biology. Our bodies are made up of a cooperative community of fifty-trillion single cells. When these cells act and function as a community, as one, for the greater good of the organism, committed to supporting each other in the shared vision of vitality, humans flourish.

Our systems are excellent at accommodating periods of brief stress. Prolonged and chronic stress levels are completely debilitating to our body's energy and eventually lead to dysfunction and disease. The fear that has propagated in the United States since COVID-19 has had a profoundly destructive effect on our citizens' health. The fear alone causes stress hormones to shut down our biology and engage in protective responses. The pharmaceutical companies' profits will continue to skyrocket as we reach for the solution of a "pill" or "vaccine" to solve our deepest fears. Living in a chronic fear state pushes the blood flow from the front of our brain, where all the conscious control and thinking goes on and stimulates the hindbrain with blood where the subconscious reflexes are made. We basically become more reactive and less intelligent.

The cells within you can be ignited like a spark and you can express this energy anytime to use it to enlighten the body, the mind, and the people around you. This book provides a path to empower you to find this inner light, express it, and remember it. If you choose to let it become a fundamental part of you, I hope that when your children grow up and move out of your house or when you are no longer here on this earth to parent them, they will not need to strain to remember you. Your memory will be with them; your light will continue with them.

I decided to accept this gift my father bestowed in me and share it with the world.

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INTRODUCTION

It makes the most sense to start with a foundation for healing, and what better storyteller than Dr. Reggie Gold. Both Dr.'s Irene and Reggie Gold were friends of our family and pioneers in the chiropractic profession. Dr. Reggie single-handedly took on the medical community in the 1970s, defending the philosophy of healing and Chiropractic. YouTube his discussion: Reggie Gold Chiropractic vs. Medicine Debate, Full Length: Chiropractic History 1979 <https://youtu.be/FhLDsg5C5sU>

The following introduction is based upon a lecture Dr. Gold gave decades ago. I attempt to continue carrying the torch that Dr. Reggie lit so many years ago. I have re-written the story with permission from his wife, Dr. Irene Gold, to illustrate the Big Idea behind what Chiropractic does and does not do.

THE BIG IDEA

True or false: The human body is designed to adapt to constant internal and external forces to maintain homeostasis. True!

Why is it that one person gets a cold and is healed in one to two days and another person's experience is being sick for three weeks with the cold, eventually turning into pneumonia, bronchitis, or strep throat?

Scientists have stated that our bodies were meant to last up to 125 years. For thousands of years, humans have thought that our bodies were created by some kind of wisdom. Do you think that whatever created this body designed it to last 125 years just to get sicker and sicker? I don't believe that at all. I believe that health is a natural state of the human body. This body is supposed to live its total life in a state of health. We are supposed to be healthy from the time we were born until the time

they put dirt on top of us. Life can be much like a candle that burns brightly as soon as it's lit. The candle stays lit all the way until the end of the candle and sputters once or twice, and goes out.

BIRTHRIGHT

If you are living a life without health, it's likely for many reasons. Every illness is a result of a certain cause. This introduction is to discuss the causes.

Why is it that one person dies of a liver condition at age 50 and another one dies of a heart attack at an age at age 90 and their liver is still thriving and strong? I am suggesting that your body is supposed to last you as long as you live.

Your body was created by all the wisdom of the universe to last 125 years. It is not natural for a gallbladder to malfunction at age 32. And what did the medical community do to the person whose gallbladder wasn't working properly? Well, they took it out. Now, this may or may not have been necessary. One thing I do know is that by cutting out their gallbladder did not make them healthy. You can't be whole and healthy when you are missing a vital organ. That person with the removed gallbladder can get by without that organ. However, the gallbladder's job is to break down fats and metabolize cholesterol. So if you don't have a gallbladder, your body can never utilize cholesterol properly ever again.

Do you believe there are unnecessary bodily parts inside of us? I don't. The appendix, the tonsils, and the gallbladder are all useful organs. Wisdom far greater than mine decided that you and I need our gallbladders. You cannot be completely healthy without it.

The most important thing about the removal of someone's gallbladder is that no one asked the question, why. Why did that person's gallbladder create gallstones? Where did they come from? Did his mother-in-law put them in his soup instead of noodles? Of course not!

For all these years, you have been blaming sickness and disease on the wrong things. Every disease comes from one cause, and that one cause is a body not doing its job. If the body were doing its job, if it were working right, you wouldn't be sick in the first place or suffering from

the disease. There's no way for humans to be sick if the body is doing its job.

I have asked patients in the past about their headaches and their response, "Oh, you know, the normal headaches you wake up with." And then there is another patient with seasonal allergies, who blames the runny nose and itchy eyes on the ragweed and pollen. They are convinced that hay fever is caused by the ragweed, which is absolute nonsense. If ragweed caused hay fever, then all of us would have hay fever. The cause of hay fever is a body that is not working right to neutralize the ragweed pollen. If a body is working right, when we breathe in that ragweed pollen, our body has mechanisms to create the right chemicals to neutralize the pollen. A healthy person makes these chemicals and doesn't even know that there's pollen in the air. It is only when your body is not working right when you are sick, rundown and weak, or chemically out of balance; it is then that your body does not manufacture the right chemicals, and you get these symptoms.

I was having lunch with someone last week who told me that spinach gives them indigestion. If spinach causes indigestion, then all of us would have indigestion. I sat there right in front of her eating the spinach and it didn't cause me indigestion. The cause of indigestion is not spinach. The cause of indigestion is a stomach that isn't working right. It is the only cause. If your stomach was working right, you couldn't have indigestion. Here we go again, blaming sickness and disease on outside things.

ARTHRITIS

Now let us talk about arthritis. Many of you suffer from this debilitating disease with chronic pain, joint stiffness, morning aches and pains, cramps, and other debilitating symptoms. When the medical community finds building up of calcium deposits on the joints, their solution is chemicals. The medical approach for dealing with these symptoms and conditions is usually pain medications and oftentimes cortisone injections. Many of you have had shots of cortisone for arthritis and you know they work. Up to a point. For a while, the cortisone will decrease inflammation, and you will feel better. But, of course, the cortisone wears off and

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the pain comes back whether, in the same joint or another, it builds up, and you need another shot of cortisone. And another and another until the side effects of the cortisone are more deadly than the disease, and you have to stop getting injections.

It has always baffled me that the geniuses who utilize cortisone for the treatment of arthritis haven't asked the question, "If cortisone is an effective treatment, perhaps the cause of arthritis is a shortage of cortisone." Your body makes cortisone. As you sit here reading this book, your body is creating cortisone in the adrenal glands. It is in the adrenal cortex that you make cortisone. Most people don't realize that your body makes not only adrenaline, but cortisone and insulin, antibodies, and antihistamines. Your body makes every drug and every chemical that you will ever need throughout your life. If your body was working properly, you wouldn't need any drug or chemical from the outside. If you consume the right quality and quantity of food and if your body is working optimally, it will convert that food into the chemicals that you need.

So, the shortage of cortisone only comes from one cause, a body that is not working right.

BACTERIA

One of the most common things we blame on outside elements are infections. I am referring to the bacteria and viruses in and out of your body. There are enough staphylococcus and streptococcus (bacteria) in your body right now to kill off the entire population of California. There's no way you can breathe a mouth full of air or eat a mouth full of food without loading yourself up with bacteria. If bacteria could make you sick, you'd already been dead. As long as your body's resistance is strong and healthy, then you have the mechanisms to live in this environment. Your body was made with all the wisdom of the universe to thrive in this environment where bacteria are normal. As long as the bacteria count is not disrupted by wonder drugs and antibiotics, and as long as the body remains strong and healthy, the disease cannot live in this environment.

If the germ theory were correct, there would be nobody left alive to believe it. So many nurses and doctors who work with patients suffering

from tuberculosis don't get the disease. How come? Patients cough and sneeze around them all the time. How come the nurses would work there? It is because those doctors and nurses know that a good strong, healthy body cannot get tuberculosis. If you get good rest, have a healthy nerve supply, have a strong immune system, then you can't get tuberculosis. But if you get weak, rundown, and sick, that is when the tubercle bacillus breaks out of its encapsulation, takes over, and spreads.

What about the common cold? We blame disease on the virus. There is a virus associated with the common cold. But a good strong, healthy body doesn't get it. Little Billy comes home from school with a cold and passes it on to his sister; his other sister doesn't get it at all. She fights it off before she ever even gets symptoms. The virus alone can't cause a cold. And the bacteria alone can't cause disease. The thing that must be there for these bacteria or viruses to produce a problem is a weakness. When you are rundown and overtired, your immune system is not working properly. When your immune system is rundown, you don't have to find any kind of strange virus at all; the viruses that are already in your body right now will manifest themselves, break down tissue and start to become a problem. The cause of sickness and disease is a weak and run-down body; it's not something from the outside. We blame sickness and disease on the craziest of things or we pretend they come from nowhere. Most of the time, when you get sick, you don't even ask why.

Do you know what we want to do in Chiropractic? We don't want to cure your colds or gallstones. We want to get your body working properly again so that you won't get gallstones in the first place. We want to raise the level of function in your body.

CONFIDENT MIND + HEALTHY BODY

Many people believe that they themselves in no way can help against disease. They need outside input every time they are not feeling okay. They believe they can't do it themselves and some medicine, vitamin, potion, or lotion is what's needed inside of them to do the healing. They are basing these decisions to utilize medicines and doctors out of fear.

The truth is we need no intervention; we need no help. We are an all-healing, all-powerful, self-organized system. With thousands of years of

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wisdom and trillions of organized and helpful cells, our bodies will heal themselves. Within all of us, there is an **innate intelligence**. This intelligence, what some might call spirit, others call innate, is an invisible, unquantifiable, no-thingness that is the organizer of our internal life. This intelligence is always working to maintain our health and homeostasis so we can continue to thrive despite the outside elements. Whether it be the cold, the hot, the bacteria, the viruses, the hunger, the pain, either emotional or physical, and many other sufferings, this innate intelligence is always working for our good. If and when our innate intelligence is not working at its very best, then we are in a state of dis-ease.

The true secret to health and well-being is that simple. Do everything possible to maintain the highest level of that inborn, innate intelligence. Ensure proper rest, exercising regularly, proper nutrition, a positive mental attitude, and, most importantly, taking care of your nervous system.

So many people exercise regularly, eat good fuel, are upbeat and positive, and yet continue to have health ailments. These people could immensely benefit, and their lives changed by checking in with their electrical system, their nervous system. So often, we wait for the symptom to guide us to the problem. Very rarely in the human body do symptoms and problems correlate. Most people wait and wait until they are suffering from terrible back pain and their leg goes numb to find out they've been using poor body mechanics to carry things. Our bodies were set up for survival. Our central nervous system is the master controller of all the information coming from the body.

The purpose of this book is not to try to impress you with how great Chiropractic is. I hope to rather impress you instead with how great your body is. Once you understand what a fantastic doctor you have inside you working for you day and night, then you will be more likely to have confidence in your own body and its systems. Scientists have concluded the average human body contains approximately 50 trillion cells! Wow!

If you were to hang out in my office waiting room and talk with the patients there, you would hear that the doctors in our office have cured everything from ingrown toenails to psoriasis to avian bird flu. And this

is just not true. The only thing the doctors here have ever done is to raise the level of resistance in your body so that your body can work better. When your body is working well, it can heal just about anything.

We are going to discuss this body of yours. First of all, though, I would like to change your attitude about your body and about sickness and disease. The majority of the American people think that it's perfectly natural and normal to be sick. Sometimes I wish that you could sit where we sit when taking a case history on patients and listen to what we get to hear. People are so used to being sick and suffering that they don't even want to discuss it. It's not even a thought in their head that the headaches they wake up with are to be concerned about. They believe these headaches are usual and normal, and there is nothing wrong with their health. My goal is to help you understand that this, in fact, is not normal.

Come along with me on this journey and find out just how we can achieve optimum health and wellness.

“An adjustment may or may not make your symptoms go away... but it's not meant to. An adjustment opens up the life channels of your body and improves your life, and it does it EVERY time in EVERY body. Of course, the important point is that people should want that for themselves with or without medical problems, and regardless of whether those medical problems improve, stay the same, or get worse under chiropractic care. In other words, Chiropractic is not about your diseases or lack of diseases... It's about your life!”

-Reggie Gold, D.C. 1925-2012

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PART 1

CORRECTIVE CHIROPRACTIC

CHAPTER 1:

YOUR FIRST VISIT

“My daughter was in a car accident with me when she was three years old and I never thought to do anything about it. At 13 years old, she couldn’t do P.E. without tremendous back pain. Dr. Russel examined her and took x-rays, which showed terrible curves in her spine. After 10 weeks of corrective care, they were able to correct her spine. I was overwhelmed with joy! I still remember seeing her X-rays after correction and crying with joy.”

-Christina J

CORRECTIVE CARE VS RELIEF CARE

The majority of the public that has experienced chiropractic has had decent results with managing their back pain. What if I were to tell you that back pain is only the tip of the iceberg when it comes to the potential of health through chiropractic? That getting relief from back pain was never what chiropractic was designed to do in the first place? That relief care chiropractic is no more than a chiropractic aspirin? The majority of ALL chiropractic clinics worldwide currently focus on the relief of medical symptoms.

The first eight chapters of this book are designed to describe exactly what **corrective chiropractic** care is and to change your life. And I mean to REALLY CHANGE YOUR LIFE! If the planet knew the potential of corrective chiropractic care, there would not be enough clinics to handle the public’s rush to visit them. There have been several corrective care

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clinics that have had tens of thousands of patients rushing to access the incredible potential of corrective chiropractic care. Clinics like that of Dr. Clarence Gonstead in Mt. Horeb, Wisconsin in the 1930s to 1970s and Dr. John Bergman in Huntington Beach, California, who has, through YouTube, described the hidden potential of corrective chiropractic care.

Currently, there are two types of chiropractors in the world. Strangely enough, we all go by the same name. However, we differ in technique and philosophy. The philosophy that chiropractic was based upon has never changed, but for social reasons, many chiropractors have. It is because of this reason that when patients go to different chiropractors, they get different results as well as different examinations and costs. I've always been frustrated with this because this could be very confusing and frustrating to the patient. The majority of the time, patients stop chiropractic care prematurely because either their expectations were not met or their symptoms went away. These patients never get to experience incredible life-changing results and the lifestyle of chiropractic care.

Upon joining my father's clinic over fifteen years ago, I was faced with the decision of which type of chiropractic care I could offer. The majority of chiropractic clinics that I had visited saw patients for just a few visits just to get them out of pain. This type of care was completely covered by their insurance. The doctors of these clinics told me that patients did not want to keep coming back over and over for months on end, particularly when their insurance would not cover this type of care.

I imagined myself as the patient. I pictured major misalignments in my spine with discs slowly rotting away. I envisioned my electrical circuits miscommunicating with organs slowly failing. I knew that if I was this patient, I would want the corrective care process. Regardless if my health insurance covered the care or that it might cost me thousands of dollars and may take months to years to stabilize.

I had the great fortune of befriending a college classmate, Nick Baker, in my undergraduate studies. Nick's father was also a chiropractor. When I met Dr. Jon Baker, I was blown away at his pursuit of getting people the care they need. Dr. Baker was completely disconnected as to whether the patient's insurance was able to pay for the care they needed. He was

one hundred percent focused on the patient and their needs. This commitment is evident in all that Dr. Baker does, and thousands of people flock to his clinics. Dr. Jon Baker has coached me for over a decade and instilled in me early on, “Do unto others as you would want them to do unto you.” It’s that simple. My hope for you, the reader, is to understand these two distinctly different types of care. Recognize that you may have received fantastic relief care from chiropractors in the past. It is not that one care is better than the other. They have two separate goals and philosophies.

SYMPTOM RELIEF CHIROPRACTIC

The majority of chiropractors treating patients today are musculoskeletal chiropractors who focus on symptomatic relief like back pain and headaches. Spinal manipulations are given to the spine to reduce pain, get joints moving better, and allow tissue healing. Oftentimes adjunctive therapies such as ultrasound, electrical stimulation, tens units, cold lasers, and other physical therapy modalities are utilized in these offices. The frequency of visits and length of treatment times are oftentimes dictated by the patient’s symptoms or the coverage of their health insurance. It is common for these patients to be seen three times a week for a few weeks, then two times per week, and eventually one time a week because that is what their health insurance will pay for. When the patient’s progress is determined by their symptoms and insurance coverage, the patient rarely reaches the completion of their corrective care. This usually means that the root cause of their symptoms will come back. If the patient’s symptoms temporarily feel better, but their spine still remains structurally misaligned, further degeneration will continue **silently**. This causes dysfunction to the joints and discs, and to whatever part of the body that that pinched nerve is going to.

Due to the changes in the American healthcare system, insurance companies have forced most doctors to increase the number of procedures given to the patients in order to get reimbursed a fraction of the services given. This model of high insurance billing with limited reimbursements to doctors has caused cost containment procedures from the insurance companies. Now insurance premiums increase, and care continues to be limited to the patient.

CORRECTIVE CHIROPRACTIC

What if you were to receive the care that you needed regardless of whether the insurance companies covered some, none, or all of the care that you needed? What would we want for our pregnant family members? Or children? The care they need or the care that the insurance company covered?

The corrective care chiropractor practices the traditional philosophy of Chiropractic, which focuses on the structural correction of **subluxations** in the spine. A **Subluxation** is a misaligned vertebrae that interferes with the body's nerve impulses. These electrical nerve impulses from the brain regulate all functions of the body and keep us alive. Of course, the corrective care chiropractor does want his patient's symptoms to improve. However, the primary focus is on removing nerve interference and restoring the spine to its most stable biomechanical position. This is done through a program of rehabilitating chiropractic adjustments, postural awareness, and spinal exercises.

Each patient's particular condition determines the length of time for correction and frequency of adjustments. The overall goal is always to reduce the patient subluxations' incorrect structural alignment. Oftentimes the symptoms go away long before the spine is fully corrected. Adjustment schedules are kept in a corrective care chiropractor's office to allow the doctors to help you fix what you can fix and patch what you can patch in the shortest amount of time. Patients are closely monitored with re-examinations until the subluxations are corrected and the spine is as stable as possible. At the end of corrective care, the doctor reviews the patient's results by showing the before and after X-rays, indicating what was fixed and what was stabilized.

The best way to explain what corrective chiropractic care is to describe the first and second visits into an office.

YOUR FIRST VISIT

Here is a preview of EVERYTHING that you can expect from your first visit to a corrective care chiropractic office.

The first step as a new patient is filling out a complete health history. Old injuries and chronic problems are often as important as your current complaint. The doctors will want as much health history information as possible to determine the underlying cause of your present symptoms fully. All members of our staff are always available to help you with any questions you may have.

After carefully reviewing your health history, we will discuss your specific problems and determine if corrective chiropractic care can help you. Prospective patients talk with one of our doctors about how physical, mental, and emotional strains have affected their health, and if those strains have affected their nervous system.

We provide a thorough and gentle chiropractic examination, including a combination of the following: range of motion tests, postural analysis, extremity analysis as well as orthopedic and neurological testing. Our testing, as well as all the caregiving in our office, is tailored to our patients and their needs.

Digital x-rays

Diagnostic imaging includes full length, standing, state of the art, digital x-rays of the spine. These specialized x-rays show the spine in its natural weight-bearing state. Our digital x-ray system allows for a safe and non-invasive way to get the actual picture of what might be going wrong and rule out other causes of your symptoms.

SECOND VISIT: YOUR PERSONAL REPORT OF FINDINGS

Once the doctors have studied your history, exam, and x-rays, they will sit down with you and your family and explain what is wrong, why it is wrong, and if it is fixable or patchable. If corrective care chiropractic can help you, we will discuss how long it will take and cost. If your condition is not a chiropractic condition, we will refer you to the proper specialist. The doctor will also explain how your spine is functioning and if you have **SUBLUXATIONS**.

We will show you visually a spinal chart that shows specifically each nerve route, where that nerve goes in your body, and what portion of

the body and its organs, muscles, and tissues are being impacted. A pinched nerve can cause a decreased function to organs, muscles, and tissues that it supplies.

CHIROPRACTIC CORRECTION

The “adjustment“ is the way we can help your body to function at a higher level and begin healing. Our adjustments are gentle, safe, and specifically tailored to each patient’s needs from 0 to 120 years old. Corrective chiropractic care can improve quality-of-life and decrease future problems for all!

The first adjustment begins to restore the vertebra to its natural position and remove the pressure off the nerve. The soft tissues, muscles, and ligaments are stretched when the vertebra is in an unnatural position, so these tissues must have time to “rehabilitate.” Every gentle adjustment builds on the last, slowly bringing the body back to its normal and natural posture. Most patients will have a treatment schedule ranging over a couple of weeks to months and most often will continue chiropractic care to maintain that correction and prevent relapses in the future. Imagine placing a wedge into a tree and slowly reshaping and restoring the normal growth pattern for that tree, one tap at a time.

Corrective chiropractic care is a completely different approach to achieving and maintaining optimal health. A true corrective care chiropractor will evaluate the central nervous system and spinal function. The chiropractic corrective care doctor evaluates the person for not only trauma and pathology but, more importantly, for function. Since our central nervous system (CNS) controls every single one of our 50 trillion cells, tissues, and organs, we need it to function as close to 100% as possible.

When we see a patient for the first time at our clinic, we always let them know there are two basic forms of chiropractic care. One being relief care, which is pain control, and the other is **CORRECTIVE CARE**, which works on the underlying structural abnormalities (that are causing the pain) to make a more permanent change. It’s kind of like spinal orthodontics. Corrective care is our specialty and the main reason people come from all over the state to gain back their lives in our clinic.

Although all chiropractors can give relief care, corrective care doctors, and staff at our clinic will search for the true cause of any health condition and design a specific plan of action for each patient. The corrective care adjustment and alignment process is similar to what an orthodontist does to teeth to correct their alignment. In time we can often correct the spinal misalignment, stopping or at least slowing down the degenerative decay in the spine. This often requires several visits over some time.

Corrective chiropractic care is crucial for maintaining a healthy body, allowing your body mechanics to work properly. With this, it is possible to slow down mechanical decay in the spine. Imagine if the bones in your spine were out of alignment, and instead of moving together smoothly, they were grinding away cartilage year after year. This is why corrective care is better in the long run than just relief care.

CORRECTIVE CARE TECHNIQUES

Chiropractic has been utilized since 1895, with huge levels of success and hundreds of thousands of miracle stories. Current research is finally understanding the extent of the power of corrective chiropractic care. Try googling “chiropractic and blood pressure” to see some recent studies that have baffled the scientific and medical communities. Below is a list of the common techniques that corrective care chiropractors utilize to make specific adjustments. Our doctors are all trained in the following techniques.

GONSTEAD

Gonstead procedures are the result of extensive clinical research by Clarence S. Gonstead, founder of the world-famous Gonstead Clinic of Chiropractic in Mount Horeb, Wisconsin, and his associates. Doctor Gonstead’s fifty-five years of continuous practice and over four million chiropractic adjustments resulted in the complete method of biomechanical analysis available for use by today’s doctors of Chiropractic. So why don’t all chiropractors use this technique? Because the analysis takes more time and mastering the art of delivering a specific adjustment takes a LOT of practice and dedication. This technique is our specialty and is the most commonly used in our clinic.

DIVERSIFIED

This is a widely used type of chiropractic adjustment that causes the popping sounds commonly associated with a chiropractic adjustment that is most familiar to patients. The diversified adjustment consists of a high-velocity, low-amplitude thrust (a quick, shallow thrust). It can be done by rotating some part of the body (the neck or spine, for example) or by pushing or pressing on the body.

UPPER CERVICAL SPECIFIC

This is a very powerful adjustment that needs specific x-ray analysis for proper delivery. It is used to adjust the upper portion of the head and neck specifically. The first cervical vertebra (the atlas) which moves along with the bone above called the occipital bone (the head) and below with the second bone in the neck (the axis). At the level of the atlas and the axis are nerves that span the entire body. By properly adjusting the atlas, the entire body, including organs, muscles, and tissues, are impacted. This is a gentle, specific, and clinically proven technique to positively impact the biomechanics of the upper cervical spine (neck) and its influence on the central nervous system and brain stem function.

SACRO-OCCIPITAL TECHNIQUE (S.O.T.)

In this technique, the patient is typically lying down on a table with triangular-shaped blocks placed under their pelvis. SOT is often used to treat misalignments of the lower back and pelvis. A major component of this gentle and effective technique is that it allows the muscles which have tightened as a result of the injury ample time to relax and reposition themselves correctly.

CHIROPRACTIC BIOPHYSICS (CBP)

The spine is designed to have some natural curves in it, but often these curves are lost entirely. Losing some or all of the natural curves in the spine has devastating effects on our ability to function properly. This technique pays particular attention to the overall posture of the body and combines specific chiropractic adjustments with consistent traction. This is how we get curves back!

ACTIVATOR METHOD

This is a hand-held, spring-loaded instrument that delivers a light force into spinal joints to restore normal motion—commonly used as a selective method for patients who have a very delicate spine or severe degeneration in their spinal joints.

FLEXION-DISTRACTION

A specific chiropractic technique that uses mechanical and hands-on adjustments utilizing a special table where the spine is tractioned and flexed forward. This technique is primarily utilized to increase the mobility of spinal joints in the lower back and to help lumbar disc herniations.

EXTREMITY ADJUSTMENTS

This is the application of chiropractic adjustments to joints other than the spine, i.e., shoulder, elbow, wrist, hand, hip, knee, ankle, and foot. Extremity adjusting is commonly used in treating athletes, work injuries, and ergonomic conditions.

CHAPTER 2:

PHASES OF HEALING

“I was suffering from severe lower back pain that wouldn't go away. As a prior patient of Dr. Larry Russel many years ago, I sought out his nephew, Dr. Ian Russel. Dr. Ian examined and took x-rays of my spine, and he found my problem. I started regular treatments for several months and I can't believe the difference in my life now compared to before Chiropractic! I have COPD (chronic obstructive pulmonary disease), which makes it hard for me to breathe, and I have to use an inhaler. I was a cigarette smoker for many years and I am now smoke-free and also inhaler free!!! I didn't come here because I have COPD or to help me stop smoking; I came here because of some lower back problems. I never thought in a MILLION YEARS that Chiropractic was going to let me go out and travel without having to think twice about it. I recently went on a trip to Colorado at 9,000+ elevation and could breathe perfectly fine without the need for an inhaler!

Chiropractic has helped me live my best life!”

-Maureen C.

PHASES OF HEALING

This chapter is dedicated to empowering you to understand how to better utilize the approach of chiropractic and aid you in improving and maintaining your strength, health, and longevity. This particular section is dedicated to the specific cycles of healing utilized in corrective chiropractic care. Before we jump headfirst into healing, I'd like to remind you of a very powerful statement: **Chiropractic does not heal anything.**

Chiropractic is not a fast cure or an overnight miracle (for most cases). If your bodily systems are out of whack, it is the result of years of problems that allowed you to reach your current unhealthy condition. And the good news? It won't necessarily take you years to regain back your health, but it will definitely take time for you to heal. Therefore, practicing patience and devotion towards your body and completing the stages of healing are crucial for this process. Now, let's explain all the cycles, one at a time.

There are going to be two main steps we will focus on first. Step one is called **Initial Intensive Care**. You'll be calling it, "please help me with the pain!!". That's all we are going to focus on for the first couple of weeks—helping YOU feel better. The second step is called **Corrective Care**. The goal here and the most important thing we can do is to correct, strengthen, and rehabilitate the subluxations. And you have to understand, that is fixing as best as we can. Oftentimes, it's taken us 10 years or more to get where we are. It's easily going to take 6 months to fix what we can and patch what we can. It's going to be necessary to be seen daily for the first week, and then three times a week until the area is stable. Every month we will go through a re-exam until we get you as good as we can. When we're as good as we can get you, we will take another set of x-rays, and we'll look at those compared to the original set we took at the beginning of our treatment to make sure we've done everything we set out to do. At that point, there will be some fine-tuning. There will be a day when our doctors will say to you, "you're as good as you're going to get." And at that point, because of the degeneration and length of time your specific issues were there, I'm definitely going to tell you, "you know... we've got to talk about **maintenance care!**". This is

where you get checked from time to time, so you don't slide back down that hill.

It would make the most sense to maintain the health of children versus patching up sick adults. When adults have a history of old injuries, the body will accommodate and adapt. These injuries, accommodations, and adaptations are a major cause of disease within the body. Adhesions, fibrosis of repair, and degenerative joint disease can riddle the spine. Although these conditions are rarely reversible, can we agree that to patch up these joints, repair them as much as possible and avoid any future degeneration would be to our advantage, creating for us a stepping stone towards our own unique version of health and well-being?

The process to assess whether someone is a candidate for corrective chiropractic care is typically done through orthopedic, neurological, and chiropractic examinations. These exams allow for us to detect subluxations. Subluxations are caused by the physical, emotional, and chemical stressors in our lives. The reduction of and the removal of all subluxations is the main purpose and intention of corrective chiropractic care.

From these "Pillar" exams, we can determine if standing radiographs of the spine from the front and side are necessary. Then, we will analyze the x-rays to determine the root cause of the subluxations. Patients will often report their pain decreasing, improvements in sleep, and better digestion. The purpose of this initial intensive phase of care is to limit the amount of inflammation, improve muscle tone, and improve neurological connections.

STEP ONE: INITIAL INTENSIVE CARE

When we have a new injury, the pain is the motivating factor for most of us to pay more attention and seek out expert help. Oftentimes, Americans utilize conventional medicine as their first approach to eliminating pain. Alternative health care usually happens when the allopathic or medicinal approach doesn't help manage our injury and bring the desired effect of less pain. More and more Americans are utilizing alternative healthcare approaches for their health than ever before. For many years in our clinic, people were first introduced to

chiropractic care when they were in this intense inflammatory phase. Oftentimes unable to walk, in excruciating pain, unable to sleep, and when the medications are not helping the pain anymore is when people would understandably reach out to our clinic for help. As we continue to understand more about health and healing through science, research, and more case studies involving chiropractic patients, the more patients are utilizing chiropractic in the preventative approach before this intense inflammatory phase begins. Much like calling the roofer during the middle of the severe rainstorm to help with the leak in the house. The roofer will inevitably tell you he must wait until the storm is finished, remove that part of the roof, allow the area to dry before the remodeling process can occur completely. The same is true in the human body.

When we are in excruciating pain, our body is attempting to alert us to the potential tissue damage and injury. By listening to the signals of pain, we can approach the injury immediately towards a resolution. About 2% of dysfunction in our systems occurs from pathology or catastrophic injury. “Pathology” is where something serious is going on with your system and “catastrophic injuries” are where we get hit by a car or break bones. The other 98% of dysfunction in our systems comes from having either too much tension and missing our regular ranges of motion or when we are moving in a faulty position.

This is the stage in which chiropractors examine patients to analyze their systems, condition completely, and attempt to correct the underlying problem. Notice I did not say the pain correctly. Western medicine or allopathic medicine, as it is commonly known, often puts all the focus on remedying the pain. Covering up the symptom rarely has a lasting impact and never corrects the root cause, the problem. When patients come to our office because of excruciating pain, their main concern is to reduce the pain and symptoms (not necessarily underlying mechanisms or origin of their issues.) It is the job of the chiropractor to communicate to the patient that the overall goal, in the beginning, is to limit the inflammation and pain. However, the main mission is to correct the problem.

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A simplified, mechanical approach to Chiropractic looks like this:

1. if something is not in the right place, we need to put it in the right place.
2. if something is not moving properly, get it moving properly
3. Address above and below to properly understand how adjacent areas are moving

It is possible that it took years for your system to reach such a painful status and years of mishandling and inappropriate movements to cause such tissue damage. Healing during this initial stage requires time and may take weeks to months to see good results. Anticipate frequent visits at the corrective care chiropractor's office during the beginning phase. For the average American who is used to having a quick fix, this can be a challenging proposition! When the patient can understand the overall purpose their chiropractor has for them and is willing to make changes in their own life...this is when we see the greatest changes and miracles in our offices. It is a minimal investment for your long-term health.

During this initial phase of treatment, office visits will vary in regards to the frequency based on the following factors:

- Sex
- Age
- Height
- Weight
- The length of time the problem has been there
- How well the patient can follow the doctor's instructions
- Other related health problems

Upon the initial consultation, the chiropractor will assess all the above parameters, as well as any other relevant aspects and problems, to come up with a personalized plan for your particular case. Your needs and challenges, of course, will be taken into account. However, this isn't like medicine; the corrective chiropractic approach isn't the same for everyone.

STEP TWO: CORRECTIVE CARE- The Corrective, Stabilization and Remodeling Phase

During the second stage of care, the inflammation and pain levels have decreased or gone away. Oftentimes, patients are in much better moods and can go about their daily activities and, oftentimes, feel like they are all better again.

This crucial stage is where both the patient and the doctor are working together to rehabilitate spinal strength and integrity, to remove excess scar tissue and damaged cells that are preventing a complete recovery. There is one very important aspect that we need to pay extra attention to during this remodeling phase of care, and that is pushing too hard. Prematurely forcing strength and movement in care to get back to how you were last year or ten years ago is a recipe for a relapse in your injury.

Remember, the initial issues that brought you into our clinic in the first place are still lingering in your system and have not been fully addressed. This is where it's crucial to have the patient's family, friends, and community, helping them during their treatment. Too often, as we feel better...we think we are better even when the underlying function is not restored.

During this phase, our aim in chiropractic treatment is to concentrate our movements of the spine to allow the nervous system to do what it does best, send clear signals from the body to the brain and the brain to the body. Oftentimes, during this phase of care, patients continue their visit frequency three times a week for several months, depending on the condition.

Keep in mind that this stage is usually not a brief one, and many parameters and factors can affect the speed of the healing process.

If you've suffered multiple injuries to the same area over several years, it will take much more time for your body to start working correctly compared to the average patient whose injury just started this morning. Here is a list of habits that slow down the progress of this second phase of correct care:

- Poor diet/nutrition
- Smoking

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- Stress
- Improper ergonomics
- Improper body mechanics
- A negative mental attitude

We will tackle some of these factors as we continue with this section. However, we won't address smoking (as there are countless studies and evidence that proves the destructive effects of smoking, and you don't need me telling you over again.) Admit it, quit it, and forget it. Try listening to the Audible book by Allen Carr, *Easy Way to Stop Smoking*.

STEP THREE: MAINTENANCE AND WELLNESS CARE

Congratulations! You've recently completed the intensive, corrective, stabilization, and rehabilitative parts of your care and have chosen to start wellness care. You have just joined the hundreds of other patients in our office who benefit from this type of care.

Your wellness care plan is designed for you to not only avoid future problems and pain but also to help you live your life to its fullest. Research has found that people under regular chiropractic care have 200% the immunity of people who do not benefit from Chiropractic. This means you get sick half as often. It has also been proven to slow or stop the onset or progression of arthritis, which will help you stay active and enjoy life.

This is the most exciting phase! This means that the patient has followed the treatment recommendations from the doctor, and they are doing what they can do to restore their health and feel their best, possibly the best they have ever felt in their life! This person now needs less and fewer medications, emergency room visits, and limits their likelihood of needing surgeries and further suffering in the future.

Once we've helped you achieve the state of correction within your spine and nervous system, it is crucial to maintain it. It reminds me of a friend of mine who went on a fad diet, lost 50 pounds, and once he reached his goal, he went right over to Pizza Hut. and ordered a large "everything" pizza with a pitcher of beer. It made absolutely no sense to me! Why even do it in the first place?

Maintenance care is the stage of care where patients are seen once a week for specific chiropractic tune-ups to avoid relapsing to the improper biomechanics, movements, and subluxations that initially brought them in. Remember that the status of “optimal health” doesn’t imply a lack of pain and disease. It is a state of optimal physical and even mental well-being. Once your system enjoys health, you will continue to make health-conscious decisions and sacrifices. And this takes work, just like all the good stuff in life!

Another incredible aspect of maintenance and wellness care is that with chronic issues, we are likely to re-injure the old injury due to physical, mental, and chemical stressors. Recovery from these flair-ups is much easier and requires less time than during corrective care. Consider when a highly trained, elite athlete injures themselves. She usually recovers quicker than the average Joe. Obviously, that athlete knows not to push the limits too soon and too far. The professional athletes' rapid recovery is due to the fact they are used to this type of conditioning and practices, and their systems are in an optimal state of health already. Recovery, for this reason, is much faster.

Consider how quickly children can recover from their injuries. This is because their systems are wired from a very young age to recover and restore optimal health. As we get older, the rates of recovery start to slow down, and we are less resistant and able to fight health problems as we did as a child. During the maintenance stage, our systems are equipped towards recovery at a quicker and more efficient rate.

Maintenance and wellness care consists of periodic chiropractic visits and extends into lifetime habits and patterns. It is going to be challenging at first as we continue to gain more healthy habits and eliminate the unhealthy ones.

The most common reason I hear patients are not able to continue a lifetime of good habits and patterns is due to insufficient time. And, we always have time to decide what is important in our lives and what our priorities are. I’m encouraging you to prioritize your health and your family’s health. Without your health, what are you going to do with all your cash, cars, booming businesses, and tropical vacations? Not much.

Remember that healthy habits develop slowly. One small change at a time. You have to work on it every day. Think about gravity; we have to

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walk against gravity every day of our existence. And, we are absolutely capable of doing this. The same goes for our health. Once we are armed with the necessary tools and knowledge to achieve health, we can easily work towards maintaining it.

So often, people make things so complex. I can remember reading the back of an Ivory soap bar, “making the simple complicated is easy, making the complicated simple is genius.”

By maintaining and improving spinal health, not only is future suffering avoided, enhanced function, reduced injuries, and increased performance allow for you to function 100% of your potential and live the life you deserve!

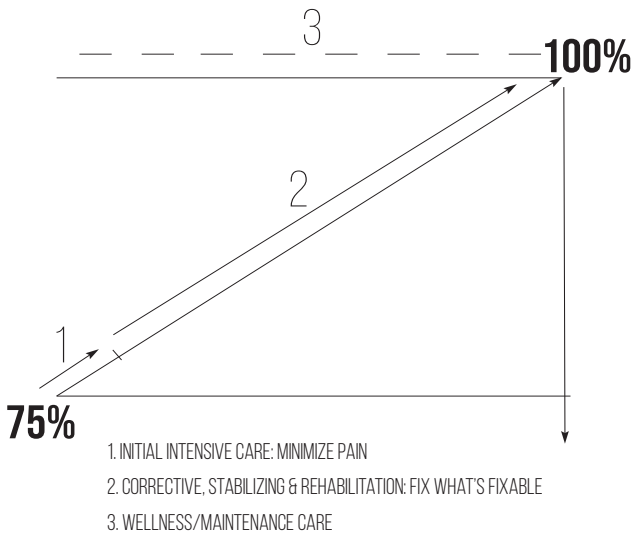
In case you are visual, here is a diagram of **THE LETTER Z**. Let’s say, for example, that today you are at the bottom left of the diagram where it says 75%. At one point in your life, you were at the very top right, what we would call 100%. So with the history, examination, and everything we found on the x-rays, it shows that your body is functioning at about 75%. Going from the bottom left to the top right is our job. It commonly takes anywhere from 5 to 50 years to get from 100% down to 75%, depending on physical, emotional, and chemical traumas in your life. Often it goes back to high school sports, car accidents, or even being hunched behind a computer for hours at a time.

There are two phases to get you functioning are your best. In the first phase, we will call *initial intensive care*. All we are focused on right now is relief and relieving as much pressure off of your nerves as possible so that your body can do what your body is supposed to do, heal. The real key to what you need and what we do in this office that makes us unique is the next phase. And that is *correction, stabilizing, and rehabilitation*. In the beginning, you will be seen daily for a week or two. Next, you will be seen three times a week for three to eight months, depending on the extent of your injuries. Once you get to the top, you need to get checked every so often, so you do not go back down to where you first started. We call that *maintenance care*. That’s the top line going to your left, where you are continuing to get checked periodically to maintain that 100%. We don’t want you ever going back down to where you started at 75%.

What commonly happens is that within a couple of days or weeks of *initial intensive care*, you are feeling better than you have in years, and yet you still have to make it to the top. Our job is to get you as good as we can with whatever condition you may be in. For a lot of people, they feel fine, yet their body is worn down, deteriorating, and just around the corner from suffering.

We don't base your care on how you feel.

So there are three pieces: help me feel a little better, fix the problem, and maintain it.



CHAPTER 3:

CONDITIONS AND ILLNESSES

“I always knew I needed to see a chiropractor, but I never knew seeing him would change mine and my family's lives forever! You see, we had a baby last year, and like my first daughter, she ended up with colic. We had weeks of sleepless nights, constant screaming, and doctors couldn't help. They simply told us it would pass after a few months. Months? We were really starting to pull our hair out. It affected every aspect of our lives. One day during my chiropractic appointment, I mentioned to Dr. Rassel about our daughter's colic. He recommended that Izzy get examined for subluxations from childbirth. It turned out that Izzy had a subluxation in her neck. After Dr. Rassel gave Izzy her first adjustment, we had our first night of sleep since she was born!! I'm so happy to have my baby healthy and never have to hear her cry like that again.”

-Kellie C.

THE WINSOR AUTOPSIES

“How a Medical Doctor Found Chiropractic”

Henry Winsor, a medical doctor from the 1920s, wondered, “How do chiropractors get people better without drugs or surgery?” He planned an experiment to dissect human and animal cadavers to see if there is a relationship between pinched nerves and diseased organs. At the University of Pennsylvania, Dr. Winsor carried out his experiments on 75 human and 22 cat cadavers and found a total of 221 disease organs.

“212 (of the 221 diseased organs) belong to the same (nerve) segments as the vertebra in curvature...”

Dr. Winsor found a near 100% correlation between pinch nerves in the spine and the diseased organs. This study confirmed that misaligned bones or **subluxations** are directly related to disease processes in the body, and Dr. Winsor wrote this famous quote:

“Disease appears to precede old age and to cause it. The spine becomes stiff first, and old age follows. Therefore, we may say a man is as old as his spine.”

I can recall in 2003 visiting an exhibition in San Francisco while attending Life Chiropractic College West. A group of my classmates and I piled into our cars and commuted to the city together to visit the “Bodies Exhibition”. This event was the first of its kind where human bodies were carefully and artistically dissected to show the miraculous human body. By this time in my college career, I had two years of studying cadavers at my undergrad and one year studying them at my post grad. For most people cadavers can be frightening at first, but for us grad students these were the greatest learning tools possible, far superior to any book or computer program. What really stood out for me at this event was the spinal column of a man who passed away at 64 from prostate disease. All the muscles surrounding the spine were removed and each of the 31 pairs of nerves exiting the spine were meticulously preserved. At the end of the nerves were the vital organs. I was astounded to see that spinal nerves were bright yellow, almost orange and thick in diameter. While we studied the health of this spine, we instantly noticed that 23 of the 24 bones had big, healthy, white discs separating the bones. All of the shock absorbers were working perfectly his whole life except for one. The very bottom one, that separated his pelvis from his spine, was gnarled with calcium deposits and nearly fused together. The nerves that exited that lower spinal segment were withered and pale yellow. Where did those nerves go? To his prostate. And it was enlarged and riddled with pathology. This man had died from over 40 years of nerve pressure to his prostate from a subluxation. I was baffled. This was exactly what we were learning about in our biomechanics class in school. What if he had his nervous system checked as a young man by a corrective care chiropractor? Would his body be on display at this museum? I didn't think so. And we will never

know. It still makes the most sense to me today to avoid this type of pathology at all costs. It became my mission that day to help save the lives of millions.

SUBLUXATIONS

When most people talk about chiropractic, they typically think of a specialty doctor that manages and treats back and neck pain. Some people have a broader understanding of the science of chiropractic and know that chiropractors, in fact, handle many conditions associated with the human body and the nervous system. What many people aren't aware of today is that chiropractic encompasses every system in the human body. Chiropractic has the potential to help your body with any and every condition, particularly with the prevention of illness and disease.

Every organ, cell, and tissue within the human body is controlled and coordinated by the central nervous system. It makes sense that any problems a person is experiencing within the central nervous system will affect organ function. And when an organ is not functioning properly, it will lead to illness and disease in the worst case and a general feeling of malaise in the simplest of cases.

Chiropractors can care for the nervous system by utilizing the spine to do so. The spine is the core of the nervous system as well as the protector of the spinal cord and each of the body's 31 pairs of nerves. Anytime vertebral spinal segments are not moving together in coordination with one another, the nervous system is impacted. This is a condition that is referred to as a **subluxation**.

There has not yet been extensive research on every condition that has been improved by chiropractic care. The current anecdotal research shows that corrective chiropractic care can have dramatic effects on all human diseases and illnesses. In my own practice, I often hear reports from patients who experience improvements with digestion, sleep disturbances, asthma, infertility, neurodegenerative diseases, dementia, and many others.

Through the following pages, you will learn about some of the most common conditions that Americans are currently suffering from. It is

clearly possible with an improved diet, regular exercise, and corrective chiropractic care that millions will no longer need to suffer.

HIGH BLOOD PRESSURE

In the United States, 78 million adults have high blood pressure or hypertension. Folks, that means one in three American adults are dying from this catastrophic disease. Another alarming statistic is 1 in 15 adults is unaware of having high blood pressure.

Thankfully, corrective chiropractic care offers a drug-free approach to managing high blood pressure.

Hypertension is a condition where the force of the blood against the arteries is too strong, making the heart have to work harder to pump blood. Many of you know when you go to your medical doctor, he or she will tell you two distinct numbers referring to blood pressure. The two numbers associated with the blood pressure reading reflect the force at which blood is pushed away from the heart and the pressure of the arteries as the heart relaxes between beats. Too much force in either of those directions over time can lead to a heart that is being overworked. This causes the heart to become enlarged and creates what we know as heart disease.

There are so many risk factors associated with hypertension and heart disease. The current greatest risk factor is family history. If your parents and grandparents suffered from high blood pressure, you could develop the condition. Temporary rises in blood pressure can be caused by certain foods, caffeine, medications, and even stress. The short term spikes are not as dangerous as the long-term ones. There are many keys to managing health that can eliminate elevated long term rises in blood pressure.

Our medical community currently treats hypertension with a huge arsenal of chemicals. Some of these chemicals are designed to open the blood vessels and allow the pressure-free movement of the blood. Others are to thin the blood. There's a really good chance that when you go on medication for high blood pressure, you'll be advised by your medical doctor that you will have to take the medication for the rest of your life.

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In March 2007, the Journal of Human Hypertension published a study that showed a significant decrease in blood pressure following a specific corrective chiropractic adjustment to the atlas vertebra (located at the bottom of the skull). The study showed 50 individuals diagnosed with hypertension had improved their blood pressure levels into the eighth week following one corrective chiropractic adjustment. They also showed a greater sustained lowering of blood pressure with follow up chiropractic visits.

These results also came about utilizing the gold standard for research amongst the medical community, double-blind controlled studies.

In my own clinic, I have seen many patients suffering from high blood pressure that had been medically managed greatly improve with corrective chiropractic care. What we will typically see in these cases is a middle-aged man or woman in fair to good health who has been on hypertension medication for over a year. With a comprehensive history, thorough examinations, and standing radiographs, we can determine the subluxations of the spine. A course of corrective chiropractic care is then recommended and specific chiropractic adjustments are made. Within two months, the patient will typically report to our doctors a feeling of lightheadedness when standing up. We immediately recommend they see their medical doctor or cardiologist to have their blood pressure re-evaluated. What has happened is that the blood pressure is lowered with the improvement of the upper cervical region, causing their body to need **LESS** of the **medication** their medical doctors had initially prescribed. We have had several cardiologists recommend corrective chiropractic care for their patients when treating high blood pressure.

I want to remind the reader, as well as the medical community, that chiropractic care is not for diagnosing hypertension or high blood pressure. Our job is to remove any interference in the nervous system and allow the heart to communicate with the brain properly. Upper cervical specific corrective chiropractic care has been proven to help patients suffering from hypertension.

HIGH CHOLESTEROL

Cardiovascular disease is the number one killer in America. Much of American advertising and healthcare promotes the use of statin drugs to help lower cholesterol levels with the hopes of decreasing cardiovascular death. This is not the truth. Yes, statin drugs are the most effective at decreasing cholesterol levels in our blood; however, they are not best at reducing cardiac death. Statin drugs make tens of billions of dollars for drug companies every year and are very expensive for patients and the government (taxpayers).

A review of the April 11, 2005 Archives of Internal Medicine, titled, "Effect of Different Antilipidemic Agents and Diets on Mortality A Systematic Review," concluded that statins and omega-3 fatty acids are the most favorable lipid-lowering interventions with reduced risks of overall death and cardiac mortality. It was noted that lipid-lowering drugs for the prevention of cardiovascular diseases have been in use for more than four decades.

Ironically, omega-3 essential fatty acids did the worst job at reducing blood cholesterol, yet they did the best job at reducing death from all causes and death from heart problems.

Statin drugs did the best job at lowering cholesterol levels. Statin drugs were 10 times more effective in lowering blood cholesterol than omega-3 fatty acids. Yes, omega-3 fatty acids were 44% more effective than statin drugs in reducing death from cardiac events.

Omega-3 fatty acids lower cholesterol levels to a very small extent. Some beneficial health effects of omega-3 fatty acids are their antiarrhythmic properties, their membrane-stabilizing effects, as well as their anti-thrombotic and anti-inflammatory properties.

This incredible study offers possibly our best proof that the problem is not cholesterol. Omega-3 fatty acids proved to be significantly more effective at reducing deaths, yet they reduce cholesterol very little.

The take-home message from these studies tells me that our purpose to save lives shouldn't be to just lower blood cholesterol levels. We need to improve overall cardiovascular performance. There are times when elevated cholesterol levels need to be addressed.

NATURAL APPROACH TO HIGH CHOLESTEROL

In my clinic, I have seen high cholesterol lowered when patients make **THREE** distinct changes in their lives. First and foremost, they must change their diet. I could write an entire book just on nutrition, and that is not the purpose of what we are talking about today. If I could sum up my professional nutritional opinion today in three words, it would be, **STOP EATING SUGAR**. That being said, there are many programs and ways of eating to help lower blood cholesterol levels.

Second, I have seen huge changes, particularly in men over 50, when adding in an exercise routine. Now, this doesn't mean that everyone needs to go out and do a Zumba class or a yoga class, CrossFit, bodybuilding, or high-intensity interval training. What I do suggest is at least 90 minutes a week of brisk walking. Even better, just 30 minutes per day, every day.

The third thing to help maintain serum cholesterol levels is the regular maintenance of chiropractic care. That means having your spine and nervous system checked once a week by a trained corrective care chiropractor to remove any vertebral subluxations. When chiropractic care is utilized as an overall wellness approach, I have seen the general homeostasis of patients benefit significantly.

DIABETES

Diabetes is a devastating disease affecting 9.4% of the US population or 30.3 million people. It impacts all social, economic, and ethnic backgrounds. Type 1 diabetes accounts for only 5% of all diagnosed cases of diabetes, roughly 1.5 million people. What this means is of all people diagnosed as having diabetes in the United States, 5% of them were born with diabetes, while 95% of people acquired the disease. This is definitely a preventable and curable condition in America.

The two main causes of type two diabetes are genetics and lifestyle. And since we can't control our genes, our lifestyle is what needs to change.

High-fructose corn syrup, which is now the sweetener used in all sugar-sweetened soft drinks consumed in the United States, appears to be particularly effective at weight gain because of its negative effects on insulin and leptin. High-fructose corn syrup confuses our sugar

receptors and hormones, causing us to have abnormal cravings even after we have eaten.

In my practice, I've seen cases where patients who have diabetes have benefited from chiropractic care when they are willing to make slow, continuous changes in their diet and lifestyle. The reduction or elimination of sugar is the simplest way to get your body and blood sugar levels back on a healthy track. What we call homeostasis is when our bodies are working the way they were designed to.

Chiropractic care can impact diabetes by restoring the normal function of the nervous system by restoring ideal connections between the brain and the pancreas. The pancreas is responsible for producing several hormones, such as insulin, glucagon, somatostatin, and pancreatic polypeptide. In terms of diabetes, insulin and glucagon are the most important hormones for regulating our blood sugar levels.

STRESS

Emotional stress affects both men and women in different ways and results in a variety of unhealthy conditions. Many people will get headaches, suffer from insomnia, or develop digestive problems when the stresses of daily life get out of control. Stress releases hormones that impact our bodies, specifically, by creating an imbalance in the overall endocrine system. Since the nervous system is the system that can regulate and maintain equilibrium to all other systems in the body, it makes sense that chiropractic care can help alleviate any nerve pressure and allow the body to do its job properly.

Our sympathetic nervous system is our fight or flight system. Our parasympathetic nervous system is our rest and digest system. The majority of the time, most Americans are in a sympathetic state and a survival mode. A chronically elevated level of cortisol, which causes high blood glucose, in turn, will cause chronically high insulin, which leads to insulin resistance. Insulin resistance leads to diabetes. Cortisol increases our sympathetic nervous system, which causes elevated blood pressure, heart rate, and breathing rate, as well as a decrease in immune function. Cortisol also damages and kills cells in our hippocampus, which inhibits the production of brain-derived neurotrophic factor

(BDNF). So to put it simply, chronic stress equals premature brain aging.

DEMENTIA

Why are there over fifty million people that have dementia? There are nearly ten million new cases of dementia every year. Alzheimer's disease is currently the most common form of dementia, contributing to 70% of all cases. It is one of the major causes of disability among older people worldwide. Dementia is a syndrome that shows deterioration in memory, thinking, behavior as well as the ability to perform everyday activities. There are no treatments currently available to cure dementia or to change its progression. The current cost to treat this disease is \$818 billion per year in the United States and is projected to increase dramatically in the future. Contrary to common beliefs, dementia is not a normal part of aging.

For the last 30 years, over 200 drugs have been experimented with for the treatment of Alzheimer's. None have worked. What does work is diet, exercise, and active social life!

Only 30% of aging is based on genetic heritage while 70% is attributed to lifestyle choices. Don't blame your genes!

Let's start with your diet. The standard American diet (SAD) is saturated with sugar, high in omega-6 fatty acids, excessive calories, trans fats, over-processed and pesticide-laden foods. This simple carbohydrate-based diet has shown a 400% increased risk of Alzheimer's disease. Research has linked the sugar-laden diet to Alzheimer's disease by calling it Type III Diabetes. Obesity has also been shown to be directly linked as a driving force behind dementia. Obesity also leads to brain death and cognitive decline.

Eat more fat! Omega-3 fatty acids have been shown to reduce the beta-amyloid protein buildup and oxidative stress in the brain. Think of the beta-amyloid protein buildup as molasses being poured on the brain. It slows all the processes down. BDNF or brain-derived neurotrophic factor is a crucial protein for our brains. Think of it as a "miracle grow" for your brain. DHA found in omega-3 fatty acids, such as fish oil and krill, enhance BDNF production.

These other healthy fats can contribute to brain health: extra-virgin olive oil, avocado oil, grass-fed beef, wild fish, coconut oil, nuts, and seeds. By eliminating unhealthy fats such as hydrogenated or trans fats, corn, soybean, safflower, and vegetable cooking oils contribute to the health of your brain.

Curcumin, which is the active ingredient in turmeric and has been used in traditional Chinese and Indian Ayurvedic medicine for thousands of years. Curcumin is an antioxidant, anti-inflammatory, and associated with the significant rising of BDNF levels. Rosemary contains carnosic acid that protects the brain from neurodegeneration of free radicals which have been shown to contribute to Alzheimer's disease. Blueberries contain antioxidants with gallic acid that protect the brain against degeneration and stress.

Fasting has also been shown to be neuroprotective and put our bodies into a state of ketosis with a 50 to 400% increase in BDNF. Studies of Alzheimer's disease conducted with mice and intermittent fasting, showed a delayed memory loss by six months which is the equivalent of 20 years in human life.

There are also four major categories of medications that cause toxic stress to our bodies and have been shown to affect the health of our brain:

1. **Anticholinergic** drugs are often prescribed for urinary incontinence, depression, allergies, asthma, sleeping problems, and Parkinson's disease. Studies have shown people taking these drugs can experience a decrease in brain function by negatively affecting short term memory, verbal reasoning, planning, and problem-solving. They also contribute to a smaller brain volume.
2. **Benzodiazepines**, such as Valium, Xanax, and Ativan, are drugs that are widely prescribed for anxiety and for treating insomnia. Studies have shown that those taking a benzodiazepine for 3 to 6 months have a 32% greater risk of developing Alzheimer's disease.
3. **Antacids** which are acid-blocking drugs for heartburn and reflux, also known as proton pump inhibitors, were shown in the JAMA Neurology to cause a 44% increase in risk for dementia.

4. **Statins** which are cholesterol-lowering drugs are a huge problem for brain health. Cholesterol is a fundamental component of every cell in the human body including the brain cells. The brain only represents about 2 to 3% of our body weight, but 25% of all cholesterol in the body resides in the brain. Without cholesterol, our brain is subject to many conditions such as Alzheimer's disease and depression. The Framingham Heart Study shows a clear relationship between low cholesterol levels and decreased brain function in areas such as learning ability, memory, attention and concentration, and abstract reasoning.

Another crucial area to help feed our brain is through movement.

“90% of all stimulation to the brain is through the movement of the spine.” -Roger Sperry.

The more we move our spine, the more levels of BDNF increases. New movements create new brain pathways. A 2015 study showed “adults with mild cognitive impairment who participated in moderate to vigorous aerobic exercise four times a week over six months experienced a significant increase in brain volume and improved executive function.”

“These findings are important because they strongly suggest a potent lifestyle intervention such as aerobic exercise can impact Alzheimer’s related changes in the brain. No currently approved medication can rival these effects.” - Laura Baker, Ph.D., Wake Forest Baptist Medical Center.

“Older people who routinely partake in physical exercise can reverse the signs of aging in the brain, and dancing has the most profound effect”. -Frontiers in Neuroscience, 2017.

“Better than 90% of the energy output of the brain is used in relating to the physical body in its gravitational field. The more mechanically distorted a person is, the less energy available for thinking, metabolism, and healing.” -Dr. Roger Sperry, Neurobiologist, and 1981 Nobel Prize brain researcher.

Chiropractic adjustments have a huge impact on our brainpower. With a corrective care chiropractic adjustment there is an increase in proprioceptive firing to the brain. These adjustments stimulate the

prefrontal cortex which are in charge of conducting, higher learning, memory, cognition, decision-making, and concentration. One study estimated a change in brain function by almost 20% on average with a corrective care chiropractic adjustment. -Journal of Neuroplasticity, 2016.

According to the 2015 Journal of Chiropractic Medicine, upper cervical chiropractic adjustments show a balance in the parasympathetic activity, with a significant decrease in blood pressure.

Misalignments at the craniocervical junction, which is between your head and your neck, cause strains and deformations in the upper neck which affects circulation and blood flow in the brain. Misalignments disrupt cerebrospinal fluid and blood flow, which causes ischemia and edema, in turn leading to neurodegenerative diseases.

The leading causes of death in America are heart disease, cancer, Alzheimer's disease, and diabetes. These are all preventable conditions. Chiropractic does not treat conditions or diseases or pretend to be a substitute for medicine and allopathic healthcare. The paradigm of chiropractic has always been that of restoring normal function and prevention.

CHAPTER 4:

PREGNANCY CARE

“For a week my newborn son was kept in the NICU (neonatal intensive care unit) at Palomar Hospital because the doctors said that Matthew could not go home until he passed the infant car seat challenge. Anytime we put Matthew in a slightly reclined position, his oxygen levels would decrease. My husband and I were desperate to bring our newborn son home. The doctors at the NICU stated there was likely something wrong with Matthews nerves. I instantly called Dr. Russel. After two chiropractic checkups from Dr. Russel in the NICU, Matthew was finally able to maintain oxygen saturation levels and was released to come home. He is healthy, happy and this year will be four.”

-Ronni S.

I can clearly recall in the fall of 2005, shortly after starting work at my father’s chiropractic clinic, one of the first miracles I witnessed as a chiropractor. A smiling and hysterically crying woman, no more than 4’8” tall and possibly 3 feet wide, shouting, “Dr. Russel got me pregnant, Dr. Russel got me pregnant!” My eyes widened and jaw dropped. Turns out this woman had been a patient for the last 3 1/2 months, initially coming in for care for a lower back injury, she had while working at one of our local casinos. She had not told my father that she had irregular menstrual cycles for most of her life. She and her husband had been unable to conceive for the last three years. Quickly her back pain had reduced, and over the course of several weeks, pressure on the nerves in her lower back removed. These nerves were the ones that exited her

spine and sent brain signals to her uterus, fallopian tubes, bladder and colon. Now that her body had proper communication from her brain to her female reproductive organs, she had a normal and regular cycle for the first time in decades. Because of this drastic change in her body chemistry, she and her husband were able to conceive their first child!

Once again, patients are always wanting to point towards the corrective care chiropractor as the one who did the healing. The healing for this woman occurs between her body and God. My father, Dr. Charles was simply an instrument to connect the two. Over the course of my father's 42 years of chiropractic practice he has witnessed, documented and been a part of 57 children born to families who were unable to conceive prior to their chiropractic care.

This chapter is a very important one to me. I feel very fortunate to have two mothers in my life, both who have been put on this planet to be mothers.

I feel that the best way to save our planet is through our children. And the best way to access the children is to empower and take care of their mothers. So here we go.

The start of a new life is the opportunity to give our unborn children the best opportunity towards health. As a child grows in their mother's womb, these formative months set the way in which the child will enter the world. The initial priority for taking care of this baby who is miraculously growing is to get mom the best care possible.

Pregnancy/prenatal chiropractic adjustments are one of the simplest and safest things pregnant mothers can do for themselves and their baby during pregnancy. With a balanced spine, pelvis and nervous system, internal conditions are set, favoring a positive birth experience. Pregnant mothers under chiropractic care frequently report shorter, easier births with fewer complications.

By keeping the pelvis adjusted and free of subluxations (joint restrictions), the pelvis can open easier for delivery. The study, "The Effects of Chiropractic Treatment on Pregnancy and Labor," found that first-time moms under regular chiropractic care experienced 24% shorter labor times.

MOTHER'S WELL BEING IS #1

Pregnancy is an exciting time for women and also a very challenging time for their bodies. Growing and carrying an unborn child puts strains and stress on a woman's body. Prenatal chiropractic care can be a very powerful tool that allows a pregnant mother's spine, pelvis, muscles, and ligaments that hold the uterus together to work in harmony. This benefits the unborn child and mother without the use of drugs or surgery.

Oftentimes the fetus' communication to the mother can be impaired by misalignments in the mother's pelvis and tailbone. To minimize labor trauma and encourage smooth delivery, both mother and fetus require 100% communication with each other. This is where prenatal chiropractic comes into play.

Typically, mothers consider prenatal chiropractic care in the first place to help with the back pain caused by the shift in the center of gravity of growing a baby in their stomachs.

The most common misalignment seen in pregnant mothers is the rotation in their pelvic bones that can cause the muscles inside the pelvic girdle to tighten. This can cause the fetus to move into undesirable positions and potentially a breech birth. With a balanced and aligned pelvis, your baby is able to get into the best possible position prior to labor. This lowers the chance of the breach and posterior positions that could require interventions, including cesarean section. Studies have shown that prenatal chiropractic care eases the labor and delivery process and increases your chances of a natural, non-invasive birth.

Remember that pregnancy/prenatal care is different from corrective chiropractic care. The whole goal for these pregnant moms is to help accommodate her spine and pelvis from the additional weight gain and mechanical changes of growing a child in their belly. Special pillows and maneuverable tables are often utilized to help pregnant moms get proper spinal and pelvic alignment.

Through the work of Larry Webster, D.C., founder of the International Chiropractic Pediatrics Association (ICPA), the Webster technique has been utilized for decades by chiropractors to help create a balance in a pregnant woman's pelvis and reduce stress to her uterus and supporting

ligaments. This balanced state has been shown to promote the ideal fetal positioning, decreasing the chances of a breech position.

With so many benefits of pregnancy/prenatal chiropractic care, more and more doctors, pediatricians and patients are seeking out these chiropractic specialists. Corrective care chiropractors trained by the ICPA in the Webster technique are great guides for expecting mothers-to-be. This safe and life-changing approach promotes the overall health of the mother and her developing baby.

During pregnancy, your ligaments are lax due to the hormone Relaxin that is released. Relaxin is a hormone produced by the ovaries and the placenta with very important effects on the mom's reproductive system during pregnancy. It helps prepare for childbirth and relaxes the ligaments in the pelvis and widens and softens the cervix. This is perfectly normal and important for prepping your body for labor. It amazes me that more moms-to-be are not only unaware of these benefits, but many do not even know it is safe to see a chiropractor while they are expecting.

DECIDING ON THE PRENATAL CHIROPRACTOR FOR YOU

This is an important question because not every chiropractor practices the same! When you are searching for chiropractic care during your pregnancy or for your child, it is imperatively important to find the right kind of chiropractor! The **International Chiropractic Pediatric Association (ICPA)** has been training chiropractors specifically for helping mothers and infants for decades.

All chiropractors go through extensive training in school to earn their doctorate in chiropractic. However, only some of those choose to go on to specialize. The largest and most well-known organization that trains chiropractors in pediatric and pregnancy care is the ICPA. You can find a database of those doctors who have been through their training program. However, this is not the only association that offers education in this area. So if you are interested in seeing a corrective care chiropractor specializing in prenatal care and don't see them on the ICPA website, ask them where they received their specialty training.

Check to see if the office is set up to accommodate families. Seeing you during pregnancy means you may need additional equipment to

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accommodate your growing belly. You may need a pregnancy pillow or a table that has a swing-away piece so you can lay comfortably and safely. The office needs to be safe and thoughtfully laid out so that your children can be comfortable without risk of injury from equipment or other hazards! The best way to see if an office can accommodate you is to visit the office. Most chiropractors would be happy to give you a tour of the office.

Find someone that makes you and your child comfortable. Your potential chiropractor should be someone who can engage with you at a level that you are comfortable with, as well as engage with your child in the same way.

BENEFITS OF PEDIATRIC CARE

Pediatric chiropractic care has emerged as an effective way to address not only musculoskeletal and nerve problems in children, but also overall health and well-being. According to the ICPA, spinal manipulative therapy is a safe way to treat kids of all ages. It is more like alternative healthcare without the use of chemicals and drugs, reducing the chances of side effects. Here are a few benefits of pediatric chiropractic to treat your child.

Pediatric chiropractic care can be an effective treatment for birth traumas seen in newborns. An infant is exposed to injury during birth, whether normal, C-section, or assisted delivery. Dr. Tobin, a pediatrician from Harvard, found that over 35% of infants are born misaligned. Exposure to vacuum and forceps extraction may lead to misalignment of the spine, which later develops into chronic health conditions. Most of the conditions associated with accidental injury during birth can be corrected with corrective chiropractic care. If not treated, spinal misalignment caused during delivery may lead to various other problems later in life. It is extremely important for parents to visit an experienced corrective care chiropractor to prevent further damage immediately. Most often, injuries sustained at birth can take years to decades to produce symptoms, so don't wait until your child is suffering. Get your infant checked within the first 72 hours after birth.

If your child is having difficulty sleeping, let your chiropractor know, and they can check the upper cervical area of your child's spine for

subluxations. A chiropractor will examine your child and will make specific corrective chiropractic adjustments to help repair the neural pathways. It will help the nervous system and improve sleep. Corrective care aids in better blood flow through the body, which promotes relaxation and helps your child have a sound sleep.

UNLEASHING THE INNER POWER

More and more parents are looking to corrective chiropractic care as a complementary part of their children's health-care needs. As such, chiropractic is the most prevailing type of alternative medicine helping children.

Corrective chiropractic care should work as a complementary treatment to regular pediatric care. Chiropractic care works alongside a pediatrician's treatment, but it does not replace the role of a regular doctor. The pediatrician may prescribe necessary medications for certain conditions and treat the patient for more severe illnesses and injuries. A pediatric chiropractor, on the other hand, is instrumental in providing preventative, supportive wellness care, as well as alternative treatment in some cases.

While it is important for adults to maintain spinal alignment and nerve system function, it is **EXTREMELY** important that children are introduced to chiropractic care within the first 72 hours after birth and continue chiropractic care throughout their lifetime. There is rapid growth and development during infancy and childhood, which is why the early prevention of spinal health issues is crucial.

As a parent, it becomes essential to take charge of your child's health and get them checked by a corrective care chiropractor before symptoms show up. Pediatric chiropractic care can help your child grow and enjoy a high quality of life. With a balanced nerve system, improvements in your child's focus, performance in sports, and immune system function are all common side effects.

CHILDREN'S IMMUNE SYSTEMS

So often, the miracles we see in our office are children under the age of eight years old. Children who are suffering from asthma, allergies, bed-wetting, ADHD, and many other conditions are helped with the balance of their mind-body connection with corrective chiropractic care. The immune system is one of the crucial areas where chiropractic helps young humans develop optimally.

The nervous system affects the immune system and plays a vital role in the immune response against colds. Many factors contribute to a child's immune system's ability to maintain optimal health and combat colds. Factors such as nutrition, exercise, posture, stress, and fatigue are important, but so is the health of their spine and nerve system. Misalignments of the spine can put pressure on the spinal cord and nerves, which exit at each level of the spine. This can lead to irritation of the nervous system and can alter the ability of the nerves to supply the tissues, organs, and cells of the body with vital communication from the brain.

When functioning properly, the immune system fights disease-producing organisms such as bacteria, viruses, fungi, parasites, and allergens. All children are continuously exposed to these pathogens, but exposure does not mean a child will get sick. A strong immune system provides a child with powerful natural defenses against disease. Conversely, a child with a weakened immune system is vulnerable or more susceptible to colds, flu, and more severe illnesses.

Although chiropractic was never intended to treat disease and illness, it is a crucial tool parents can safely utilize for their precious children.

CHAPTER 5:

CHILDREN

“Have you ever seen a child having an asthma attack? Well, we have. Soon after birth our youngest son, Josiah suffered weekly from debilitating asthma attacks. Josiah would be taken almost monthly in an ambulance to the hospital for emergency treatment. This went on for over a year. A friend told us how Dr. Russel had helped her son with his asthma. We were skeptical at first but we were desperate to try anything. Dr. Russel found areas in Josiah's neck and upper back that were pinching nerves going to his lungs and immune organs. After he began with his chiropractic care, the attacks significantly decreased. Josiah now gets an attack maybe once every 2 years!! Chiropractic keeps our kids active in judo, swimming, skating, basketball, and baseball. We have noticed with our healthy routines of exercise, nutrition, and chiropractic our entire family can thrive in health and minimize illness! Our whole family now gets checked at Russel Chiropractic Center once a week regardless of symptoms.”

-Chen family

CHIROPRACTIC CARE FOR CHILDREN

The true essence of chiropractic is a lifelong plan for wellness. Routine chiropractic care has benefits for all stages of life and all conditions of human health. Chiropractic is for infants, children, adolescents, young adults, women of childbearing age, menopausal women, and men. It truly is for everyone, young or old, male or female. We see huge benefits

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for those who are in general good health and those who have abnormal health patterns and conditions.

Your body is equipped with its innate intelligence, meaning you have already been pre-programmed for a state of well-being. Your body knows the condition it should be in and how to keep it healthy. Unlike your regular primary care physician, you may see once every year for a routine check-up, if you are committed to maintaining your health, regular chiropractic is an incredible tool for well-being. When incorporated into your wellness plan, chiropractic will allow you to get more out of life.

Your body is the most miraculous thing on earth. It performs functions when you don't even know it is working. Your body is on the job 24/7. When you are asleep you are still breathing and your heart is still beating. Your body does all of this without alerting you and making you work consciously. It even regulates itself to accommodate changes we force upon it. For example, when you run, the body automatically speeds up your heart rate and quickens your breathing so that extra oxygen is available and transported to all the tissues and muscles to do their work.

Chiropractic is a crucial role in allowing your body to do its job. When subluxations occur, those blockages that reduce the messages transmitted by the nerve, the body's ability to correct what might be wrong is hindered. Regular, preventative chiropractic care can allow free signaling from your brain to all areas of your body.

Every stage of your life brings a different set of health potentials and challenges to your body. Adaptation is what our innate intelligence is programmed to do. That is why even the newborn infant born two hours ago can immensely benefit from the gentle touch of corrective chiropractic care.

There are many childhood illnesses such as ear infections, asthma, food allergies, and attention deficit disorder, that are becoming so commonplace that new parents often accept these ailments as simply part of childhood. The philosophy of chiropractic is that the creation of human life does not automatically come with its built-in problems and illnesses. Your body is complete and perfect until physical, emotional, and chemical factors change it. This is not taking anything away from

the fact that there are genetic factors or environmental hazards that can impact the birth of a perfect human being. The average infant that is born is designed to stay well, even in a world of common childhood illnesses. If that infant's body is allowed to freely communicate messages to every cell this perfect miracle of life can stay as healthy as possible.

THREE FACTS THAT WILL KEEP CHILDREN HEALTHY

Did you know that there are three facts about your body and by knowing them, you can have a much healthier child? It's true. By understanding these three facts, you will now have a strong foundation to raise outstanding humans.

Fact number one: the nervous system controls the functioning of every cell in the body, especially the immune system. By keeping the spine and delicate nerve system intact, you can boost the strength of your children's immune system up to 143%. You can minimize and even eliminate childhood health problems by having your child examined by a corrective care chiropractor that knows what to look for and what questions to ask about collisions, falls, and injuries in normal childhood activities. A regular evaluation of your child's spine and nerve system by a qualified corrective care chiropractor will tell you if their nervous system is being impacted. Corrections can be made accurately and immediately by specialized chiropractors. Chiropractic adjustments correct and stabilize subluxations that are in the body, not allowing you to work at 100%. Your brain must have a clear connection to every cell, tissue, and organ in your body. Start early with corrective chiropractic care and continue with wellness care for life.

Fact number two: you are what you eat. Nutrition is an immensely important ingredient in creating a strong immune system and children must eat a variety of healthy foods rich in vitamins, minerals, fats, and proteins. If for some reason the child is not able to get its primary source of nutrients from foods, occasionally supplementation can be helpful to make up for any missing ingredients.

Fact number three: be consistent. This is key in parenting. Children crave discipline and boundaries. Create a clear picture of what your children can do and what they are not allowed to do. When they do overstep their boundaries (and they will), communicate calmly and

firmly about it. Catch them doing things right! We often only scold and reprimand our children. Positive reinforcements are crucial for developing healthy and happy children that eventually become outstanding adults. The only way I see to change the planet is to first change ourselves. The next step is raising thriving humans that make even better decisions than we did for the planet and humanity.

EAR INFECTIONS

I was at CVS recently waiting in line to buy some Christmas cards when I overheard two mothers talking about childhood ear infections. They both agreed that ear infections are just a normal part of early childhood. What? Ear infections, technically known as otitis media are infections of the middle ear. The tubes inside the ears become clogged with fluid and mucus and can affect hearing. Eight million children suffering from ear infections every year are reported to have seen their physician for prescription drugs. We spend over \$2.8 billion treating otitis media.

It is the most common reason parents bring their children to a doctor and accounts for 35% of all visits to the pediatrician. Ear infections are caused by either a virus or bacteria. Most often fluid is built up near the eardrum and when it cannot drain, infections can occur. The solution for these chronic ear infections is to get rid of the fluid and avoid infection. The medical community achieves this through surgery with the insertion of ear tubes. These ear tubes allow the canal to open and allow fluid to drain. The number one surgery for children under the age of two is for the insertion of the ear tubes. Upwards of 30% of children that have received tubes in their ears through surgeries have had the procedure repeated.

Even when parents don't choose to have the surgery performed on their children the primary nonsurgical treatment is the usage of antibiotics. These powerful chemicals may treat a bacterial infection, but does nothing for a viral infection. In fact, it sets the child up for more infections in the future as their bodies learn to be resistant to the antibiotics. Antibiotics are ineffective at draining the ears.

This is where chiropractic can be a huge source of relief for the child suffering from ear infections. Chiropractic can help open the ear canal and aid in the drainage of the eardrum through specific adjustments of

the C1, or the first cervical vertebra of the spine. This was a method used by the renowned chiropractor, Dr. Joan Fallon from Yonkers, New York. She discovered that with frequent adjustments over six months her young patients' bodies were able to drain excess fluid. The result was an absence of ear infections.

As we continue to learn more about our bodies and the human immune system, the more we understand that having mild infections occasionally can be helpful because our bodies learn and gain information to fight off the infection. This can affect our immunity to future infections. By allowing the body's own natural responses, and by ensuring there was no blockage of the nerves in the upper cervical spine, the children got fewer ear infections.

ASTHMA

Every year more and more Americans are suffering from debilitating respiratory conditions such as asthma. Scientists, allergists, and other doctors are not certain of the cause of this dramatic increase in cases. Generally, asthma was considered a genetic condition where the airways are restricted because of muscle hyperresponsiveness. According to the World Health Organization, between 100 and 150 million people worldwide are being treated for asthma today.

Many scientists agree that the rise in the number of asthma conditions can be greatly contributed to our environment. There are more allergens produced by modern manufacturing and much of these allergens are trapped within our homes and offices because of efficient construction and installation methods. This may be why there are many more cases of asthma in industrialized nations.

We are now seeing children who recover from measles naturally without immunization have a reduction of allergic responses to house dust mites.

I can recall there being a total of three kids in my middle school who suffered from asthma and needed steroid inhalers to help them get through physical education class. We are finding more and more kids, upwards of three in every classroom in America suffering from this debilitating condition. This can't be all hereditary! And this can't be just the environment that has led to a huge increase in the number of

American children suffering. Asthma has been traditionally treated through modern medicine with the usage of inhalers and steroids. The medications are intended to open the small bronchial passages in the lungs and allow for the free-flowing of oxygen and carbon dioxide. The medications are steroid types of drugs, specific corticosteroids. So this poses a very important question: do we want our children to be inhaling steroids? Most parents have no idea of the long-term consequences when using steroid inhalers. I would imagine if parents understood how the human body works and read the book you are reading now, they'd make very different decisions for their children. I'd bet they would throw these powerful drugs away and there would be lines of patients outside the doors of corrective care chiropractors. Who wants stunted growth in the first year that their children inhale these drugs? Or osteoporosis, hypertension, glaucoma, and diabetes?

Although chiropractic has been very successful with patients who have asthma, particularly children, chiropractic does not treat asthma. There is no cure for asthma, however, with clear signals from the child's lungs to his or her brain, the inborn innate intelligence can make the proper changes in human physiology necessary for proper breathing. Now the child can return to exercising and gaining their life back.

A proactive and preventative approach to managing asthma is the approach utilized in corrective care chiropractic offices. We can improve our immune systems, and in theory, maintain a stronger body that is well equipped for managing factors that may trigger asthma attacks. Exercise is a key ingredient in preventing future asthma attacks by improving the efficiency of the cardiovascular system and lungs. Most people instinctively do less activity because of the attacks, when in reality the opposite should happen.

The entire goal of chiropractic and children is not treating asthma but improving the child's overall quality of life. A child that has to limit playful activities, avoiding sports and other social interactions is not a thriving individual. If we can improve both the quality and quantity of activities in which the child can participate while preventing asthma attacks, their life is changed forever.

Chiropractic is not a substitute for traditional medication or medicine. Until further research is conducted on the actual benefits of chiropractic

and asthma in children we always encourage parents to continue working with the primary doctor or pulmonologist for that children's health. Let me say that again, chiropractic does not treat asthma. With thousands of cases every year showing the improvement in health and breathing capabilities, this anecdotal evidence suggests that further research is necessary. My encouragement is not to wait until double-blinded controlled studies can give conclusive evidence. Because chiropractic is tapping into the nervous system and energy in the body that is yet to be quantified in science, it makes the most sense to make sure your children's systems are clear of any nerve irritation before they have any symptoms.

FOOD ALLERGIES

Currently, over 32 million Americans are suffering from food allergies, including 5.6 million children under the age of 18. That's one in 13 children or two in every classroom. Over 40% of children with food allergies are also allergic to multiple foods.

Scientists are baffled as to the cause of these food allergies. This is only a recent ailment to Americans, let alone humans on this earth. For thousands of years, humans have been eating all sorts of roots, plants, vegetables, and meats without major reactions to them.

During the first month of life, babies have their first antibody response to food proteins, particularly those to chicken eggs and cow's milk. It is suspected that the babies are having this reaction to chicken egg proteins from their mother's milk.

In the last 15 years, many environmental and lifestyle factors are contributing to these hypersensitivities to foods, what we call food allergies.

Scientists are also baffled by recent studies that show fewer food allergies and seasonal allergies among the offspring of farmers than other children in those same areas.

Here are several lifestyle-related factors that are likely associated with the increase in asthma and food allergies (atopic disorders) in children.

1. Obesity.

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2. Immobility.
3. Less active children that watch over five hours of television and/or computer screens.
4. “Recent reports describe an association of the use of antibiotics in the first two years of life with an increased risk of asthma.”
5. “The hypothesis has been proposed that the use of omega-6 instead of omega-3 dietary fatty acids in certain populations might cause an increased risk of allergic inflammation.”

Key points on asthma and allergies:

1. Cases of atopic disorders (allergic rhinitis, asthma, and eczema, etc.) are dramatically growing in all western industrialized countries.
2. Eggs and dairy consumed by the mother while pregnant may predispose the infant to atopic disorders
3. Atopy is based on environmental and genetic factors.
4. The lifestyle influences during the first year of a child’s life are crucial for avoiding atopic conditions.
5. While children are having fewer childhood infections during the first years of life, this could be the reason why we have a global epidemic of atopic disease and asthma. The body’s immune system needs practice.
6. Maintaining childhood health through good gut bacteria and intestinal microflora are crucial for creating the right immune response. Antibiotic usage destroys these good gut bacteria.
7. There’s been an increased risk of asthma with antibiotic usage during the first two years of life.
8. A high omega-6 to omega-3 dietary fatty acid ratio increases the risk of allergic reactions.

ADHD

“Attention-deficit/hyperactivity disorder (ADHD) is one of the most common neural behavioral disorders worldwide, characterized by inattention, hyperactivity, increased impulsivity, and motivational/emotional dysregulation.”

There are currently 388,000 children aged 2 to 5 years old and 4 million children aged 6 to 11 years old, and 3 million children aged 12 to 17 years old diagnosed with ADHD in America.

These disorders are growing at an incredible rate in America. Is there more and more cases every year, or is it possible that doctors and school systems are labeling children who are bored, active, experiencing stress at home, or have different ways of learning in this one size fits all disorder?

Real cases of ADD and ADHD have symptoms that go far beyond being able to sit through a classroom or have aggressive behaviors. The disorder distinctly shows children who experience symptoms such as sensitivity to light, sound, and touch. They often experience tics, tremors, and have obvious postural problems.

Corrective chiropractic care hugely impacts postural muscles and brain activity. When there are musculoskeletal imbalances, there will be abnormal brain activity. This often results in the uneven development of the brain, with one side learning faster than the other. This is the condition associated with children who truly have ADD or ADHD. Proper stimulation of the brain is the main tool that corrective care chiropractors utilize to help stimulate the development of both hemispheres of the brain. Improving the under-functioning area of the brain is only one step chiropractors take in helping children with ADD and ADHD. We can also dramatically improve brain function through lifestyle changes that promote better nutrition and the avoidance of unnatural ingredients such as preservatives and dyes in food. This helps to regulate the biochemical and neurological imbalances that are contributing to the symptoms of the child suffering from ADD.

Improving the balance in neurological and musculoskeletal functions combined with nutrition is where we see miracles in children with ADD and ADHD. Although medications are effective when used, they stop

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working once the medication is discontinued. Corrective chiropractic care looks to empower these young humans by permanently changing their brain, nervous system, and musculoskeletal function so the prior behavioral issues keep from getting worse and or are correct. An estimated 6 million American children have attention deficit disorders as of 2016. I anticipate that as we continue to treat these humans from the medical/allopathic approach we will continue to see these numbers of children and adults suffering. The solution is not treating the illness or disease with a chemical but rather looking at human biology from a new perspective that incorporates the mind and spirit. This is fundamental to all healing because it recognizes that when we change our beliefs of healing we send a completely different message to our cells, which in turn reprograms the expression of those cells. This new science is called **epigenetics** and has been around for over 25 years.

CHAPTER 6:

MOVEMENT

“Firefighting is truly my passion and being told that I was never going to be able to follow my passion was devastating. Medical doctors diagnosed me with cervical stenosis. I had given up hope and had concluded that I was just going to keep living with constant pain and taking meds. I finally came to Dr. Rassel’s office by somewhat of a miracle and he was able to find the actual problem, correct it, and gave me hope. He didn’t promise me a 100% improvement or that he was going to get me back to my life but that he was going to allow my body to do what it was meant to do. Being under corrective care and then wellness care has changed my life forever. I am now enrolled in the fire academy and following the dreams that were once shattered by a false diagnosis. I cannot thank Dr. Rassel and his team enough for giving me my life back!”

-Charlie V.

EXERCISE, POSTURE & ERGONOMICS

“Oh boy, this is where we get lectured that everybody has to join the gym and come do CrossFit and sculpt classes.” Maybe you do! I don’t know. I do know that the majority of us are dying in our office chairs and couches. The simplest solution to helping our aches and pains, our depression, our diabetes, and our impulsive behaviors (fill in the blank with shopping, sex, chocolate, iPhone scrolling, etc.).

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If you currently have an exercise routine, fantastic. If you do not and know you need to, I would suggest skipping to chapter ten on **HABITS** and then come back to this chapter. Too often we start out doing too much physically than our body can handle and never develop the habit. Start small and every day do a little bit better. I started doing handstands several years ago and have a complete love/hate relationship with them. I just did some inversions (fancy word for going upside down in a handstand) with a friend at the beach today. My good friend Gray is much better than I at them. Even with several years of attempts and eight months of regular training and practice, I can hold the handstand for ten seconds, at best! The ego wants to slow you down and tell you that you are a miserable loser and you will never be any good. And it is not true! Laugh at the ego and continue on your pursuit. Watch how you can get better on YouTube. Video yourself. Get coaching. It is by far the best time on the planet to be an athlete, to learn new skills, and enjoy hobbies.

Exercise is so important for our cardiovascular health, our muscle tone, and also crucial for our posture. Posture is a window to the spine and the health of our spine is a better determination of our health and longevity. When we have proper muscle tone, we naturally have better posture and do not need to put attention to that posture. The muscles in our back are what help to hold the spine erect. When our shoulders are relaxed down and shoulder blades retracted back, our spine is at ease. Whenever our shoulders are up around our ears, tense, and our shoulder blades apart we are in an unnatural and stressed posture. Mechanically, posture is important for our body and also for our emotions. When we free ourselves from the attachment of stress and utilize methods such as meditation, relaxation techniques, and exercise, our postures are naturally more fluid. All of this is possible without consciously thinking about our postures. We can naturally assume a better position that is more comfortable.

THE EFFECT ON MUSCLE STRENGTH AND BONE DENSITY

I can clearly remember my mother smacking the back of my head as I slouched on the couch telling me to sit up straight or otherwise my spine is going to stay that way. It wasn't that my spine would immediately grow into this position, but that my muscle tone would become so weak

that it couldn't properly support my spine. As usual, moms are always right.

A great deal of research has gone into the skeletal and muscular effects of exercise and weight-bearing activities. At a conference on osteoporosis prevention, Dr. Robert Marcus reported on the impact of exercise on both muscle tone and bone density, and how that affects our overall health. The research revealed that **bone mineral density (BMD)** decreased without moderate exercise.

Through exercise, we can increase our muscle strength but we don't always increase our BMD. This is particularly important for the elderly who are unable to engage in activities that promote increases in BMD. By toning our muscles, especially the leg muscles, even the elderly who are in their 90s can reduce the risk of serious injury from falls.

The only group of people in the research conducted on BMD that had different results were in children. We are most active during our childhoods. Children can build a reserve of BMD that provides benefits throughout life. An inactive child can have problems with BMD as an adult. For adults to maintain good BMD, we must continuously exercise throughout our lives.

To change your posture you must be aware of your postures while sitting, sleeping, standing, and moving around. There are many good exercises for strengthening our posture and maintaining the proper muscle tone of our backs. We must first strengthen the other muscle groups in our body.

These areas include:

- Abdominal muscles
- Hamstring muscles
- Quadricep muscles
- Gluteus muscles
- The front of our neck muscles
- Scapula (shoulder blade) supporting muscles

There are many effective exercises for each of these muscle groups and any level of fitness. Any exercise that contracts and flexes the muscles

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and can stretch the muscle gently is beneficial. When beginning an exercise program, it is best to do shorter repetitive sets than to exhaust the muscle groups completely. Doing 10 to 12 repetitions is good for most levels of fitness to start. Then you can gradually increase the number of reps as the muscles become conditioned.

Overworking muscle groups during the beginning phase of an exercise program can lead to injury to the muscles, ligaments, tendons, joint capsules, or cartilage. It will lead to soreness and even more serious injury. When lifting weights specific to one muscle group it is ideal to rest that muscle group for at least a day before repeating those exercises. This is particularly true as you get into heavier weights.

ERGONOMICS

Ergonomics is a science that studies how the human body responds to the forces of nature put on the body through physical exercise and activity. In Greek, the term *ergon* (work) and *nomoi* (natural laws) are combined to create the English word, ergonomics.

The main goal of body ergonomics is to reduce injuries by being aware of how the everyday activities that we are engaged in affect our joints and muscles. There are three basic rules to ergonomics that, if applied, greatly reduce stress or repetitive movement injuries common in the workplace. They include changing positions often to other healthy positions, using the largest muscle group for any type of force exerted, and only working the joints to the midpoint of the range of motion.

It is interesting to note that humans started using the word “ergonomics” frequently in the last hundred years when we started to use poor ergonomics. The invention of the chair really ruined human ergonomics and has caused all sorts of health issues. Although most Americans are not ready to give away their computer chairs and sofas there is a movement of people who eat, read, and watch their screens devices on the floor. Floor dwelling allows for lots of squatting motions which are crucial for hip, knee, and ankle mobility.

When speaking of ergonomics, it is important to understand that there is **static** work and then there is **force**. Static work refers to those tasks where you are required to maintain the same position or small movements for extended periods. This may include typing, standing at

a lab bench while bent over a microscope, or sitting in a truck with one hand on the steering wheel and one foot on the accelerator day after day.

We describe **force** as it relates to ergonomics as how much the muscles have to work. If the wrong muscles are used for the job, then injuries occur. This is not limited to but includes lifting heavy objects, and can even include flexing the neck muscles to bend the head forward or backward from the upright position. This action alone, head bending forward adds up to four times the force on the lower neck vertebra. So with a job where your head is bent down looking over paperwork or looking at a laptop computer, you're putting excessive force on your neck and the articular joints that hold your head up.

The way to counteract the impact of static working force on the muscles and bones is to become conscious of each movement and change positions frequently throughout the day. Whenever you can, use the largest appropriate muscle groups for any task and minimize the risk of injuries.

Ergonomics takes thought. By simply putting your attention to your posture and the different positions you assume in any given task is not something that we naturally do. Typically we just simply try to be comfortable as fast as we can. The only time we give thought to our position and posture is when we are uncomfortable. We then seek to change to a more relaxed position that feels good to us. By relieving the discomfort we move to a position where we can go back to not thinking about our bodies and postures. Again, there's not much thought given to the process, we just move until it feels good.

Since we naturally put little to no thought into our own ergonomics, doctors and scientists have been doing it for us. They have worked to create tools and methods to ease the stresses that we put on our joints and muscles. Some of the most creative and normal inventions of the 20th century include the foam strip at the base of computer keyboards which raises our wrist to a better position. This reduces the cases of carpal tunnel syndrome experienced by typists who spend several hours each day in that position.

Office chairs with lumbar support encourage better posture for desk dwellers. We have also seen an increase in the use of headsets for receptionists, who prior to that, often cradled their telephone receivers

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between their ear and shoulder while taking notes. In many workstations, you will see the semi-seated workstation. This is the type of chair we are neither sitting nor standing. It keeps the lower back aligned with the rest of the back and actually promotes good posture that, in turn, relieves the pressure on the spine and alleviates back pain, especially in the lower back. Standing desks have become recently popular to allow the desk dwellers to be in a more neutral upright position and engage muscles of the legs, glutes, low back, spine, and neck muscles.

Ergonomics helps those that work in an office or engage in repetitive movements for the majority of their days with simple additions and changes. The three basic principles to improving ergonomics are: adopting different positions; using the largest muscles for a task; and staying within the midpoint in a joint's range of motion.

It is not necessary to stay in a locked upright position all the time. By leaning backward and forward while remaining in a stable position you can help the joints in your spine. We should always be looking for opportunities to move. By creating games that force you to move every time you perform activities, for example, you can kneel in front of your computer to open up your hips while going on the Internet, walk around while talking on the phone. When you're watching TV make it a habit to be on the ground stretching and moving your hips and legs around. Try getting up frequently and changing your position when you are seated, remember that shortened muscles become tight after long periods of sitting.

A good rule to remember is for every 30 minutes of continuously sitting that you do, you should move around for four minutes.

APPLYING ERGONOMIC PRINCIPLES

Lifting

When we are lifting the rule of ergonomics that applies is using the largest muscle group. The group, ergonomics.org, refers to this as the "largest appropriate muscle group". Obviously, you wouldn't want to use your forearm to push a light switch when an "appropriate" muscle is the finger. To lift heavier objects or move heavier items is where this principle is mostly concerned.

Most people are well aware that if you lift a heavy box by bending over at the waist and pulling up with your arms, your lower back is going to take the burden of that weight. By doing most of the work, the lower back is at risk of injury. This is why most movers will wear thick lumbar support belts. These belts support the lower back and actually prevent the back from doing the work. The largest muscles in the body are found in the upper legs. They should always take most of the weight and exertion when lifting. Here are some important tips when lifting:

- When bending down, hinge at your hips and use your legs to raise and lift the object. **Keep your spine in a neutral position**, meaning your lower back should not flex forward. If you only implement one thing in this ENTIRE chapter I would recommend learning how to maintain your spine in a neutral position. Read up on this in Kelly Starrett's book *Becoming a Supple Leopard*.
- Work with a partner. Whenever possible, lighten the load by getting someone else to help lift with you.
- **Keep your spine neutral.** Too much extension at your lower back or flexion (bent forward or bent backward) causes a strain to the lower back. I believe the main reason I see people with lower back injuries to their spines, discs, and lower back muscles are because they are not keeping their lower back neutral and braced.
- Keep the objects that you were lifting closer to your body. The stress to the lower back and spine is exponential when that object is at a distance from the body.
- As you keep your spine in a neutral position with each spinal segment in good alignment, the force of weight can move efficiently through your body. You are in an optimal position to handle the heavy forces of that object that are impacting your spine.

It's important to remember that injury to our central nervous system (spinal cord) is a huge threat to your health and your body. If you injure the cartilage or ligaments in your knee you can still keep moving and tough through it, although it might not be pleasurable you're able to go

on with your life. If you herniate a disc or injure a facet joint in your lower back your life is now different. Your body must overcome and adapt to that injury; it limits your ability to run, move quickly, lift, or even reproduce. Injuries to the spine take weeks, months, and sometimes years to heal from. The healing process for spinal disc injuries is very slow and long. It is crucial to **brace with a neutral spine position** when lifting, sitting, moving, walking, standing, and exercising.

Carrying children

Many of the same principles apply to lifting heavy objects and can be applied to lifting and carrying our children. We often see an infant or toddler perched on the side of their mother's hip. Think about her posture. You'll notice that her spine is bent to one side to compensate for the added weight on her hip

There are many devices designed to help make carrying children safer and easier for parents. The best and safest choices are ones that allow the weight to be evenly distributed and keep the **spine in a neutral and braced posture** (that's the fourth time I bolded this concept for you. Google it. Practice it. Make it your norm). With the good vertical alignment of our spinal column, we can lift loads such as forty pound flailing children with ease. The over the shoulder sling that holds an infant up to the chest level in front of the parent is a good example. Although these shouldn't be used for extended periods of time, or after the baby is so heavy that the parent is forced to bend forward or backward to compensate for the added weight, these are helpful tools.

When you're older and have your children for any length of time, it is best to carry them on your back, piggyback style. Backpack carriers are good for walks or hikes because the weight straps distribute more weight to the hips. Always use larger muscles to carry the load such as your legs, brace your core, and keep your spine neutral.

When lifting a child out of a crib, a pack, and play, or car seat, get as close to the side as possible. If the sides of the crib can be lowered, always do that first so that you do not have to lift above your head as much. Wrap your arms around the child's midsection with one arm supporting their lower body, and bring them close to you before lifting upward,

always **brace your spine in that neutral position**, utilizing your stomach and abdominal muscles by pushing outwards in your belly. By bringing the children close to your center of gravity before lifting upward you can avoid strain to the lower back. You may have to bend over to cradle an infant lying on their back, but you can still bring them close to you before moving upward in that **braced position**, hinging at your hips, sticking your butt back with your knees slightly bent, and adding pressure to your abdomen (as if you were pushing your belly out and over your belt line).

Sitting and Standing up

When was the last time you thought about how you were getting out of bed in the morning or standing up from sitting in a chair? Most of us never put any thought to this unless it's uncomfortable or painful. I truly believe that sitting is a slow death. Not only does sitting cause muscle tightness but long periods of sitting diminish your athletic performance, decreased circulation and lymphatic, under stimulate the nervous system, and turn us into a weaker version of ourselves. I always feel the strain when I've been sitting on a plane or in a car or a desk for a lengthy period. These seated postures wreck havoc on our health. Recent research is suggesting that long periods of sitting can be more harmful to your health than smoking. The challenge we face is that we cannot avoid sitting. So how can we prevent or reduce the damage caused by sitting for long periods?

First off we need to learn how to sit. Sitting, like standing, is one of the most technically challenging things that human bodies do. Most of us didn't come with a manual on how to sit or stand and are completely unconscious of these postures. Do your best to sit with your spine braced, your lower back slightly extended, shoulders back and down your spine, head over your body so that your ears are in alignment with your shoulders. Avoid leaning against the backrest of your chair as much as possible. Try to keep 20% tension in your abdominal muscles to maintain a **neutral and braced spine**. For most of us, keeping this much tension in our abs is tiring and taxing. It takes practice. Most of the research indicates that sitting and standing are not about muscular strength, but muscular endurance to maintain that position; this also explains why at the end of the day most people who sit have their

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shoulders rounded forward and their lower backs overextended. These postures are more comfortable for us because it doesn't require any work. Maintaining a neutral and stable spine however takes attention, focus, and abdominal endurance.

One of the easiest ways to remind ourselves to maintain a good seating posture and avoid slouching is to stand up, reset your posture, and consciously bring attention when you are sitting again. I often hear people making the mistake of correcting their spinal postures while they're still seated. This isn't as effective. Stand up and reorganize.

To get from the seated position to the standing position is also a delicate art. When we are seated we are basically in a squatting position. First, start by loading our hips to start the movement then extend the knees to stand up. Drive your weight into your legs, keep the knees over your ankles, push your butt back, allow your chest to come forward, and engage your leg muscles. Most of us allow our knees to come forward first and that increases the stress to the knee joint particularly on the ACL and patellar tendons. With a proper seated to standing position, always maintain the **neutral and braced spine** position without bending at the lower back or hunching forward at the shoulders and neck.

As simple as this sounds, most of us have been doing this posture wrong our entire lives. Try at least twice a day to bring attention to this activity and allow it to become your normal way of getting out of a chair, car, and bed.

SIX STEPS OF A NEUTRAL AND ALIGNED STANDING POSTURE

The first step to proper standing is making sure your feet are directly under your hips and parallel to each other. Externally rotate your hips open by screwing your feet into the ground. You can achieve this by keeping your feet straight, and putting a slight tension into your left foot into the ground in a counterclockwise direction and your right foot into the ground in a clockwise direction. Your feet will stay straight forward however you are exerting the force in an outward direction. This will take the slack out of your hip joint.

The second step is to put your hips and pelvis in a neutral position by squeezing your butt muscles. You don't need to constantly squeeze them

in full tension but gently activate them to keep your pelvis in that neutral position.

The third step is to use your abdominal muscles to keep your rib cage and pelvis locked in place. Now breathe.

The fourth step is to keep your chest and rib cage over your pelvis and gently tighten your abdominal muscles as you exhale. We tend to exaggerate this posture by pushing our rib cage out and overextending our lumbar spine. Do not do that.

The fifth and final step is to put your head and shoulders in a neutral position by pulling your head back and rounding back your shoulders. If someone were to look at you from the side your ear would be right over your shoulder.

To complete this final step let your arms relax at your sides with your thumbs pointed forward which helps keep your shoulders pushed back and externally rotated.

The main goal of this exercise is to make sure your ears are in alignment over your shoulders, your rib cage is directly over your pelvis, and your hips are over your knees and ankles.

By applying these simple techniques to your everyday movements you can promote not only a stronger and healthier back but maintain the health of your nervous system which is vital for your life. Other side effects of these proper postures we just reviewed with you include healthier cartilage, meniscus, tendons, muscles, and ease of life.

None of us will ever be perfect, however, with regular practice, we can progress.

Progression equals perfection.

CHAPTER 7:

HEADACHES

“Before I came in to see Dr. Russel, I was suffering from horrible migraines that would last weeks. The migraines would cause the left side of my body to go numb and I would have to go to the ER because the medicine I was taking could not control the migraines. I started care at Russel Chiropractic Center 10 years ago and in that decade have had only one migraine which lasted 2 days and was gone!

-Fatima L.

HEADACHES

For over fifteen years, I have worked with patients suffering from all kinds of pains, problems, injuries, and all-around health issues. And although I have never treated any condition in my office, we have seen thousands of conditions resolve under corrective chiropractic care. Some of the most common and miraculous cases we have seen have been headaches.

Let's start by giving you the science first. Headaches are the ninth most common reasons for which someone goes to their primary doctor. In 2000, it is estimated that 45 million Americans with headaches went to their doctor, adding up to 50 million office visits. This resulted in 157 million missed days of work and an expenditure of \$2 billion for just over-the-counter pain medications.

When someone goes to the doctor with a headache, often the questioning revolves around eyesight, sinuses, and migraines. The cure is usually a pain medication that gives temporary relief, but does little to solve the problem.

The pain medications most often prescribed also have an addictive quality that not only “hooks” the patient, but makes it so that more and more of the medicine is required to relieve the pain. The patient builds up a tolerance for the drug to the point that eventually even the highest doses are ineffective in relieving the pain.

There are a few things you should keep in mind when you take these pain relievers. You are only temporarily treating the symptom when you take a pain reliever, as opposed to getting to the root of the problem. If you take medication to get rid of the pain, you are only masking the pain instead of treating the source of the pain. Without finding and treating the reason for the headache, it is bound to return again and again, beginning a cycle that will be difficult to break.

Rebound Headaches are the result of frequently taking pain medications for headaches. If you take pain relievers more than twice a week for a headache, you may actually be getting headaches more often as your body begins to rely on the pain medication.

Once you start on the rebound cycle, it can be very difficult to break out of it. Some headache sufferers soon find themselves taking medication daily to keep headaches at bay. After a while, they find themselves taking medication as if they were snacking on candy.

Taking pain medications too often leads to a variety of problems, including:

- Increased dependence on pain relievers
- Increased tolerance on pain medications so that you must take higher and higher dosages as time goes on
- Irritation of the stomach and intestines with repeated use, leading to side effects such as ulcers, gastrointestinal bleeding, kidney failure, and even death.

It is so important to get past masking the pain and move on to getting to the source and stopping the headache before it starts.

COPING WITH HEADACHES

Many people have come to live and cope with their headaches simply. This is usually because pain medication up to this point has only offered them a short-term bandage to cover up the symptoms letting them get on with their work and their lives... if even only for a few hours.

There are several other reasons why headaches need to be dealt with head-on, so to speak. Headaches often do the following:

- They cause relationships to suffer because of cancelled plans, increased tension, and irritability. All of the misery that recurring pain triggers can have a lasting effect on your loved ones.
- They cause you to withdraw into your room to “sleep it off.”
- They can restrict yourself and your family from time together.

CLASSIFYING HEADACHES

To take the next step in headache treatment, you have to understand the source of the headache. Only then can the forces within the body be awakened and healing can begin.

Although it is not known exactly what causes headaches, healthcare professionals do know that there are certain triggers to different kinds of headaches. Theoretically then, by avoiding these triggers you can avoid the headache.

One of the biggest obstacles to figuring out the exact type of headache and what triggers it is that there are so many different types of headaches. For this reason, back in 1988, the International Headache Society (IHS) came up with a way to classify headaches based on symptoms, frequency, and research by the health community. The list was updated in 2004 to place headaches into one of fifteen different categories. This classification system has become the standard by which most headaches are diagnosed. It is used by physicians and chiropractors alike.

Drawing from the specific classifications, there are different categories of headaches that are further classified as either primary or secondary.

Upwards of 90% of all headaches are primary, meaning they are not part of another medical condition. These primary headaches are all the result of some kind of upset in the neurotransmitters of the brain – a primary condition addressed by chiropractic.

Secondary headaches, on the other hand, including what is known as rebound headaches. This occurs when too much aspirin or other analgesic medications are used. By taking this type of medication in excess, research has found that you are actually causing more headaches.

Primary headaches top the classification list for the most common types of headaches with the three most common types being Migraine, Tension, and Cluster headaches. The focus of our discussion will be these three.

MIGRAINE HEADACHES

Migraines are some of the most severe forms of headaches. Approximately 13% or 28 million adults get migraine headaches. These throbbing headaches usually occur on one side of the head and last from between 4 and 72 hours, hitting at various, unpredictable times. Other symptoms that accompany a migraine headache include sensitivity to light and noise, and sometimes odors that induce nausea or vomiting.

Other symptoms of a migraine headache may include:

- A pre-headache phase where sensory perceptions seem enhanced. Colors seem brighter, a feeling of “butterflies in the stomach,” and a light, disoriented feeling may wash over you.
- An “aura” will begin before the headache strikes as visual disturbance such as flashing, flickering lights in one corner of your field of vision.

There are factors known to contribute to the onset and severity of a migraine headache. Unfortunately, they are also some people’s most favorite indulgences. Migraines may be triggered by caffeine, alcohol, and cigarette smoke. Even if you don’t drink coffee, smoke, or partake of alcoholic beverages, you can set off a migraine in other ways. These include chocolate, the preservative MSG, prescription medications, and even certain smells like gasoline or perfumes. Onset can be caused by foods that contain tyramine and histamine like cheeses or sauerkraut,

Kiefer, etc. Sometimes foods that contain arginine like nuts or chocolate can also provoke the onset of a migraine.

pH

New research indicates that in many cases, migraines can be caused by foods that leave the digestive system low in pH when they're metabolized by the body. That's right, an acidic diet and lifestyle are potentially contributing to migraine headaches. Most of the food that we eat creates an acidic environment. The things that we drink create acid. The things that we even think, can create acidity in our bodies. The great news is that our bodies are alkaline by design and are prepared to get rid of acids.

Which foods are acid-producing and which foods are alkaline-producing? Meats and grains produce acid. Fruits and vegetables produce alkalinity. We need much more alkalinity than we need acidity.

Here's another basic concept that most people don't understand. When I say that acid is not good, people immediately say "okay, so lemons, orange juice, and tomatoes and things that have acid in them are not good for our bodies". And that's not true. They're very good because when they're digested they leave ash. If you take a match and burn a piece of paper, what's leftover is called ash. The same thing happens in our bodies. When our bodies oxidize the food (fuel) that we put in our stomach and burn it up, there is the ash that is left behind and it is alkaline, not acid. So, in two comparisons, if you ate chips that are alkaline going in your system and you tested the pH of the chips, they're going to be alkaline. When the chips are digested they leave an acid residue, that's not good. If you ate a lemon or a tomato, pH tests would indicate the lemon or tomato are acidic, but when digested and burned up, the residue is, as you guessed, alkaline. And that's what we need.

Other environmental factors that can lead to migraine are weather changes, bright lights, and loud noises. Migraines are often precipitated by fatigue and emotional stress as well.

Some health conditions can contribute to migraines. Often dealing with the other health problems will eliminate the migraine or prevent one from happening. Some of the more common ailments that lead to migraines are urinary tract infections, stomach trouble, and dysmenorrhea.

Migraines originate in arteries and veins in the brain and around the skull. Most susceptible are the cranial nerves and the covering to the brain known as the dura mater. They become inflamed and even infected, causing pain. Pain can also come from compression or other irritations to the vessels.

Migraine headaches occur in a variety of forms, including classic migraines, common migraines, and cluster migraines. Each type of migraine will respond to different types of treatment, and when utilizing chiropractic treatment, each person will respond differently. Managing migraines must be custom-tailored to the individual after careful analysis and consultation with your corrective care chiropractor.

Corrective chiropractic care is designed to deal with the root source of the pain associated with migraine headaches. Spinal nerves, cranial nerves, and nerves that supply the blood vessels to the brain and head can all be helped to utilize corrective chiropractic care.

TENSION HEADACHES

Tension headaches are the most common type of headache experienced and almost all adults will experience at least one tension headache at one time or another.

The symptoms of a tension headache include:

- A steady ache that usually feels like pressure or tightening around the skull
- Is usually felt on both sides of the head
- Is sometimes the result of eye strain, such as working on a computer or reading for long periods
- Can be stress-related
- Does not usually have other symptoms like nausea
- Is sometimes accompanied by tightness or pain in the neck and/or shoulders

Corrective chiropractic care that utilizes soft tissue therapy is very effective in treating tension headaches.

Tension headaches are probably on the lower part of the pain scale, but can lead to pain in places other than the head. Back and neck pain are commonly associated with tension headaches as well. The tension headache is one of the most common types of headaches that start at the base of the skull and can radiate through the whole head.

Much of what attributes to a tension headache is stress. This kind of emotional or physical stress leads to muscle tension. Muscle tension in the neck and back can then lead to misalignments as tight muscles pull on the vertebrae.

CLUSTER HEADACHES

Cluster headaches are named as such because of the way they start behind the eyes and go out in cyclical patterns. These headaches come on suddenly and are quite severe on the pain scale. They are not the most common primary headaches, yet still affect approximately 1 million Americans. More than 90 percent of cluster headache sufferers are male.

Cluster headaches are treated by the medical profession much like other types of headaches, only with different types of drug therapies. Chiropractic addresses the root cause of the cluster headache and the nerve interference that corresponds to this headache pattern.

CERVICOGENIC HEADACHES

A cervicogenic headache stems from a pain that develops in the neck, although a person feels the pain in their head. These types of headaches are a relatively recent classification of headache; only now being given real attention by the medical community. Cervicogenic headaches differ from tension headaches in one very important aspect, misalignments in the cervical area contribute to these headaches. Oftentimes cervicogenic headaches will require different treatment than a standard tension headache.

The symptoms of a Cervicogenic headache include:

- Non-throbbing pain that often begins in the neck and can fluctuate in severity over time

- Pain that can increase or be aggravated by neck movement
- Restricted range of movement in the neck
- Pain is often on one side of the head and does not migrate or shift to the other side
- Often occurs after stress to the neck, such as a minor accident or twisting and turning such as when doing work like wallpapering or sitting in front of a computer for long stretches

While cervicogenic headaches respond well to soft tissue therapy, the best treatment is most often a combination of soft tissue therapy and corrective chiropractic care.

Cervicogenic headaches are one of the most often misdiagnosed types of headaches by the medical mainstream, as they are a relatively new classification of headache and are related closely to the misalignment of the seven cervical vertebrae in the neck.

OTHER TYPES OF HEADACHES

There are other causes of headaches that cannot necessarily be classified as a specific type of headache. The everyday occurrences that can bring on a headache can be determined by a chiropractic exam.

Simple Muscle Tension

Muscle tension can be caused by anything from eye strain to sitting in one position for too long a period. As your body becomes fatigued, the muscles tighten up to maintain proper alignment and this tightening can lead to real pain.

TMJ

TMJ, which stands for Temporomandibular Joint, is not really a category of headache, but often causes pain in the skull due to a condition of the jawline. With TMJ dysfunction, the jaw will often click and crack and cause pain, including a full-blown headache. Sometimes the pain is concentrated in the face, ears, or just the jawline. The cause of most cases of TMJ dysfunction can be stress, prior injury, or overuse.

The overuse can be from grinding teeth in your sleep or even prolonged dental procedures that hyperextend the jaw for long periods.

There are physical therapies that can be done at home after learning them from your chiropractor as well as specific adjustments that are done in the chiropractic office. Some of the therapies include myofascial release therapy which is a type of gentle massage to the soft tissues around the muscles that help you chew. Then, most importantly is the alignment of the first cervical vertebrae of the spine called the atlas. Proper alignment of the atlas vertebrae in the neck can dramatically help the TMJ dysfunction.

Subluxations

A subluxation occurs when a vertebrae is out of alignment, leading to a cascade of other problems. When vertebrae are out of alignment, the ligaments, and muscles connecting them contract around these areas, adapting to the abnormal posture.

Muscles can sometimes spasm in an attempt to prevent further misalignment and to compensate for the current misalignment or misalignments. This causes pain which often is “referred” to the skull and reveals itself as a headache. In advanced cases, the discs between the vertebrae can degenerate, causing additional pain.

Subluxations also result in the pinching of nerves and blood vessels in the area around the vertebrae. This pressure on the nerve endings causes pain, and constriction of blood vessels and reduces the amount of blood and oxygen to the brain, which can also lead to headache pain. This is often the case with severe headaches such as migraines.

HEADACHES & CHIROPRACTIC

If you have frequent headaches, regardless of whether they are tension headaches, cervicogenic, or migraines, you may also be suffering from rebound headaches. Several warning signs indicate rebound headaches:

- Headaches are daily or more than two or three times a week
- There is no medical reason for your headaches
- You often wake up with a headache

- The headache often returns about the time your pain medication begins to “wear off.” (4-5 hours for something like Tylenol, 8-12 hours for Aleve)
- Headaches are often triggered by minor exertion or mental concentration
- You have been increasing your dosage of pain medications to find relief
- The headaches have become closer together over time

If you are experiencing rebound headaches, you should consider just how serious they can be. Taking pain medications several times a week not only masks the actual cause of your headaches, but it will also, over time, begin to interfere with your body’s own ability to handle pain.

The human body produces endorphins that alleviate pain, but the daily use of painkillers interferes with this natural process, making you more dependent on medications over time. This leads to the rebound effect which can become so frustrating. The only way to stop this cycle is to stop taking the daily or almost daily doses of pain medication so that your body can begin handling the pain on its own again. This can be difficult in the first week or so, but with proper chiropractic care and patience, you can get rid of the primary headaches so that the rebound headaches won’t continue to be an issue!

Chiropractors can perform simple tests and examinations to determine more specifically the cause of a headache. These tests, along with questions about your lifestyle, help the chiropractor take a look at every facet of your life. This will aid in understanding how different situations or factors interact in your life to trigger recurring headaches.

The tests and procedures include but are not limited to:

- A physical examination including vital signs, reflexes, as well as orthopedic and range of motion tests and specific orthopedic and neurological exams.
- Digital Standing X-rays may be taken of the spine to evaluate the condition of the structures supporting the neck and head.

There is a vital balance the body strives to maintain between the muscular system, the skeletal system, and the central nervous system.

EMPOWERED

When one of these systems is disturbed, damaged, or out of balance, it will inevitably affect the others. Discussing and evaluating all of these with your chiropractor will help ensure that your treatment addresses all of the various causes of headache pain you may have.

After an initial consultation to determine the type of headaches you are suffering from (and there could be more than one!), a chiropractor will develop an individualized program developed specifically for you that may include several different types of treatments. These courses of treatment will depend upon what type of headaches you have and what the underlying cause is.

By the time a patient sees a chiropractor, he or she is usually suffering from headaches regularly. If you are suffering from headaches more than two or three times a week, it is an indication that the underlying problem has been going on for some time, and that means that there won't be an "instant cure", but likely there will be a solution to the actual problem.

Just as it took time for your body to become misaligned and trigger the headaches, it will take time for your body to heal properly. With proper chiropractic care, it is common for patients to have less intense headaches that are less painful and less frequent.

When a chiropractor designs a treatment plan, he/she will take into consideration several things, including your age, your health, the type of headaches you have, what your physical exams and X-rays revealed, and what will work best in combination to bring you both immediate and long-term relief.

So just what are the different types of chiropractic treatment and how do they affect headaches? Here is a breakdown of the most successful corrective chiropractic treatments for headaches.

Soft Tissue Therapy

Soft tissue therapy is the use of the hands to find and manipulate tension in the muscles and tendons of the neck and spinal region, including the shoulders if warranted. The tightening of these muscles can cause referred pain and overstimulate the nerve endings in the area. Soft tissue therapy loosens the tightness in these muscles and increases blood

flow to the area to promote healing. Soft tissue massage therapy also warms and relaxes the muscles and tendons, creating a more relaxed environment and releasing the tension so that the referred pain diminishes.

Soft tissue therapy can also be used to help break down scar tissue that has formed in the cervical area. Scar tissue that builds up in these areas can pinch nerves, decrease blood flow, and interfere with the alignment of the cervical vertebrae. With the neck so close to the head, is it any wonder that a “pain in the neck” becomes a full-blown headache so often?

Chiropractic Adjustment

Chiropractic adjustments focus on correcting subluxations. These are the misaligned bones in the neck that lead to inflamed tissues, tightened muscles, damaged nerves, and a host of other problems that can lead to headache pain.

By carefully adjusting and realigning the vertebrae, the pressure and stress from the surrounding muscles and ligaments can relax. This will also relieve pressure on the nerves and improve blood flow in the area if it has been constricted.

Subluxations interfere with the proper flow of blood, the direct signals the body sends the brain, and the balance of the nervous system. Imbalance in the nervous system typically means that too much stress hormones and not enough healing hormones are being secreted into the body. If your vertebrae are consistently pulled out of alignment, the muscles and ligaments around them adapt to this. Muscles can get shortened on one side of the vertebrae and lengthened on the other side to accommodate the abnormality. This leads to poor posture which leads to more strain on your nerves and spinal cord. Nerve irritation can lead to an incredible number of health issues because of a lack of communication between the brain and body.

According to an April 2018 report in the journal BMC Musculoskeletal Disorders, “Posture and normal physiology and function are interrelated. Abnormal posture is evident in patients with chronic pain-related conditions including backache, headache, and stress-related illnesses.”

EMPOWERED

After an adjustment, immediate relief may be felt for those suffering from a headache. Commonly with chronic headache sufferers, the headaches usually return over the first few weeks. Due to the usage of pain relievers for weeks, months, or even years, it can take several weeks or months to “retrain” the vertebrae and surrounding muscles and tissues to their proper alignment.

If there have been subluxations for years and decades, we often find disc damage and arthritic bone spurs because of the abnormal stress in the area. The pain caused by these bone spurs can also trigger chronic headaches.

Correcting cervical subluxations in the neck provides headache relief in several ways:

- Removing pressure from nerves
- Reducing muscle spasms caused by misalignment
- Increasing blood flow in the cervical area
- Preventing further damage to discs and cartilage

Spinal adjustments are crucial for managing headaches. The connection between proper spinal alignment and overall health is one that is rarely taught. Most of us have had thousands of hours of drug advertisements from television and the internet that have given us the understanding that “looking good and feeling good” are what health is about. I am here to tell you that this is NOT TRUE. The underlying disease can slowly kill us without any symptoms. Heart disease, cancers, diabetes, and subluxations are all slow, silent killers.

These subluxations come from three types of stressors: physical, chemical, and emotional. With our busy-bee lifestyles, mental and emotional stressors, lack of physical activity, exhaustion, and chemical-filled foods and environments create these subluxations. A periodic maintenance visit to the chiropractor is the best way to prevent today’s headaches and headaches in the future.

LIFESTYLE ADVICE FOR DEALING WITH HEADACHES

As a Chiropractor, I understand that there is a delicate balance between the muscles, bones, and nervous system that must be maintained for ideal health. Disturb one and you will inevitably disturb the others. Headaches are so common in today's society mainly because we disturb our bodies' natural balance in so many ways!

Keeping the muscles and tendons in our bodies active and flexible with regular exercise, getting enough sleep, balanced nutrition to stabilize our pH, drinking plenty of fluids during the day, using proper posture, maintenance chiropractic care, recognizing stress and managing stress effectively, relaxation techniques, are all central to maintaining your body in peak condition. Let's face it, most of us don't do enough to take care of ourselves.

Headaches aren't simply temporary pains that you treat and forget about, they are red flags alerting you to underlying problems to which you need to pay close attention. Your corrective care chiropractor can help you determine what these red flags are, helping you find the proper treatments to get your body back to where it is meant to be. Health is your God-given right!

CHAPTER 8:

ARTHRITIS

“I had been suffering for nearly five years. I first started seeing Dr. Russel when I was 61 years old and, quite frankly, not in good shape at all. I went to see him primarily because of a sore hip and leg, but really I was sore all over. I wasn’t able to walk a few blocks without feeling terrible. I had a poor appetite, was underweight, had a sallow complexion, smoked half a pack of cigarettes every day, and I was taking anti-inflammatories every day of my life, sometimes as many as eight a day. I had been suffering for five years even though I’ve been seeing another chiropractor regularly which did not do much good. The previous lack of success made me pretty skeptical about everything Dr. Russel told me, but I was also desperate so I followed his instructions. Dr. Russel showed me on my Xray’s old injuries in my spine that had never been corrected that eventually led to extensive arthritis throughout my spine and body.

Within a year of starting corrective care with Dr. Russel, I was walking over a mile a day up steep hills, going to yoga classes, and doing strengthening exercises for an hour and a half a day. I was also going boogie boarding with my wife in the ocean for an hour once a week, even in the winter. Within two years I joined a nearby gym and added a Pilates class, two 60-minute endurance classes, and weightlifting to my weekly workout schedule. I currently rarely take anti-inflammatories, I haven’t had a cigarette in more than 10 years and I can’t remember the last time I even had a cold. I’m now 72 years old and I still see Dr. Russel weekly without fail. Arthritis in my spine has

basically stopped getting any worse. The purpose of my maintenance chiropractic visits aren't because I hurt or feel bad, it's because I'm absolutely convinced that regular chiropractic has made an immense difference to my quality of life."

-Kip W.

ARTHRITIS

Over 54 million Americans suffer from one or more forms of arthritis. Arthritis, **degenerative joint disease (DJD)**, herniated discs, bone spurs, and osteoarthritis are all variations of abnormal joint diseases. Most of us know someone in our family and or our friends that suffer from these debilitating, permanent, and progressive conditions.

An estimated 49.6% of Americans over the age of 65 have been told by their doctors that they have a form of arthritis. We can expect an estimated 72 million Americans will have one form of arthritis by the year 2030.

“Arth” means joint and ‘itis” means inflammation of. So, **arthritis is inflammation of the joints**. Arthritis is not a certain kind or type of pain or disease like many people think. The joints can swell, become red, hot, and inflamed. When the swelling occurs over a long period, the pressure is created, which then causes pain. There are also several types of arthritis, such as rheumatoid, psoriatic, and degenerative. Degenerative arthritis is the most common type of arthritis and the focus of this chapter.

AGE-RELATED ARTHRITIS

Most people associate arthritis with aging. However, if aging was the main factor for degenerative arthritis, then everyone who had it would have it at every joint! Although time is a factor when it comes to these degenerative changes, it is NOT AGE that causes degenerative arthritis. Oftentimes in my clinic, we will see an x-ray of an elderly patient in their 80's with maybe two or three segments of degenerative joint disease and osteoarthritis (osteo indicates that it is in bones) in their spines and the rest of the 87% of their spinal joints look like they are teenagers. So you cannot blame age. What you can blame is improper alignment, poor

biomechanics (how the person is moving), a sedentary lifestyle, and poor nutrition.

CAN YOU CURE DJD?

Many of our patients seek chiropractic to help with their degenerative joint disease. Many patients think that chiropractors treat DJD, however, what we do is very different from treating or a cure.

So what can chiropractors do for arthritis? Let's first take it back to the basics. When inflammation is present in the body, there is a slew of chemicals that are released by the body, and eventually, we start to deposit calcium on the joint, causing bone spurs and other problems that cause the joints to break down. Chiropractic care was never designed to treat arthritis. We are the first to admit that arthritis can't be cured, even with chiropractic. What we can do is prevent the damage arthritis creates. If a joint is out of alignment and fixated, it is not working the way it is supposed to. The uneven surfaces within the joint will begin to grind. This grinding can cause wear and tear leading to inflammation, and eventually to arthritis if not treated properly.

By focusing on proper alignment and function we can stop the processes that can cause arthritis in the first place. Studies have shown that when a spinal joint is immobilized for seven days or longer, it can cause micro-tears in the disc. The tears within the disc can eventually lead to the breakdown and destruction that leads to herniated and bulging discs. Corrective chiropractic care will ensure that your joints are never fixated for more than those crucial seven days. In essence, we are preventing deterioration within the joints and discs in the spine. We encourage patients who have arthritis first to have corrective chiropractic care, and then regular maintenance visits to prevent arthritis from getting worse.

HOW DO WE GET DJD?

Degenerative joint disease (DJD) is a progressive disease that attacks the cartilage of the body. Cartilage is the hard tissue that covers the ends of the bones and joints allowing the bones to move. DJD is considered the most common form of arthritis and is the leading cause of adult joint pain, affecting mostly the elderly and slowly getting worse with time.

The terms degenerative arthropathy and degenerative arthritis (sometimes referred to as osteoarthritis) are often used interchangeably. Both are essentially the same type of disorder that over time cause cartilage wear (the tissue between the bones) and often a great deal of pain in the bones and joints. Osteoarthritis is degenerative in nature and often gets worse over time, and unfortunately, there is no "cure" to prevent progression or reverse the damage done.

Degenerative arthropathy can develop osteoarthritis-like symptoms throughout the body, in one joint, but usually affects the spine (upper and lower back), neck, hips, knees, and hands (especially the fingertips), and the thumb.

The symptoms associated with osteoarthritis/ joint degeneration:

- Joint pain that can sometimes get worse and "come and go" in terms of pain
- Stiffness (especially in the morning after getting up)
- More pain, inflammation, and limitations
- Difficulty in performing daily tasks such as walking, stretching, squats (especially osteoarthritis in the knees), or certain physical tasks while working
- When DJD affects your hips, you may feel pain in the groin, thighs, buttocks, or knees
- When DJD affects your joints, it often develops small bony spines in your joints and your fingers can become enlarged, injured, hardened, and numb

People with DJD do not have enough healthy cartilage to allow proper joint movement. We need cartilage so that the bones "slide" and absorb the vibrations and shock that we experience during our movement.

When the degenerative joint disease progresses, the bones can rub together improperly causing inflammation, swelling, pain, loss of mobility, and sometimes changes in joint shape.

HOW DO JOINTS WORK?

This section is a detailed description of the joints and what they are made of. For those of you not interested in these details, skip to the next section on how to manage best, and treat arthritis. A joint is where two bones connect allowing body parts to move. A joint is made of fibrous connective tissue and cartilage. Cartilage is a type of tissue that covers the surface of a bone at a joint and helps reduce the friction with movements within a joint. Collagen is a type of fibrous protein that acts as the body's natural "building blocks" for the skin, tendons, bones, and other connective tissues. Proteoglycans are proteins interwoven with collagen in a mesh-like tissue that absorbs shock and vibration from the cartilage. Chondrocytes produce everything that is found in the matrix of cartilage and help keep it healthy. A synovial membrane lines the joint and seals it inside of a joint capsule. The synovial membrane secretes a sticky, clear fluid called synovium to help lubricate the joint. Strong ligaments connect from bone to bone to give support and limit the joints movements. Tendons and other tough connective tissues attach muscle to the bones, controlling the movement of the joints. A bursa is a fluid-filled sac between the bones and the ligaments that help cushion the friction within the joint.

When joints are not moving properly and have abnormal alignment, over time they will slowly wear through the cartilage, joint capsules, bursae, and in severe cases of degenerative joint disease, the joint spaces begin to shrink and change shape. Bone deposits called osteophytes, sometimes called spurs, can form on the edges of the joints when the body is attempting to stabilize and protect the injured area.

NATURAL TREATMENT OF DJD

Although it is not possible to completely cure degenerative joint disease, there are many natural treatment options for osteoarthritis that can help. These include: corrective chiropractic care, daily exercise and activity, maintaining a healthy weight, consuming an anti-inflammatory diet, and treating pain with cold water immersions, saunas, massage therapy, and CBD oils. Many therapies can aid in helping the severity of the pain and delay the progression of the disease.

The goals when managing osteoarthritis, degenerative joint and disc disease are: to relieve inflammation and swelling, to control pain, to improve mobility and joint function, and to put less pressure on inflamed joints.

While most people with osteoarthritis typically have joint pain and limited mobility, many find that they feel better and generally experience fewer symptoms while they are moving. Movement is considered one of the most important considerations for the management of the degenerative joint disease. As the old saying goes, "Move it or lose it." In other words, the more you strengthen and mobilize parts of your body, the better they will stay intact over the decades.

Exercise is important in the reduction of inflammation, increasing flexibility, strengthening muscles (including the heart), increasing blood circulation, and maintaining healthy body weight. Movement helps to keep joints and bones strong and supple, improves lymphatic health, maintaining joint mobility, and improves synovial fluid movement throughout the body. Do not forget the mental benefits of sports. Regular exercise is an effective way to relieve stress, improve mood, control stress hormones such as cortisol, and help you sleep better.

Since each DJD patient differs in terms of physical performance and pain perception, the amount and shape of the prescribed exercises will depend on the specific condition of each person and the stability of the joints. The ideal is a combination of three types of exercises for osteoarthritis:

- Strengthening exercises to improve muscle strength, which supports the affected joints, such as quadriceps exercises to strengthen the knee
- Aerobic activities to improve cardiovascular health, circulation, and inflammation
- Agility activities to keep your joints mobile and flexible and help you feel stable in your daily routines

The most beneficial and least painful exercises include walking, swimming, and water aerobics. If your training is painful, your corrective care chiropractor may recommend safer and more useful

exercises. Start slowly and find ways to continue your day by developing your strength and mobility.

REDUCE INFLAMMATION WITH YOUR NUTRITION

Research indicates that poor nutrition can increase inflammation and increase enzymes that can destroy collagen and other important proteins. Your cartilage is made of 65 to 80% water and the rest is made of collagen, proteoglycans, and chondrocytes.

Some of the ways you can help your body maintain valuable cartilage and reduce inflammation include the use of all types of natural anti-inflammatory foods. These provide essential fatty acids, antioxidants, minerals, and vitamins that support the immune system, relieve pain with the production of natural anti-inflammatory chemicals, and contribute to the healthy formation of tissue and bone.

Focus your diet on these foods:

- Fresh vegetables (all types): Pay attention to the variety and at least four to five servings per day
- Whole fruit pieces (without juice): Three to four servings per day are good for most people
- Herbs, spices, and teas: turmeric, ginger, basil, oregano, thyme, etc., as well as green tea and organic coffee in moderation
- Probiotic foods: yogurt, kombucha, kefir, and fermented vegetables
- Wild fish, range eggs, and grass-fed meat contain high levels of omega-3 fatty acids and vitamin D. These are excellent sources of protein, healthy fats and contain essential nutrients such as zinc, selenium, and vitamin B
- Healthy fats: grass-fed butter, coconut oil, extra virgin olive oil, ghee, beef tallow, duck fat, and lard
- Grains and legumes/beans: best in germination and 100% unrefined/whole

- Bone broth: contains collagen and helps to maintain healthy joints

Avoid these foods:

- ALL SUGARS
- vegetable oils (such as corn, safflower, canola, sunflower, corn, and soybean oil) These damaged fats get put into the building blocks of your cells, your cell membranes, and your neurons.
- pasteurized dairy products (common allergens) and conventional meat, poultry, and eggs, which also contain hormones, antibiotics, and omega-6 fatty acids that contribute to inflammation
- refined carbohydrates and processed cereal products and added sugars (in most pre-packaged sandwiches, bread, spices, preserves, cereals, etc.)
- trans fat, hydrogenated fats, interesterified oils (in packaged/processed products and often for frying food)

Maintain a Healthy Body Weight

Being overweight adds unnecessary strains on our joints. Osteoarthritis patients who are overweight should try to achieve a healthy body weight realistically by using a balanced diet and adding more exercise. This should be seen as a long-term change in lifestyle, not as a low-calorie, quick diet that can lead to malnutrition.

Get Enough Rest / Relaxation

Without proper rest, it is harder for your body to repair the damaged cells in your joints. Sleep is the cycle of life where we are replacing cells in our bodies the most. Poor sleep equals poor healing. If you do not sleep enough, stress hormones elevate and you will have an increase in the inflammatory chemicals that lead to more pain. You need to get enough sleep every night (usually seven to nine hours) to relieve stressful joints, maintain hormone balance, balance appetite, and repair damaged tissue. Learn to recognize your body's signals and know when

to stop or slow down and take a break so you do not feel anxious, overworked, and exhausted. See **Chapter 12 on SLEEP** for more information on creating healthy sleep habits.

Control the Pain Naturally

Dealing with pain can be one of the most difficult issues when dealing with degenerative joint disease. Pain affects your quality of life, your ability to work, and your ability to do all the amazing things you love to do. Many doctors prescribe non-steroidal anti-inflammatory drugs (NSAIDs) or even surgery to relieve pain when the situation becomes severe enough. The great news is there are equally effective natural pain relief techniques. Some of the most popular complementary therapies and alternatives that fight pain are:

- **Massage Therapy:** A therapeutic massage can help to improve blood circulation, bring blood to sensitive areas, relax the mind, and relieve stress.
- **Sauna and Coldwater immersion:** Heat and cold (or both together, used at different times) can help relax joints and muscles and reduce swelling or pain. At home, you can use warm towels, ice packs, or a hot shower to relieve pain. Infrared saunas have proven to help with pain as well as increasing our parasympathetic systems, helping the body to manage stress better. See **CHAPTER 20 on COLD WATER IMMERSION**
- **Low-level laser or “cold laser.”** “ This technique uses a non-heat-producing laser or light that penetrates deep into the tissue to help reduce inflammation.

RISK FACTORS FOR DEGENERATIVE JOINT DISEASE

Degenerative arthritis appears to be caused by a combination of factors that increase a person's risk, including:

- Age (it's more common in people over 65, but anyone can develop DJD)

- To be a woman (it's interesting to note that more men than women have osteoarthritis before the age of 45, but more common in women after age 45)
- Overweight or obese
- Suffer from joint injuries that lead to misalignment and abnormal mechanics
- Have certain genetic defects that affect the development of cartilage and collagen in the joints

What is the difference between osteoarthritis and **rheumatoid arthritis (RA)**? Rheumatoid arthritis is the second most common form of arthritis after osteoarthritis and degenerative arthropathies. RA is considered an autoimmune disease because the immune system attacks healthy body tissues that make up the joints. Osteoarthritis is caused by the mechanical wear of the joints and is not classified as an autoimmune disease.

DJD and RA produce pain, swelling, arthritis, and, over time, joint damage, and malformations. Compared to RA, DJD usually starts later in life. Rheumatoid arthritis can occur early in life or middle-aged and usually causes symptoms other than joint/cartilage tissue loss, including fatigue, decreased immunity and sometimes fever, changes in the skin tissue, and even lungs.

One of the simplest ways of preventing degenerative joint and disc disease is maintaining optimal spinal alignment. Corrective chiropractic care has been shown to increase range of motions, restore normal movement of the spine, relax muscles, improve joint coordination, and reduce pain.

If you have back or neck pain due to osteoarthritis, corrective chiropractic care is one of the safest therapies you can use.

A 2013 study published in *Osteoarthritis and Cartilage* found that patient education combined with twelve chiropractic treatments (twice a week for six weeks) was more effective for hip osteoarthritis than a daily stretching program or patient education alone.

Hopefully, as you read through the facts of degenerative joint disease and have understood the impact of this debilitating ailment, you have

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come to the same conclusion as Benjamin Franklin, “An ounce of prevention is worth a pound of cure.” So often patients who have had success with their health in our office are constantly telling their family members, particularly the younger members of the family about corrective chiropractic care. These patients understand that if their grandchildren can avoid degenerative disc disease in their spines and joints that it is a much better approach to health than attempting to “cure” later in life.

I can remember when I taught Brazilian Jiu-Jitsu, young white belts asking me, “Hey Doc, how do I get out of a rear-naked choke?”. My response was always the same, “I will teach you five things you can do to **AVOID** ever getting in one.” The same is true with degenerative arthritis. Let’s teach our children about proper body mechanics, about nutrition, about the importance of staying active, and maintaining a healthy nervous system. Then we will grow children that can avoid the suffering so many Americans currently endure.

PART 2

WHAT WE CAN DO

CHAPTER 9:

IMMUNITY

“I started coming to Russel Chiropractic a few years back when I was looking for a new chiropractor in Escondido. Working at a computer, 8 or more hours per day for the past 10 years had been taking its toll. I was beginning to experience daily neck pain –which turned into daily headaches- and I knew I needed a holistic solution... even if it meant making some lifestyle changes. I have long believed in the body’s ability to heal itself and began visiting several chiropractors in the area to find relief. The other offices I visited delivered adequate care...but something was missing. The energy of the office just felt “off” and actually dreaded going. So, I stopped. And the pain got worse. I knew I needed to create healthier habits for myself and my family... but finding the right accountability partner was proving to be challenging. It was important to me that I find a chiropractor that I looked forward to working with and introducing my children to. Then I found Dr. Russel. Not only was I almost immediately out of pain...but the genuine concern they showed and the level of care I received as a patient went above and beyond the experience, but I had also gotten anywhere else. I knew I had found our family chiropractor! The time they take with my children on every visit is something you can’t put a value on. It’s priceless. Whether it’s a small challenge to read or learn something new before their next visit... or quizzing them about their bodies and how they work... Dr. Russel gets my boys thinking for themselves and they look forward to seeing him every week. Choosing the right chiropractor should be a long-term decision. You want

someone you can build a relationship with and know that they always have your family's best interest at heart."

-Colleen T.

NATURE'S GREATEST EXPERIMENT

Masha and Dasha Krivoshlyapova are perhaps the most fascinating study of immune function. They were conjoined at the waist at a 180-degree angle in a "T" shape. Each had control of two arms and one leg and shared many of the same organs. The two girls shared a circulatory (blood) system and had separate nervous systems. The girls were born in Moscow, Soviet Union in 1950 during the rule of Joseph Stalin. Immediately after birth, they were taken from their mother to be studied by Soviet physiologist Pyotr Anokhin in the Academy of Medical Sciences Pediatric Institute. A team of Anokhin's physiologists carried out experiments on the sisters for six years. Each twin would be separately deprived of sleep or food, immersed in ice water, burned and electrocuted to measure how much influence one twin had on the other. Fortunately, the laboratory experiments stopped at age six and are now considered a case of prolonged medical torture. The girls were transferred to the Central Scientific Research Institute of Traumatology and Orthopedics in Moscow where they were taught to walk and given an education. Masha and Dasha spent most of their adult lives in retirement homes and were considered invalids. The twins developed very unique personalities with Masha the dominant, masculine, and outspoken one. Dasha was much quieter, was sweet and passive to Masha's bullish ways. Masha drank, smoked, and made sure they both had masculine haircuts. Dasha was interested in male relationships but was dissuaded by her sister. This led to a dark depression in Dasha where she attempted suicide at age 18. The women lived complicated and sad lives until the age of 53 when Masha died from heart issues and Dasha died seventeen hours later from the poisoned blood of her sister.

As sad as their story is, much was learned from the experiments on Masha and Dasha. Because of their shared circulatory system, it was assumed any germ flowing through their blood would cause them to both be sick. It was discovered that while one twin would contract the measles or influenza virus it would not always infect the other twin. This challenged Louis Pasteur's **GERM THEORY** that germs cause disease.

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In the 1950s scientists thought that our immune systems functioned independently of the nervous system. Through the experiments of Masha and Dasha, scientists learned the immune system was under the direct control of the nervous system.

The question I pose to you is why did Masha become ill with childhood diseases and Dasha did not? The measles “bug” was in both of their bodies, in their collective bloodstream. Why didn’t both girls get the measles?

According to Antoine Béchamp’s **HOST THEORY** of immunity, there is more to “getting the measles” than having the measles “bug”. Masha and Dasha experienced separate diseases throughout their lives. If viruses and bacteria alone had the power to cause infectious diseases, why would Dasha be disease-free while Masha was ill? What was different about the two women?

Masha and Dasha had common endocrine, digestive, lymphatic, circulatory, and skeletal systems (they were joined at the hips). The only difference was that they had separate spinal columns and spinal cords.

This incredible duo proved to the world through nature’s greatest experiment that there is much more to catching a disease than just breathing in viruses and bacteria. Germs can only make us sick if our body is run down and weakened. The environment must be just right for the pathogens to cause disease. The state of your nervous system determines your particular level of disease resistance. The brain, spinal cord, and nerves make up the nervous system. In a diseased state, the health of your nervous system plays a crucial role in how and when you will recover.

Chiropractic directly influences the function of your nervous system by identifying and correcting areas of nerve interference. Once these areas are corrected, everything under the control of your nervous system will benefit, including the immune system. Corrective care chiropractors see people every week report immune function improvement. Specifically, fewer colds and flu, reduced allergies, and even improvement in autoimmune conditions such as rheumatoid arthritis, lupus, type I diabetes, myasthenia gravis, and multiple sclerosis.

GERMS

Germs are tiny organisms which are so small they cannot be seen without the help of a microscope. Germs are so small and sneaky that they creep into our bodies without being noticed.

The human genome is made up of about 23,000 genes. That's a fairly impressive figure until you consider this: the number of non-human genes, each of us carries around from the bacteria, viruses, and other pathogens living in and on us, totals eight million. Most of the cells in the human body aren't even human. Indeed, bacterial cells outnumber human cells ten to one. The exploration of the human microbiome, the collective population of all the non-human cells and genes that inhabit us, is currently one of the fastest rising fields of medical research.

What scientists are discovering is that these microbes are not just freeloaders or invaders. Rather, they're crucial facilitators of many of our basic bodily functions: from digesting food and producing vitamins to fending off harmful infections and recovering from illness. Microbes not only keep people healthy, but they may also explain differences in individual health. Explaining why people respond differently to the same drug or why some people develop chronic diseases and others don't.

Harmful substances that are dangerous to humans and other animals are often living in or mixed into food, water, and air. When this happens, it is said to be contaminated or polluted. Food and water can be contaminated by disease-causing germs.

Germs can get into the body through the mouth, nose, breaks in the skin, eyes, and genitals. Once disease-causing germs are inside the body, they can stop it from working properly. They may breed very quickly and in a very short time, a small number of germs can become millions.

There are many germs inside the human body which may not cause disease. There are even some germs which help parts of the body to work properly. The gut, for example, cannot digest food properly without the help of certain 'good' bacteria.

The so-called 'bad' bacteria and viruses that modern medicine fights with its huge arsenal of pharmaceutical drugs are in reality the germs of life. These germs of life live in harmony within our bodies, allowing us

to be built up and later decomposed, changing, and recreated. These germs are different sized shapeshifters who are controlled by the environment in which they live. Germs are not separate, isolated, and unfriendly. They are rather the foundation for all life. Without germs, there is no life. Their numbers are infinite. Their function is varied. Germs can change shape, join together, separate again, and return to their original condition. Viruses, bacteria, and fungi are various developmental forms of germs. The environment in which germs thrive determines the type of development they will undergo.

Although we have learned so much science about the human body and its systems, we barely have an understanding of how healing works. As we continue to use a mechanistic approach to healing the body, as if we were cars that need new parts, we continue to get sicker and further away from our body's natural homeostasis. We need challenges, adversity, and to be uncomfortable. We need our immune system to have challenges with microbes and viruses. We need to adapt. Chiropractic has always been about adaptability, about giving our systems full communication with the brain. We have always needed everything on the inside of us to be in harmony. We have never needed anything on the outside to heal us. In this chapter, we dive into the history of germs, the scientists that have made monumental discoveries in understanding immunity, and the realization that we have a lot to still learn about the human body and its delicate balance in homeostasis. The germ theory and host theory are just theories. Pasteur's germ theory has not yet been disproven or Béchamp's host theory proven correct.

What makes the most sense to me is that we are each a spiritual being having a human experience. Our nervous systems are way more complex than any of us can imagine. If we can create for ourselves a delicate balance of a thriving immune system, clear electrical nerve signals, and a healthy outside environment for our body, we tend to thrive as humans. The one major premise I can stand behind is this: Life expresses intelligence.

A BRIEF HISTORY OF IMMUNITY

The works of Louis Pasteur, Edward Jenner, Rudolph Virchow, Robert Koch, Paul Ehrlich, and Emil von Behring brought about the theory of wide-spread immunization. Based upon the idea of producing

antibodies to 'help out' the immune system to identify and attack 'invading germs'.

Through the work of Antoine Béchamp, William Koch, Royal Rife, Gunther Enderlein, Carl Edward Rosenow, Otto Warburg, and Gaston Naessens, we have additional theories regarding the body's immune system.

Early in this century, Dr. Carl Edward Rosenow of the Mayo Biological Laboratories began a series of experiments in which he took bacterial strains from several disease sources and placed them in a culture. In time, the strains all changed and became one uniform class. By repeatedly changing cultures, he could individually modify bacterial strains, making harmless ones harmful (pathogenic), and in turn, reverse the process. He concluded that the critical factor controlling the nature of the bacteria was **the food and environment** they lived on. These discoveries were first published in 1914 in the Journal of Infectious Diseases.

Rosenow's work was then continued two decades later by Royal R. Rife, developer of the Universal Microscope. This precision instrument with a resolution of 150,000 power made live bacteria and viruses visible.

Rife showed that by altering the environment and food supply, friendly bacteria, such as colon bacillus, could be converted into the 'pathogenic' bacteria known as typhoid. Rife was able to observe that the viral agent associated with certain forms of cancer could in time be modified into harmless bacillus coli, and the process reversed. Rife said that it was **the unbalanced cell metabolism of the human body that in actuality produced the disease**. He believed that if the human body was perfectly balanced, it was not susceptible to disease.

This work was similar to Alexis Carrel's earlier research at the Rockefeller Institute. Carrel was able to control the rates and levels of infectious disease death among mice by altering the diet. Researcher Rene Dubos confirmed these findings and suggested that harmful diseases are a problem of internal cleanliness.

It seems clear to many researchers that the body needs no 'help' provided by immunizations. Antibodies in the bloodstream are not required to protect the body. Immunization can cause immune suppression, permanent nervous system damage, and growth stunting. There is also

strong evidence that immunization can actually cause the diseases it was meant to prevent. This view has gained support from the writing of a report commissioned by the Canadian International Development Agency (CIDA) from Dr. Raymond Obomsawin in 1992.

In his detailed report, Dr. Obomsawin found that the idea of induced immunity was an illusion founded on: discredited scientific theories, the refusal to examine contrary data, the lack of proper follow-up assessment of immunized children, and poor statistical methods.

The positive impact of immunization on public health has **NEVER** been substantiated in any unbiased study. Immunized people have repeatedly fallen ill to the disease they were supposedly vaccinated against, and epidemics are statistically **MORE** numerous in more widely vaccinated groups (studies in Gambia, Brazil, and Taiwan).

Estimates by 'experts' on the degree and severity of adverse reactions have been woefully wrong, and serious damage and even fatalities have gone unreported, preventing a true assessment of the value of immunization.

Repeatedly, statistics and reports have been manipulated in an attempt to show the effectiveness of vaccination. The best-known case involves the famous Salk polio vaccine. This massive program is an example of the effectiveness of vaccination, yet the statistical evidence shows that polio was on its natural cyclic downturn at the time of the introduction of the vaccine in 1956. In one of the rare double-blind tests ever done on a vaccine, the group receiving it had 200 cases of polio reported, while the control group had none. Polio disappeared in Europe in the mid-fifties about the same time as in America, yet there was no program of mass-vaccination there.

Some scientists are now postulating that full vaccination irreparably weakens the child's immune system. These same scientists theorize that mass inoculation is responsible for the widespread increase of auto-immune, degenerative, and allergic conditions amongst those subjected to vaccination as children. A further disturbing trend is increasing coercion placed upon parents to force them to have their children subjected to vaccinations. The recent power of individual states sanctions against parents is becoming more than alarming (particularly

here in California), especially when the true dangers of immunization have yet to be determined.

If we continue to learn that vaccinations offer little to no protection against disease we are left with the question of what is disease and how to treat it.

THE CAUSE OF DISEASE

The human body is 2/3 water, 10% of it in the blood, and 90% in the lymph. When toxins are allowed to build up in our systems, the water gets 'dirty.' If the blood pH varies from 7.3 then the beneficial microbes that are necessary for the body begin to change their form, and disease results.

To maintain a clean system, it is necessary to have a proper diet, one that produces a blood pH that is neither too alkaline (bacteria problems) or too acidic (cancer problems). It is necessary to have sufficient oxygen and carbon dioxide in our system to allow efficient cellular respiration. We must also have complete oxidation, preventing the production of carbon monoxide which the body cannot expel.

Here we will get into the physiology of disease. Feel free to skip ahead to the Germ and Terrain Theory sections if you do not want to sit in the Physiology class.

Each cell burns sugar (carbohydrates) in oxygen to make its fuel. The carbon-hydrogen bond is broken and the oxygen bonds with the hydrogen, forming H₂O (water) and CO₂ (carbon dioxide). If there is insufficient oxygen available, CO (carbon monoxide) is formed instead of CO₂ (carbon dioxide), excessive lactic acid is formed and the blood is made more acidic. If this oxygen deprivation (hypoxia) continues long enough, the cell will no longer be able to sustain the process of oxidation and it will be forced to ferment its sugar anaerobically to survive. This process turns off the governor on cell replication and then wild growth can begin. This ungoverned cell growth is what we call cancer.

Circulation of clean, oxygen-carrying blood is a basic requirement for optimum health, and this can be achieved by maintaining a clean system. Utilizing food as fuel, thoroughly moving lymph by daily exercise, proper nasal breathing, and balanced electrical signals to body

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and brain through corrective chiropractic care are examples of how you can help you and your family achieve proper nutrients to all 30 trillion cells in your body.

GERM THEORY

1. Disease arises from microorganisms originating outside the body.
2. Micro-organisms should be guarded against and destroyed to prevent disease.
3. The appearance and function of specific microorganisms are constant.
4. Every disease is associated with a particular microorganism.
5. Micro-organisms are the primary causal agents.
6. Disease is inevitable and can 'strike' anybody.
7. To prevent and cure diseases, it is necessary to 'build defenses' and to destroy pathogenic microorganisms.

TERRAIN THEORY

1. The susceptibility to disease arises from germs within the cells of the body.
2. Microorganisms are beneficial, life-sustaining, and assist in metabolic processes of the body.
3. The appearance and function of specific microorganisms change when the host organism is injured, either mechanically, biochemically, or emotionally.
4. Every disease is associated with a particular condition.
5. Micro-organisms become associated with the disease only when the cells become toxified.
6. Disease is built by unhealthy conditions.
7. Preventing or curing disease consists of creating health.

LOUIS PASTEUR'S GERM THEORY

Louis Pasteur (1822-1895) was born in Dole, Eastern France. He was a conscientious and hard-working student, though not considered exceptional. One of his professors called him 'mediocre'. He received a doctorate in 1847, and after obtaining posts at Strasbourg, Lille, and Paris, he spent much time researching aspects of Chemistry. One of Pasteur's key discoveries was related to research on tartrate acid, showing that crystals contained a mirror image of right-handed and left-handed isomers.

His most important discoveries were in the field of germ study. Pasteur showed that germs required certain micro-organisms to develop. Using this knowledge, he found that the fermentation of yeast could be delayed. Louis Pasteur then turned to practical ways of killing bacteria in liquids such as milk. His process of pasteurization successfully killed bacteria in milk without destroying milk protein. This was a radical discovery and made drinking milk safe. The process of "pasteurization" was named after Pasteur, and the process saved many lives.

Louis Pasteur was a great believer in hard work, never content to rest on his laurels and continued to work very hard in his laboratory to develop more cures. In 1860 the French Academy announced a prize of 2,500 Francs to anyone who provided convincing experimental proof for or against spontaneous generation of life. Spontaneous generation of life refers to an old theory that living creatures could come from nonliving things and happened all the time.

Pasteur was awarded the prize in 1862. He showed that no microbes ever grew in sterile solutions by heating, provided the air above the solutions was also sterilized. If unsterilized air was allowed into space above the solutions, microbes began growing in the solutions. The microbes were present in the unheated air.

The Pasteur Institute was opened in 1888. During Louis Pasteur's lifetime, it was not easy for him to convince others of his ideas, controversial in their time, but considered absolutely correct today. Pasteur fought to convince surgeons that germs existed and carried diseases, and unsanitized instruments and hands spread germs and

therefore disease. Pasteur's pasteurization process killed germs and prevented the spread of disease.

Louis Pasteur had great faith in the good nature of humans. He worked tirelessly to deliver real benefits for the treatment of infectious diseases. More than any other person, Louis Pasteur helped to increase average life expectancy in the late nineteenth and early twentieth Century.

DISCOVERING THE GERM THEORY

Proving the germ theory of disease was the crowning achievement of the great French scientist Louis Pasteur. He was not the first to propose that diseases were caused by microscopic organisms, but the view was controversial in the 19th century. It was opposed by the accepted theory of “spontaneous generation”.

Pasteur set out to understand the fermentation process, and soon realized that the alcohol in wine was produced by yeast which lived on the skins of grapes. During fermentation the yeast appeared to be healthy and budding under a microscope. When other microbes were seen among the yeast cells, lactic acid formed and the wine turned to vinegar. Through several experiments, Pasteur showed that fermentation required contact with dust in the air.

Pasteur then turned his attention to the health of silkworms which produced silk for the cloth industry. He discovered that healthy silkworms became ill when they nested in the bedding of other silkworms suffering from the disease. In this study, Pasteur found that “environment” directly affected “contagion” and that the spread of disease could be controlled by “sterilization”. His studies on yeast had shown that microbes could be airborne, and he realized that these two studies could be directly applied to the transmission of disease in humans.

The final proof of germ theory came when Pasteur was able to grow the anthrax bacillus in a culture. Although anthrax had been isolated by German microbiologist and physician Robert Koch, opponents believed that the spores he found could have been contaminated in his culture medium. Pasteur placed a drop of blood from a sheep dying of anthrax into a sterile culture and allowed the bacilli to grow. He repeated this process until none of the original cultures remained in the final dish.

The final culture produced anthrax when injected into sheep, showing that the bacillus was responsible for the disease.

According to Louis Pasteur's widely accepted germ theory, many illnesses are carried by these micro-organisms and we must protect ourselves and our children from them.

BÉCHAMP'S TERRAIN THEORY

In the 19th century France, while Pasteur was advocating the notion of germs as the cause of disease, another French scientist named Antoine Béchamp advocated a conflicting theory known as the “cellular theory” of disease.

Antoine Béchamp (1816-1908) had an incredible list of scientific appointments at French universities: Doctor of Science, Doctor of Medicine, Professor of Medical Chemistry and Pharmacy at Montpellier, Professor of Physics and Toxicology at Strasbourg. The list goes on and on.

During his lifetime Béchamp was overshadowed by the iconic chemist Louis Pasteur, the most celebrated scientist of the nineteenth century. He is considered the Father of Medical Microbiology. Some call him the Father of Modern Medicine, a title quite remarkable as Pasteur was not a physician. Both men were highly-regarded members of the French Academy of Science, and each submitted their scientific findings to the Academy for review and publication.

Because Béchamp frequently criticized Pasteur's work, an intense rivalry and feud between the two intensified in the Academy. But no matter how carefully Béchamp argued against some of Pasteur's scientific methods and conclusions, the Academy always approved of Pasteur.

Béchamp's terrain theory is almost completely opposite to that of Pasteur's. Béchamp noted that these germs that Pasteur was so terrified of were opportunistic in nature. They were everywhere and even existed inside of us in a symbiotic relationship. Béchamp noticed in his research that it was only when the tissue of the host became damaged or compromised that these germs began to manifest as a prevailing symptom (not cause) of disease.

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To prevent illness, Béchamp advocated not the killing of germs, but the cultivation of health through diet, hygiene, and healthy lifestyle practices such as fresh air and exercise. The idea was that if the person has a strong immune system and good tissue quality (or “terrain” as Béchamp called it), the germs would not manifest in the person, and that they would have good health. It is only when their health would start to decline (due to personal neglect and poor lifestyle choices) that they would become victim to infections.

To treat illness, Béchamp was less concerned with killing the infection and focused more on restoring the health of the patient’s body through healthy lifestyle choices. Béchamp saw the infection as a footnote to the state of illness and not the primary cause. As the person restored health through diet, hygiene, and detoxification, the infection went away on its own without needing measures to kill it.

Pasteur and Béchamp had a long and often bitter rivalry regarding who was right about the true cause of illness. Ultimately Pasteur’s ideas were accepted by society and Béchamp was forgotten. The practice of Western medicine is based on Pasteur’s germ phobia which gives rise to the use of vaccinations, antibiotics, and other anti-microbials.

The irony is that towards the end of his life, Pasteur renounced the germ theory and admitted that Béchamp was right all along. In the 1920’s medical historians also discovered that most of Pasteur’s theories were plagiarized from Béchamp’s early research work.

TERRAIN THEORY

In terrain theory, people don’t “catch” germs that give them diseases. Instead, disease-causing germs are actually opportunistic, thriving in people whose bodies have a weakness or imbalance internally. They are a byproduct of the disease, not a cause of the disease. All of us have MRSA, cancer, viruses, and bacteria in our bodies and on our bodies all the time, every day! A healthy balance of beneficial bacteria and a healthy bodily environment keep the unhealthy and opportunistic “bad guys” away. If you wipe out all the viruses, bacteria and foreign antigens away by using antibacterial soaps all the time or using antibiotics for every little cold, then you aren’t just destroying the bad

bacteria, you're radically wiping out all the beneficial balance too, leaving you even more susceptible to new diseases in the long run.

Unlike Pasteur, who spawned a mentality of fearfully killing germs to prevent disease, Béchamp essentially understood the balance of and the importance of the environments we create with foods that our internal systems either support or do not support disease.

Béchamp theorized that germs were actually the chemical byproducts and the degenerative aspects of the unbalanced state of a body. For the disease to take hold there already had to be cellular dysfunction, dead tissue, and abnormalities in the body. That is when the germ, virus or bacteria shows up and sets up shop because the body, or an area of the body was in a state that lets the bacteria thrive and gives them a home. This cellular dysfunction or dead tissue is caused by malnutrition or exposure to toxins.

CONTROVERSIAL THEORIES

As you can see, terrain theory and germ theory are two radically different views of how people acquire the disease.

Let us re-visit the germ theory. If we are at the mercy of these little foes called bacteria and viruses in our environment, then why aren't we all affected? Have you ever wondered why a group of people exposed to an equal measure of the same germs, respond differently? Take the recent **COVID-19 flu** for instance: why did some people die, some people got sick and got better, and others were unaffected? If we were truly at the mercy of this virus, wouldn't we all be dead? This may sound a little extreme, but why are some affected and others untouched? Is it bad luck? Is it a sheer chance? Or are there other factors at play here?

Germs are scientifically classified as opportunistic species. This means that they can only "attack" if and only if, given the opportunity. The opportunity meaning, of course, a weak host, or person with a weakened immune system. If your immune system is weak, you have now become a target, you are now an opportunity. This can easily be seen in the increased susceptibility of the elderly, the very young, or in extreme cases such as people with AIDS. For example, an AIDS patient can simply die from the common cold due to the decreased function of the

immune system. So are germs really the culprit? Are we victims of germs? Or are we victims of a weakened immune system?

Germs are everywhere. The "germ theory" is the current model science uses to explain disease and is a carry-over from in the early 1800s. These microscopic organisms are one of the most misunderstood aspects of health. "Like plant seeds, germs need the proper environment to become recognizable diseases." The viruses and bacteria that we call germs are everywhere. These tiny pieces of genetic material are inside our bodies, our lungs, on our skin, on our food, and all over our environment. However, "germs no more cause disease than cars cause automobile accidents." When our bodies provide a hospitable environment for germs to reproduce, the germs can cause disease.

Germ theory denialism is the belief that germs do not cause infectious disease, and that the germ theory of disease is wrong. Views against the germ theory usually involve arguing that Louis Pasteur's model of infectious disease was wrong and that Antoine Béchamp's was right. One of the first movements to deny the germ theory was the Sanitary Movement, a movement central in developing America's public health infrastructure. One well-known advocate of this form of denialism is comedian Bill Maher, who has claimed that Pasteur recanted "his" germ theory on his deathbed.

COVID-19

Am I going to take prudent measures to protect myself and my family from sickness? You bet. We will continue to keep our immune systems strong and supported with methods such as Vitamin C, glutathione, Chaga and turkey tail mushroom, ozone, zinc lozenges, sauna, breathwork, cold thermogenesis, sunshine, nourishing whole foods, proper sleep, and thriving nerve connections through chiropractic. We will take these steps not because we are deathly afraid of a virus, but instead to wisely equip our family to make maximum impact and live out our purpose that God has called us to as fully as possible.

Am I going to stay holed up, paralyzed with fear, stricken with worry, and glued to the negative coronavirus news cycle? Absolutely not. Am I going to let a constant fear of a virus plague and infect the back of my mind 24/7? I don't think so.

CHAPTER 10:

HABITS

“I have always been very hard on my body with work and play and life being a dad. Dr. Russel was straight to the point with me about what it would take for my journey to health to begin but also to be sustained. With years of guidance and love, the team at their office has walked every step with me, as promised. They are family. When my son Zian was born, we were invited to bring him in for his first adjustment and the same for my daughter, Lotus. Not only do they love going to see Doc because of his love for them, but they also have a better understanding of why their bodies work and function so well. Both of them are constantly tickled by the fact that they hardly are ever injured or sick. If you ask either of them why this is, they will both tell you that it is a tie between chiropractic and that they are just happy! We have been seeing doc for 10 years now and, as a family, have never been happier and healthier! We love you guys and thank you for your dedication to our family and our community.”

-Ian B.

“Life will not give you what you want, life will give you what you need. You don't grow in your comfort zone, you grow when you are uncomfortable and being challenged with problems. So I hope that your problems get bigger and better.”

- Dr. Charles P. Russel

With regular practice, a routine that is simple and easy to do can be a fantastic place for growth and empowerment. Our bad habits will

continue to repeat themselves over and over because most of us don't have the tools necessary to remove these bad habits. This entire chapter is designed to share with you the tools for creating your dream life which can be done with small, simple, and easy steps.

Information in this chapter has been adapted through trial and error in my own life from mentors, teachers, and parents as well as from books such as:

The Miracle Morning by Hal Elrod

Atomic Habits by James Clear

The 4-Hour Work Week by Tim Ferris

One of the greatest tools I've implemented to break bad habits and form good ones are from 3 lessons described by James Clear in his book *Atomic Habits*.

First, anytime we perform a habit, we do it in a four-step pattern: cue, craving, response, and reward.

1. CUE. Some type of information that tells us there's a reward to be found (the smell of our favorite food).
2. CRAVING. The motivation to change something to get that reward (tasting that delicious meal).
3. RESPONSE. The thought and action you need to take to get the reward ("I need to walk over to that table and pick up the food").
4. REWARD. The amazing feeling we get from the change, with the lesson of whether to do it again or not.

Second, in order to form habits, we must make them obvious, attractive, easy, and satisfying.

1. Make it obvious. Don't hide the good foods, put them on the counter for you to see them on display.
2. Make it attractive. Start with the food you like the most, so you'll naturally want to eat one when you see it.
3. Make it easy. Don't create unnecessary challenges by focusing on the foods that are hard to get to. For example, bananas are super easy to peel.

4. Make it satisfying. If you really enjoy the fruit that you chose, you'll enjoy eating it and feel healthier as a result

You can apply these simple steps to all kinds of good habits like working out, writing a book, getting up early in the morning, or spending more time with your family. Do the opposite for the bad habits by making them unattractive, not within sight, difficult and unsatisfying.

Thirdly, track your habits by writing them down, utilizing an app, or other fun ways to ensure that you stick to your new behaviors. By successfully performing our good habits and recording them by writing them down or checking them off a calendar or to-do list, we are rewarding ourselves with the “feel good” hormones of dopamine and are likely to continue this new behavior and habit.

The rest of this chapter is dedicated to four areas that we can put our attention on for life-changing habits. I've broken these habits down into daily, weekly, monthly, and yearly habits. These are activities that will improve your health, relationships, and help you live a more impactful and empowering life filled with health and vitality. Boom!

DAILY

Fast for 12-16 Hours

Do you remember people telling you as a kid that you have to eat breakfast every day because it is like trying to drive a car without gas in it? Well, they were wrong. By giving your digestive system and body a break from processing foods, you can improve your own physiology in other ways. Once we are in a fasted state, which usually occurs 12 hours after our last meal, our bodies go into a fat-burning state. Studies on mice found that limiting the feeding window to eight hours protected the mice from inflammation, diabetes, liver disease, and obesity even when they eat the same total number of calories as the mice that ate whenever they wanted to.

For most people breakfast will be the easiest meal to skip. Lunch and dinner are typically social meals that are challenging to skip so most researchers and nutritionists recommend skipping breakfast.

I typically have my 8-hour eating period between 11 am and 7 pm.

Mobilize, Foam roll, Stretch, and Deep tissue

Spending at least 10 minutes every day finding the tight and sore areas in your muscles, joints and soft tissues, can rapidly improve your recovery and help with the pain. By helping release adhesions and lactic acid formation, you can reduce pain naturally and get back to doing the activities and workouts you love quicker. Most Americans are lacking mobility. Lack of mobility equals more scar tissue, inflammation, and a long-term decrease in cardiovascular performance. Develop routines before bed or after workouts where you can bring your attention to your body and help your own recovery. I have found that many patients who come into my office are disconnected from their bodies. By simply bringing attention to your body and awareness to areas that are painful, tight, and restricted, the body will heal faster. Whatever you put your attention to grows. Visualizing your body and injuries healing with hands-on movement is a great way to avoid chronic pain.

End with Cold Showers

Most of us thoroughly enjoy taking hot showers. They feel amazing! It is also important to turn the temperature down. Cold water has been found to help a myriad of health benefits: improves circulation, relieves depression, keeps skin and hair healthy, strengthens immunity, increases fertility, and increases energy and well-being.

If you spent most of your life taking hot showers, suddenly turning the dial down can be a big shock to your system. My suggestion is to decrease the temperature so your body can adjust gradually. By spending 10 seconds at the end of your shower with a slightly colder temperature, over time you can decrease the temperature and increase the length of time you spend in it. Challenge yourself! Get uncomfortable! You'll be surprised at the confidence you can gain by doing something slightly uncomfortable regularly. Go to Chapter 20: Cold Water Immersion for more information.

Inversions for 1 to 10 Minutes

I am not saying you have to turn into a Yogi, but by turning upside down daily you can definitely improve your health. Being upside down is

super fun, whether it's in a full handstand or a nice, soft forward bend. By being head down with your bum up creates playfulness in our bodies and our minds that can lead to improvements in our heart health, better metabolism, a better mood, and even an increase in our focus. Remember, inversion doesn't mean handstands only, it includes anything where your head is below your heart. Health benefits include improving our circulation of lymph and blood, increasing productivity, strengthening your shoulders, balancing hormone production, and changes in attitude. Think about how playful children are and they love spending time upside down... you should try it too!

Take Omega-3 Fatty Acids with Dinner

We simply do not get enough omega-3 fatty acids in our diet. The typical American diet is very high in omega-6 fatty acids. We can easily supplement with pharmaceutical-grade omega-3 fish oils such as Nordic Naturals or a balanced blend of plant omega 3– 6–9 fatty acids found in Udo's Oils. There are so many health benefits to this practice. Google it. Start tonight.

Drink Water First Thing Out of Bed

An incredibly easy and life-changing habit is simply drinking water every morning first thing when you get out of bed. Your eight hours of sleep is a long time to go without any water consumption. Your body is craving water when you wake up in the morning. As soon as you get up, quench yourself with a liter of good water. Water containing natural minerals such as mountain spring water is an optimal choice, whereas reverse osmosis water is void of not only bacteria and protozoans but also minerals. This will help you with hydration and will also help you move the lower bowels for regularity in the morning.

Meditate and Pray

EMPOWERED

It seems everyone right now is talking about meditation. And you probably know you should be doing it. There are endless amounts of neuroscience backing the benefits of meditation, prayer, and mindfulness. Over 1 million Americans utilize the Headspace app every day. There are too many techniques on meditation to describe here. Try finding a quiet area in your home and close your eyes. Count your breaths. Bring your attention to your body. Listen to the sounds around you. Thoughts will come and go and that is okay. There will be gaps between the thoughts. It is those gaps that give our mind and body so many benefits. Many people utilize transcendental meditation (TM), breath awareness, or one of the many apps available to download on your phone. You can start with one minute and gradually increase.

Gratitude Journal

The most powerful emotion that exists is our gratitude. I personally journal about what I'm grateful for every morning. Journaling about what you're grateful for is something that molds current scientific research with ancient eastern philosophies. The benefits of daily gratitude go much further than simply feeling good. A recent study from the University of California San Diego school of medicine discovered that more grateful people actually have better heart health, less inflammation, and healthier heart rhythms. Gratitude is good for your heart.

Read Non-Fiction

Most of us have the unproductive habit of mindless scrolling through social media. Create this small habit and watch your life change. By spending a few minutes to several hours every day reading non-fiction you can immensely improve your life. Learning valuable life lessons, improving your communication, upgrading your brain, improving your intelligence, and improving your concentration are all products of reading nonfiction daily.

Walk 30 Minutes

Walking is a great way to improve and maintain your health. Just 30 minutes every day has been shown to increase your cardiovascular fitness, strengthen your bones, reduce excess body fat, and boost muscle, power, and endurance. So take your husband or wife's hand and go for a walk together. Not married? Maybe you'll find someone on the way!

12 Minutes of Sunshine

Get in the habit of utilizing the sun's powerful rays to improve your health. Depending on where you live on the planet you need different amounts of sunshine. While in the spring and summer months, 10 to 20 minutes of exposure to the sun is adequate for obtaining vitamin D, in the winter months almost 2 hours would be necessary. Hence the need for many to supplement with vitamin D. If you have access, make time to take your clothes off, remove your sunglasses and bathe in the radiance of the sun.

Breath Work

First of all, shut your mouth. That's right, breathing out of your mouth is not what you were designed to do. Your nose was designed to filter, circulate, and humidify the oxygen necessary for your survival. Breathwork has been shown to improve cardiovascular health, cortisol levels, your body's pH, and overall well-being.

Types of breathwork:

- Buteyko
- Tummo "breath of fire"
- alternate nostril breathing
- kundalini yoga
- rhythmic breathing
- decompression breathing
- Wim Hof
- static apnea tables (freediving work)

All it takes is 2 to 10 minutes of conscious breathing every day. Imagine you have two storage tanks for oxygen that supplies your body every

day. One of those oxygen storage tanks is your lungs. The other oxygen storage tank is all your blood vessels. By starting your morning off with a breathing technique, you are filling both of those storage tanks. Now you will be ready to take on the day. In the words of Wim Hof, “Breathe Motherfucker!”.

Floss Your Teeth

This is the daily habit we should have listened to mom all those years ago reminding us to do. We all know we are supposed to floss daily, but how many of us actually do it? And the truth is this is such a simple thing to add to your nightly routine that will have a huge impact on your health. Regular flossing is one of the cheaper health insurance you can buy. Have you seen all the pain, agony, and expenses that elderly Americans endure because they have neglected their teeth? Stop it. Spend the minute necessary to clean the areas between your teeth...it’s worth it.

Organize Your Mail

When I was in college I can remember tossing all my mail to one corner of my living room every day. Then every Sunday evening I’d spend 30 to 40 minutes opening, sorting, paying bills, and tossing out unnecessary mail. This counterproductive habit wastes unnecessary time. Open your mail every day, recycle the unnecessary papers, pay your bills, and organize what’s necessary. This takes about three minutes. Now, you have 20 minutes of extra time each week. Use this philosophy for other areas of your life. Complete your cycles.

On Purpose

Every morning write down three goals for the day. Make sure you accomplish all three of these. Many of us have huge to-do lists that we slowly mark off each week and month. When you have only three main objectives for the day, it simplifies everything. Oftentimes, my goals for the day have nothing to do with my to-do list. For example, one of the goals might be to monitor your thoughts, or to express gratitude, or to be present.

Consume Good Bacteria

Eating fermented foods such as sauerkraut, kimchi, kombucha, etc., and supplementing with probiotics and enzymes is a simple and cost-effective way of helping your mental health through your Vagus nerve, improving nutrient absorption, and improving your immune system.

WEEKLY

Do Something Epic!

Take a shelter dog for a walk. Take a Sunday drive in the country with the people you love. Take a painting class. Read your favorite book all over again. Spit shine your bathroom. It doesn't matter what is as long as it is your version of heroism. Something that extends beyond your usual and ordinary life. Go out and live some of your fantasies and explore some of the ideas that you have been dreaming about as a kid.

Grounding

Yep. Take your shoes off and touch the ground. Electrical charges from the earth have positive effects on our bodies. Some types of grounding are: walking barefoot, lying on the ground, submerging in water, or using grounding equipment. Studies are showing the effects that grounding has on improving chronic fatigue, pain, anxiety and depression, sleep disorders, and cardiovascular disease. Most of us do not remember being in kindergarten and always wanting to take our shoes off. Well, we were on to something. Go back to being a kid again and connect to the earth.

Sweat

We should all be sweating between three to five times every week. Maybe that means for you doing a workout at the gym, dancing, doing yard work, or simply sitting in a sauna. What is important is the excretion of heavy metals, chemicals, and bacteria from our systems.

Learn New Things

Once again, I am encouraging you to be a kid. I personally have a garage filled with toys that regularly get my attention. A lot of my friends and family think I'm nuts and they are probably right. Since I am good at surfing I decided three years ago to get a hydrofoil. And I've been pretty terrible at it since. That does not stop me from wanting to continue to learn! Good at billiards? Try the ultimate frisbee. By always elevating your mind and body connection with new skills, you are hardwiring your brain and body. You are continually improving your fitness and brain health when you are learning to juggle, dance, ski, surf, skateboard, sing, play an instrument, eat opposite-handed one day of the week, stand in line at the grocery store on one leg, or shut one eye when internet scrolling.

Elevate Your Heart Rate

By doing a very high-intensity cardiovascular workout every seven to ten days you are shocking your system and exciting your brain. Run up a mountain, bicycle up a hill, run up and downstairs, jump rope, crank up the elliptical, or any other **INTENSE** workout will burn fat, challenge your heart and blood vessels and dump a bunch of good hormones into your bloodstream. Too much high-intensity training does cause free radical production and can become counterproductive. Most of us don't have this issue, so I recommend going big in a workout every week.

Tribal

Congregate amongst your community or your tribe. This allows you to have other people in your life that want to love and nurture you and also allows you to love and nurture them. We all need each other more often than we are willing to admit and we are all deserving of love. Get back in touch with old friends or family. Try connecting with people with common interests. Keep the good people around you and let go of the people in your life who have a negative influence. One of the worst things you can do to a person in jail is to put them in solitary confinement. We are social creatures. Your health and well-being will greatly benefit from getting out of your comfort zone and interacting with other like-minded people. Join a culture where your desired behavior is normal behavior.

Call Family

With our current technology and the availability of communication on this planet at an all-time high, it is crazy to think that we are all suffering from a lack of connection. This dichotomy is only recently being recognized by scientists. Make sure to reach out to your family and friends with a phone call or FaceTime. Text messaging just doesn't work.

Thank You Notes

Write at least three to five handwritten thank you notes every week. Not only will you feel great sending them love in the mail, but the people who receive them may be inspired or lives saved. Never underestimate the power of gratitude. And once again a text message or email will not work the same.

Email Lists

Remove yourself from unnecessary email and spam mail regularly and save yourself the hassle and time of deleting emails. We now live in a world where our main communication is online and through emails. Most of us are unable to avoid checking and responding to these emails. Improve your efficiency and free up time to spend doing things you really want to be doing.

Favorite Meal

Indulge in your favorite meal once a week with friends and family! The joy and excitement I get from having a bean and cheese or California burrito with my favorite people on Friday nights are well worth it. Let's not be perfect, let's all be in progress. Progress equals perfection. Have this meal be a reward for completing the things you committed to doing. Maybe that's working out Monday through Friday. Or maybe it means not cursing all week. By dangling a carrot (or burrito!) in front of you, you can push yourself to improve consistently.

Fast for 24 Hours

EMPOWERED

That's right, don't eat for one day. This may sound crazy, but how often do you give your entire digestive system the day off? Never. Yet, you give yourself two days off of work, your muscles a day to recuperate from your workouts, and your brain can veg in front of the computer every night. We are all addicted to food and the hormones we get when we indulge. It's unnecessary and tiring to the body. Try taking one day off a month and slowly work up to once a week. Maybe donate the \$10 you'll save by not eating to the 800 million people who are starving every day on our planet.

Tithing

"I'll start helping those in need when I have_____."

Fill in the blank with whatever your current excuse is today: a job, more money, my diploma, fewer mortgage payments, my credit card debt paid off.

No, you won't. Start tithing now to something that really means something to you. Battered women. Romanian orphans. Homes For Our Troops. Whatever makes your heart swell and pulse skip a beat. Oh, and tithing means ten percent.

Oil Pulling

Oil pulling is an ancient Ayurvedic technique that involves swishing a tablespoon of oil in your mouth on an empty stomach for 20 minutes. Make sure not to swallow any of the oil afterward and swish water and spit to clean your mouth. Coconut oil is one of the more common oils used. The Vedas theorized it will "pull" out the toxins within your body and improve oral health.

Family Corporate Meeting

Every Sunday Night have a meeting with your family and spouse to discuss the upcoming week. Review the family budget. Talk about the upcoming events, duties, activities, and things the family needs to accomplish. Everyone will feel equally part of something and accountable for the growth of the family. Never skip this meeting. Do

you think Warren Buffet skips corporate meetings with his executives? Neither should you.

Chiropractic Checkups

This is a no brainer! And one of the most cost-effective ways to ensure the vitality of you and your family. Make sure you and your family have your nervous systems checked weekly by a corrective care chiropractor. This preventative approach to a healthy body and system has been proven to have enormous health benefits.

YEARLY

Purge

"I can think of no greater happiness in life than being surrounded only by the things I love."

-Marie Kondo

It is crucial to get the clutter of your world under your control. Not only is an overflowing closet annoying to look at, but it also stirs up so many emotions. Clutter comes with a lot of baggage, both literally and figuratively. Do yourself a favor and get rid of anything that drags you down, especially the stuff that affects you emotionally.

80/20 Analysis and Habits

Every year take a look back at all the things that you've done, people you were with, things you've accomplished, events that you went to, and things that you bought. You'll likely find all of these things fall under two categories: things that brought you joy and things that did not. Immediately stop the things that did not bring you joy. Now, look at the things in your life that take up 20% of your time and result in 80% of the results. Do more of these!

Reassess your habits and eliminate the bad ones.

Cleanse

Do a deep nutritional cleanse for 1 to 4 weeks. By detoxifying your stomach, small intestine, large intestine, liver, pancreas, gallbladder, and spleen you can remove unnecessary toxins, heavy metals, and poisons that have accumulated all year in your body from your environment, your foods, and chemicals you have been exposed to. The natural bacteria in your colon help to detoxify food waste. The mucous membranes can keep unwanted substances from entering your bloodstream. Your body and systems were designed to detoxify naturally. Unfortunately in our modern societies, it is too much for your body to do it on its own. You are going to need outside help. Google Standard Process cleanse for examples of how you can start today.

Vacation

Taking time off for vacation is beneficial for our health. Vacations can significantly decrease our stress, strengthen our immune function, and boost creativity. When we return from our vacations we are often more productive and easier to get along with. Vacations improve our cardiovascular health and are mentally and emotionally healthy for all of us. Just the act of planning a vacation can be beneficial. The anticipation of the trip is often what vacationers enjoy the most; it produces a significant and long-lasting increase in our outlooks that affect us both personally and professionally.

CHAPTER 11:

BREATH

When was the last time you even thought about breathing? Breathing happens roughly 20,000 times every day for most of us. The majority of adults rarely even think once a day about this crucial part of life. Breathing is so ingrained in us it is considered an automatic action that the body takes care of without us ever even thinking about it.

The only time we even think about our breath is when we don't have enough of it. If you've ever climbed a mountain, or gone for a run after a few weeks of inactivity, or if you have asthma or chronic obstructive pulmonary disease (COPD) from smoking, then you know the feeling of trying to get air into your lungs in what feels like breathing through a coffee straw.

Most of those situations are very rare but they are a reminder of how precious oxygen is for our existence. We have been taught in our science and physical education classes that we have no control of our heart rate or respiration rate, that the autonomic nervous system controls all of it. This fact has recently been disproven through the work of Wim Hof.

This chapter is about teaching you how you can regulate your own breath and how it can affect your health. Your athletic ability, your sleep efficiency, your posture, and even your brain chemistry can be helped through the use of proper breathing.

The majority of us here in America are in a state of fight or flight for most of our lives. We live in an overstimulated world with television, news, social media, shopping ads, and stress filling our waking lives. The

recent habits that we've developed that we think are calming us down such as watching TV and looking at our social media feeds are actually causing us to be in a more stressed-out state. This overstimulation is causing more Americans to utilize alcohol and pharmaceutical drugs in the evenings to help calm down.

The majority of us are not getting adequate sleep and this is having a huge impact on our body's chemistry and health.

The **simplest and safest way to change your body**, your brain, and your emotional state is with breathing. Your breath has direct access to your nervous system. So when we are stressed and anxious, you can breathe your way into a relaxed (parasympathetic) state using nasal breathing. This will help turn down the noise inside your brain responsible for you being alert.

There are thousands if not millions of us who find it not only difficult to relax but impossible. People who have post-traumatic stress disorder (PTSD), anxiety, and soldiers returning from wars who perform nasal breathing while utilizing the diaphragm have reported fewer PTSD symptoms and lower anxiety levels.

I had the opportunity of taking a specific breathing class by the co-founder of the Art of Breath, Brian MacKenzie. He showed us a simple technique for winding down at night time that I have used with amazingly calming effects. Lie down flat on your back on the ground, bed, or couch and spend at least five minutes breathing in through your nose for five seconds, holding your breath for 15 seconds, and then exhaling through your nose for 10 seconds. Use your stomach rather than your chest. When you breathe in for 5 seconds your belly should expand. Gently hold that breath for 15 seconds and then slowly breathe out for 10 seconds, ideally through your nose but through pursed lips can work as well. Both inhaling and exhaling should be done slowly and deliberately. Bring your attention to each breath. Notice the pause at the end of inhalation and then the transition at the end of exhalation.

Many breathing techniques have varying levels of success. Pranayama breathing is another simple technique to help stimulate the parasympathetic system of resting and digesting. With Pranayama, you utilize a ratio of 1:1:2:1. With one second of nasal breathing in, one-second breath-hold, 2-second nasal breath out, and then one second

hold out. The exhalation is always double the inhalation and holds. You gradually increase those ratios to 5:5:10:5 and even 12:12:24:12. I often utilize the pranayama pattern of breathing while in a sauna. This breath awareness is a very effective tool for mindfulness meditation. People practicing these techniques often comment on having fewer thoughts while focusing on their breathing.

Patrick McKeown, the author of the Oxygen Advantage, has written the most comprehensive book to date on breathing. He has helped patients with chronic asthma, professional athletes, stressed-out executives, and thousands more. McKeown had spent extensive time studying with a Russian scientist, Dr. Constantine Buteyko. Dr. Buteyko conducted groundbreaking breathing research for astronauts during the Soviet Space Race. These pioneering methods of breathing had been stuck in Russia for decades. McKeown writes about our terrible habit of breathing through our mouth and the dire consequences associated with over-breathing. If you notice professional athletes performing their sport and breathing through their mouths before they are redlining, you'll notice they never win. The problem with mouth breathing is it signals to the brain that we are in a fight or flight (sympathetic) state. Being in a fight or flight state for a minute running from a sabre toothed tiger is completely fine. It is not sustainable for any lengthy period. Breathing through our mouth is inefficient for several reasons. Our diaphragm is meant to bring air in and out of our lungs. When we mouth breathe we underutilize our diaphragm putting more work on muscles in our neck, our back, and our chest that are not meant to do so. These muscles eventually fatigue from the chest breathing and the brain is signaled that we are worn out and need to slow down and stop the activity prematurely.

When we can breathe through our nose we are utilizing our diaphragm and are efficiently releasing CO₂ and intaking oxygen. Nose breathing also helps oxygenate the upper and lower lobes of our lungs, unlike mouth breathing which only oxygenates the upper portion of our lungs. When we are breathing through our mouth we will take in larger breaths and more breaths every minute. This will cause us to **breathe** which depletes important CO₂ in our systems which is inefficient and unhealthy. Through proper nasal breathing, the added resistance will slow down our breathing, decrease the amount of oxygen we intake as

well as the size of each breath. Through these techniques, we become more efficient at respiration. **Breathe less.** The transferring of oxygen and carbon dioxide from our lungs to our tissues and from our lungs to the outside of our body is vastly **more efficient with slow**, nasal, belly breathing.

I can recall researching this chapter and seeing images and videos of elite martial artists practicing or training in their art and only breathing through their nose. It seemed like they never tired out or decreased their pace. If you watch any boxing match you'll notice whenever the boxer starts to mouth breathe, they are about to lose.

One of the first indications that we are exceeding our physical limits is when we begin holding our breath or breathing through our mouth rapidly. When you are attempting your new personal record for running the mile or trying to do deadlifts with a partner who is stronger than you, you will start mouth breathing when your attention is on the result rather than being where you are at and in the process. The majority of the time you will fail when this happens. When heavy mouth breathing occurs, it is taxing on our breathing muscles around our neck and chest that quickly tighten up and signal to the brain that we are fatigued. Our brain instinctively shuts off the production needed for endurance and speed. We are now in a protective mode. Oftentimes this occurs with plenty of energy still left to utilize; however, by mouth breathing we have prematurely shut things down. This is not performance.

Another problem that people encounter, athletes in particular, is the lack of strength in their core and trunk from mouth breathing. When we are breathing inefficiently, we are not using the diaphragm properly. The diaphragm is a major muscle that connects to the rib cage, the lumbar spine, and some of the major movers of the body such as the hip flexor muscle, the psoas. If you were attempting to move your body and lift at the same time while you were mouth breathing, likely your core, the stabilizing muscles of your torso, are not engaged properly. Usually what happens is that we breathe fast and shallow through our mouth eventually disengaging the diaphragm and rounding over our lower back. This is a very unstable position and usually a major reason we have lower back pain. However, when we are taking deep nasal breaths, it increases the pressure in and around our chest and abdomen, which is called **intrathoracic pressure**. Picture a powerlifter wearing a weight

belt, deadlifting a huge amount of weight. This athlete **pushes their abdomen out against the belt** while holding in the air on inhalation. This is the optimal intra-abdominal pressure that reduces the risk of injuries to the lower back.

Of course, there is the proper time and place to breathe through our mouth temporarily, such as exercising at the max cardiovascular effort and when we need to take an extra sip of air to brace our back for proper intra-abdominal pressure properly.

If you're doing the heavy lifting in the gym or helping a friend move, stabilize your core by taking a deep nasal breath in and bracing your abs before you begin the lift. This creates that intra-abdominal pressure to help support your lower back. Then slowly exhale as you're setting down the object.

TURNING ON YOUR FIFTH GEAR NATURALLY (SYMPATHETIC: USE LESS THAN 15% of the TIME)

The majority of this chapter has been about using nasal breathing, belly breathing, and our diaphragms to help soothe, calm, and relax our nervous system. But, what if you need an extra pick me up? When your nervous system isn't signaling to your hormones properly, you can be fatigued, miserable, and exhausted. You can do the reverse of the nasal breathing and use shallow mouth breaths to aid in energetically boosting yourself naturally. I typically utilize heavy breathing before doing vigorous exercise, weight training, long runs, or surfing. By utilizing methods developed by the extreme athlete and overall extraordinary human, **Wim Hof**, you can disrupt the normal patterns of your nervous system and invigorate your muscles, your ancient reptilian brain, and really awaken sleeping parts of your body. You can open up the deepest part of your brain, the brainstem. It is electromagnetic. You will utilize your neurotransmitters to tap into emotions, to the purpose of life, to the deep primordial part of the brain that normally does not get blood flow. This simple technique is much more than just huffing and puffing. Wim combines three pillars to his technique: **gradual cold exposure, breathing techniques, and mindset**. Wim has proven the combination of these principles can boost immunity, reduce inflammation, and alter the autonomic nervous system!

EMPOWERED

Here is how it works: start with 30 “power breaths” with the following pattern: deep inhalation, fast half-exhalation either from the nose or the mouth. On the last exhalation hold your breath out for as long as you can. Then, take a long inhalation and hold your breath for another 10 to 20 seconds and really push the blood towards your forehead. Slowly exhale and repeat this pattern three to five times.

DAILY MINDFUL BREATHING EXERCISES

(PARASYMPATHETIC: USE 85% of the TIME)

Here is an effective way to retrain your brain and CO2 receptors in your brain to manage air more efficiently. It will be very helpful for those who suffer from chronic nasal stuffiness. Rather than take decongestants, nasal steroid sprays, antihistamines, or allergy shots, this technique is effective for correcting the actual breathing problem that is causing these symptoms. **The Buteyko Method** is a nasal breathing specific program taught by Patrick McKeown in his book *The Oxygen Advantage*. Do not practice this exercise if you have high blood pressure or other cardiovascular health issues, diabetes, or are pregnant. Like most breathing exercises, do not perform the nose unblocking exercise right after you eat.

Go for a nice slow walk taking small breaths in through the nose and small exhalations through the nose. Now, pinch your nose with your fingers and hold your breath. Walk as many steps as possible with your breath being held. When you do resume breathing, do so only through your nose and do so calmly, returning to slow nasal inhalation and exhalation. It is normal after you resume breathing that your first breath is bigger than normal. Do your best to calm your breathing down within the first three breaths. Continue to walk for another minute or two and do another breath-hold. Repeat for a total of six breath holds with each practice increasing the number of paces you are holding your breath. Have fun with it! The urgency to breathe is often felt in the neck, throat, and in stomach and should only be moderate. The sensations you feel in your stomach are the contractions of your diaphragm which is a muscle we rarely utilize properly and benefits from contracting in an exercise like this. Learn to calmly observe the urgency to breathe and know confidently that **YOU DO NOT NEED TO BREATHE**. You have plenty of oxygen. Your chemoreceptors in your brain are over alert from

your years of mouth breathing and need recalibrating. Practice daily and see for yourself the amazing effects! When you can achieve 80 paces with this technique you will no longer suffer from congestion.

When we are holding our breath we greatly increase the amount of nitric oxide in our nasal cavity, which vasodilates the nasal passages clearing the way of mucus.

I have always encouraged patients to bring their attention to their breath when they are getting ready for their chiropractic adjustments. Lying face down on a comfortable chiropractic bench is the perfect opportunity to bring attention to the breath which is typically preceded by the body. Breath is a powerful tool when utilized for optimizing health and healing naturally. It truly is the only thing that you really can control in your body. I would encourage you for the next three weeks to pay attention to your breath, and do your best to breathe in and out from your nose exclusively. It is perfectly okay if you forget sometimes, just gently remember to go back to slow nasal breathing and be kind to yourself.

CHAPTER 12:

SLEEP

SLEEP

What would you say is the average amount of sleep you get every night? How many hours do you think your father slept at your age? And what about your grandfather? I was baffled upon reading the experts who tallied up the average number of hours of sleep Americans have been getting since 1942. Currently, 59% of adults in the United States get eight hours of sleep or more. In 1942, 84% of Americans had eight hours or more! What this means for us is that four in ten Americans don't get enough sleep and that 70 years ago our grandparents or great-grandparents most likely did.

I sleep seven-and-a-half to eight hours every twenty-four hours. I get an average of seven hours and 19 minutes at night plus a 20 to 60-minute nap during the day. I've noticed that when I get this magic number of hours of sleep, my heart rate variability is high (which is good), my resting heart rate is low (also good), my performances in workouts are better, my brain is sharp, I avoid sickness, and my creativity and memory are at their peaks.

For a lot of people, this may seem like a lot of sleep. I can remember some of my mentors and heroes saying that they needed "less sleep than the average person." It turns out they were lying to themselves and me – or both. Even successful athletes and celebrities who don't sleep very much like Donald Trump, Martha Stewart, Michael Jordan, and Barack Obama, all of whom claim to sleep only 4 to 5 hours a night, are very likely sacrificing their health with such a low amount of sleep.

Do you remember seeing Arnold Schwarzenegger movies back in the 1980s? He was a massive specimen with muscles on top of muscles. It turns out he was taking exogenous anabolic steroids to help gain the size of muscles he had. And he also slept 8 to 9 hours every night. Exogenous (from the outside) steroids like human growth hormone and testosterone are very common amongst the bodybuilding community for the last forty years. One of these strengths boosting chemicals, human growth hormone (HGH), is produced by the pituitary gland in your brain and plays a huge role in your development as a child, in the health of your adult tissues, your metabolism, and likely increases your lifespan. Scientists have shown that 75% of human growth hormone(HGH) is secreted while you sleep!

Sleep is the undervalued practice amongst the majority of the workaholics and super productive business types who get four to five hours every night in an attempt to squeeze in all they can every day. If you really want to seize the day, you must first get optimal rest and in doing so you will actually be “seizing the night”. When we deprive the body of adequate sleep, we speed up the aging process. While we sleep the brain can clean up cellular garbage in the body while repairing and rebuilding itself. One of the most important functions of sleep is the reorganization of neural networks in your brain. Every day, all day long, you are consciously and unconsciously learning new things, learning new skills, and gaining new memories. After a long day of these activities, our brains are filled with all sorts of information that needs to be integrated and organized with prior memories and previously learned things in our lives. While you sleep, you absorb and process all this information. In addition to the organization going on in our brains at night, we are also flushing toxins through our lymphatic system called glymphatics. If the reorganization and glymphatic drainage is not operating properly, your brain becomes this disorganized storage center for cellular garbage. If this happens, it affects nearly every function in your body. Chronic sleep deprivation can manifest as a weakened immune system, cause issues dealing with hot and cold regulation, increase in cortisol and other stress hormones, blood sugar-related hormone issues, and increased levels of inflammatory chemicals like C-reactive protein and interleukin.

So often when we are feeling burned out or overworked and stressed, we take a day off and relax. It is very important for you to understand that this is not fixing anything. Unlike rest or conserving your energy, the mechanics of neural tissue repair require you to be actually sleeping for the repair to happen.

Let us now look at how your body's circadian rhythm works in a 24-hour cycle.

CIRCADIAN RHYTHMS

The first thing out of bed in the morning your body experiences a surge in cortisol which turns your brain and body on. We also get the hormone vasoactive intestinal polypeptide released. This crucial hormone, we will call VIP, causes an increase in your heart contractions, widening of your blood vessels, and the liver's glycogen storage to break down and to increase blood sugar. VIP also regulates our hunger hormones. For people who suffer from food cravings throughout the day or trouble sleeping late at night, it is important to eat a meal in the first two hours after waking to reset your circadian clock and regulate your hormonal rhythm. You can also go outside and get some morning sunshine to really gain all the benefits of cortisol being released and jump-start your circadian rhythms.

Between nine and ten a.m. our sex hormones have been released and are peaking. This is usually the best time of day for intimacy or if your sex drive is lagging and you want to give it some help. Sex at this time of the day also helps reset your circadian rhythms when having difficulty sleeping at night.

Between three and five p.m. our muscles are primed, we have cardiovascular efficiency, and workout recoveries are at their peak. These are the best times of the day for intense exercise (I prefer intense mountain runs and surfing at these times, however, mornings are where I usually do most of my workouts).

As the sun goes down, our blood pressure and body temperature peak which is why an early evening cold shower or ice bath can help improve your sleep by lowering your core temperature. The hormone leptin is released from fat storage which shifts our bodies into utilizing fat for energy and suppressing your appetite, controlling late-night food

cravings. Too much nighttime light exposure and really big evening meals decrease the amount of leptin released which leads to late-night snacking. So to keep it simple, don't eat after eight p.m. and don't use your smartphone close to bedtime if you want to normalize your circadian rhythms.

Between nine and ten p.m. your body starts secreting the hormone melatonin allowing the body to sleep and recuperate, turning off brain activity. If you have been basking in artificial light from computer screens, smartphones, and televisions adequate amounts of melatonin are not released, leading to sleep issues.

Between two AM and six AM, your core body temperature dramatically drops which allows for your nervous system to start the repair and the immune system to kick in. If you can get solid sleep during this phase, you will have less inflammation and improvements in your immune system. The only way for your core body temperature to drop during this phase of sleep is if you have already been asleep for six hours.

HOW MUCH SLEEP DO YOU NEED?

There are so many factors that affect the amount of each person's unique need for sleep because of their age, genetics, environment, and differences in mental and physical strain. Here are the National Sleep Foundation's guidelines on the most recent sleep research:

- Newborns (0-3 months): 14-17 hours
- Infants (4-11 months): 12-15 hours
- Toddlers (1-2 years): 11-14 hours
- Preschoolers (3-5): 10-13 hours
- School-Age Children (6-13): 9-11 hours
- Teenagers (14-17): 8-10 hours
- Young Adults (18-25): 7-9 hours
- Adults (26-64): 7-9 hours
- Older Adults (65+): 7-8 hours

BEDS

Which bed should I choose? This is one of the most common questions patients ask in our clinic. My typical response is, the firmer, the better. With so many different body types, I'd also encourage you to look for a combination of support and comfort. For fifteen years, I had recommended the Tempur-pedic line of beds because of their combination of support and comfort. I currently encourage investing in a mattress that is organic and made from natural materials like cotton and wool. The last thing you want to be doing is breathing in synthetic chemicals while you sleep. If we are asking strictly for your body mechanics, I would encourage a bed lower to the floor which would also be beneficial for adding squats into your routine. The more squatting you do (with good mechanics), the more it will help benefit your hips, ankles, knees, and spine. While the typical American mattress is several feet from the ground, traditional Japanese Tatami mats are only a few inches from the ground. The general rule here is closer to the ground the better.

The firmer and the flatter your mattress is the better. I know this is going to go against a lot of the advertisements that you see on television, but air mattresses, water mattresses, water beds, adjustable flotation, and adjustable air beds are not helpful. None of those options give you true support. The firmer and flatter your mattress is, the better.

The most important factor here is your comfort. If you're not getting really good sleep because of a firm mattress, it is time to make a change. Good sleep is one of the most underrated tools to help your health. Your bedroom should be designed to be a restful sanctuary. Getting rid of non-sleeping furnishings, like televisions, computers, and workout equipment, will set the tone for your nervous system to recognize the bedroom is only for sleeping. This can aid in sleep efficiency. Sleep efficiency is the percentage of time asleep while in bed. It is calculated by dividing the amount of time asleep by the total amount of time in bed. You should shoot for having at least 85% sleep efficiency.

SLEEP POSTURES

The best position to sleep in (and there's only one), is going to be on your back. I can only imagine that the majority of you reading this already believe that there is no way you can sleep on your back. I'm going to explain to you a way you can do this. The two things you are going to need are a good support pillow for your head and neck and a wedge to support your legs and low back. This will help you, especially if you're curvy at all.

If you have any curves in your hips when you lay flat on your back, you will notice your lower back gets pushed up into extension. If you prop your legs up with a pillow or wedge underneath, you will notice this excessive extension in the lower back goes away. Simple and easy. When deciding on a pillow for your head and neck, you want to support your NECK more than your head. With the support of your neck, your spine will maintain a neutral posture. A typical pillow makes your head jut out forward, which is a strain on your neck and upper back. Sleeping with two pillows pushes your head further forward, three pillows even further, and falling asleep on the couch turns your spine into a "C". So don't do that! Get a little more support under your neck than your head. Use a firm pillow high enough to keep your head in a neutral position rather than too far flexed forward or too far back in extension. When you are on your back and you elevate your legs, your circulation is flowing well, your spine is supported, and your body really will be at ease. Another great thing about this wedge of foam or pillow, is you've now created my version of a \$5,000 adjustable bed. You can certainly purchase an adjustable bed, but you can also simplify with the technique I just shared with you. Without a doubt, the absolute best way for most of you to sleep will be like this on your back. Now, the second way to sleep (and it is a very distant second), is going to be on your side. Here's the problem with being on the side.

If you sleep on your side, you're probably going to end up with shoulder problems. But most people don't sleep on their sides. They start on their side and eventually sleep on their stomach. Take a mental x-ray of your spine; if you are sleeping on your stomach with your head wrenched to

EMPOWERED

one side so you can breathe; does that actually look comfortable? Most of you are smiling right now because this is how most of you sleep. Do you see how your pelvis is torqued, your spine is twisted, your shoulders are torqued, your neck is torqued, and you are sleeping on your arm?

In time, people who sleep on their sides will often say, "I wake up and my arm is numb." I'll ask them, "What position do you sleep in?" Usually, they say, "I don't know, I'm sleeping!" So I'll tell you again that the best way for you to sleep is on your back and supported. The second-best way is going to be on your side with your legs mirrored and your arms mirrored, meaning both the left arm and right arm are in the same position. The worst way you could possibly sleep is on your stomach and your head turned all the way to one side or the other.

PREPARING FOR SLEEP

You should be protecting your sleep at all costs. So often we allow working late to interrupt our sleep hygiene. By setting up sleep boundaries, you can develop habits that will allow your body to heal at night to its best abilities. This takes some work. I'm going to review several routines to improve your nighttime self-care before bed.

STEP ONE: LIGHT

Our bodies have rhythmic cycles as we discussed earlier in this chapter. Your hormones get released based upon the amount of light exposure you have. One of the simplest ways to get a healthy night of sleep is to be exposed to adequate amounts of sunlight during the day. Morning sun exposure promotes your body's ability to make and secrete melatonin, which will help in getting ready for your sleep cycle. Once the sun goes down, it is crucial that you limit the amount of light in your home. This includes the blue lights emitted from your cell phone and computers and TV. Shut down these devices one to two hours before sleeping. This is the simplest suggestion I can recommend to improve your sleep hygiene.

STEP TWO: ELIMINATE LATE EATING

This can be one of the most challenging habits to break for most people. We all have had or currently have the nasty habit of emotional eating,

particularly in the evening. I'm sure you can recall that little voice in your head encouraging you to get up off of the couch or out of bed and go to the pantry for one more snack. That you earned it. That you deserve a little extra because you work so hard. It's very likely that these signals are not coming directly from your brain, but are indirectly coming from your gut bacteria which are craving sugars and simple carbohydrates. In turn, those gut bacteria stimulate your **vagus nerve** up to your brain to get you over to the pantry. You must resist these false signals! Researchers have found that eating within two hours of bedtime raises blood pressure, lowers sleep efficiency, and has you spending less time in the REM phase of sleep. Late-night eating also sets you up for the terrible cycle of overeating the following day because your late-night feed decreases the secretion of your satiety hormone leptin.

Making a healthy short-term decision of not eating after eight PM or looking at your cell phone or computer will build the foundation for long-term growth and health. Your body is constantly keeping track of the decisions and habits you have created. These long-term beneficial health choices eventually become patterns over time. Is it possible that our late-night snacking is related to emotional stressors in our lives bubbling to the surface once work and family time is over? Address the stress and free your life.

“Instead of asking, “what do I want from life?” a more powerful question is, “what does life want for me?”

- Eckhart Tolle

STEP THREE: WINDING DOWN ROUTINE

You can easily reprogram your brain to produce the right sleep hormones to help you sleep by following these simple evening routines:

-Journaling: This is a great time to jot down ideas and thoughts so you're not waking yourself with your to-do list. I also think every day deserves a glance over what went well, what you could've done better, and what you'd like to do differently the next day.

-Meditation: Anytime we can go inward and settle the mind helps calm us down, prepping ourselves for the parasympathetic state of rest and recovery.

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-Reading: Such a simple and productive way to gear up for rest.

-Hot water or tea: Soothing and calming teas can help program your mind to get ready for sleep.

-Yoga: Self-care before bed is something most mammals do. Check-in with the physical you by stretching, feeling, and visualizing your body recuperating from the day's work, workout, and/or injuries. Bringing your attention to an area of the body (not judging or doubting the healing), simply bringing awareness, may help assist your cell's ability to heal.

These simple and consistent habits around your bedtime will cue your body to prepare for sleep. Over time you can sleep train yourself to be a healthier and more productive person every morning.

CHAPTER 13:

MOBILITY

MOBILITY

For many of us, we are more and more confined to the small seats of our cars, airplane seats, and behind our desktop computers. Without a shadow of a doubt, this is setting ourselves up for early death. This chapter was designed specifically to organize and optimize your body's ability to move. For athletes, that means improving athletic performance and doing it injury-free. For those hard-working laborers, that means lifting, bending, and twisting with stability so they can last for years to come. For the desk jockey, it's managing the lack of mobility with proactive exercises and retraining muscle groups. Whether you are an elite athlete attempting to drive your body to the next level of performance or a great grandmother eager to play with your great-grandchildren at the park, the tools shared in this chapter are simply a reminder of what you were innately born with.

I can recall graduating from chiropractic school with my doctorate, specializing in corrective care and human spinal mechanics, and being in awe of watching a two-year-old play. Toddlers innately know how to mobilize their hips, their ankles, their spine, and their shoulders. From kindergarten, up until our senior year of high school, we sat in chairs, behind desks with our head bent over books learning about the world. In these thirteen years, we are given an incredible education and according to statistics, we have the 27th best education system in the world.

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The dire consequences of sitting behind a desk as a child leads to unstable body mechanics that slowly kill us. We spent most of our younger years hunched over a desk under artificial lights with chemically sterilized environments. Almost all high schoolers that I have seen in the last decade have rounded backs, their shoulders are rolled forward, they are overextended in the lumbar spine, their feet are turned out with dropped arches, their head is tilted down, and their elbows flared out.

ALIGNMENT

In chapter six we discussed the importance of movement, and I gave you a foundation for understanding how to stand properly. Please review the six steps in a neutral and aligned standing posture and put these steps into practice before working on the mobilization of other joints and systems. With an aligned standing posture, you will appear tall and strong no matter how tall you are. You should be able to draw a plumbline down from your ears, shoulders, hips, knees, and ankles. You should be light on your feet, and the more you move the more energy you gain. Your muscular system is relaxed at rest and can quickly contract when needed. You naturally get tired when it's dark and are energized at sunrise. People gravitate toward you in social circumstances because of your healthy glow.

TIME TO PLAY

The simplest recommendation I can give to you after you are aware of your neutral and aligned standing posture is to start out by playing. Playfulness isn't unique just to us, almost the entire animal kingdom does it. Here we can take lessons from children. Today I want you to try looking at the world through the eyes of a seven-year-old. Everything is played. Playing soccer with a pinecone, getting down on the carpet playing Legos, hanging from a tree branch, and playing a game of tag are all things most of us did as children. And we loved it! Kids have healthy hips mainly because they spend so much time going from the ground to standing. The lunge and squat are prime examples of activities that are healthy for your body and that kids have mastered. I would encourage you to follow your children or nieces and nephews or grandchildren's lead by getting down on the ground with them. Stuart

Brown in his book *Play* shares with us the magic involved with playing. Brown describes how new cells are created within new connections in different parts of our brains that are essential in continued brain organization. Scientists have shown that engaging in playful past time activities in social settings can make huge differences in the emotional and cognitive development of older adults. I encourage college students to take advantage of playing frisbee, football, basketball, ping-pong, swimming, Brazilian Jiu-jitsu, skateboarding, and surfing in addition to their studies. These playful activities will help coordinate your body mechanics, create new neural pathways, and help cope with stressful situations.

Permit yourself to have some fun, to laugh, to open up to new experiences. You can definitely have your movement and mobility be subjected to a machine at the gym, or it could be inspired by the joy children have with play. It's okay to feel silly trying new exercises that you are not good at.

So many patients come into our clinics wanting a quick fix for chronic stress, continued pain, shallow confidence, and internal misery. A huge part of what we do in corrective care chiropractic clinics is to get people moving better. With better movement, you are less likely to have nerve interference inside your bodies.

In the first chapter, we discussed how corrective care chiropractors are experts at finding spinal **subluxations**. **Subluxations** are abnormal positions of the bones of the spine that can put pressure on the nerves that exit the spine. Depending on where the spinal subluxations occur can cause nerve problems to the tissues and organs of the body. If you thought of your body as an electrical grid and you were in a plane flying over the city at night, you would see parts of the town that were lit up with lights and others that were in darkness. These dark spots are areas not utilizing electricity. We have similar dark areas in our bodies that are in a state of disease. Through corrective care chiropractic, we will help illuminate those dark areas with specific chiropractic adjustments reconnecting those areas of your body to the power grid. The only way to get the light back on in those dark areas of town is by improving the communication signals of the entire power grid. This means not only making your appointments in our clinic, but very importantly improving the partial imbalances and restoring proper movement of

your body. You are not going to be able to do this sitting in your chair behind your computer, taking some magical pill or any other quick fix you might read about on the Internet. It has been a process to get you where you are, and it will be a process to get you to where you want to be. The beginning of any corrective chiropractic care process will begin slowly to help manage all the static between your body and your brain. It will definitely take time to get light completely back on your power grid.

NATURE SEEKS HOMEOSTASIS AND BALANCE

According to the Encyclopedia Britannica, “Homeostasis, any self-regulating process by which biological systems tend to maintain stability while adjusting to conditions that are optimal for survival. If homeostasis is successful, life continues; if unsuccessful, disaster or death ensues. The stability attained is actually a dynamic equilibrium, in which continuous change occurs yet relatively uniform conditions prevail.”

Through the rest of this chapter, I’m going to share with you exercises, practices, and tools you can use to help redesign your muscles, your tendons, your fascia, and your nervous system for an upright, flexible, strong, and aligned version of yourself.

First, you must understand that in every aspect of your day, your body is molding to your environment. From your bed, to your shoes, to your car seat, to your computer workstation and everything else you come in contact with alters your body’s shape. This is what is called **Davis’s law**, which basically states that your soft tissues form according to the demands you impose upon it. If you put thirty years of poor postures into your body, it’s going to take work, intention, knowledge, and tools to restore your system closer to homeostasis.

The great news is we can undo the forward head posture, the rolled-forward shoulders, your hunched over spine, imbalances in your pelvis collapsed knees, and flat feet that our modern American lifestyle has molded us into.

Your connective tissues connect, separate, and support the rest of the tissues of your body. Healthy connective tissues are constantly growing, changing, and adapting to our active lifestyles. Anytime we have had

injuries to our bodies, it is our connective tissues that remodel and regrow enabling us to heal. When we ideally heal from an injury, we have just the right amount of collagen and scar tissue reconnecting our body together. Very often we heal improperly from sprains, strains, and surgeries with excessive scar tissue being laid down on the injured area. Imagine you were pouring a slab of concrete for your garage. You would mix together water, sand, gravel, and cement to make a slurry for pouring into a mold. After you were done pouring the concrete into your mold, you're likely to have extra that you would dump out behind your garage in the dirt. This small mound of concrete would be misshapen with rocks sticking out of it and it would be harder than your head. Go ahead and think of scar tissue in the body as this haphazard array of gnarled rocks and concrete. If left unattended these tissues become dehydrated, unresponsive and dense, and lead to mobility issues and eventually disease.

Your job is to find areas that have excess scar tissue, lack of mobility, and are not working properly. These areas may or may not cause you pain. Take a quick scan of your body; is there anything that feels like it just needs to move? The urge you have to turn, bend, twist, stand up, and squat is your innate intelligence. When you mobilize, you undo unnecessary scar tissue formation, enhancing your physical performance.

When your body is in a natural state of alignment your nerves can send signals, tissues are moving and contracting in unity, blood and lymph can flow, and all the parts of your body can heal. The electrical grid of your body is fully lit up like the Las Vegas strip at night.

So what can we do to help our natural state of alignment if we have to sit at a desk behind a computer every day? What can we do to combat the six or more hours a day where our tissues are forming to our chairs? And what about our eleven-pound bowling ball heads lurching forward ahead of our bodies, hunching our shoulders forward and forcing our elbows out? Well, we need to utilize Davis's Law to our advantage. Remember Davis stated, "soft tissue forms according to the demands you impose upon it."

YOGA

Sometime around the second century BCE, Patanjali wrote the Yoga Sutras. The sutras were a collection of philosophies stitched together from the teachings of the ancient Vedas (~5000 BCE). Amongst the most popular today are the Yoga Asanas or yoga postures. These fluid movements were intended to prepare our bodies for long periods of sitting. The Vedas would sit in a cross-legged “lotus” posture for meditation. Along with the Yoga Asanas was the practice of Pranayama, or breath of life. These special breathing methods (which we talked about in chapter 11), allowed the body’s elaborate internal chemistry of hormones to calm down into a general state of ease. These two “limbs” of yoga were the basis for gearing up for the journey within or mindful meditation. The yogis knew if the physical body was uncomfortable while sitting cross-legged or if the body chemistry of the practitioner was in a full alert with the concern of a tiger in the nearby jungle, then the inward journey would be nearly impossible. So to prepare for meditation, one would simply stretch and breathe with the specific techniques outlined by the ancient yogis.

It seems modern-day yoga is all about getting into that perfect pose, having the best flexibility in the yoga class, wearing attractive yoga pants and outfits, and showing the world how zen we are on social media. Regardless, with more and more people practicing these techniques as a species, we are headed in the right direction, evolving away from the physical/material world towards more mindful, compassionate, and spiritual beings.

With my father being a Transcendental Meditation(TM) teacher, my sister Amalia a trained yoga instructor (amongst many other incredible skills), and my passion to breathe work, our family has brought together incredible knowledge towards inner growth. My sister Amalia shared with me recently that practicing yoga (yoga asanas) and breathing (pranayama) without doing meditation is like preparing food for a meal and then not sitting down to eat. I share this with you only to inspire your adventure into the inward journey of self-realization with mindfulness meditation. For our MOBILITY discussion, let us get back to the physical benefits of the yoga asanas.

You need not join a yoga studio or buy yoga pants or stop practicing Christianity to reap the benefits of this ancient practice. The simplest and one of the most beneficial practices of the yoga asanas can be found in Sun Salutations. Regardless if you spend one hour or one minute with this routine, or if you are flexible like a chimpanzee or stiff as a board, you can benefit from daily practice. You can easily Google or YouTube “**SUN SALUTATIONS**” and find an instruction fit for your level of practice. These perfect combinations of body movements allow: full inhalation of the lungs and diaphragm, waking up the nervous system, hands touching the ground for grounding (if done outside on land), back and forward bending of the spine, strengthening and lengthening of the core muscles, and lunging and squatting of the hips.

The next time you complete your yoga asana practice, sit still. Breathe. Turn inward and allow yourself a moment to be in the moment.

FOUNDATION TRAINING

Foundation training is a set of movements created by **Dr. Eric Goodman** that teaches individual muscles to act in concert with one another. With this series of bodyweight exercises, you can decompress the spine, anchor in your hips, and activate your posterior muscle chain.

We have been utilizing Dr. Goodman’s techniques for the last six years with outstanding results. I encourage you to find his four-minute and twelve-minute videos on YouTube. Start with the four-minute video daily for a week and gradually work up to the twelve-minute video. Check out foundationtraining.com to learn more.

SQUATTING AND LUNGING

These two simple exercises are crucial in maintaining hip mobility, knee strength, ankle mobility, and posture of the spine. Before starting ANY exercise program, I encourage you to get a very good understanding of how your body squats and lunges. Start by watching YouTube videos of a normal squat and duplicate it. Video yourself and critique. Ask a trainer or CrossFit coach to help improve your squat and lunge. If you look at any healthy octogenarian (eighty plus-year-old), you’ll notice they can move their hips. This didn’t happen by accident. They were active, avoided chairs, and are comfortable getting up and down from

the ground. Google the “**Sit and Rise test**” and see how those that can sit and rise from the floor with minimal support LIVE LONGER.

I encourage any chance you have to sit on the floor rather than in a chair or couch. It is why I recommended in chapter 11 on SLEEP to get a bed closer to the ground. Practice your squats. Practice hinging at your hips.

Squats are great for beginners to learn first, while lunges take more coordination and balance to learn. Start both of these exercises using only your bodyweight until you perfect your form. Squats will help build overall muscle mass while also improving your performance and strength. Lunges are great for improving balance, coordination, and stability.

The squat is considered a strength exercise that consists of moving the hips down from the standing to the sitting position. You hinge at the hips, keeping the chest up and eyes forward, knees are behind the toes. Once you're down in the seated position, you push from the heels to rise back up to the starting position. Most of us used to do squats without realizing it when we were babies and toddlers. Check out how a baby plays and moves around all day long. All they are doing is squatting while playing.

Lunges are when the front leg is bent at the knee with the foot flat on the floor and the back leg is bent behind. Both the front and back legs are activated during this exercise. Lunges help stability and balance from one side to the other creating symmetry in your posture and strength.

WALKING

90 minutes a week of walking will change your life. 150 minutes will save your life. Try an after-dinner walk with your loved one. You will sleep better, your digestion will improve, your resting heart rate will improve, and you will feel better. Cancer, diabetes, and obesity rates will rapidly decline with regular daily walking. Most of us know all this, we just get lazy. Rather than sit at the airport, try to see how many laps you can do around your terminal. Parking far away from the grocery store can help increase your daily steps. Whatever it takes to move more.

FOAM ROLLER

The frequent use of a foam roller can help keep injuries from lingering and keep your body mobile. The fascia is a band of connective tissue right beneath the skin that separates muscles. Around the heart it is called the pericardium, around the lungs it is called the pleura. Envision the shiny material you see on raw chicken. It's what separates the muscle from other tissues. This fascia can get stuck together from poor body mechanics, overuse of muscle groups, and other injuries. Much like saran wrap getting stuck on itself, fascia needs to be pulled apart and ironed out. The foam roller is the simplest way to do so. Spend the \$40 on Amazon, find a simple ten minute YouTube video, and make sure you roll out all the major muscle groups: quads, hamstrings, calves, glutes, thoracic and lumbar spine, and shoulders. Spending 10 minutes a day doing mobilization techniques like foam rolling and using a lacrosse ball is simple insurance for any athlete, pro or average Joe.

LACROSSE BALL

This simple tool can help loosen soft tissues, muscles, fascia, and tendon restrictions like your IT bands (on both sides of your thighs), tight rotator cuff muscles in your shoulders, and tense neck and upper back muscles.

Stretching techniques and yoga can help flexibility of the muscles; however, that is not going to change your joint mobility. Using the foam roller and lacrosse ball you're able to dig into deep tissues and help areas where muscles attach to bones like tendons and joint capsules. Check out Kelly Starrett's book *Becoming a Supple Leopard* if you are ready to dive deep into your mobility. It was a life-changer for me.

HANGING

As children, we were able to hang from the monkey bars with ease and play on all the other playground equipment. Slowly we began hanging less and less and our shoulders began to deteriorate.

Hanging from an overhead bar is the simplest way to help heal your own shoulder. One of the most underutilized joints in the shoulder is the acromioclavicular joint. We can engage this joint by hanging, which

allows for healing and prevents injury to the shoulder. Our bodies were designed with immense intelligence (I call God) and we were given a bit of redundancy. Other muscles, ligaments, and joints can take over when the rotator cuff is torn. We were supplied with our own backups.

There is a little, tiny space called the subacromial space in our shoulders that gradually shrinks and tears our rotator cuff. When we are hanging from an overhead bar, we will bend the acromion and stretch the coracoacromial ligament, increasing the space in which the rotator cuff tendons can move. This is the simplest mechanism to heal your shoulders. Whether you have osteoarthritis, rotator cuff injuries, AC tears, labrum tears, or other degenerative changes in the shoulder, all can benefit from gradually increasing your ability to hang from an overhead bar. According to Dr. John Kirsch and his book *Shoulder Pain? The Solution and Prevention*, all of us have the capabilities of improving our spinal postures, shoulder mobilities, and elbow and wrist injuries by simply hanging. Start with hanging from an overhead bar with only part of your weight for ten seconds. Over time gradually increase your hanging to your body weight upwards of sixty seconds. You can also learn from the legendary Ito Portal and his obsession with movements of brachiation (hanging).

CHAPTER 14:

MINDFULNESS

MINDFULNESS

Definition:

1. The quality or state of being conscious or aware of something.
2. A mental state achieved by focusing one's awareness on the present moment, while calmly acknowledging and accepting one's feelings, thoughts, and bodily sensations, used as a therapeutic technique.

We spend a lot of time improving our health within our body from the **bottom up** as we typically focus on the body to affect the mind. This chapter is dedicated to understanding the importance of the mind and how we can improve our health from the **top down** thus focusing on the mind to affect the body. Some people experience change from the bottom-up and others from the top-down. This is for you to determine for yourself. If you are not certain what will work best for you, try both approaches.

At the age of six, my father gave me a mantra to recite internally while walking up and down the halls of my childhood home. This was a “magic” sound my dad gave to me and I was instructed never to share it with anyone, or else the mantra becomes powerless. By the time I was thirteen, I was given a new mantra to use while sitting, eyes closed, in silence. This particular practice of meditation was introduced to the United States by Maharishi Mahesh Yogi in the 1950s and is called Transcendental Meditation. My father was a student of Maharishi and has been practicing this form of mindfulness for the last fifty years, twice

daily for an hour each time. I was always intimidated by the amount of time my father dedicated to his meditation. Within minutes, I would become frustrated in my inability to quiet down my own mind. My practice of meditation has come and gone for the last three decades; however, in the last five years, the practice has become routine. There are many ways to calm down the mind and in this chapter, I will share with you the simplest and easiest techniques for tidying up your own mind.

“If you are depressed you are living in the past. If you’re anxious you’re living in the future. If you are at peace you are living in the present.”

-Lao-tzu

It is so easy to become stuck in the mud spinning our tires, freaking out over what we did or said, and anticipating what our future will look like. By doing this, we fall into the trap of neglecting the present. We’re stuck in this tug-of-war between the past and the future. Now you throw on top of that our constant social media updates, texting, and checking the weather, the sports, and the news, and we have officially caused a traffic jam within our minds. I have always wondered why I constantly check the updates on my phone. Do I really care that much, or maybe I’ve lost touch with the ability to be alone and present with myself? In reality, to be completely present with yourself and free of any distraction can be very uncomfortable and scary for some. When you are fully present in everything that you do, it changes the way you think and move. Think of your mind like a training session at the gym. Your thought patterns are a product of the level you have trained and put the time in. Every moment that you can practice “presence” by bringing your attention back to the here and now is like a single repetition of a bicep curl. Over time and with many repetitions, you can train your mental muscle to withstand outside and inside distractions.

You can begin doing this right now. Pay attention to the pressure that your body is giving to whatever it is in contact with (the chair, the couch, the floor, pillows, etc.). Notice the sounds around you, any smells in the air, the temperature of your skin, and the thoughts going through your mind. Anytime that you’re feeling stressed out, bring that attention to these points, and you will begin to feel calmer in your mind and body.

Your mind is much like a vegetable garden. It has the power (and potential) to yield an amazing harvest so long as you give it adequate attention by pulling the weeds so they do not steal the vital nutrients from your vegetables. By practicing mindfulness, we are regularly pulling out those weeds. The challenge with this garden is that whatever thought you may have, is a seed that you are sowing. Most of these seeds do not begin growing until next season. Because we do not see the harvest immediately, we often think that the negative self-talk and the lack of being present do not have a consequence. Whatever you are harvesting in your life currently, the reality you have manifested, came from the thoughts you had in the past. Don't like your current state? Change your thoughts....right now!

Eliminate Distraction

We are constantly being bombarded with new information that is impossible to keep up with. Because your attention is a valuable commodity to advertisers, the notifications and advertisements on your digital devices are praying on you. When we allow dozens, hundreds, or thousands of distractions into our minds we become mentally fried. We also have a new cause of not being where we are at. FOMO (fear of missing out) is when we are distracted from the present moment by someone else engaging in an exciting or more interesting event elsewhere. Often, this anxious moment of FOMO comes from looking at some else's social media post. Mindfulness is the simplest way to avoid anxiousness and being burned out. Give your mind rest to process the information you have been shoving in.

In my bathroom, I have a photo of a lion and a gazelle. There's a motivational quote on this photo called the essence of survival. "Every morning in Africa, a gazelle wakes up. It knows it must run faster than the fastest lion or it will be killed... Every morning a lion wakes up. It knows it must outrun the slowest gazelle or it will starve to death. It doesn't matter whether you are a lion or a gazelle... When the sun comes up, you'd better be running."

I have loved this quote for 10 years. It motivates me in the morning to get after achieving my goals and avoid any laziness. Interestingly enough, in the picture, the lion is relaxing in the grass on all fours and the gazelle is calmly eating grass. I can just picture the lion planning a

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stealth attack on the gazelle. The chase begins! The gazelle rapidly runs away from the lion in pursuit. The gazelle narrowly misses the jaws of the lion and the hunt is over. And just like that the lion goes back to relaxing and sleeping and the gazelle goes back to eating breakfast. This is a perfect example of how nature should work. During a stressful event, the gazelle created a cocktail of stress hormones including epinephrine and cortisol to evade the predator. And within seconds that cocktail of hormones is shut off and the gazelle can relax.

Humans tend only to get revved up and rarely get the chance to calm down. This hormonal explosion we set off when we get stressed out is extremely beneficial in the short term to get strength and energy to react to the stressful stimulus. Our heart rate increases and our blood pressure increases so that we can push blood into our muscles to run. By opening up the small airways in the lungs, we can get as much oxygen as possible, and by this happening it will sharpen our senses such as sight and hearing. This is like a race car opening up at the race track, going as fast as it possibly can. This is good for the engine on occasion; however, when the engine is redlining and you are pumping the brakes at the same time, the damage will be done.

As we get stuck in a state of chronic stress, we hold a lot of tension in our bodies. We often feel that stress develops from our neck into our shoulders and upper back and can often lead to headaches and migraines. From an evolutionary standpoint, we are ready to engage with a predator, we are primed and ready for action. The problem is, there is no outlet because we are stuck in traffic, busy looking at messages on our phone.

What we can learn from our animal friends that is a key lesson to our vitality is to let off of the gas pedal. The lion and the gazelle both pushed the gas pedal at the same time (sympathetic) and then pushed on the brakes (parasympathetic) to unwind naturally. Life is about gracefully fluctuating between these two states. As humans, we tend to sit in one place pushing both the gas pedal and the brake at the same time. We are constantly reminiscing of the good times and projecting what the future may hold. With only a small amount of mental bandwidth, it makes the most sense to put your attention into mastering what it is you are doing at that moment. This is the act of being mindful.

As a chiropractor, I have experienced thousands of cases in my office that were considered miracles. Patients who had suffered from years of chronic illness and pains were able to live a life free of suffering. Conditions the medical community constantly used chemicals to treat, would just heal on their own. Chiropractic is an incredibly powerful tool to help the fluctuations between the gas pedal and brakes of the nervous system. I also noticed after being in practice for five years that there was a small group of patients who would show improvements in the balance of their nervous systems and then quickly revert to the fight or flight state as soon as certain work or family stressors appeared. These people were constantly living in the future, in an anxious state, and redlining their engines. Those that followed through with my recommendation to practice daily mindfulness saw huge changes in their well-being. What I would suggest to them is to borrow the basic techniques of Vipassana meditation by bringing their attention to their breath every morning for ten minutes. Using meditation apps, such as Headspace, every morning upon rising is a simple way for someone who is still on the fence with meditation to dip their toes into mindfulness. Set a timer for ten minutes and assume a comfortable sitting position. Your job for the next ten minutes is to do nothing more but notice the air moving in through your nostrils. Focus on the subtle sensations of cool air gently moving in through your nostrils, your body humidifying and heating the air, and the warm air moving out. You can even count the breaths one into the nose, two out through the nose, all the way up until ten, and then restart the counting. When your mind wanders, which it will a lot, that is OK. Softly come back to the breath, free of any thoughts, judgments, or disappointments that your mind wandered yet again. If this style of practice feels easy after a while, you can begin by noticing the small sensations throughout your entire body. Start with the top of your head and slowly scan down to your toes.

There are so many variations and styles of meditation worth exploring. You can incorporate any one of many meditation principles into your daily life. Take time as often as you can to notice the sensations throughout your body and breath moving through your nostrils. You will likely find this to be very calming and centering.

Every day you can practice mindfulness wherever you are. Remember that your own mindfulness goes beyond meditation in the morning.

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You can also pay attention to your movements as you walk through the world. Notice the trees, the cars, the birds, the ground under your feet, the air against your skin, or the flow of your movement. You can also start by actively noticing people's eyes you come in contact with throughout your day. Bring your attention to the color of each person's eyes. Notice how people interact with one another, notice the sound of the jackhammering in the construction zone. No need to judge. Just notice. Be a witness.

CHAPTER 15:

FASTING

“As a professional mixed martial artist fighter for Bellator, my body needs to be in prime physical condition. I first came to Russel Chiropractic Center to enhance my performance in the ring. Previously I had tried several remedies for injuries to my shoulders, hand, ankle, and knee: including physical therapy, supplements, strength training, and stretching. My coach was a patient of Dr. Russel's and said that I was missing out and should give it a try to maximize my performance. When I was first evaluated I found out that I had a curvature in my back almost to the point of scoliosis and my neck was curved the wrong way. The corrective care I started took three months of regular visits. Afterward, I was re-examined and x-rays were taken again. The second evaluation showed my back was straight as an arrow and sure enough I have been sleeping better, feeling better with more energy with my training in and out of the ring. My whole body has been functioning better and my reaction time has been amazing.

I hope that my testimony will help others to find help through corrective chiropractic care, the way it can help your life is unbelievable.”

-Derek Anderson

Fasting might sound a little scary or even extreme, but humans have been fasting for spiritual, mental and physical reasons for thousands of years. Athletes practice fasting as a means to improve their health,

mentally and physically. Going without food can improve brain function and mental clarity.

The type of fast you choose should be appropriate for your level of health, body chemistry and any special physical needs you may have. Before starting a fast, consult with your doctor or health care provider, especially if you are on any medications or have a serious health condition.

Every day, I intermittent fast for twelve to sixteen hours. This is easier than you would think considering I am asleep during most of those hours. My recommendation for women is to fast for twelve hours and men upwards of 16 hours. At least twice a month I will do my best to fast for an entire twenty-four hours.

WHAT IS FASTING?

Fasting, by definition, is going without food and/or drink for a period of time.

Reasons for fasting include:

- reducing insulin resistance
- lowering the risk for Type 2 diabetes
- changing the function of cells, genes, and hormones
- reducing oxidative stress and inflammation in the body
- developing discipline
- religious and spiritual practices

Fasting is a willing abstinence or reduction from some or all food or drink, or both for a period of time. An absolute fast or dry fasting is normally defined as abstinence from all food and liquid for a defined period, usually a period of twenty-four hours or a number of days. Water fasting allows drinking water, but nothing else. Other fasts may be partially restrictive, limiting only particular foods or substances. A fast may also be intermittent (sporadic) in nature.

When you fast for a prolonged period of time, your body is forced to use stored glucose and fats. When this happens, we produce ketone bodies

that are really good for our brains. Damaged cells and toxins are removed during this process. The body is forced to lighten up the load. There is a specific PKA gene(Protein Kinase A) that gets shut down and after that stem cells switch into a regenerative mode and begin proliferating and rebuilding our entire systems. During a fast, our bodies get rid of parts of our systems that might be damaged or old or don't have the right kind of parts. Fasting also helps people with heavily damaged systems from chemotherapy or aging. Fasting can generate completely new immune systems in some people.

So imagine you have two types of storage for energy. The quickest and most reliable is your glycogen storage which is a lot like your refrigerator, easy access, and limited space. Secondly, you have your outside freezer. That's your fat storage. It's hard to get to, less convenient, but has almost UNLIMITED storage space. The goal with fasting is to stop stockpiling your refrigerator and tap into the freezer regularly.

TYPES OF FASTING

Juice Fast

A juice fast involves consuming liquids from fruits or vegetable only. No solid food is eaten for a specified period of time, which can be anywhere from one day to two weeks. A juice fast is simple but requires some planning to ensure you get enough vitamins and minerals from a variety of fresh fruits and vegetables. Fruit and vegetables can be processed in a juicer, a blender or a food processor. A blend of fruits or vegetables can be mixed with water and consumed three-to-six times daily.

Water Fast

A water fast is very stringent and should not be implemented without consulting your doctor. Only pure water is consumed. The time varies depending on physical condition and goals. Medically supervised water fasts have shown success in normalizing blood pressure, triglycerides and cholesterol levels, lowering the risks of chronic diseases, preventing neurodegenerative disorders, and even increase growth hormone secretion.

Religious Fasts

Religious fasts are done for spiritual or ritual reasons. The analogy of an eagle being tied to a dog. The eagle represents the spiritual life and the dog representing the human and earthly life. The only way for the eagle to soar is to deprive the feeding of the dog. The Daniel Fast is modeled after the book of Daniel in the Bible. This is a partial fast restricting all foods except fruits, vegetables, grains, and water for 21 days. The Jewish Tzomot includes seven different religious fasts throughout the year. Ramadan is an Islamic fast, lasting one month during which Muslims fast from sunrise to sundown. The Nineteenth-Day fast is done for nineteen days where members of the Baha'i faith adhere to sunrise to sunset fast of all food and beverage. Ancient Greeks were known to fast for three days prior to making big decisions for clarity.

Intermittent Fasts

There are three methods of intermittent fasting. They are alternate day fasting, periodic fasting, and time-restricted feeding. During an alternate day fasting persons eat less than 25% of their usual energy needs or nothing at all followed by twenty-four hours of feasting. Periodic fasting involves people fasting for over twenty-four hours. Currently, the most common form of intermittent fasting is **time-restricted feeding** which involves only eating during certain hours of the day, most commonly skipping breakfast and fasting for sixteen hours, and eating for eight hours.

Cleansing Fast

Cleansing fasts use liquids (usually spring water) containing lemon juice, a simple sugar for calories and cayenne pepper. The idea is to cleanse the colon of food and toxins. You drink the liquids six to twelve times daily. A more intense cleansing may use a laxative tea consumed twice daily, once in the morning and in the evening. Cleansing fasts can last from one to fourteen days. Longer fasts should be supervised, and you should be aware of any symptoms of negative reactions.

Partial Fasts

Partial fasts exclude a particular type of food such as rice, wheat or meats. A partial fast includes some solid food but can restrict the amount of food to less than one to three complete meals.

Diagnostic Fast

Diagnostic fasts require you to abstain from eating or drinking anything except water for eight to twelve hours prior to testing. A glucose tolerance test is an example of a diagnostic test to measure blood glucose levels to diagnose diabetes or hypoglycemia.

HEALTH BENEFITS OF FASTING

Fasting Puts Your Body In Starvation Mode: Experts agree that fasting puts the body in starvation mode. This is a state in which the body slows metabolism to prevent fat loss. Research shows that fasting for thirty-six to seventy-two hours can boost metabolism and immune function. This starvation mode will put your body into a very specific mode of cleaning out the stored glycogen (think to use the storage in the outside freezer).

Lose weight and belly fat: According to many studies, losing weight has shown to be possible and effective when fasting. Fasting allows the body to burn fat for energy when there is no sugar or food. Fasting can enhance hormone function to help with weight loss. Increased amounts of norepinephrine, lower insulin levels, and an increase in hormone levels all contribute to the breakdown of body fat. Athletes fast to cut weight and body fat percentages efficiently.

Improves brain function and mental clarity: Fasting has shown to improve brain performance because it boosts a protein called BDNF (brain-derived neurotrophic factor). BDNF activates the brain stem cells to convert into new neurons and stimulates other chemicals that promote neural health. Studies have also shown that BDNF can increase the growth of new nerve cells, which have benefits in brain functions.

Improves insulin sensitivity/lower risk of type 2 diabetes: Fasting has shown to have a positive effect on insulin resistance, enabling you to

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tolerate carbohydrates better than normal. Fasting has been shown to have crucial benefits for insulin sensitivity and can lead to a reduction in blood sugar levels.

Prevent cancer: There is some evidence showing that fasting reduces various side effects of chemotherapy. Despite the fact there are human studies needed to be done, promising evidence from animal studies shows that fasting may help prevent cancer.

Help you live longer: Studies have shown how the lifespan of people in certain cultures increased due to their diets. Studies in rats have shown that fasting extends their lifespan. Rats who have fasted lived 83% longer than rats who have not fasted.

Beneficial for your cardiovascular health: Heart disease is a worldwide killer. Fasting has shown to improve countless risk factors, such as blood pressure, LDL and total cholesterol, blood triglycerides, and more.

MYTHS ASSOCIATED WITH FASTING

There are many misleading myths that surround fasting. While fasting may have become a popular trend in the past couple of years, it has been around for thousands of years and has been or is still practiced by almost every religion on the planet. We have not only survived but thrived as a species over time, so here are some common myths about fasting.

Fasting Will Break Down Muscle

Once again, don't confuse strategic fasting with chronic low calorie or yo-yo dieting. Individuals who over-exercise and under nourish themselves with nutrient-deficient cleanses and extreme diets will eventually break down muscle, and will gain fat when they come off their temporary diet. Our bodies are designed to preserve muscle in times of fasting, which is why fasting actually triggers a potent release of growth hormone. When we run out of stored glucose, we can then access our even more prolific stores of body fat. Breaking down muscle for energy is the absolute last reservoir.

Fasting Triggers Hunger and Overeating

Eating triggers hunger and overeating, not fasting. Especially eating the Standard American Diet (SAD) foods are infested with sugar and artificial ingredients and are specifically and scientifically designed to be addictive. If you are eating today's standard diet, then your hunger is a victim to glucose and insulin levels that surge and crash throughout the day. You are not in control of your food; **YOUR FOOD IS IN CONTROL OF YOU**. In this case, I actually do not recommend starting fasting right away. When you realize that **FOOD IS FUEL** and the relationship to food is mainly for nourishment rather than pleasure, then fasting can begin.

Fasting is Too Hard

Fasting is completely natural and is encoded into our DNA. Modern life has made fasting seem impossible to most people. I recommend not to make it seem harder than it actually is. **START SMALL**. Try replacing your sugary/carbohydrate breakfast with fruits, then restricting the amount of food you have for breakfast. Every week less and less morning foods. Get an accountability partner such as your spouse. Finish eating dinner before 7 PM and the next day you can have an earlier than normal lunch around 11 AM, and you will have successfully completed a 16-hour fast. It can be surprising how on-edge we feel when we miss a meal. Most of us are addicted to food. Getting started can be a daunting task, but we're here to make it simpler. Read on for your guide on how to get started with fasting.

HOW TO START

Start small: Don't go from no fasting to attempting a week-long fast. Start with one meal; maybe fast one meal a week for several weeks. Then try two meals, and work your way up to a day-long fast. Perhaps eventually try a two-day juice fast. A juice fast means abstaining from all food and beverage except for juice and water. Allowing yourself juice provides nutrients and sugar for the body to keep you operating, while also still feeling the effects of going without solid food.

Choose How You Will Fast: Intermittant fasting is distinct from a juice cleanse or a two-day restrictive diet. There are two categories—traditional and intermittent—each of which appeals to different individuals depending on their goals and lifestyles. While both can be beneficial to your brain health, intermittent fasting is better for weight loss and maintenance. Pick the one that works best for what you want to accomplish.

Plan What You'll Do Instead Of Eating: Fasting is not merely an act of self-deprivation, but a spiritual discipline. We should have a plan for what positive pursuit to undertake in the time it normally takes to eat. We spend a good portion of our day with food in front of us. One significant part of fasting is the time it creates for meditation or some act of love for others.

Consider How It Will Affect Others: Fasting is not an excuse to be unloving. It would be sad to lack concern and care for others around us because of this expression of heightened focus. Love for ones self and for neighbors go together. So as you plan your fast, consider how it will affect others. If you have regular lunches with colleagues or dinners with family or roommates, assess how your abstaining will affect them. Let them know ahead of time, instead of just being a no-show, or springing it on them in the moment that you will not be eating.

Prepare for Your Body to Feel Different: Many people feel tired, get a headache, and generally feel “out of sorts” on days two and three of any fast. That's normal. The negative side effects of fasting typically go away by the end of day three or four. If you are going shorter than two days, you will likely start to feel better just as the fast comes to a close. Once you turn the corner on day three, most people feel great after the negative symptoms have passed, and a sense of calm, well-being and heightened concentration takes over.

Plan Ahead and Be Flexible: Once you are used to fasting, you may find that you can incorporate a short fast on little notice. But when you are just starting out, make sure to plan your fast at least a few days in advance. You will want to ensure that your fast is not going to interfere with work, family, or training, all of which can counteract the positive effects of the test run. Put some thought into where and how you will be

fasting. Fast at home before trying it in the wilderness or on vacation. Have plenty of water on hand.

Lastly, do not be too rigid. If you typically eat from eleven a.m. to seven p.m., it is perfectly fine to eat before a morning race or a big training day, breaking that fasting window. Consistency is good; inflexibility is not.

HOW DOES INTERMITTENT FASTING WORK?

To understand how intermittent fasting leads to fat loss, we first need to understand the difference between the fed state and the fasted state. Your body is in the fed state when it is digesting and absorbing food. Typically, the fed state starts when you begin eating and lasts for three to five hours as your body digests and absorbs the food you just ate. When you are in the fed state, it is very hard for your body to burn fat because your insulin levels are high.

After that time span, your body goes into what is known as the post-absorptive state, which is just a fancy way of saying that your body is not processing a meal. The post-absorptive state lasts until 8-to-12 hours after your last meal, which is when you enter the fasted state. It is much easier for your body to burn fat in the fasted state because your insulin levels are low.

When you are in the fasted state, your body can burn fat that has been inaccessible during the fed state. Because we do not enter the fasted state until 12 hours after our last meal, it is rare that our bodies are in this fat-burning state. This is one of the reasons why many people who start intermittent fasting will lose fat without changing what they eat, how much they eat, or how often they exercise. Fasting puts your body in a fat-burning state that you rarely make it to during a normal eating schedule.

If you are considering giving intermittent fasting a shot, there are a few different options for working it into your lifestyle. Here are example diets based on intermittent fasting:

Daily Intermittent Fasting

Most of the time, I follow the Leangains model of intermittent fasting, which uses a 16-hour fast followed by an 8-hour eating period. This model of daily intermittent fasting was popularized by Martin Berkhan of Leangains, which is where the name originated.

It does not matter when you start your eight-hour eating period. You can start at eight am and stop at four pm. Or you start at two pm and stop at ten pm. Do whatever works for you. I tend to find that eating around one p.m. and six p.m. works well because those times allow me to eat lunch and dinner with friends and family. Breakfast is typically a meal that I eat on my own, so skipping it is not a big deal.

Weekly Intermittent Fasting

One of the best ways to get started with intermittent fasting is to do it once per week or once per month. The occasional fast has been shown to lead to many of the benefits we have already talked about, so even if you do not use it to cut down on calories consistently, there are still many other health benefits. Cardiovascular health, insulin resistance, and brain health can be influenced by the occasional break in eating.

Alternate-Day Intermittent Fasting

Alternate-day intermittent fasting incorporates longer fasting periods on alternating days throughout the week. For example, you would eat dinner on Monday night and then not eat again until Tuesday evening. On Wednesday, however, you would eat all day and then start the 24-hour fasting cycle again after dinner on Wednesday evening. This allows you to get long fast periods consistently while also eating at least one meal every day of the week.

The benefit of alternate-day intermittent fasting is that it gives you a longer time in the fasted state than the Leangains style of fasting.

HOW DOES A THREE-DAY FAST WORK?

A three-day fast in its most restricted form is a period of 72- hours in which you are allowed to take in only water. It is recommended to drink

between two and three liters of water in 24 hours, according to the capacity of your body and outside temperatures. Many sources state that fasting on water alone is not recommended as you will not be getting any calories at all which can be dangerous for your system, so it is generally allowed to have some diluted fruit and vegetable juices as well, usually in combination with lemon water spiced with cayenne pepper for an enhanced cleansing effect.

The benefits of going 72 hours without eating foods are numerous. The first is for the experience! During this time, **autophagy** occurs. This is the body's way of cleaning out damaged cells in order to make newer, healthier cells. "Auto" means self and "phagy" means to eat, so the literal translation of autophagy is "self-eating". This process has been associated with anti-aging, longevity, improved metabolic health, pre-cancerous cells are dying and insulin sensitivity is reset. Autophagy has a huge impact on longevity because it keeps cells young, healthy, and functioning at their best.

WHAT IS THE BEST WAY TO END A FAST?

After not eating for three days, you are probably going to feel excited and anxious to eat again, but since you just detoxed your body and gave your digestion system a rest, it is best to introduce food slowly back into your diet.

The best foods to eat when breaking your fast are water-dense fruits, vegetables, or juices. My favorite food to eat when breaking a long fast is watermelon. It is mostly water, tastes great and is nutritious and easy to digest.. No matter what option you choose, start slow. Whatever you decided to break your fast with is more than likely going to stimulate your digestive system and make you feel as you need to use the restroom.

After water-dense fruits or vegetables, the next best thing is to eat some probiotic yogurt. It is easy to eat and light, and since your taste buds have had a break from anything sweet it will probably taste amazing! From here slowly start to introduce dense foods back into your diet, bringing meat and complex carbohydrates back in your diet

We should all be in awe of the incredible self-healing capabilities of our bodies. If any other machine on this planet ingested the quantity and quality of fuel that humans did, that machine would break. We have this

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all-powerful, self-healing miracle we call our body. I am constantly in awe of the diseases we heal and the damage repaired every second of every minute of our life. Take a step back and appreciate the magnificent body you were given. Take time to appreciate the ability of your body to repair the damage you inflict upon it. Be grateful for the repair process and have faith that in time you will repair. Be patient with healing. Reset the quality and quantity of fuel you are giving to your body. Take a break from eating to give your digestive system some time not to work. Expect miracles.

CHAPTER 16:

MICROBIOME

“I first started going to Russel Chiropractic almost a year ago because I was having weekly migraines. I had gone back and forth between different doctors’ offices trying to find relief. None of the medications they prescribed worked and started to take a toll on my body. After a bad reaction to the last prescription they gave me, I called Russel Chiropractic. The patient care I’ve received has been nothing short of amazing. Dr. Russel is truly incredible. Since seeing him, my migraines have decreased tremendously and my quality of life has skyrocketed! I can’t say enough how appreciative I am.”

-Sierra K.

WHAT IS CONSIDERED TO BE THE BEST MICROBIOME FOR OUR BODY AND WHY?

Most people think of bacteria within the body as the cause of getting sick or developing certain diseases, but did you know that at all times there are actually billions of beneficial bacteria present within all of us? In fact, bacteria make up our microbiome, an integral internal ecosystem that benefits our gut health and our immune system. Review Chapter 9 on **IMMUNITY** for questions about disease.

Microscopic creatures, including bacteria, fungi, and viruses, can make you ill. What you may not realize is that trillions of microbes are living in and on your body right now. Most do not harm you at all. In fact, they help you digest food, protect against infection, and even maintain your

reproductive health. We tend to focus on destroying bad microbes but taking care of the good ones may be even more important.

Recently, the scientific community has really come to embrace the important role that bacteria have in fostering a strong immune system and keeping us healthy. Not only are bacteria not detrimental to our health, but some are actually crucial for boosting immunity, keeping our digestive systems running smoothly, our hormone levels balanced, and our brains working properly.

A microbiota is defined as the community of microorganisms, including bacteria, archaea, viruses, and some unicellular eukaryotes, living in a specific environment. A microbiome, on the other hand, is the entire collection of all the genomic elements of a specific microbiota. Metagenomics is the field of molecular research that studies the complexity of microbiomes.

Considering that the human body is an environment, the human microbiota is the entire collection of microorganisms living on the surface and inside our body. These communities are important for human physiology, immune system development, digestion, and detoxification reactions. Some of these microorganisms residing in the gut encode proteins involved in functions important for the host's health. Enzymes are required for the hydrolysis of otherwise indigestible dietary compounds and the synthesis of vitamins. Consequently, we have two genomes, one inherited from our parents and the other acquired, i.e., the microbiome.

Most of the microbes in your intestines are found in a "pocket" of your large intestine called the cecum, and they are referred to as the gut microbiome. Although many different types of microbes live inside you, bacteria are the most studied.

There are more bacterial cells in your body than human cells. There are roughly forty trillion bacterial cells in your body and only thirty trillion human cells. That means you are more bacteria than human. There are up to one thousand species of bacteria in the human gut microbiome, and each of them plays a different role in your body. Most of them are extremely important for your health.

Altogether, these microbes may weigh as much as 2-5 pounds (1-2 kg) which is roughly the weight of your brain. Together they function as an extra organ in your body and play a huge role in your health.

WHY IS IT SO IMPORTANT TO TAKE CARE OF OUR MICROBIOME?

One of the most important things microbes do for us is to help us with digestion. The mix of microbes in your gut can affect how well you use and store energy from food. In many laboratory experiments, transferring the gut bacteria from certain obese mice to normal ones led to increased fat in the normal mice.

If you are wondering how these invisible creatures can affect you so deeply, consider that our bodies did not evolve independently. Rather, we co-evolved with the bacteria that have been on this planet long before we got here. As a result of this joint evolution, there are many functions that we cannot perform on our own. Even our early ancestors depended on the microbiome. From our very first moments as *Homo sapiens*, our bodies have relied upon a community of bacteria to remain healthy and for survival.

Another key job of our microbiome is to maintain a healthy gut by nursing the cells of the gut wall. This wall is only one cell thick, and most of our immune system is just on the other side. The immune system relies upon the microbiome to function at its best. If and when your microbiome is out of balance, your immune system struggles, and you are likely to suffer from frequent colds, allergies, joint pains, acne, and potentially more serious disorders.

We need the microbiome to keep our gut healthy because the gut is so vital to our overall health. Besides its role in digestion, the microbiome also helps us to process thoughts and emotions. So much so, that scientists often refer to this as “the second brain”. To take just one example, 70% of your serotonin, the feel-good chemical made in our bodies that promotes emotional well-being, self-confidence, and good sleep, is made in the gut. When your microbiome is in good shape, chances are, your gut is as well and your serotonin and other hormones and neural chemical levels are more likely to be optimal. As a result, you

feel calm, balanced, optimistic, and confident, and you are likely to sleep well.

When your microbiome is out of balance, your gut suffers. As a result, your production of serotonin and other neurotransmitters drops, leaving you vulnerable to depression, anxiety, self-doubt, and sleep problems. We think of these issues as “brain problems”, but in fact, the bio-chemicals that govern them are more densely populated in the gut. So really, they could be considered “gut problems”.

Your microbiota is as unique as your own fingerprints. The composition of each person's microbiome depends on diet, stress level, environment, age, and other factors. If you are feeling freaked out, don't be!

FIVE THINGS YOU SHOULD KNOW ABOUT YOUR MICROBIOME

Your microbiome helps you digest food: We cannot digest many of the things we eat without the beneficial bacteria in our gut. Gut bacteria produce enzymes that help us digest polysaccharides (healthy complex sugars found in plants). They are also responsible for providing us with B vitamins, vitamin K, and short-chain fatty acids. Thus, they are responsible for helping influence the nutritional value of the food we eat.

Your microbiome helps boost your immune system: There is a lot of interaction between your immune system and the bacteria in your gut. As your immune system is exposed to different organisms, your microbiota mediates the relationship. It teaches your immune system which invaders are friends or foes. This helps keep your body from attacking friendly gut bacteria needed for digestion. These microbes also stimulate tissue around the gut to increase the production of antibodies when needed.

Your microbiome influences your mental health: The brain and the gut are connected via the **Vagus nerve**, enteric nervous system, and the gut-brain axis. Your gut microbiota actually interacts with your central nervous system to regulate brain chemistry. That's right, your gut bacteria can actually affect your responses to stress, anxiety, and even your memory.

Research has shown that gut bacteria influence serotonin and dopamine production. Serotonin makes you feel happy and aids in digestion. Ninety percent of your body's serotonin can be found in your gut.

Your microbiome promotes healthy skin: Our skin is covered in the biofilm of microbes that form a protective layer over us. These microbes protect us from bacterial and fungal invasion. They also convert skin oils into natural moisturizers to keep our skin healthy.

Your microbiome protects you from toxins: Bifidobacteria is responsible for keeping toxins from passing through the intestinal wall and into your bloodstream. You could say that thanks to the microbiome, we are more than humans, we are super organisms! The role our microbiota plays is central to the body's operations.

Maintaining a positive microbiome is all about diet. Make sure you are eating a diverse diet rich in complex carbohydrates, fiber, probiotics, and prebiotics.

WHAT GETS IN THE WAY OF THE MICROBIOME?

Each of us has an internal complex ecosystem of bacteria located within our bodies that we have coined “a community of microbes.” The vast majority of the bacterial species that make up our microbiome live in our digestive systems.

Our individual microbiomes are sometimes called our “genetic footprints” since they help determine our unique DNA, hereditary factors, predisposition to diseases, body type or body “set point weight”, and much more. The bacteria that make up our microbiome can be found everywhere, even outside of our own bodies, on nearly every surface we touch and every part of the environment we come into contact with.

The microbiome can be confusing because it is different from other organs in that it is not just located in one location and is not very large in size. There are many ways that you can help protect your microbiome. To start, follow these helpful tips:

Go gluten-free: Gluten, the compound proteins found in wheat, rye, barley, and other grains, is irritating to the gut for many people. Gluten intolerance can cause the immune system to respond by inflaming the

gut. To avoid this, try eliminating gluten from your diet whenever you can.

Avoid antibiotics: Many antibiotics are prescribed for illnesses that they actually do not affect, like viruses. These antibiotics will indiscriminately wipe out any bacteria they come across, both good and bad. Indiscriminate and unnecessary antibiotic usage leads to super-resistant bacteria. Antibiotics have been commonly prescribed for over 80 years now. They can lower our immune function and raise the risk of infections, allergies, and diseases. While antibiotics can save lives when they are truly needed, they are often over-prescribed and misunderstood.

Go Organic: Conventionally farmed meat, poultry, and dairy products all contain added antibiotics and hormones. Most animals are raised on genetically modified feed. Organic regulations prohibit the use of antibiotics and therefore are better for protecting your microbiome.

Eat more fermented foods: Fermented foods naturally contain the good bacteria that keep your microbiome healthy. Incorporate more foods like sauerkraut, kimchi, kombucha, miso, tempeh, or fermented veggies into your diet.

Take a probiotic: A high-quality, high-potency probiotic supplement contains good bacteria that work to replenish the microbiome. A daily probiotic can improve your intestinal health, support immune function, increase absorption of vitamins and minerals... and a whole lot more. It is particularly important to take a daily probiotic if you are taking antibiotics.

Add pre-biotics to your diet: These are types of dietary fibers that feed the friendly bacteria in your gut. Consume at least 5 to 8g of plant-based prebiotics each day. Examples are Jerusalem artichokes, chicory root, raw dandelion greens, leeks, tomatoes, garlic, onions, asparagus, spinach, beans, bananas, oats, and soybeans. Remember to eat the stalks; the bottom of asparagus, broccoli, and celery are all prebiotic-rich sources.

Avoid processed foods: Junk foods have been altered and modified so much that your helpful digestive bacteria do not even know how to break them down properly. Avoid anything with trans fats, preservatives, or artificial ingredients and sweeteners.

Eliminate sweets and starchy foods: Sweet and starchy foods are favored by the harmful bacteria that dwell within you. Ingesting too many can cause bad bacteria to overgrow and overtake the good. This upsets the balance and diversity of your microbiome and leads to all the negative health effects mentioned earlier.

Lower stress and exercise more: Stress hinders immune function because your body diverts energy away from balancing homeostasis with fighting off infections and focuses energy on primary concerns that keep you alive. This is one of the reasons why chronic stress can kill your quality of life. Stress causes immune compounds known as cytokines to contribute to the inflammatory responses that damage healthy cells. Exercise is a natural stress reliever that can help lower inflammation, balance hormones, and strengthen the immune system.

WHAT ARE THE SIDE EFFECTS IF YOU DO NOT TAKE CARE OF OUR MICROBIOME?

The human body has more microbial cells than human cells. This rich diversity of micro helpers that has evolved along with us is undergoing a rapid shift. This shift may have macro health consequences. Bacteria, viruses, and fungi have been primarily villains in the battle for better human health. A growing community of researchers is sounding the warning that many of these microscopic pests are really ancient allies.

The use of antibiotics is known to have significant effects on the intestinal microbiota. The acquisition and spread of antibiotic-resistant genes between and within bacterial communities due to the overuse of antibiotics have also been thoroughly studied. We now have an increased awareness of the importance of more responsible use of antibiotics. It is only recently that studies have begun to reveal the details of the impact of these antibiotic drugs on our intestinal microbial communities.

The loss of diversity of microbes dramatically impacts our immune systems. With our bodies not primed with the antigens from a full complement of gut microbes and not focusing immune response on keeping the gut microbes in check, the body develops autoimmune disorders, allergies, asthma, Crohn's disease, etc. It seems clear that

diverse gut microbial communities can suppress the virulence of potential pathogens in the gut.

It is now well-established that antibiotic treatment increases susceptibility to intestinal infections. Some of the members of the microbiota involved in this process are currently under investigation. Although these studies are necessary to our understanding of the effects of antibiotics in the human body and the importance of the intestinal microbiota for human health, the mechanisms involved in these interactions remain mostly unknown.

EXAMPLES OF PROBIOTICS THAT ARE GOOD FOR US

Probiotics are beneficial components of the microbiota that have been used for centuries because of the health benefits to the host. Only recently, however, has the contribution of probiotics to influence our immunological, respiratory, and gastrointestinal functions started to be fully appreciated and scientifically evaluated. Probiotics such as *Lactobacillus acidophilus*, *Lactobacillus rhamnosus* GG, *Saccharomyces boulardii*, *Bifidobacterium bifidum*, and *Bacillus coagulans* bacteria are currently used to prevent or treat a range of intestinal issues, including inflammatory bowel disease, constipation, and colon cancer.

Probiotics are live organisms in most cases and are bacteria that are similar to the beneficial microorganism mostly found in the human gut. These “good bacteria“ are used to prevent and alleviate many different conditions, but particularly those that affect the gastrointestinal tract.

The following are some examples of probiotics:

Lactobacillus Bulgaricus can be found in many yogurts and soft cheeses. It was discovered by a Bulgarian, Dr. Stamen Grigorov, hence the name *Bulgaricus*. It helps to convert lactose and other sugars into lactic acid, which may be particularly helpful for those who are lactose intolerant.

Streptococcus Thermophilus has nothing to do with strep throat, which is caused by a completely different bug. These friendly bacteria are also used to make yogurts and cheeses, and they even assist *Lactobacillus Bulgaricus* by making nutrients that assist with growth.

Lactobacillus acidophilus and *Lactobacillus casei* both convert lactose into lactic acid which is beneficial for those that are lactose intolerant.

Research has indicated that lactobacillus acidophilus may also help reduce cholesterol levels.

Bifidobacteria is a family of bacteria that have been studied for their ability to prevent and treat various gastrointestinal disorders, including infections, irritable bowel syndrome, and constipation. In addition to making lactic acid they also make important short-chain fatty acids that are then absorbed and metabolized by the body. There is also some experimental evidence that certain Bifidobacterium actually protects the host from a carcinogenic activity of other intestinal flora.

PROBIOTIC FOODS WITH GOOD BACTERIA

For many years scientists have believed that the bacteria in the stomach were incredibly diverse, making a huge challenge to categorize, study, and generally make any health conclusions about. Fortunately, new research has been found in the study in The Journal of Nature where researchers use gene sequencing to catalog the hundreds of species of bacteria in the gut. What they found was surprisingly simple. There are just three kinds of basic bacteria in all of our stomachs and intestines. As we know our blood type, researchers say that knowing what type of bacteria we have in our stomachs may help to understand better and treat diseases.

Even if you do not know exactly what kinds of good bacteria you have in your gut, you can still do something right now to improve it.

Here are five healthy probiotic foods that are naturally high in the good bacteria that your stomach loves.

Miso: This paste made from fermented soy is high in good bacteria and can add a savory umami flavor to any dish. Buy it in a paste at a natural food store or your closest international or Asian market. Or, have it before you eat sushi!

Yogurt: This is a no brainer. Look for low sugar and low-calorie yogurts that contain lactobacillus, bifidus, and acidophilus to reap the stomach health benefits. If you do not do well with dairy, take a look at some healthy non-dairy yogurt varieties.

Sauerkraut: Most people think that sauerkraut is just for Oktoberfest or topping off ballpark hotdogs. This fermented cabbage mixture contains

Lactobacillus Plantarum and has been shown to give your immune system a big boost, along with helping the digestion of lactose and reducing the growth of yeast. Even better, fermented foods can also keep cholesterol low and metabolism high.

Kombucha: This type of fermented tea definitely has a unique and fizzy taste to it. Those who drink it swear by its benefits for the stomach and overall well-being. It has also been sipped since the days of ancient China for its energy-boosting and anti-inflammatory properties.

Kefir: Kefir is a fermented milk product that is a natural probiotic. The amino acid tryptophan, the same thing in turkey at Thanksgiving dinner, can help relax the nervous system. Found in everything from ready-to-drink smoothies to ice cream, kefir is usually better tolerated by those with lactose intolerance than other dairy-based fermented foods.

Tempeh: A food formed by fermented soybeans. Tempeh is a firm, white block that is frequently used as a protein-packed meat substitute for the plant-based and vegetarians. Keep in mind, it has more calories but more protein, fiber, and probiotic potential than tofu, which is also soy-based.

Microbes inhabit both the inside and outside of our bodies, residing in the gut, digestive tract, genitals, mouth, and nasal areas. We can determine if someone's microbiome is in good shape by understanding the balance of the "bad bacteria" versus "good bacteria". Essentially, we need a higher ratio of "good bacteria" to outnumber the "bad bacteria" to stay resilient and maintain our health homeostasis. Unfortunately, due to factors like poor diet, high amounts of stress, and environmental toxins exposure, most people's microbiome is the home to many billions of potentially dangerous bacteria, fungus, yeast, and pathogens. When we carry around more pathogenic bacteria than we should and lack the diversity of protective bacteria we need, the microbiota suffers. When the microbiota suffers, our entire systems suffer.

CHAPTER 17:

FATS AND OILS

“Our three-year-old son, Ethan, had been suffering from numerous illnesses that were associated with his asthma. We had taken him to multiple pediatricians and doctors whose solutions were always drugs. Usually, these drugs made Ethan feel better for a few hours and would then wear off. My mother-in-law had recommended Dr. Russel soon after Ethan was born, however, my husband and I were reluctant because we both work in the medical field. Finally, after watching our son's health continue to get worse we made an appointment. Immediately after starting care with Dr. Russel, we saw Ethan come back to life. It was as if his dimmer switch had been turned all the way back up! He was playful, laughing, and filled with youthful energy. We had our son back! Within two weeks we had stopped using his inhaler and steroids completely.”

-Jessica G.

FATS AND OILS

It seems today that there are so many different opinions on what fats are good and bad. How do we know which oils are okay for my family to eat in their snacks? The question to ask when you are looking at which oils are going to be unhealthy for you is, will this oil be degrading because it is unstable at a high temperature? The truth is, we need to be looking at oils and their stability when deciding if the oil is going to be beneficial to you or not.

Most of us have heard of monounsaturated fats, polyunsaturated fats, and saturated fats. Also known as triglycerides, these long chains of carbons with hydrogens and oxygens attached to them are one of the **THREE GROUPS OF MACRONUTRIENTS** that humans consume. The other two are proteins and carbohydrates. **Mono** refers to one unsaturated point on the fat molecule. **Unsaturated** means that that point does not have hydrogen attached to it. **Polyunsaturated** means that there is more than one point without hydrogen on it. **Saturated** means that there are no open points for hydrogen to attach, that the fat is saturated with hydrogen.

We should be cooking with monounsaturated oils at low to medium temperatures to avoid them from being degraded. We should be more worried about consuming food that has been cooked in polyunsaturated vegetable oils, because these are prone to oxidative damage that is terrible for our cells, including our brain cells. Many of these polyunsaturated oils like soybean oil, cottonseed oil, corn oil, saffron oil are far more prone to free radical production when exposed to heat or light. When consumed, free radical production contributes to inflammatory processes within the body like heart disease, diabetes, and other chronic degenerative diseases. Saturated fats like palm oil, coconut oil, or butter are some of the healthiest oils to cook with because they are the most stable and they are less inflammatory than polyunsaturated oils.

What I recommend is to use your monounsaturated oils like your olive oil for salads or for cooking vegetables and stir fry on low heat. When cooking at higher temperatures, like searing meat, you should use butter or coconut oil. These saturated fats are good for you in moderation. They have a very large number of what are called medium-chain triglycerides, which are lacking in most people's diets and are a great source of energy and keep your appetite satiated. Some studies even suggest that they improve the metabolism of boric acid, which is one of the components of the saturated fats that have been linked to helping the immune system. There are quite a few benefits to using saturated fats in our foods. They do need to be used in moderation because they are **very calorie-dense**.

It is important to supplement with a blend of essential fatty acids that contain omega 3-6-9 oils daily. Supplements like **Udo's oils** contain flax

oil, sunflower, sesame, coconut, evening primrose, rice bran, oat germ, and organic soy lecithin. Supplementing with pharmaceutical-grade fish oils is recommended as well because they contain EPA and DHA which are very important in terms of cell membranes in our bodies and brains. Lots of research has indicated that the omega-3 essential fatty acid fish oil supplements are a safer alternative to nonsteroidal anti-inflammatory drugs (NSAIDs) for decreasing inflammation in the body. Other important alternatives to nonsteroidal anti-inflammatory drugs (NSAIDs) are:

- Turmeric, the fragrant yellow spice found in curry
- Boswellia, an extract from trees in India
- Bromelain, an enzyme found in pineapple
- White willow bark, a natural precursor to aspirin
- Green tea, a potent antioxidant, and anti-inflammatory

When you look at how much canola oil is still used in so many healthy snacks, so-called healthy foods, and salad dressings, you will be shocked! We need to be vigilant about foods that are high in **DAMAGED** fatty acids, like those found in:

- Corn
- Safflower
- Sunflower
- Canola oil
- Fish oils that are exposed to too much light and heat
- Corn and grain-fed meats

These damaged fats get put into the building blocks of your cells and your cell membranes including your neurons. Every single one of our cells in our bodies has a membrane around it that really acts as the “brain” of the cell allowing things to move in and out of the cell for proper function. This membrane “brain” is formed by the fats that you eat. The more permeable and flexible these membranes depend on the quantity and most importantly the quality of the fats you get from your nutrition and diet. Investigate further into the membrane “brain” of cells in Dr. Bruce Lipton’s book *The Biology of Belief*.

Scientists have found an increase of linoleic acid, a plant-based omega-6 fatty acid found in corn, soy, sunflower, safflower, cotton, peanut, and canola oil in the American diet. Across five Western countries, we have seen a link between the increase in linoleic acid consumption and homicide rates from 1961 to 2000.

Humans have evolved to have a ratio of omega-6 and omega-3 fatty acids of about 1:1 to 4:1. When there are far too many omega-6 and not enough omega-3's in our cells, things go terribly wrong. A very high omega-6 to omega-3 fatty acid ratio as is found in today's western diets promotes diseases including cardiovascular, cancer, and inflammatory and autoimmune diseases.

There is plenty of research showing that the Mediterranean diet helps in preventing heart disease, cancer, diabetes, and even reduces the risk of death. Most scientists agree that this is due to the protective benefits that come from olive oils. Olive oil is made up of a blend of fats with 75% of the fats being the monounsaturated fat called oleic acid. The other 25% of the fats are mainly saturated fats containing vitamin E, beta carotene, and squalene, an antioxidant that is amazing for our skin. The unique feature of olive oil is that it contains powerful antioxidants and anti-inflammatory phytonutrients called polyphenols. Just one-to-two tablespoons of extra-virgin olive oil per day has significant anti-inflammatory effects.

Extra virgin olive oil is one of the only foods that have extremely high levels of squalenes. These squalenes make up almost 1% of extra virgin olive oil. Squalene is an antioxidant that has a very chemo-protective effect, specifically against skin cancer. If you are spending a lot of time in the sun, especially in the summer, one of the best things you can do is consume extra-virgin olive oil to help protect your skin.

The acronym for understanding what good Mediterranean fish to eat is a **SMASH diet**: sardines, mackerel, anchovies, salmon, and herring. The SMASH diet combined with a high intake of extra-virgin olive oil is one of the best things you can do for your cardiovascular health.

So many people ask me all the time why it is that we are not reading about this information in regards to fats and oils in our diet. The current reality is that the food industry infiltrates the science of nutrition with money. The food industries fund the nutrition scientists, they fund the

studies and in turn, they distort the science in several ways. The industry also is the major contributor to funding scientific conferences. Over the last 40 years, nutrition experts truly believe that fat in meat is bad for one's health. Leaders in scientific research of nutrition and fats such as George Man were kicked out of the science and nutrition industry by fellow scientists. When scientists like Man submit a paper, it will not get accepted for publication because most of his fellow scientists are on board with the food industry.

The main reason that these nutritional experts can no longer do their work is due to a loss in funding. Younger scientists see this happening to their older colleagues and stay far away from this kind of research. New scientists do not write about certain things, they do not study certain things and they will not talk to most people about dietary fat because of the monopoly of the food industry.

As a result of biased research, we now see the current American diet consisting of lean animal protein that has little to no fat. If we look back to Americans in the mid-1800s, they ate mainly wild game that was not lean. Most hunters did not look for elk, bison, and moose because the meat was so lean and the amount of effort involved in hauling that meat was not worth it to them. Americans in the mid-1800's preferred fattier meats like bear and bobolink opossum and fatty parts of deer.

Americans only recently started eating lean meat in the 1980s when the US dietary guidelines began. The entire cattle industry changed in order to comply with our government guidelines. So now cattle are bred to be leaner. Pork is raised to be leaner. Unfortunately, we are now missing out on the good animal fats to go along with the protein. You do not want to overdose on protein without eating fat. The healthier choice is to consume a higher fat diet with a moderate amount of protein.

TRANS FATS & THEIR UGLY COUSINS (INTERESTERIFIED FATS)

In the early 1900s, vegetable oils were invented. They were very unstable. When squeezing the oil out of cotton seeds, soybeans, and corn, we produced something that is not meant for humans to ingest. These oils quickly go rancid, oxidize, and definitely could not be used for cooking. So scientists developed a process to harden the oil called hydrogenation.

One of the byproducts of hydrogenating oils was **trans fat**. Mary Enig was one of the early researchers on trans fats. At that point, food manufacturers created margarine, which is made up of hydrogenated oil, and Crisco that was supposed to replace lard. These “healthy” alternatives turned out to be toxic for human consumption. So what do we do to replace them? We were not able to use liquid oil because it still oxidizes, goes rancid, and is very unstable. So scientists went back to the chemistry lab to figure out something else to replace hydrogenation. It was a huge deal for the food industry. Most likely the biggest change the food industry has done in the last 20 years was replacing all the oils in their foods. Food manufacturers did not go back to using lard and tallow to fry the french fries as they previously had done. Saturated fats like pig lard and beef tallow still have a bad name to the American consumer. Instead, the food industry and their scientists came up with something called **interesterification**. This is the process of swapping out all the triglycerides in every molecule. Do we know how this fat is going to affect Americans 20 years from now? Sadly, we have no idea.

Interesterified fats are technically not trans fats. They are produced by combining stearic acids with glycerol.

Currently, we do not know much about these new fats or their short- and long-term consequences to human health. A recent study published on January 15, 2000, in the issue of *Nutritional Metabolism*, found that interesterified fats and trans fats had very similar negative effects. Both increased the total cholesterol and LDL cholesterol. The interesterified fat also raises fasting blood glucose by 20%. The American Heart Association states that because the study was small, “(the) safety profile of interesterified oils and shortenings isn’t as well understood as that of natural fats and oils” and that we need more research.

I would recommend staying away from all products containing interesterified fats.

The scary truth is we now have all these new chemicals entering our food supply and we really do not know anything about them. All of the major fast food chains like McDonald’s and Burger King had to basically develop new technologies to keep these oils from oxidizing too much. They have something called a **nitrogen blanket** that they put on top of the fryers now to absorb some of the oxidative products. When fried

foods from fast-food restaurants are tested, there are still hundreds of oxidative products found in a simple piece of fried chicken alone.

FATS WE SHOULD BE AVOIDING:

- Roasted nuts
- Roasted seeds
- Regular peanut butter
- Regular butter
- Non-organic meats
- Margarine
- Spreadable condiments
- Farm fish
- Commercial salad dressings
- Canola oil
- Safflower oil
- Sunflower oil
- Cottonseed oil
- Soy ice cream
- Cashew ice cream
- Regular ice cream
- Milk chocolate

FATS WE SHOULD ONLY HAVE IN MODERATION:

- Raw nuts (no peanuts)
- Almond butter
- Raw seeds
- Palm oil
- Flaxseed oil

EMPOWERED

- Bacon
- Mayonnaise
- Organic peanut butter
- Dark chocolate
- Coconut ice cream

FATS THAT WE SHOULD BE HAVING 3 TO 5 SERVINGS PER DAY:

- Coconut oil
- Coconut meat
- Macadamia nut oil
- Avocados
- Olive oil
- Olives
- Organic grass-fed butter
- Organic yogurt (full-fat)
- Ghee
- Free-range eggs with yolks
- Grass-fed beef, buffalo, lamb
- Sardines, anchovies in water or olive oil
- Wild salmon, trout, tilapia, or flounder
- Triglyceride-based fish oil
- Pure cod liver oil.

COMMON HEALTH FOODS CONTAINING DETRIMENTAL OILS:

- Gluten-free and/or organic frozen pizzas
- Popular healthy frozen meals

- Coffee creamers
- Packaged popcorn
- Dairy-free ice creams, particularly those made with coconut, cashew, or almond milk
- Sautéed and stir-fried foods found at restaurants
- Gluten-free and organic packaged crackers, cookies, pretzels, and rice crackers
- Organic nut spreads like almond butter, cashew butter, and peanut butter
- Most pasteurized dairy products such as cheeses, butter, and organic yogurts

OILS TO USE FOR COOKING:

- Ghee
- Tallow
- Lard
- Duck fat
- Grass-fed butter
- Olive oil
- Coconut oil
- Avocado oil
- Macadamia oil

CHAPTER 18:

BREASTFEEDING

“My chiropractor told me that the improvements made in my spine were not due to chiropractic care. Time to explain. Late last June I had x-rays taken from Dr. Rassel in my neck and found out that my neck was curved 61° in the wrong direction! As of Today, sixteen months later, my neck has improved dramatically. It still isn't perfect and most likely will never be, but now it is 45° away from normal. My headaches and migraines that I used to get 4 to 6 times a week are almost nonexistent now. The constant shooting pain down my left arm and shoulder have significantly improved and overall I just feel better!

In the middle of me praising my chiropractor, Dr. Rassel, and thanking him for helping me, he stopped me to tell me that chiropractic care was not what I should be celebrating. He said that chiropractic was not a miracle, it was just a tool. At first, I thought he was just being modest, but as I thought about it more, I began to understand what he meant. And he was right. Chiropractic, just like nutrition, and exercise are not miracles – your body is! These are tools to help eliminate interference within our bodies. Interference that occurs from living a life full of running, playing, accidents, poor postures, stress, toxins, lack of nutrients, artificial and processed foods, pollution, and the list goes on. All of these things bog down our bodies day in and day out. Once the pathways within our bodies are allowed to run their natural processes, that is when the miracles occur!”

-Brittani K.

BENEFITS OF BREASTMILK

It is no exaggeration to say that breast milk is nature's perfect food. Just as cow's milk is the ideal source of nourishment for calves and goat's

milk is the best meal for baby goats (kids), human breast milk is exquisitely tailored to meet the nutritional needs of a newborn baby. Human breast milk contains at least one hundred ingredients that cannot be found in cow's milk. Even top-notch manufacturers have yet to duplicate Mother Nature's formula. Unlike a formula bottle feed, where the formula is the same from feeding to feeding, the milk that the mother's body makes changes in its composition as a response to an infant's needs (and changes in taste based on the foods the mother is eating).

Breast milk is THE BEST nutrition for a baby. The benefits of breastfeeding extend well beyond basic nutrition. In addition to containing all the vitamins and nutrients an infant needs in his first six months of life, breast milk is packed with disease-fighting substances that protect the baby from illness. That is the main reason the American Academy of Pediatrics recommends exclusive breastfeeding for the first six months (although any amount of breastfeeding is beneficial). Current scientific studies have shown that breastfeeding is good for mothers health as well.

Breast milk provides the ideal mixture of vitamins, proteins, and fats that a baby needs to grow. And it is all provided in a form that is suggested to be more easily digested than formula. Breast milk contains the mother's antibodies that help the baby fight off viruses and bacteria. Breastfeeding lowers the baby's risk of asthma and allergies. Research shows that babies who are breastfed exclusively for the first six months, without any supplementation such as formula, have fewer ear infections, respiratory illnesses, and bouts of diarrhea. These babies also have fewer hospitalizations and trips to the doctor.

BREASTFEEDING BENEFITS FOR BABY

Best nourishment: Breast milk is designed for an infant's brand new digestive system where its micronutrients are easily absorbed. The proteins and fats in the mother's milk are easier for the baby to digest than those in cow's milk or formula.

A happier tummy: Breast milk not only goes down easier, but it stays down and goes out easier. Breastfed newborns suffer far less bouts of constipation and rarely have diarrhea compared to formula-fed babies.

Formula companies will describe the pre- and probiotics that are added to formulas (which are naturally occurring in breast milk), making one believe that they are one and the same. This is not the case. Breast milk reduces digestive issues by keeping harmful microorganisms in check, while encouraging the growth of the beneficial ones.

Better poops. Easily digested breast milk also explains breastfed babies' sweeter smelling soiled diapers (at least until solids are served). Their stools are also less likely to trigger diaper rash.

No allergies: There's new evidence that breastfed babies may be less likely to develop eczema and asthma than formula-fed babies.

A naturally safe meal: There are no worries about spoilage, contamination or recalls when it comes to breastfeeding. Breast milk is always sterile! No boiling required.

Less risk of cancer: Breastfeeding can decrease a baby's risk of childhood cancers. Mothers who breastfeed will have a lower risk of premenopausal breast cancer and ovarian cancer which is an often deadly disease that is on the rise.

Protection from infection: Some pediatricians like to refer to breastfeeding as a baby's first immunization. Why? With each feeding, breastfed babies get a healthy dose of antibodies from the mother, which helps boost their immunity against bacteria and viruses, including colds, ear infections, lower respiratory tract infections, urinary tract infections, and other common childhood illnesses. When babies do get sick, nursed babies typically recover faster and with fewer complications because the mother can produce the antibodies needed to heal the sick child.

A brain boost: Several studies show a slight but statistically significant increase in the IQ of breastfed babies compared with those fed formula in children as old as fifteen and beyond. One possible reason is that breast milk contains the fatty acid DHA (docosahexaenoic acid), which is important for brain development. The baby also gets hours of skin-on-skin contact with mom, which makes a baby feel nurtured and safe, and supports intellectual development.

Mighty mouths: Rubber and silicone nipples offer flimsy resistance to a baby's suckle compared to a mother's breast. Breastfed babies get more of the comforting satisfaction they crave because they have to work extra

hard for their meals. All that sucking helps build a stronger jaw, gums, and palate, all of which helps ensure optimum oral development.

BREASTFEEDING BENEFITS FOR MOM

Postpartum recovery: When a baby is breastfeeding, it triggers the release of oxytocin, the "feel-good" hormone that spurs the shrinking of the uterus. By burning 300 to 500 extra calories every day, breastfeeding help mothers lose their baby weight faster. Most of those pounds were specifically made for milk production, so here is the chance to use them.

Health boost: Research has shown that breastfeeding may slightly reduce the mom's risk of uterine, ovarian, and premenopausal breast cancer. It may also cut the risk of developing rheumatoid arthritis and osteoporosis later in life.

Built-in bonding: For many mothers, that physical and emotional connection they get from a nursing baby is the ultimate benefit. (That is not to say that you will not bond with your child while bottle-feeding. It just might be in a different way.)

Natural birth control? Be aware! A mother's period will be slower to return while breastfeeding. Unless she wants her children very closely spaced, or enjoys surprises, she should not rely on breastfeeding as her only form of contraception, particularly if she often switches from breast to bottle. Most breastfeeding mothers begin to ovulate between four and six months after giving birth, and the mother is fertile before that first period begins again.

WHAT IS ACTUALLY IN BREASTMILK?

The ingredients in breast milk depend on when the milk is being made and for whom it is for. One of the wonderful characteristics of human milk is the way it changes to meet a baby's needs as they grow. The breast milk a mother produces for her premature baby differs from the milk she would produce for a full-term newborn, and that differs from the milk she will have for her 6-month-old baby. All breast milk contains the extra nutritional and protective components needed most by each baby at every age. Breast milk contains the following:

Colostrum is the first pale yellow milk a mother produces after giving birth. Some have noticed beads of colostrum on the nipple in the last weeks of pregnancy. It's so high in antibodies that some people call it a baby's first immunization. It is high in protein, minerals, salt, vitamin A, nitrogen, white blood cells, and certain antibodies. It has less fat and sugar than mature milk. Colostrum also has a slightly laxative effect and helps a newborn rinse their gastrointestinal tract of meconium which is the waste product accumulated before birth. This will dramatically reduce the risk of jaundice. A little colostrum goes a long way.

Mature milk will come in approximately two to four days after the baby is born, dependent upon the frequency of nursing in the first hours and days after birth. Mature milk is produced in greater amounts than colostrum. New mothers often produce too much at first, until their baby's appetite and nursing frequencies match the amount produced to the amount needed. Mature milk contains water, fats, carbohydrates, proteins, vitamins and minerals, amino acids, enzymes, and white blood cells. **Over the course of a feeding, breast milk changes from foremilk, high in water and lactose, to hindmilk, high in fat and calories.** Make sure your baby is getting the fat-rich hind milk! After the first few weeks of nursing, breast milk will contain fewer white blood cells and more of another antibacterial enzyme, **lysozyme**. This crucial enzyme destroys the cell walls of bacteria and is not found in formula milk. Levels of lysozyme in moms breast milk stay high as long as breastfeeding continues. The quantity of milk a mother produces increases along with the baby's weight and appetite until solid foods becomes a daily part of their diets.

OTHER NUTRIENTS FOUND IN BREASTMILK

Fats

Human milk also contains fats that are essential for the health of a baby. These fats are necessary for brain development and absorption of fat-soluble vitamins, and is the primary calorie source. Long-chain fatty acids are needed for the brain, retina, and nervous system to develop. Fats are deposited in the brain during the last trimester of pregnancy and are also found in breast milk.

Vitamins

The amount and types of vitamins in breast milk is directly related to the mother's nutritional intake. This is why it is essential for moms to have great nutrition. Fat-soluble vitamins, including vitamins A, D, E, and K, are all vital to the infant's health. Water-soluble vitamins such as vitamin C, riboflavin, niacin, and pantothenic acid are also essential. Because of the need for these vitamins, many health care providers and lactation consultants will have nursing mothers continue on prenatal vitamins.

Carbohydrates

Lactose is a milk sugar and is the primary carbohydrate found in human milk. It accounts for approximately 40% of the total calories provided by breast milk. Lactose helps to decrease a large number of unhealthy bacteria in the stomach, which improves the absorption of calcium, phosphorus, and magnesium. Lactose helps to fight diseases and promotes the growth of healthy bacteria in the stomach.

Proteins

Human milk contains two types of proteins: whey and casein. Approximately 60% is whey, while 40% is casein. This balance of proteins allows for quick and easy digestion. If artificial milk (formula) has a greater percentage of casein, it will be more difficult for the baby to digest. Approximately 60-80% of all protein in human milk is whey protein. These proteins have great infection-protection properties. Some specific proteins that are found in breast milk are Lactoferrin, Secretory IgA (including IgG and IgM), and Lysozyme.

WHY IS BREAST MILK SO POWERFUL FOR A BABY'S IMMUNE SYSTEM?

It is well known that breastfed babies are less likely to get infections compared to formula-fed babies. Breastmilk contains many factors that help support a baby's immune system. A mother passes on proteins, fats, sugars and cells that work against infections when she breastfeeds her baby. Antibodies, white blood cells, lactoferrins, lysozymes,

oligosaccharides, probiotics, and prebiotics are delivered pre-packaged to fight disease head-on.

Our immune system is made up of several different types of immune-boosting white blood cells, including neutrophils. These play an important role in the frontline defense against bacterial infections.

Until recently, it was generally believed that babies have immature immune systems that do not trigger the same inflammatory response normally seen in adults. Although babies need to protect themselves from the harmful pathogens they are exposed to from birth, it was thought that their T-cells were suppressed to some extent to prevent inflammatory damage to the developing child.

When a mother comes into contact with germs in her environment, she makes antibodies to fight those germs. These antibodies pass into the breastmilk and therefore into the baby. Since a mother and her baby are generally in contact with the same germs, this helps to protect her baby from the illnesses they are both exposed to. The main type of antibody in breastmilk is Immunoglobulin A (IgA). IgA antibodies protect the internal surfaces of the body, such as the mouth, stomach, intestines, and lungs. They are not digested by the baby but instead coat the gut and block the entry of infections that could otherwise cause illness.

Breastfed babies tend to have a larger thymus gland than those fed infant formula. The thymus gland makes a type of white blood cell that helps protect against infections.

WHY IS THERE CONTROVERSY AROUND BREAST MILK?

Even though a variety of evidence indicates that breastfeeding reduces many different health risks for mothers and children, numerous barriers to breastfeeding remain. Action is needed to overcome these barriers. Most women in the United States are aware that breastfeeding is the best source of nutrition for most infants, but they seem to lack knowledge about the specific benefits and are unable to cite the risks associated with not breastfeeding.

Mothers are also uncertain about what to expect with breastfeeding and how to actually do it. Even though breastfeeding is often described as “natural,” it is also an art that has to be learned by both the mother and

the newborn. Skills in how to hold a baby at the breast, how to achieve an effective latch, and other breastfeeding techniques may need to be taught. Most women expect breastfeeding to be easy, but then find themselves faced with challenges. The difference between expectations about breastfeeding and the reality of the mother's early experiences with breastfeeding her infant has been identified as a key reason that many mothers stop breastfeeding within the first two weeks postpartum.

The perceived inconvenience of breastfeeding is an issue. In a national public opinion survey, 45 percent of U.S. adults indicated that they believed a breastfeeding mother has to give up too many habits of her lifestyle. The commitment required by breastfeeding and difficulties in establishing breastfeeding routines is sometimes seen as threats to mothers' freedom and independence.

In the United States, formula bottle-feeding is viewed by many as the "normal" way to feed infants. Studies of mothers who are immigrants has found that rates of breastfeeding decrease with each generation in the United States, and that mothers perceive formula bottle feeding as more acceptable in the U.S. than in their home countries. Widespread exposure to substitutes for human milk, typically fed to infants via bottles, is largely responsible for the development of this social norm.

Sharing breast milk may sound kooky or unsavory to some, but it is a growing practice that can carry benefits and risks for a baby, depending on who is doing it and how. Milk banking has been around for more than one hundred years and is on the rise. This is where a mother's milk is donated to babies that are at-risk. This milk is tested and its immunity-boosting components can be lifesaving. In addition to exchanging tested breast milk, some moms skip the bottle and cross-nurse, splitting breastfeeding duties with another woman and her baby. Cross-nursers say they enjoy the flexibility as well as the four-way bonding that occurs between the moms and their children. Some moms go as far as hiring a wet nurse, a woman paid to breastfeed another child when they can't perform the task themselves

HOW LONG SHOULD A MOTHER BREASTFEED THEIR CHILD?

How long you breastfeed is your decision. It will depend on how the mother feels emotionally, as well as their personal circumstances. Whatever the family decides, it is most beneficial to give a baby nothing but breast milk until they are six months old (exclusive breastfeeding/pumping). The World Health Organization recommends exclusive breastfeeding (no other fluids or solids) for six months and then continued breastfeeding combined with solid foods for 2 years or as long as mother and baby desire. This will give a baby a healthy start in life.

If a mother is enjoying breastfeeding, she can continue for as long as she and the baby want to. That could mean until they are a year, or is even two years old. There is no need to stop before both are ready.

Before having a baby, most women have an idea of how long they aim to breastfeed their baby. In the UK, experts advise exclusive breastfeeding for the first six months. In many parts of the world, it is usually suggested to breastfeed for two years or even longer.

When a baby starts to eat solids, they need only a small amount of food for the first few months, and breast milk should still be the baby's main source of nutrition. At first, the food is used to develop their taste pallet while breast milk is what will continue to help them develop.

Trusting the process of breastfeeding will allow you to nourish your child and empower yourself as a woman.

CHAPTER 19:

SUPPLEMENTS

“I used to think chiropractic was just for neck pain and back pain. Over time, I have certainly come to realize it is so much more, especially now that I have my two little guys. Between ear infections and asthma, playground tumbles, and their expressions of “brotherly love” their bodies take a beating. As a mom, I know they will heal, God designed them that way. Through my experience with Dr. Russel, I know we can make sure their bodies are getting the full advantage of healing, by making sure their spine and nerves are all where they are supposed to be and functioning the way they are designed to. Dr. Russel truly is our doctor for our whole family and I can only imagine how much more so as these two boys get bigger and play rougher.”

-Gaileen R.

SUPPLEMENTS

I get questions all the time about supplements. “What supplements should I take,” or “why would I even need to take supplements.”

First and foremost, you cannot supplement a poor diet. Do not even waste your time. So which supplements would you want to take for health, fitness, and longevity? And why is it that organic food, high-quality water, and clean living do not provide my family with the right amount of vitamins, minerals, and nutrients? When walking down the aisle at your local health food store, Costco, or CVS drugstore, you will

be bombarded with all the supplements to choose from. These can be costly, confusing, and most likely useless.

Secondly, you get what you pay for. If you are looking to save money on your supplements I would recommend not taking them at all. Supplements can be dangerous, and supplement companies have been using deceptive tactics for many years to sell their latest and greatest wonder pills.

This chapter is not designed to review every supplement but to give you my top five recommendations to help support a health-conscious, performance-oriented person looking to improve longevity for themselves and their family.

If you are like me and what I would call a “health nut”, you research your health, exercise daily, have a good connection with your maker, and make decisions to improve your health through nutrition, exercise, and spiritual connection.

I will provide scientifically-based reasons your body will thrive with the following supplements. These are the things I recommend to my family, friends and patients.

Maintaining health in America is not easy. We are surrounded by an abundance of comfort foods and convenience. It takes work to maintain health. Dealing with being sick and managing disease also takes work. So whether you want to maintain health or deal with sickness, it is going to take work. This chapter is dedicated to one of the EASIEST ways to maintain health and treat disease, nutritional supplementation.

Before we talk about supplementation, I think it only makes sense to start with why you would want to take supplements to begin with. In a nutshell, our current industrial modern world is polluted and our toxin-filled lifestyles demand more nutrients than the food we eat can provide. The continuation of chronic stressors of our modern lifestyle, whether it is our screen time interfering with our circadian rhythms, our never-ending work deadlines, or the fear-induced media that raises our cortisol levels all of these things increase our nutrient needs. Also, if you are a frequent exerciser, an athlete, or a hard charger, this will of course increase your needs that food can provide.

Every day we face hundreds, if not thousands, of toxins from the pollutants that we breathe in our air. Nutrients are necessary to help remove toxins from our bodies and prevent the formation of damaging free radicals.

Even more challenging, when you are eating modern-day American food, you are not likely getting the proper nutrients that our grandparents enjoyed. Because of modern farming techniques and fertilizers, most if not all soil is depleted of nutrients. This greatly decreases the minerals, beneficial vitamins, and antioxidants when we are eating from these conventionally grown crops.

Remember that our not so distant ancestors ate what is now nearly extinct and hard to find: cell-rich carbohydrates like wild tubers, and grains like quinoa, amaranth, and millet. This is in contrast to the refined **acellular** grains and white rice that we mainly eat today for our modern carbohydrate intake. These rich carbohydrates are starches that are bound up in plant cell walls. Acellular carbohydrates are the ultra-processed foods, such as added sugar and flour where the cell walls have been already broken down. The current American diet is rich in these acellular carbohydrates which are less nutrient-dense. Another huge advantage of **cellular** carbohydrates is that they provide the essential pre-biotics that help our probiotic bacteria flourish.

The huge abundance of refined carbohydrates that we consume in our processed foods has created huge blood sugar swings and glycemic variabilities that our grandparents did not deal with. I travel frequently and often see in the hotel lobby the abundance of bagels, muffins, and sugary cereals that most of us rely on for breakfast and snacks, trying to make it through our inevitable mid-morning blood sugar crash. These blood sugar imbalances lead to chronic inflammation and most chronic diseases such as Alzheimer's, obesity, depression, heart disease, and cancer.

In addition to our nutrient-weak carbohydrate consumption, the meat, eggs, and dairy products that we find in our grocery stores deliver far less anti-inflammatory nutrients like omega-3 fatty acids that we would normally find in the wild and pastured animals. Most western diets consume a huge imbalance in the ratio of omega-6 to omega-3 fatty

acids. The westernized ratio can be up to 40 to 1! The ratio we should be looking for is **4:1** of **omega-6 to omega-3** fatty acids.

We talked about omega-3 fatty acids in chapter 17 on Fats and Oils.

Making all of this even more complicated is modern harvesting, processing, shipping, and storage techniques that have all downgraded the concentration of nutrients that we are getting in our foods. Plants that are grown with modern fertilizers can only get 25% of the micronutrients compared to those grown using traditional farming methods. We then ship our foods and let them sit on shelves, causing even less nutrient availability. At that point, we treat our foods with preservatives like methyl cyclopropane which give the shelf life of the average apple up to 10 months in our stores. While these preservatives appear to maintain the freshness in the foods we eat, they also decrease the bioavailability of the nutrients available. This increases our bodies' need for nutrients to process synthetic additives. This is a bad combination.

As if that is not bad enough (that our modern agricultural practices, preservatives, and the huge influx of toxins that have left most of us nutrient deficient), we also have a huge increase in our sedentary lifestyles! Combine that we are all getting older, and that alone impedes our abilities to absorb nutrients from our foods. These are the major reasons why we are nutrient and micronutrient deficient in America.

There are multiple examples of our ancestors using supplementation. Ancient supplements included things like roots, stems, and leaf teas that we used medicinally for specific symptoms. We also know that our ancestors ate dirt, which has a wide range of beneficial probiotics.

This is why I recommend you take something from nature. This allows for concentrating nutrients in a medicinal and micronutrient dense availability for your cells and systems.

OMEGA 3 FATTY ACIDS

Doctors have been recommending fish oil for immunity, brain, and health support for years.

Oily fish such as mackerel, herring, tuna, salmon, sardines, and trout are rich sources of **EPA (eicosapentaenoic acid) and DHA**

(docosahexaenoic acid), and two to three servings per week should provide approximately 1 g/day omega 3 fatty acids.

Lean fish such as cod or haddock have smaller amounts, and fried fish (fast food restaurant fish or frozen fish sticks) contain minimal amounts of omega 3 fatty acids.

Plant sources of omega-3 fatty acids can come from chia seeds, hemp seeds, walnuts, flaxseeds, and marine algae.

It is important to supplement with a blend of essential fatty acids that contain omega 3-6-9 oils daily. Supplements like **Udo's oils** contain flax oil, sunflower, sesame, coconut, evening primrose, rice bran, oat germ, and organic soy lecithin. Supplementing with pharmaceutical-grade fish oils is recommended as well because they contain EPA and DHA which are very important in terms of cell membranes in our bodies and brains.

Pharmaceutical grade omega-3 fatty acid supplements such as **Nordic Naturals Ultimate Omega** provide several grams of the DHA and EPA per capsule. Their sources for these omega-3 fatty acids are from wild-caught sardines and anchovies

Volumes of research have indicated that the omega-3 essential fatty acid fish oil supplements are a safer alternative to nonsteroidal anti-inflammatory drugs (NSAIDs) for decreasing inflammation in the body and cardiovascular health.

ASHWAGANDHA

This ancient medicinal herb also known as Indian ginseng has been utilized for human health benefits for over 6,000 years. Commonly known as “the king of Ayurvedic herbs”, Ashwagandha helps regulate blood cortisol and other symptoms of adrenal fatigue. It is an adaptogen, meaning it is part of a select group of herbs that help the body's natural ability to manage stress, whether those stressors are physical, chemical, or biological.

Ashwagandha has been shown in laboratory rats to increase swimming performance (can you imagine what that study looked like?!). In human studies it helps in the prevention of stress-induced ulcers, decreasing tumor growth, improving memory, and many other positive health benefits.

SLEEP SUPPLEMENTS

Patients ask all the time what I recommend to help improve their quality and quantity of sleep. I first recommend reviewing chapter 12 on sleep and developing healthy sleep hygiene then use the following supplements. For many years I strictly used a mixture of 1 teaspoon of apple cider vinegar and 1 teaspoon of local raw honey in warm water right before bed. I can tell you with great confidence that this is the easiest and most natural way to knock me out. Here are supplements that have shown to improve sleep:

- **5HTP:** 5-hydroxytryptophan is an amino acid precursor to serotonin and melatonin and helpful at increasing REM sleep
- **Magnesium:** maintains healthy levels of GABA
- **Phosphatidylserine:** reduces serum cortisol levels
- **L-theanine:** An amino acid found in green tea and some mushrooms that increase alpha-wave activity in the brain as well as the levels of serotonin, dopamine, and GABA
- **GABA:** gamma-aminobutyric acid is an inhibitory neurotransmitter that increases alpha wave patterns in the brain

My recommendation is to take a sleep formula like *Calm* which is a magnesium citrate supplement or *Sleep Remedy* that was designed to help extremely hard-charging athletes as well as people overwhelmed by stress settle down at night without using synthetic and harmful drugs. It contains very small amounts of the natural nutrients that produce melatonin.

CREATINE

If you have ever been into a supplement store like GNC or The Vitamin Shoppe, you could easily be overwhelmed by the number of powders and pills available to enhance human performance. The one supplement available at these stores that is actually the real deal is creatine monohydrate. Creatine is a simple peptide that is likely the most researched performance and brain-enhancing supplement on the planet. It has been shown to improve cognition, repair muscles faster,

help heart health, increase testosterone, improve bone health, improve strength, power, and endurance, and decrease muscle breakdown.

I grew up taking whole food supplements from Standard Process and always stayed clear of supplements made in laboratories. This is the one lab-produced supplement that is safe, effective, and easy to take.

VITAMIN D

The rest of this chapter is dedicated to the incredibly important and often misrepresented super vitamin that we will likely find out is much more than just a vitamin. There are not many precious vitamins like the fat-soluble vitamin D. Although the recommendations for sufficient vitamin D levels are very controversial, it is safe to say that most people are not getting enough of this important fat-soluble vitamin.

Vitamin D, also known as the sunshine vitamin, is formed naturally by the body when exposed to the sun. As little as ten minutes of exposure is thought to be enough to prevent deficiencies if a person is living below the 42nd latitude line (think below the California to Oregon border). Vitamin D is fat-soluble, which means when you are supplementing it in your diet the body can only absorb it when consumed with foods that contain fat like avocado, chicken, or nut butter. People who have trouble absorbing fat may in turn be predisposed to a vitamin D deficiency, which carries its own set of risks.

Being a fat-soluble vitamin, vitamin D is naturally present in very few foods, added to others, and available as a dietary supplement. It is also produced endogenously (from the inside) when ultraviolet rays from sunlight strike the skin and trigger vitamin D synthesis. Vitamin D obtained from sun exposure, food, and supplements are biologically inert and must undergo two hydroxylations (chemical changes) in the body for activation.

Researchers stated for many years that the major function of vitamin D combined with vitamin K2 is to maintain normal blood levels of calcium and phosphorus. They are best known for helping the body to absorb calcium into the bones, improving bone density, and preventing osteoporosis. Research also suggests that vitamin D may provide protection from hypertension (high blood pressure), cancer and several autoimmune diseases.

Recent research indicates that vitamin D plays an even more important role than bone health. According to recent research, vitamin D is a powerful nuclear receptor-activating hormone of critical importance, especially to the **immune system**.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5541280/>

It turns out that there was a statistical error by the Institute of Medicine when they said that we need around 600 international units (I.U.'s) of vitamin D per day. They corrected themselves and said we need 8,000 I.U.'s! Now do not go out and supplement 8,000 I.U.'s of vitamin D you will likely cause arterial calcification. Instead, go outside and bask in the sun's rays daily. Make sure you are getting vitamin K along with your vitamin D when you are ingesting it.

The only dietary recommendation to deal with vitamin D deficiency is to consume natural sources of vitamin D and also calcium-rich foods. It is recommended that you should get at least 1,000 I.U.'s of vitamin D daily in addition to gaining exposure to the sun.

SOURCES OF VITAMIN D

The sun is a good source of vitamin D. If you have limited exposure to the sun, whether it is because you work indoors or live somewhere that does not get a lot of sun, you should make sure to eat foods that are good sources of vitamin D.

Here are 5 healthy foods that are high in vitamin D.

Cod-liver Oil: Many people confuse cod-liver oil with fish-oil supplements. Cod-liver oil is different from fish-oil supplements you see on the shelf. Cod-liver oil is a nutrient-dense source of essential vitamins including vitamin D and vitamin A as well as anti-inflammatory omega-3 fatty acids.

Salmon and Fatty Fish: Ocean-grown fatty fish are rich sources of vitamin D. The fish must be wild and ocean-sourced. Most of the salmon and other supermarket bought fish are farmed and do not receive natural food sources. Other common options are sardines, trout, mackerel, tuna and eel.

Egg Yolks: Free-range chickens produce eggs that contain vitamin D3. Forget the egg-white omelette; vitamin D is only found in the yolk. It contains roughly 50 IU per egg so you need to make a big omelette to get your full dose of vitamin D!

WHICH FORM OF VITAMIN D IS THE BEST FOR US TO CONSUME?

A substantial body of research <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3349454/> documents that vitamin D3 is the preferable form, and researchers clearly recommend its use. Vitamin D3 has been found to be at least three times as potent as vitamin D2 and is more stable, safe, and useful in the body.

Therefore, to maintain adequate vitamin D levels, make sure to regularly eat plenty of foods rich in vitamin D or spend some time in the sun. If you take supplements, vitamin D3 is your best choice. Since vitamin D3 is naturally found in the human body, it is generally considered the preferred form of vitamin D supplementation.

Although you need both forms, vitamin D3 is more important for your health and well being. Our bodies absorb and use vitamin D3 better, and it is more effective at treating diseases.

WHAT ABOUT VITAMIN D3 FROM THE SUN?

Vitamin D is so important that your body naturally produces it when you are in the sun. When your skin is exposed to sunlight, it makes vitamin D from cholesterol. The sun's ultraviolet B (UVB) rays hit cholesterol in the skin cells, providing the energy for vitamin D synthesis to occur. As your skin absorbs ultraviolet B (UVB) rays from sunlight, it makes a substance called pre-vitamin D-3, which travels to the liver to become vitamin D-3 or calcifediol. Special proteins carry calcifediol to the kidneys, where it is turned into vitamin D's biologically active form, calcitriol.

The amount of vitamin D3 produced by your body depends on how much sunlight you are exposed to and that is affected by factors such as cloud cover, clothing and use of sunscreen. Sunscreen with an SPF

factor of as low as 8 reduces the amount of vitamin D the body produces by up to 95 percent. Limiting your sunlight exposure to avoid sunburns and skin cancer is important, however it is the best way to gain the health benefits of vitamin D.

You need to expose a sufficient amount of skin to sunlight to maintain healthy vitamin D blood levels. Wearing a tank top and shorts for 10–30 minutes three times per week is sufficient for lighter-skinned people, while those with darker skin may need longer.

Your exposure time should depend on how sensitive your skin is to sunlight. Although sunlight is great for making vitamin D, too much sunlight can be dangerous. Some consequences of too much sunlight include sunburn, eye damage, skin aging, and other skin changes, heat stroke, and skin cancer.

Protect your skin with physical barriers like hats, shirts, or sunscreens that contain **Non-Nano Zinc Oxide**.

Most people can make enough vitamin D from being out in the sun daily for short periods with their forearms, hands or lower legs uncovered and without sunscreen. You should have as much of you skin exposed to the sun as possible, and be at a perpendicular angle to the sun to maximize production. If the sun is directly overhead, for instance, you would lie flat on the ground, and when the sun is at an angle, you will lie at the angle that allows you to face the sun directly.

Of course, UVB rays do not just stimulate the production of Vitamin D. UVB rays also damage your skin. The more overhead the sun is, the more UVB rays you will absorb, and the more skin damage you will do. So you need to limit the sun exposure you do get.

It also does not matter what part of your skin is producing your vitamin D. It is recommended that you expose the large areas of your body that do not normally get very much sun, and cover the parts that are often in the sun (such as hands and wrists, face, neck, and shoulders) to protect them. In this way, you can maximize your vitamin D production without further damaging the sensitive areas of your skin that are already most likely over-exposed. You can also alternate exposing your front and back (flip over halfway through your sun exposure) to decrease the damage to any one area of your body.

WHAT IMPACT DOES VITAMIN D3 HAVE ON OUR IMMUNE SYSTEM?

The immune system defends the body from foreign, invading organisms. Viruses, bacteria, fungi, and toxins are regulated with our immune cells. We can keep a balance and homeostasis in and on the body with a healthy immune system. Vitamin D plays a hugely important role in your immune system and can be a determining factor in whether or not you develop an autoimmune disease.

The widespread deficiency of Vitamin D is concerning because it plays a vital role in many areas of our health. It contributes to bone strength, heart health, and cancer prevention.

The deficiency of vitamin D impacts the immune system, leading to an increased susceptibility to infection.

Sufficient levels of vitamin D reduce your risk of infectious disease by strengthening your immune system. Vitamin D turns on key peptides in your immune system that trigger a strong antimicrobial response, allowing you to quickly and effectively fight off invaders before they can develop into a full-blown infection.

Deficiency in vitamin D is associated with increased autoimmunity as well as increased susceptibility to infection. As immune cells in autoimmune diseases are responsive to the helpful effects of vitamin D, the beneficial effects of supplementing vitamin D deficient individuals with autoimmune disease may extend beyond the effects on bone and calcium homeostasis.

Researchers have found that vitamin D is crucial in activating our immune defenses, and that without sufficient intake of the vitamin, the killer cells of the immune system (T-cells) will not be able to react to and fight off severe infections in the body. The research team found that T-cells first search for vitamin D in order to activate, and if they cannot find enough of it will not complete the activation process. If you have been diagnosed with an autoimmune disease, it is possible that low vitamin D levels may be playing a role in your condition, so be sure to have your physician check the level of your vitamin D.

For those of us dealing with viral pandemics like COVID-19, it is crucial to get higher doses of vitamin D. A lot of us were forced to stay indoors for several months in quarantine and were unable to bask in the sun's UVB rays that boost our production of vitamin D. I have suggested to many to increase their daily I.U.'s of oral vitamin D3 from 600 I.U.'s to 2,500 I.U.'s. Give your immune system the extra power of vitamin D.

WHICH FOODS CAN HELP WITH SUN EXPOSURE?

Lots of patients asked me about the risks of sun exposure and skin cancer. It is really straightforward: plant chemicals that we eat in our diet have been shown to have an array of protective benefits against ultraviolet light. Meaning, our diet can allow us to have the benefit of the sun without all of the harmful effects of excess sun exposure. **Proanthocyanidins** are the chemical compounds found within plants that give them their color. Proanthocyanidins are types of polyphenols that protect our DNA from oxidation, which also includes protection from UV radiation.

These helpful chemicals are found in many berries, grape seeds, rose hips, hawthorn berries, pine bark, and some grains. Another example is **resveratrol**, which has been shown to work as an anti-mutagen, antioxidant, anti-inflammatory, and promotes cell differentiation. You can find resveratrol in grapes, particularly the seeds and skins, cranberries, and wine.

Another incredible example is **apigenin** which is an antioxidant, anti-inflammatory, and a protector of our skin against UV-induced carcinogens. It is found in apples, oranges, chamomile, celery, onions, and endives. The plant kingdom provides a huge variety of defensive chemicals to protect our skin and its DNA from sunlight. And remember, wild plants contain more of these compounds than do cultivated plants.

SUNLIGHT, VITAMIN D AND YOUR EYES

When it comes to the topic of sunlight, health, and vitamin D, there is a lot of poor information out there. How many of us have been recommended to wear sunglasses when we are outside? What happens when the photoreceptors in our eyes receive one message about the sun's

intensity and our skin receives another? Sunlight is information our body uses to help regulate our circadian rhythms. Most of us have had a sunburn in our lifetime. That sunburn was never a burn at all. It was an immune system response to protect your body from the UV light. Sunlight is an important part of our healthy living and not the dangerous cancer-causing fiery ball in the universe that modern scientific research believes it to be. My encouragement is that all of you reading this will utilize the sun differently, and practice conscientious sun exposure as part of your health approach.

CHAPTER 20:

COLD WATER IMMERSION

Cryotherapy and other cold-water modalities are definitely a rage in today's fitness and professional athletic industries. So, is there any scientific basis for why these modalities contribute to improvements in recovery, tissue regeneration, and fat loss?

The first law of thermodynamics says that energy cannot be created or destroyed, it is transferred from one form to another. When we are immersed in cold water, this exposure forces our body to stay warm in two different ways. Shivering when we are cold creates energy by tiny muscle contractions transferring heat to energy. The second way we can stay warm is by breaking down fat storage to release calories, in particular brown adipose tissue which has the main purpose of making us warm.

Evidence indicates that regularly plunging into cold water can provide the following benefits: improve your circulation, improve your immunity, increase your metabolism, release lots of helpful feel-good chemicals in your brain, reduce negative stress, improve your athletic recovery, and help with weight loss and depression.

You can also expect to have improvements in quality of sleep, healthier skin, and an overall better mood as side effects of cold water usage.

Recent research shows that cold and warmth can help your **mitochondria**. These cellular powerhouses are the parts of the cells that convert oxygen and nutrients into energy. Volumes of new research suggest that chronic diseases in the western world stem from our

mitochondria. Alzheimer's, diabetes, autoimmune, cancer, multiple sclerosis, Parkinson's, cardiovascular disease, bipolar disorders, anxiety disorders, schizophrenia, and chronic fatigue syndrome are diseases associated with issues in our cellular mitochondria.

In theory, if you improve the health of your mitochondria, you improve your overall health.

One of the most important physiological responses to cold water exposure is an intense release of **norepinephrine** into our blood. This hormone neurotransmitter is released when the brain perceives a stressful event. It is impactful for our mood, focus, and awareness. The cold creates a huge release of norepinephrine in mice and humans using the sympathetic nervous system (fight or flight response). Norepinephrine boosts the sympathetic nervous system function in both the brain and the body. You experience a noticeable boost in vigilance, focus, attention, mood, improved oxygen delivery, blood circulation, antioxidant function, mitochondrial biogenesis, and reduced perception of pain and inflammation

So how much cold water exposure do we need? A long-term study in humans showed that people that immerse themselves in cold water at 40°F for twenty seconds three times a week for twelve weeks showed a two to three times increase in norepinephrine in the blood. Dr. Rhonda Patrick explains that exposure to extreme cold delivers a 200-300% boost in norepinephrine that lasts for an hour. Norepinephrine has a huge impact on pain, metabolism, and inflammation. And since inflammation also decreases the amount of serotonin released, the mood is also affected.

IMMUNE FUNCTION

Coldwater immersion increases the number of immune cells that we make. A long term cold water study found that healthy males doing ice baths three times a week for six weeks increased their numbers of lymphocytes (white blood cells). More lymphocytes mean a stronger immune system. This may explain the anecdotal evidence amongst the communities of winter swimmers who experience fewer colds and flu symptoms. These studies have shown a decrease in 40% of respiratory tract infections amongst winter swimmers. More research is needed.

WEIGHT LOSS

The effect of cold on weight loss has played a major role in popularizing ice baths. The body's way of responding to the cold is to generate heat through a metabolic increase in burning fat, a process known as **thermogenesis**.

Shivering is the first way our body makes heat in response to cold water exposure.

The second way our body makes heat involves non-shivering thermogenesis, **brown adipose tissue**. This brown adipose tissue is one of the ways our bodies increase the metabolism by producing more mitochondria. The more brown adipose tissue you have in your body, the more fat you will burn. Frequent exposure to cold water has been shown to increase brown adipose tissue in humans.

TIMING OF COLD WATER IMMERSION

Immediately after exercise, our body produces a soup of inflammatory chemicals including cytokines that activate our immune system and tissue repair. In the first hour after exercise it is important to avoid cold water immersion to access these very important cytokines.

Cold water immersion done one hour after strength training has been shown to improve in a variety of measures up to three days afterward.

SUMMARY

So what does all this mean? The key reasons for cold water immersion are these:

- Coldwater shock shows interesting changes in neurodegeneration and neuroprotection.
- Norepinephrine increases dramatically and shows changes in our mood, depression, arthritis, and inflammation.
- Intense cold stress for short periods has been shown to help deal with chronic pain because of the analgesic effect and norepinephrine.
- Winter swimming has been shown to improve immune function among regular practitioners.

- Coldwater immersion can increase brown fat which leads to a lower body fat percentage.

The more practical approach to cold water therapy is by ending our shower with cold water. You can start with 15 seconds and work your way up to 5-to-10 minutes. This is an easy way of lowering your body temperature and a great way to get hormones released.

A new group of health nuts and cold water enthusiasts are purchasing chest freezers and converting them into cold water tubs. My chest freezer runs on a timer for just a few hours a day, maintaining a water temperature of 34°F-38°F (1.1°C-3.3°C). Each morning without fail, I plunge into the tub, submerge my head for about 20 seconds, then commence 20-30 cycles of deep, diaphragmatic breaths. This is a meditative experience for me, as I am compelled to focus only on my breath cycles in order to withstand the cold water without a panic reaction and early exit. At first, the 20 breaths took about three minutes, but now I slow things down, spontaneously hold an occasional inhale or exhale for a longer period, and my duration in the tub can be upwards of 3-6 minutes.

CHAPTER 21:

BEST DAY EVER

In this chapter, I am going to share with you my daily morning routine. My morning routine has changed and progressed over the years. It has really evolved into an incredible routine that not only embraces a positive outlook for the day, but also has the remarkable ability to change my physiology, shock my system, embrace and encourage continued discipline, and most importantly, start my day of service to others with self-love first and foremost. Whether you are a stay-at-home parent, an athlete, or grinding out a 9-to-5 job behind a computer, I firmly believe that the morning is for us to have to ourselves. That quality time invested in you will have a huge impact on those around you. I absolutely love my morning routine which begins as I hop out of bed each day with the excitement of a young kid going to Disneyland.

I also know that a morning and evening routine is very helpful to bookend your day. What this means is that you will have defined transitions throughout your day. The bookend routines of morning and evening can help define those transitions. Many people find their morning rituals to be very beneficial when life throws them curveballs. Whether you are on vacation, or you have unforeseen events that trouble your day, or kids at home for the summer (or learning from home these days!), the morning routine will prioritize all the things necessary to take care of yourself and your body and jumpstart you into being of service to others. Isn't that what it is really all about? I truly believe that I have been put on this planet to be of service. And the best version of me is when I begin my morning with the routine I am about

to share. I finely tuned my morning routine four years ago when I read the book *Miracle Morning* by Hal Elrod. Hal talks about how to win the day, that if you win the morning you can win the day. Elrod shares with us the acronym **SAVERS**:

S-Silence: Meditation, prayer, and breathing. Whatever it is that works best for you that creates a quiet time to limit the chatter inside and start the day with soothing calm thoughts.

A-Affirmations: These are things that you tell yourself that are encouraging and empowering and help break through obstacles in your life so you can live out your greater purpose.

V-Visualization: Break down your goals into simple steps and actions and then, just as important, imagine what it feels like when you attain and succeed in your goals.

E-Exercise: This does not mean you have to bust out your Jazzercise videos or become a powerlifter. Get the blood and oxygen flowing to your brain and get your lymphatics flushed out to clear your physiology. Changing our physiology is a crucial step when it comes to telling ourselves a compelling story for the day's events.

R-Reading: Spend a few minutes reading non-fiction, learning the knowledge from people who have succeeded in the areas of life that are important to you. When your head is filled with positive and forward-moving thoughts, you create a natural state of flow in your life.

S-Scribing: Journaling is one of the easiest ways of processing thoughts and being able to reflect back on life. I find myself to be more self-aware when I can document what it is like to be in my shoes.

I would say that 85% of my days I will spend 10 minutes in silence, 5 minutes reviewing affirmations, 5 minutes visualizing my goals, 60 minutes exercising, 10 minutes reading non-fiction, and 5 minutes scribing in my journal. That means I need to set my alarm clock 95 minutes prior to leaving for work and beginning my day of service taking care of patients in the office.

I would encourage you to start small. What if you were to spend one minute on each of the **SAVERS**? And then worked yourself up to five minutes for each?

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“Inch by inch life's a cinch; take it by the yard and it gets hard.” -Dr. Jon Baker

~4:50-ish...

Wake up. I have my alarm set; however, I train my body's natural clock to wake up prior to it. I check my heart rate variability monitor for the reading of my recovery from last night's sleep, yesterday's workouts, and the mental stressors from life. I remove the 3M gentle paper tape covering my mouth that I use to encourage nasal breathing while I sleep. I go to the kitchen and pour a liter of mountain spring water into my mason jar, adding a teaspoon of baking soda and a teaspoon of Himalayan sea salt, and slowly drink the entire liter. I then go to the section of my living room for meditating, and I will sit on my yoga block with my special cozy meditation blanket, do some box breathing, turn on my Headspace meditation app, and do 10 minutes of breath awareness meditation.

~5:05-ish...

Into the kitchen, I go to create my morning bullet coffee. Organic French press coffee combined with 2 tbsp of Laird Superfood Creamer, 10 grams of collagen, 5 grams of creatine, Chaga, Lion's Mane, and Maitake mushrooms, a tablespoon of ghee, and a tablespoon of almond butter. It is a wild ride and I love it! Every three to six months I will wean off of coffee and caffeine for three weeks to give my body a reset. I don't like being dependent upon anything.

I will take my daily morning regimen of supplements that mainly consist of Standard Process brands of Ashwagandha complex (Ayurvedic herb for performance, recovery, and hormones), SP green food (a bunch of great green foods juiced and dehydrated), Cataplex ACP(multi-vitamin), and Gastro-fiber.

~5:15-ish...

I sit down at my desk and pick up my first non-fiction book. The bible is a great place to start; my favorites being the teachings of King Solomon found in the Book of Proverbs, Samuel 2, and Ecclesiastes. Or you can have an explained version of King Solomon's teaching in books like *The Richest Man Who Ever Lived: King Solomon's Secrets to Success, Wealth, and Happiness* by Steven K. Scott. Another favorite is Stoic

readings from Epictetus, Marcus Aurelius, and Seneca. Check out *The Daily Stoic* by Ryan Holiday.

The second book of non-fiction that I will read usually entails something about health in the human body and/or chiropractic. I encourage you to search for the material that serves YOU. If your goal is to make money maybe Robert Kiyosaki's *Rich Dad Poor Dad* or Napoleon Hill's *Think And Grow Rich*. If you are looking to change your perspective and attitude on life, try *The Secret* by Rhonda Byrne and *The Power of Positive Thinking* by Norman Vincent Peale.

I will then begin scribing in my journal. I start off with documenting the foods I ate the day before, the exercises I did, and the events and people that I encountered. Then I will write down three goals for the day and three things that I am grateful for. This simple practice of gratitude I found to be game-changing when it comes to dealing with the challenges of life. We are unable to be grateful and fearful at the same moment. As humans, we either act coming from a place of fear or coming from a place of love. You can imagine the power you have when you are coming from a place of love.

~5: 40-ish.

I am going to share something a bit vulnerable but I think it is important for you: I only poop once a day. That's right, I get it all out-of-the-way with one good bowel movement first thing in the morning. I just don't like walking around during the day with the majority of yesterday's solid waste still inside of me. The morning ablution thing, I've gotten down to a science. I go to the bathroom, hop onto my Squatty Potty, wiggle around a bit, and take my time.

~5: 45-ish.

Change your physiology. Heat or cold. Typically I jump into my ice bath. A 14.8 ft³ chest freezer converted to a 37-degree freshwater ice bath. This single act alone is what accounts for at least 40% of the momentum I have for tackling the scary projects, issues, and challenges in my life. I know before going into that cold water that there will be the same physiological reaction every time. The first 30 seconds my brain is screaming at me to get out because it thinks I am going to die; the next 30 seconds my feet and hands will burn and be painful. After that, my system recognizes it does not need to be in that sympathetic fight-or-

flight state and it calms down. I can get my resting heart rate down from 115 beats per minute to 45 beats per minute within the first minute in the cold water. This is not accomplished from just jumping right in. Here are some reasons for doing regular cold water immersion: increase in nitric oxide production (which is like Viagra for your whole body), decrease levels of inflammatory cytokines, decrease joint pain, increase stimulation of the Vagus nerve (which helps to activate your nervous system), and an overall buildup of cellular resilience (which has an anti-aging and longevity effect).

The trouble with all ice baths and cryotherapy is that they suck! You get into the water and you are heavily breathing through your mouth in a panicked state. You are trying to last through this torture and your fingers are tingling and you don't know what to do. Here is what you can do to prepare your body for an ice bath. And remember that even with these pre-ice bath tips it will still be uncomfortable. If it was comfortable, the ice bath would not have the effects that it does. Just like with a workout, you are going to get tired of exercise. You are going to get uncomfortable going into a sauna. It is through these uncomfortable moments that your body is learning to adapt and grow.

The first thing to do to prepare for the cold is breathwork. The tingling, burning, and cold in your hands and feet come from a lack of oxygen. You can warm your body from the inside out. Utilize ancient yogic wisdom of Tummo (breath of fire), also known as the Wim Hof technique. For one minute before you get into the ice bath, you are going to breathe in and out through your nose from your belly. This breath-of-fire approach is very crucial to warm your extensors. Place your hands on your belly button so you can feel your belly moving out as you breathe in. The out-breath can sound like a growl coming from the back of your throat. Upon your last breath, hold on to exhalation and slowly climb into the tub as relaxed as a possible state. We want to override our brain's natural mammalian reflex of gasping when we get in. This will allow us to stay in that parasympathetic rest-and-digest state. No need to hold your breath for long when you first get in, just avoid any quick inhalation and any jumping and splashing. Gently get into the water to maintain your resting parasympathetic state, much like if you were a baby about to be bathed by your mother. Gently. You can rhythmically move your body slowly while submerged. You now want to gently dunk

your head forward into the cold for a second or two. Going backward can be stressful and stimulating so avoid. Now you can begin box breathing preferably through the nose:

- 4 count breathing in
- 4 count hold
- 4 count breathing out
- 4 count hold

Use this gentle and simple box breathing to get you through 2-5 minutes in the water. Do not try to power through it if you are shivering. Get out. I typically will recommend not jumping into a hot shower. Heat your body from the inside out with more breath of fire breathing from a horse stance (a Shaolin martial arts stance that is a wide squat). This will really get your blood moving and naturally heat you up!

~6:00-7:00...

Time to sweat. My workouts typically consist of 30-60 minutes of movement. It varies a bit from day to day but generally goes as follows:

- Monday, Wednesday, and Friday mornings: high-intensity interval training, CrossFit, bodyweight workout, kettlebell workouts, or barbell workouts.
- Tuesday and Thursday morning: 20 to 60 minutes of my own hybridized yoga routine that is a basic Vinyasa flow yoga that focuses on deep breathing; Ginastica Natural, which is a Brazilian bodyweight training that takes its roots from gymnastics, yoga, and Brazilian Jiu-jitsu; Foundation Training developed by Dr. Eric Goodman that focuses on posture with proper hip hinging and lower back training; Inversions, anything that gets the legs above my head including: headstands, handstands, and hanging upside down on a pullup bar; Nickels, Dimes and Quinceñeras, 5 pullups, 10 pushups and 15 air squats every minute repeated for 5-20 minutes with and without a weighted vest on (thanks to David Goggins).
- Saturday and Sundays: outdoor hikes, barefoot beach walks with breath holds (hold breath every two minutes for as long as you can on exhalation), surfing, and swimming.

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I typically finish these activities with another hot shower to get cleaned up and get blood and oxygen to the tissues I have worked out and/or an additional ice bath.

While getting dressed for work, I will do twenty minutes of oil pulling: 1-2 tablespoons of coconut oil on an empty stomach swished around in my mouth without swallowing it. Afterward spitting it out into a plastic garbage bag. My dentist has been blown away at how clean my teeth, gums, and overall dental hygiene has been the last 5 years since I have been oil pulling. Our dad has done this for years and we all thought he was crazy. Turns out the Vedas have been oil pulling for thousands of years.

~7:40-12:15pm...

This is where the workday officially begins. I am in the office serving patients with my team. My physiology is primed, my mind is crystal clear on what we are here to do, and I can be 100% committed to being where I am at.

~10:30 am-ish...

Time to break my sixteen-hour intermittent fasting with a perfect bar, a delicious homemade protein ball: banana, and almond butter, protein smoothie, or shake. I keep it real simple here.

~12:30-1:00pm-ish...

Drive home listening to audibles, podcasts, or some good music. Lunch consists of greens, animal proteins, and fats. I would estimate 95% of the lunchtime consists of two handfuls of mixed dark greens, homegrown sprouts, 3-4 fried or soft-boiled eggs, and an avocado. I will typically use balsamic vinegar with sesame seed oil, Colima sea salt, and ground pepper to garnish lunch.

~1:30-2:00-ish...

Refresh button: This is time for a twenty-minute nap in my bed, a 20-minute meditation, or time to close my eyes and relax. I have done this since I was born and know with 100% certainty that I thrive with a mid-day reset. Obviously, everybody is different and has different circadian rhythms. NASA found that napping improves work memory, and numerous studies are indicating an after-lunch downtime.

~2:15-6:05pm-ish...

Round two of my workday. Back into my chiropractic clinic with boundless energy, enthusiasm, and the focus to continue being of service to patients and a leader to my staff.

~6:15-7:00pm-ish...

DINNERTIME!! Dinner time in our house is an exciting time for conversation and togetherness. No phones, computers or TV. EVER. We start with a forkful of sauerkraut, probiotics, and a tablespoon of Udo's oil (plant-based omega-3-fatty acids). We typically have a cruciferous vegetable (think crunchy like broccoli), a wild animal protein, and a complex carbohydrate. 15% of the time we have Mexican food (bean burritos are my favorite). Definitely avoid simple carbohydrates (pasta and bread), rancid vegetable oils, processed foods, and sugars.

~7:05-7:45-ish...

Time to go outside and go for a barefoot walk together to get some grounding, help with digestion, and bonding time with nature and each other. After tracking my resting heart rate and heart rate variability with a Whoop strap the last six months, I can objectively tell you that walking after dinner, not eating after 7:30 pm, stopping screen time after 8 pm (and obviously avoiding alcohol) DRAMATICALLY have improved my body's ability to recover from the stressors of life.

~7:45-9:15ish...

Reading, laughing, and at least 12 minutes of mobility exercises (review Mobility in Chapter 13) on our living room carpet. We have a room designated for family time that has tatami mats on the floor (think padded floors like a martial arts studio) with a cozy and soft shag rug on top. There are all sorts of pillows, toys, and mobility tools surrounding to allow for comfortable and playful time. We do our best to limit time in chairs and couches (I am writing to you now at my standing desk with a Xero Rox mat underneath my bare feet).

Evening journaling is a new practice for me, and I have committed to three minutes of writing down what went well in my day, what could use improvements tomorrow, and what I am grateful for. This simple practice really allows my brain to turn off before getting into bed. After

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that, I usually spend at least five minutes of box breathing (remember the one I do in the ice bath) or pranayama breathing. Pranayama breathing is a simple technique of belly breathing that is similar to box breathing except the exhalation is twice as long as the inhalation and holds. After my breathwork, I brush my teeth, floss, and put 3M Gentle paper tape over my mouth to train myself to nose breathe while sleeping.

My goal is always to get at least 8 hours of deep sleep.

PART 3

A LIFETIME OF HEALTH WISDOM

CHAPTER 22:

A LIFETIME OF HEALTH WISDOM

This chapter is a unique one. It's my first attempt at a podcast style of an interview of one of my favorite human beings and definitely my hero, my father. In this unique and groundbreaking chapter, "Pops" shares his wisdom from 70 years on this planet. Growing up on a small farm in Belleville, Michigan, he learned how to work at a very early age. His education and adventures continue to this day, as he continues "seeking" his spiritual, health, and family practices. Mom and Pops recently relocated from sunny San Diego to the rainforests of Washington state where Pops can continue his lifelong dream of being the ultimate tree hugger. So put your seatbelt on, take a few slow breaths, and get ready for the ride of a lifetime.

Ian: Tell me first how you initially became interested in health.

Pops: I think originally I had my appendix out as a little boy. I had my tonsils out like a prepubescent. I had gone to the hospital for this and for that, and I had a big scar on my forehead that I got from playing hockey. You're exposed to certain institutions like grade school, Catholic church, high school, city hall, government agencies, you know what I mean.

Pops: You get a feel for what these people are like and what they're about, and then I went to a hospital a couple of times and different doctors took care of me, one at St. Joseph Hospital, one at Beyer

Hospital, one at the University of Michigan Hospital. These people are like a step above the normal institutions I had been exposed to from grade school and high schools and public libraries and just institutions that I had been to. I was a little boy, so I'm impressionable. It was like, "These guys are ... Look at this building, their facilities. Look at all the technology." I was in pain, having these problems, and they helped solve my problems. I was moved toward healthcare, but I was actually moved toward the medical model of healthcare. That got into the back of my brain.

Then in high school, I was intrigued by chemistry, physics, and biology. Those sciences attracted me more than English or literature or French or drafting. I was not attracted but pulled toward the sciences. Biology, chemistry, physics were like, "Oh yeah, this is cool. This is how the world works. Wow. These guys have insights into how mechanics work and how cells work and how chemical bonds occur and physical structures, physics." I thought, "This is fascinating stuff." I majored in that. I took advanced classes in high school, and I did well. Then I went to college and I took some business classes, some math classes, and some biology, but I was more inclined toward chemistry. Chemistry was my major and some physics.

Pops: I was kind of intrigued by the professors, the guys who were teaching stuff.

Ian: At this stage, Pops, you were still understanding the medical model?

Pops: Yes.

Ian: Now you're understanding mechanically how the world's working through physics and chemistry.

Pops: Mm-hmm (affirmative).

Ian: So you're not necessarily at this stage realizing the knowledge your parents gave you from the farm and having an active lifestyle?

Pops: No.

Ian: A healthy lifestyle. That was just normal.

Pops: Yeah. Especially when living on a farm you worked hard.

Pops: You want to eat something this winter? You gotta can it and you have got to grow it this summer, and you better have a good garden because otherwise, you're not going to eat. Then I worked at the University of Michigan Hospital and saw how they worked. I was an inhalation therapist while I was going to college at Eastern Michigan University. I'd been to a couple of chiropractors. It worked. Yeah, I felt better after these adjustments. I'm like, "Oh, this is really cool." I didn't know anything about it, though.

Then, it was like three years of college, I had the opportunity to go around the world with Larry (brother) on a family discount with Pan Am airlines. So I took a year off from school. We traveled for about a year, mostly through Europe, North Africa, the Middle East, and then went on to the Far East and so on, India and all that. A good part of the time I spent in Europe. While I was away, my brother Ed got exposed to chiropractic in a big way, and he decided, "You know what? This is a dead-end. Being a teacher in a high school, it's like this is not going anywhere. I've got a wife and family and getting minimum wage, but it's a modest wage for having a degree." Here's this chiropractor who had a waiting room full of people and they're all talking him up and having miracles and positive experiences. This guy was dynamic and he was fired up and obviously doing well financially. People were remarking like, "Gosh, this stuff works."

My brother Ed was, I think it was cooperative education where a student would go to school in the morning and take his typing classes and shorthand classes and whatever it was he was teaching, and in the afternoon they'd go work at different places, so he'd have to visit every one of the businesses where all his kids worked. One of them was a chiropractor. It was this guy, Chuck Ribley in Flat Rock, Michigan. That kind of inspired him, like, "Jeez, I could do this." He came home one day and told his wife he was going to become a chiropractor. She says, "Bullshit. You're not going down there to Palmer to become a chiropractor without me. I'm going, too." He said, "Okay, let's do it." They packed up and they went up to Davenport, Iowa. I was in India somewhere at the time. When I got back home, my mom and dad had sold our farm. My dad was old. I was 20 years old, and my dad was 70. He couldn't manage a farm by himself, and we were all gone. 20, 22, 25-year-old guys were all moving away and moving out, and ...

Pops: When we came back, Larry took off and went back to Germany to go visit Sylvia, and I'm thinking, "What's this all about?" Mom and Dad moved to California to Menlo Park or Millbury, somewhere there on the Peninsula. I went back. I still had stuff back in Michigan. On my way back to Michigan I stopped in Davenport, Iowa along the way. That's where Ed and Linda had started school in Davenport, Iowa, at Palmer College of Chiropractic. Ed said, "Come on, come to class with us. It'd be kind of cool. These guys are all excited about chiropractic." "Oh, yeah? Okay. I'll check it out." I had long hair. I was kind of a hippy. I sat in some of the classes, and these were guys who were ... I looked at them and looked at me, and I thought, "I'm smarter than those guys. If they can do it, I can do this." They're all fired up like, "I'm going to change the world."

This is 1971, and the classroom sizes were like 300 kids in a class. Big classes. A lot of them were from the Michigan Chiropractic Council. Chuck Ribley, Ian Grassam, Johnny Gregg, Jim Hoffman. There were like five or six guys at Michigan who were all "DE guys" (Dynamic Essentials). They were all going down to Atlanta four times a year and getting fired up with Dr. Sid Williams, and coming back and like, "Okay, let's take over the state. We're going to advertise, promote, and we're going to turn people on to chiropractic and send some students to the school."

That's where Ed and a lot of his buddies were all "DE kind of guys". These guys were on fire. They're not here to just show up and get a degree and become a chiropractor. "I'm here to change the world." These kinds of guys would put big giant hypodermic needles painted on the side of their car and say, "Drugs kill. Chiropractic Heals," and that kind of stuff. One guy drove a hearse. That was the kind of stuff that they would do. Bold stuff and they were not afraid. I thought, "Gee, you know, this is pretty cool. These guys are fired up. This chiropractic works. I know it does from my own experience." I didn't know much about the philosophy of chiropractic then. All I knew was that they cracked my back and I felt better. I said, "I could do this."

I went back to Michigan, got my transcripts from Eastern Michigan University. I picked up all my stuff and I brought it back to Davenport, Iowa, and put my application in. "Okay, you qualify. You're in. You start in the fall." Cool. I was like I got the support of nature. It just happened

like that. It was like a couple of phone calls, a couple of transcripts sent, and they looked it over. A guy looks at it and checks off 12 marks and says, "Okay, you're in." It didn't take long. I was all fired up. I said, "Okay, I can do this."

I got an apartment and started chiropractic school in the Fall of 1970. On my first day of chiropractic school, I'm sitting next to this guy, Greg Kingsbury, who just came back from a teacher training course for Transcendental Meditation (TM) from Maharishi. I'd been smoking pot, and I'm all cool. At the time, I'm struggling financially to make tuition. I spent all my money traveling around the world for the last year. This guy's got his stuff together. He's cool, calm, collected. He was a cool cat. I just started talking to him. What are you doing? What's it about you? You've got something about you. "Oh yeah, I just came back from a teacher training course. I'm a teacher of Transcendental Meditation." I said, "Oh, what's that?" So we sat down one afternoon after school, and he just told me. I said, "Well, that makes sense. I want to do it." "Okay, well, you gotta quit doing pot and drugs for two weeks, clean up your system, and then you can learn." Okay. So I did.

My first experience was pretty dramatic. The first time it was like, "Oof." I was stressed out, uptight, tense. Working two jobs, going to school, struggling to survive, and mentally just frazzled. The first time I meditated it was like the bottom dropped out. It was a real drama. The contrast was there. I was like, "This is cool, man. This has so saved me." After a couple of weeks I said, "Well, I want to become a teacher of this. This is way cool." That was when I first started (chiropractic) school. I wasn't about to drop out of school, and I didn't have the money to become a teacher, so I just bid my time. I think I became a vegetarian. I started meditating, quit doing drugs. Became mentally clearer, physically healthier. I got good grades. When I graduated I was cum laude, in the top five percent of my class. It was impressive. I'm not bragging or anything. I worked hard and was passionate about getting to help people.

I worked my way through school. I had at least a dozen jobs through the three years I went there. I went for three years instead of four, back to back, so I did it in a shorter time. I got good grades and I had a bunch of jobs. I worked all the time, in addition to buying houses and fixing them up and selling them. When I graduated, I had money in my pocket,

not in debt. As soon as I graduated I went off to work for the International Meditation Society in Switzerland. I did that for six months, doing chiropractic and doing a lot of meditation, while the other guys were doing these courses. There were teacher training courses and governor training courses in Switzerland, and these guys were all health nuts for years, decades, and they were doing all kinds of weird stuff. They were into iridology and herbs and homeopathy and fasting and juicing and anything you could think of. They were trying anything that would work. I don't think it was to be healthy because all they wanted was to get enlightened.

I was part of the medical team with a homeopath and an Ayurvedic doctor and a couple of MDs. We were on the staff, and we would go from hotel to hotel. What they would do was in the offseason, they would rent hotels cheaply. They'd go to the Swiss Alps and the French Alps in the summertime when no one was there, and say, "I'll take this whole town, twelve hotels, and we'll rent it for the summer. The fall comes around, we pack up and leave, and then you guys can have your ski resort back." In the summertime, they'd have a different resort. I worked for them for six months. I learned a lot from the other doctors there. Then I went to the Teacher Training Course myself. When I got out, I finished, I came back to Lansing, Michigan.

In the meantime, my older brother Ed and his wife Linda had graduated three or four months before me. I went off to Switzerland. They went back to Lansing and they set up (their chiropractic) practice there in Okemos, Michigan. He (Ed) was doing all the DE stuff, advertising, promoting, lay lectures, in the office 12 hours a day, eat, sleep, and drink chiropractic, telling the chiropractic story everywhere they went. Every day you went out, you'd drum up a couple of new patients from just going to the grocery store. They were doing well. I came and worked for him and Linda. The thing about those two is they didn't pay me very well. I had to live in one of their bedrooms or their outhouse place just to survive, to get by. Then I got an apartment with another guy, but I wasn't making any money. I did that for probably six months, a year, or so. Learned a little of the ropes of taking care of patients, giving lectures, doing the business of chiropractic, not just the academics of pathology, and all that. You know gastroenterology, endocrinology, that's all bookworm stuff to pass tests. The real stuff is learned in the practice.

EMPOWERED

When you've got real sick people who are paying for your care, you better know how to manage them. I learned the basic stuff from him there.

Then I went on a special course, a six-month, governor training course in New York on advanced technique, one of the TM (Transcendental Meditation) programs. There they were doing a whole bunch more weird stuff for health, longevity, and enlightenment. After that course, I went down to Florida to teach TM for a while, for six months, just to solidify that knowledge of being a teacher of meditation. I went to Florida and I taught with a team of guys in Fort Lauderdale. That didn't pay anything. You couldn't survive being a teacher of TM. You'd collect \$300 for a course and you'd get \$150 for it. I just didn't make much money.

By this time Carol (sister) and Larry (brother) had graduated from chiropractic school, and they came out to California. Carol got married to (her classmate in chiropractic school) Dennis and moved to Northern California and was taking care of mom. In the meantime, my dad passed away when we were in chiropractic school. She was kind of taking care of mom and setting up a practice, and Dennis was working with somebody there on the Peninsula. I came out to visit them, and Larry had come out to Vista, California, and made an application with Union Bank. They had loans for chiropractors to start practices. This was kind of unheard of. It was a bank called Union Bank that was making loans. Larry got a loan and set up a practice in Vista. I helped him get organized, helped him get the equipment and papers and the case histories and the necessary forms. We didn't know anything. This is still what I'd learned from Ed(brother) because I helped him get set up. I said, "Well, this is what I want to do. This is where I guess I'm going to be. I'm not going to go back to Michigan. There's not going to be much going on back there. I wasn't about to be in practice with Larry. I knew that.

I was looking around. I got an apartment on the coast, right on the beach in Del Mar. Right by the racetrack. I spent a bit of time going to different cities and thinking about where I would like to practice. I was in Ramona. I was in Fallbrook. I was in Escondido. I was in San Marcos. I tried Carlsbad. I wasn't going to go to Vista and compete with Larry. I checked out La Jolla and Rancho Bernardo. I looked around all the

different places, and the rent and all the logistics of the population and where people live and what was the rent in different areas. I settled on this place in Escondido, Felicity, where I'm at. The rent was pretty cheap. I didn't know it at the time, but they didn't have an anchor tenant. I didn't know what that was. It was just cheap rent. I'm like, "Okay. \$.75 a foot." That's cheap compared to \$2, \$3, and \$4 in La Jolla and the coast. The coast is always a lot more expensive.

It was cheap rent and the center was kind of sleepy. It still is. In 1978, I set up a shop in a 1,000 square foot, tiny little place. I got a loan from the bank. It was like \$20,000, \$30,000 or so to build it out, buy a couple of tables, an X-ray machine, and build a front desk. I was building it and seeing patients. Your mom worked across the parking lot at a hair salon. I met her and another girlfriend of hers. I think it was either Chris Piscatelli or Tom Lima came down to visit me, and we took these girls out. We dated for a while. Then Piscatelli took off and I don't know what he did, but I was dating your mom and I had a practice there. This is kind of the story of my life more than it is about chiropractic and health, but I'm thinking just along the way I was maybe more conscious than the average chiropractor about health. Some guys were into physical therapy. Some guys were into workers comp. A whole bunch of guys were into personal injury, and a lot of them were all into billing insurance because insurance paid for chiropractic now. That was something new back in the seventies. Insurance companies started paying for chiropractic, and so everyone got on the bandwagon.

We were like, "It's all about billing and codes." Instead of asking a patient for \$15, you can ask the insurance company for \$20 and they might pay you 75 percent of it after his deductible, and all those games that they had going. It was like weird games were played. I played the game. I hired people to do insurance. Do you know about insurance? Okay, you can do this. I hired people to bill insurance, put some ads in the penny saver. Gave lectures, promoted things. I'd give a lecture every Wednesday and every new patient that came in, would turn them on and get their insurance, and they'd come to a class and I'd get them all fired up and they'd tell their friends about chiropractic. Bring them in. It was cheap. It was like \$15 a visit then.

In the back of my mind, I was always health conscious about food and nutrition, and lifestyle. Meditation was a big part of it, and yoga and

breathing exercises, and all that stuff were fascinating to me. Chiropractic has its divisions. Some guys were pseudo-medical kind of guys from National Colleges who wore stethoscopes and little black bags and made a diagnosis. They'd write reports for insurance companies and would testify in court. Those kinds of guys, you know? Then there were guys who were into physical therapy and all the gadgets and machines and stuff. Other guys were just into testifying in court for personal injury law. There was a whole range of guys. There weren't many guys into spirituality and fasting and nutrition. Some guys were into vitamins, but not much. The DE guys were all into chiropractic and straight chiropractic and upper cervical. Tell the story and get your patients to motivate their friends to come in. And save one family at a time kind of stuff. I was kind of a blend of a DE kind of guy and a spiritual kind of guy. I was exposed to all the TM guys, and they were all into whatever you could do to your body to get enlightened. That was the whole game. What good is it to become rich if you weren't enlightened and you got all stressed out and got a heart attack even though you got chiropractic care? You died young. What the hell good is that? Everyone's focused on taking care of people, but take care of yourself first. Do a really good job of yourself and be in excellent health and longevity and vitality, and people would see it in you. You could see some chiropractors were smoking in those days, and some were fat and some of them drank. Some did drugs. I was one of those guys like, "No way, man. I'm not doing drugs. I'm not smoking. I'm not drinking." I was living a pretty clean lifestyle.

I've always been around New Age kind of thinking about health and longevity, and that was a whole other business all together. It was California. There were all kinds of health nuts. People were doing weird stuff. This was the 1970's, so this was long before mainstream America was eating organic food. It was like, no, we never heard of that. Organic became popular in the eighties and nineties. I led a pretty pure life then, mostly vegetarian. Never any synthetic food or artificial food or fast food, junk food. That was just a big no-no. You can't eat that junk. You don't know that that stuff's bad for you? What are you, nuts or something? It's so obvious. I wasn't preaching. I wasn't trying to convert anybody. That was my personal lifestyle. If they asked me I'd tell them, "Oh no, I don't eat that stuff. This is what I eat." I didn't tell people about meditation either. I knew other chiropractors that were like Jesus freaks,

and they wanted to convert everybody to their brand of Christianity. That totally turned me off. Like, I'm never going to do that. I never told anybody I was a meditator. They didn't even know. How would they know? I wouldn't tell them.

Ian: It sounds like you utilized chiropractic to really allow your body to function at its best on a neurological and electrical level.

Pops: Yeah.

Ian: Using nutrition for the proper fuel and then the meditation for spirituality and the mental and emotional aspects. What additional things had you done in your forties, fifties, sixties that you didn't do in your twenties or thirties that you wish you had done? What are things you do now that you wished you could tell a young Charles Rassel?

Pops: Gosh, you know, I never did too much to excess. I mean, I would have a drink with Margie (wife); in fact, I think I started back drinking again when I got together with Marge. I never drank much. A couple of beers, a couple of glasses of wine. I wasn't into getting drunk or getting stupid or any of that. I think if I were to do it over again, I'd probably be more of a vegetarian, eat less meat. I would probably like to do that now. I don't eat much meat. Some chicken and fish. I even regret eating the chicken, because I know the chicken's not good. It's not like it's organic chicken. They feed those chickens junk. It's cheap. I would say either vegetarian or semi-vegetarian lifestyle and very little meat. If you did eat meat you've got to know the butcher. You have got to know the guy who raised the beef. Wild fish rather than farmed fish. If you're going to eat meat at all, you better know your source, because they're putting poisons in the food. They're in it for the profit. Let's face the reality. These guys are in it for the profit. The farmers spray RoundUp, a known carcinogen, on their crops just to get more yield. They feed their chickens hormones and antibiotics so they get better to produce. They're in it for the profit. That's the reality. You can't blame them. They're not interested in saving the world. They're interested in making money. That's what big farmers do. It's big farmers and agro-business. They dominate things. If you don't play by their rules, you go out of business because of economics. You almost have to spray or put hormones or antibiotics with your feed. You can't count on those guys. They're not going to be looking out for your best interest. You can't count on the

government. They're not going to protect you. They're going to put junk out on the market that will kill you. It's only when they're forced to, that they'll take it off the market.

What do I know now that I would tell myself younger? Gosh.

Ian: How do you manage stress? You mentioned meditation. How do you handle fatigue?

Pops: I don't think it's that difficult to manage stress. Getting proper sleep is really important and meditating regularly, not haphazardly, but every day, 15 to 20 minutes twice a day is really critical because I know the body thrives on balance. It thrives on regularity. It may be boring to be regular, but the body thrives on regularity. The body likes going to bed at the same time. It likes to get up at the same time. It likes to eat at the same time. In those boundaries, like this is the time when you eat, this is the time when you sleep, this is the time when you're awake, those times and that routine ... Like there's daily cycles and monthly cycles and yearly cycles, and your body has these cycles. If you tune into those cycles, your rhythms, you're kind of tuning into nature's rhythms rather than being off-cycle with the moon or being off-cycle with the sun, (if you stay up late at night and sleep all day, you're off-cycle with nature. The best thing is to be on a cycle with nature. It's best to be in tune with the flow of natural rhythms, so your natural rhythm is in a cycle within the rhythm of the planet, the earth, the sun, and the moon.

You don't meditate for a couple of hours a day and then skip for a couple of days. You don't sleep for 14 hours one day and then not sleep for a day. Your body thrives and does well if you get eight hours of sleep with 16 hours of activity on a regular daily basis and not stray from that much, as close as possible. The body likes to get 15 to 20 minutes of meditation twice a day. You could do a little bit more, a little bit less, but that's about the routine. It's proven the test of time. It's not like I made this up. It's like that was what was told to me and I believed it, and when I found myself meditating too much, I would start to destress too fast and be uncomfortable and get weird. If I didn't meditate at all, I'd really feel off.

I found for myself, my own direct experience and nothing through any scientific research, that if I stick with my schedule and try to go to bed at the same time and get up at the same time, go to bed early and get up

early and meditate regularly every day, early in the morning and late afternoon. I don't think that handling stress is as much of a problem. I always knew I meditated. I think I was handling the stress well and taking things as they come. Not getting too freaked out about the shit that happens. Shit will happen. It seems like it's part of the plan of the universe to mess with us, to provide us challenges so that you have problems. You're supposed to have problems in life. It's not supposed to go smoothly and everything goes hunky-dory and you have no worries. That's not how you grow. You grow and evolve and become more by meeting challenges and handling those confrontations, problems, or challenges of life.

Don't think you're going to avoid the stresses of life. Life will find a way to mess with you and give you problems. There's not a day that goes by that all of us don't meet some kind of problem. If you get all freaked out about it, like, "Oh, this just shouldn't be. I shouldn't have this problem. This flat tire has ruined my life." I think if you just have a positive attitude like, "Oh, okay. It's a flat tire. Okay, well, what will we do about that? I guess we'll have to take the tire off and fix it, and then come on back and I guess I'll be late for dinner," or whatever. You just handle it and deal with it, and it's okay because that was my problem for today. That was my challenge for today. If you don't get upset and get stressed and get angry and get pissed off and raise your blood pressure and get ulcers because things didn't go my way, well if you don't take that attitude then, "Oh, okay. I've got a problem. Shit. The bank has got an overdraft. I forgot to do ... Oh shit. Oh, okay. Well, all right. Well, let's handle it. What have I got to do?" Just handle it and don't get upset and freaked out, because every day there's going to be something that will piss you off.

Even right now I think about the shit that goes on in our life. We could so easily get pissed off about it. I'm sure that when Mali (daughter) comes back home and sees the shit we all get upset about, she'll probably laugh at us. Like, "You know, you ought to be thankful you're alive. That somebody didn't fuckin' blow up or a bomb didn't go off in front of you and your buddy got killed." I'm sure her perspective will change having been through that war (Afghanistan and Iraq). People that come back from the wars are all changed and have had heavy stresses. It takes them time, and some people don't handle stress very well, and they have post-

traumatic stress disorder and they don't adapt to their old life again so well. I think that if you meditate going through the war, you'll come out like, "Okay, the war is over. I'm done with that part of my life. Now I'm going to move back into society. If a car backfires I'm not going to freak out and jump up and down and grab my pistol and start waving it at people."

I think it will be a good experience for Mali to have gone to Iraq and having been exposed to those stressors, being threatened daily continuously. Bombs are going off and shit happening, people dying in front of you, people freaking out, people getting burned, all the weird shit that happens to her. It's all good. She's growing really fast. That's what I'm thinking. Guys like Brian, who are sitting back and are trust fund babies - they don't have any problems except for ones they create themselves. They're just cruising through life because someone else has paid for everything. "I've got nothing to show up for." They're not growing very much. He doesn't have any problems. The guy who has a lot of problems, big problems, he's going to grow a lot faster if he handles them right. If he takes them in stride. That's my take on stress and problems. Welcome them. Ah, good, come this way. Yes. Oh, I've got a problem? Okay, I'll handle it, and I'll grow from this experience and become better rather than, "Wah," freaking out and being upset and screaming and yelling and raising your blood pressure and reacting with a fight or flight response, a sympathetic response like it's the end of the world.

Oh, okay. So you got a flat tire or an overdraft at your bank, or, shit, there's not enough money to pay for that thing you want to buy or whatever the stressor will be on any given day, you take in stride and perceive it as an opportunity to grow.

Ian: What about, as we're talking about stressors, these are a lot of mental stressors, what about physical stressors? It makes me think of exercise because you were a big swimmer for most of your life and have been very active.

Pops: Yeah.

Ian: Growing up on a farm and swimming in college and always having an active life.

Pops: Yeah.

Ian: Eventually, as you became a father, that exercise kind of turned into laboring on the farm and tilling the soil and being a handyman. What are your thoughts on exercise and physical stressors?

Pops: My take on that is everything in moderation. You think of the guys that are super athletes, that are like super weightlifters and they're like great big giant muscles, and they don't live so long and they get arthritis. The guys who bicycle or run, the long, long-distance runners, they stress their bodies out. They beat them up and break them down, and they wear out sooner than them. I think the people that live the longest, the Hunzas, the people from Okinawa, the people in those Eastern European countries that live a long time. They have a simple life, uncomplicated, and they always work, but they don't work too hard. I think, if anything, I were to look back (my life), I think I worked a little too hard, thinking I could get more, be more, and have more if I worked harder, and so I pushed my body to the limits. I gave myself a bad back lifting heavy things. On the farm as a little boy in Belleville (Michigan) on the neighbor's farm, on my own farm shoveling things, as a little boy carrying things that were much too heavy, working my ass off in college and chiropractic school, building houses, rebuilding houses. I worked much too hard. I was much too hard on my body physically. I think my back and my knees and my shoulders have paid for it. They have arthritis. They have shown excess wear and tear.

Ian: After rebuilding homes in Davenport (Iowa), then you began chiropractic, and that was also physical.

Pops: Well, you know, I think chiropractic shouldn't be too physical. I got into the habit of giving everybody my all, and I think I valued chiropractic in such a way that if I didn't move six or eight vertebrae on every visit, I wasn't giving them their money's worth. It was a mental thing in my head. I could have easily had the philosophy of the upper cervical guys: I adjust this top vertebra and line everything up, then it's all done. It's all good. The NUCCA guys and the Grostic guys and the Pettibon guys. They didn't wear out. Those guys are flipping a switch or making adjustments. It's all about the analysis and is very precise and exact and convincing the patient that that was what it would take to correct. It was a thing in my head that I had to move every segment, every thoracic, every lumbar, every cervical. They all had to be moved around and rearranged, and now you're set. I was never too much into

extremities. I did a little bit of treatment, but not much. Some guys spend half an hour with patients moving every toe and every ankle and every knee and every hip and every wrist and shoulder and every part of their body ... Their whole spine moves.

Thinking back on it now, if I had it to do over again, I would adjust much less. I would adjust two or three or four vertebrae at the most, and not eight to 10 vertebrae. For decades, I would do both sides, lumbar rolls, posterior dorsals, anterior dorsals, cervical break, left and right, and a tarsal and a wrist adjustment. I would do eight or 10 vertebrae on every patient. When they left they went, "Wow, man, I've been rearranged." The problem was that I beat myself up doing it. Some of those people had miracle cures and didn't come back because they were all better symptomatically or they were sore afterward. It was a mostly lose-lose situation.

Had I just explained to the patient, "Now, we're going to move one little vertebrae here just to get things started, and then we'll gently and slowly work into it, and you'll find in time as we introduce this force in your body, we're going to start to slowly and gradually rearrange things? Understand, it's been there for a long time, so it's going to take a long time. Don't be in a big-ass hurry, because it's taken you years to get here, and now it's going to take us some months to get you back. Just be patient. That's why they call them patients. I would take it differently and do less, for sure. I beat my body up. I know that both shoulders are aching because of jumping on lumbar.

Ian: You've had a lot of success as a chiropractor, as a businessman investing in properties, and successful in marriage and fatherhood.

Pops: A relative degree of success I'd say.

Ian: Yes. I'm sitting here watching the sun go down. You've got all these trees and citrus and a beautiful pool and palapas. I'd say this is a pretty amazing place. I look at it. What do you think out of all your labors, what were the best fruits to come out of all that you've done?

Pops: I have to say, my kids. I have some beautiful trees. I have a beautiful house. It has a lot of artwork I've collected. I have a nice efficient office. I've made some good investments. I've made a lot of bad investments. My apartments are a really good win. That's what saved my ass financially, those apartments because they're a nice little cash cow.

There's only just eight of them, but there could have been 30 or 40 really. I got eight, and they're producing a nice little income. What do I really value? This is just stuff. This stuff doesn't last long. That tree could be gone tomorrow. That pool could fall down the hill in a few years. Look all around, it's all nice stuff, but it requires a lot of maintenance. I think my most prized thing is my kids, you, and the girls. That's something I can be really proud of.

I'm not bragging on myself, but what can I show off to somebody? Some stranger from another planet or from another country? Well, I have a son who is a very successful chiropractor, a daughter who is a naval flight officer, another daughter who is an officer in the Army and has been to Afghanistan and Iraq. Those kids are ... They all have college degrees and they're all going to do very, very well, and they're doing very well, and I'm quite certain that all three of you will be more successful than me. I guess that would be the most successful thing I have is my kids.

Ian: What were some of the times as a father, the most joyful and uplifting times you had with the kids. What age was it looking back now?

Pops: Gosh, babies, and two and three and four-year-olds are pretty special times. Those are just ... And they go by so fast. Boom. All of a sudden they're already grown up. Teenage years for all of you were a little bit challenging, for you and especially for Mali. Sophie was not so much of a problem as a teenager. There were sweet times all through that, I think, but as babies and toddlers, gosh, there were such precious times. There were so many of them I couldn't put them ... I remember the time that you and I and John Leitz (cousin) lived in the other house. Those were fun years in that house. We were batchin' (bacheloring) it. Yeah.

Ian: What about marriage?

Pops: My take on that is it's a big decision you make who you marry. There's no right or wrong decisions, but you make them right. Meaning that whoever you marry, you're going to find fault with them and there's going to be problems and that's what the biggest source of your problems is your marriage. The biggest problems that life presents you is this partner that you have in life. If you dump that partner and get another one, chances are really high that they'll be just like the old one,

because that's where you are in your life and your evolutionary status is on this certain path and this certain level, and if you drop off that level and get rid of that partner, you have to find another partner, and that person, he or she will be a lot like the old one, because that's where you're at in life. Do you know what I mean? You're not going to find some bum you're going to marry. You're not going to find the Queen of England or Princess Diana to marry. You're going to find someone who's just like the one you got rid of, but just a little bit different, who you think is going to be the right one.

My thought on that is that there's no right or wrong decision. You just make a decision and then you make it right. You take that person as they are. If you accept them with their good and their bad qualities, it could be ... Margie has her good points and her bad points. She is a great mom, and I think a lot of our success with our kids is because of her. I mean, I had a lot to do with it, but I think she had, even more, to do with it because she was a disciplinarian. She was on their case all the time. She has a lot of other qualities that are not so desirable. She finds fault with a lot of things and complains a lot and she is hard to live with. She's not always nice, but I accept her as she is, and when she presents a problem, I just look at her and say, "Okay, this is an opportunity for me to grow."

I accept her the way she is and I accept her faults and shortcomings. And I'm not going to change her. I can try and change her, but it doesn't seem to work. Don't think you're going to change the other person. You can change yourself, but you really can't change someone else. You could try your whole life and try to change your partner and it probably won't happen. You might change them in some ways, but it's up to them to change themselves, for them to see their own reflection or their own faults or weaknesses and try and solve those. I don't think people change much.

It's all a matter of accepting them for who they are, with their strengths and weaknesses. If you can't accept them as they are, then you shouldn't be married to them. If you can accept them as, "Okay, you're an asshole, but you're also a great cook and a wonderful mom and a wonderful lover. I accept you as you are, with all your faults or weaknesses." Or you can handle money or can't handle money or are good at finances or good at domestic stuff or art or whatever. Everyone has their strengths and weaknesses, everybody. You have to find a person you can accept the

way they are, and they will have things that you don't like about them. If you can live with that and say, "Okay, I understand that you have these faults and you're short in this department, but you make up for it in this other department. I can accept you." That's my take on it.

Ian: As we wind down our conversation, where do you see yourself growing in the next 10 years in health, spirituality, and relationships, 20 years, 25 years?

Pops: I see myself really in the last couple of months winding down my practice. My practice has become less and less and less and less, and it's pretty obvious that I'm fading out of there. I find myself being attracted to this place in Washington and being totally retired from chiropractic.

Ian: Hanging up your hat.

Pops: Yeah, hanging up my hat, and spending more time in the woods, hiking, fishing, touring, spending a lot of time in meditation. Maybe going back to India, maybe one or two times more, I think. Visit some ashrams. Visit the University (Transcendental Meditation) there. I like the culture of India. I could go back there again. I'd like that. I could see myself ... I picture myself in my mind living in that house in Port Angeles and traveling a little distance to see Sophie and Sam in their place in Oak Harbor and traveling down to Seattle to Mali's place with Alex someday. Three years is going to go fast. Time goes by ... I have noticed this, the sense of the passage of time is different at different ages. When you're young, time passes slowly. As a child, I remember it took forever to become Christmas. Oh, when is it going to stop snowing and raining? When can I go outside and play? It took forever to become summertime. Now, it's like gosh it just seems like just the other day it was Christmas, and it's already the Fourth of July.

The passage of time is a constant from a scientific point of view, but from the subjective point of view the rate of this flow of time, this passage of time, seems to go faster as you get older. I know that three years from now when I sell this space and move to Port Angeles, it may seem like three years is a long time, but I know it will go by fast. It'll just fly, oh boom, a couple of weekends here and then the Fourth of July, a couple weekends and Mali's home, and then a couple of weekends at Christmas, and then boom, boom, boom, something will happen next year, I don't know what, and then a couple of seasons more go by, and

all of a sudden it's, oh God, we gotta get our house ready to sell because the time is up. Sophie and Sam are coming home and we gotta clean this place up and sell it because we're moving.

I know the three years will come by fast. I look forward to, I think, living in that house. It will be very comfortable. There won't be a big yard to maintain. There won't be the manual labor of working and taking care of all this stuff. This is just stuff. It's a pretty low maintenance operation. I envision living modestly, with not a lot of expenses. The big expense will be to travel to see the kids and see you and maybe go on a little vacation here or there. After you've got all the stuff you need in a household, what do you ... Buy some books, buy some tapes, see some videos, maybe go to the movies, go to dinner once in a while. Your house is paid for. You don't have any real expenses. Buy stuff for the kids. The grandkids.

I see myself venturing into Canada, venturing around the Olympic Peninsula. There are so many places to see. Maybe doing some fishing, go to Eastern Washington. I've even thought about maybe getting a motorcycle and going touring on a BMW. Nice gentle ride, not a hard ride like Klayman (friend), racing around and nearly killing himself. That's not for me. I want to drive smoothly, quietly, safely, and go up and down the mountains and see the beautiful sunrises. There's a fun thing about riding bikes. Have you ridden them? They are rewarding. In the right weather at the right time, the right season, it's like ... You can get a feel for the land when you travel on a bike. It's kind of a thought in the back of my mind having a modest-sized BMW. Not a big giant one or a fast one, just a nice touring bike.

Maybe get a small motorhome, like a Mercedes Benz whatever they call it, diesel. Not a big one, not a big giant. The big ones are just too big and too cumbersome. You can't park them. Something small and modest you can handle and drive anywhere you want to go and you can park it, you know what I mean? Twenty, 25 feet, not a 50 footer. Do you know the giant motorhomes like Bluebirds and Prevost and stuff, those million-dollar homes? I don't think I'd like to have a big motorhome. A small motorhome I can drive around, put a bicycle on back, and stop somewhere and travel and see the sights. Yeah, I would like that. I would like to go back to visit the family back East. I really enjoyed myself there, going back to see Pat and John and Liz (aunt and cousins). I would like

to visit Heather and Chuck Leitz (cousins). There's a lot back East I'd like to see. I'd like to see it all. A lot of national parks. I've seen a few of them and they were very enjoyable, and we have a lot of great national parks in America, so that's something I want to do.

I think I'm going to take it easy in the last few years of my life. I'm not going to push myself. I'm not going to work as hard as I used to. I want to continue to take better care of my body. Probably go to the gym a few times a week and workout modestly. I'm not into breaking any records. I think the people that live the longest are steady. They don't run, they walk. I'm going to spend a lot of time meditating, eating good wholesome food. Rarely have more than a glass of wine or a glass of beer. There's never any need for that.

I have enjoyed the couple of times I've taken those little gummy bears (THC/CBD). It was very enjoyable, my senses were more alive. The sights and smells and sounds. I could hear the neighborhood, the sound of the traffic, kids playing two or three blocks away, or a crow making noise. Just having your senses more awake and more alert and more attuned. You could hear the corn growing and a dog barking over there. The senses are more alive and more aware. When you're going through life and you don't even notice that.

It's like the Indians, the American Indians, they want to drink spirits. That's what they call booze, spirits. If they had one bottle they wouldn't share them with all the guys. One guy would have all of it so he could get plastered and he would get to be in touch with the spirit. I don't think that's where it's at. It's just a little bit just to take the edge off things and give you just a little notion of that. Ah, yeah. You can appreciate nature a little bit more.

I'm really looking forward to being close to nature. I like going to cities, but I would never want to live in a city. San Francisco or New York, it's exciting there for a weekend. Nevermore than that, but I could spend a month in the Hoh valley. In the rainforest? Oh, my God. There is so much life. There's so much nature there. You can connect with the plants. They're so alive and they're just ... Communing with them is easy. Having communion with bricks and mortar and steel and pavement is near impossible, but to have communion with a plant, and so many plants in the Hoh valley with it's rainforest. You have to go there

sometime. It is a spiritual experience because there are so many plants and it's so wet and there's so much moss and trees and growth and greenery everywhere. It's overwhelming, there's so much life.

It's easy to connect with that dimension of life in the woods, in the forest. It's not easy to make that connection in a city where there is concrete and steel. I'm looking forward to spending a little time in the woods, in the forest. Yeah.

I think I'll always take herbs and vitamins. Maharishi once told me, he said there are three precious things on this planet: mantras, gems, and herbs. I'll never forget that. When you think about it, herbs are pretty precious. They can heal you. They provide the body with the nutrients, the right stuff to repair damaged tissue. You have to have nerve energy, you have to have a life force flowing, but you also have to have the right ingredients to recreate new cells, and herbs are nature's medicine, and the medicine that we sell is truly poison. It could save your life, but it would more likely kill you, too. It's a real science being able to give the right medicine. That's the whole science of herbology, the Ayurveda, the Chinese guys. These are ancient, ancient sciences. Much of it has been lost, but it's been revitalized.

There are some brilliant guys out there that know about herbs and foods. I think this guy Weston Price and Royal Lee, these are guys who are brilliant men, and very few people know that they even exist or that these guys are smart. They knew that certain foods were good for you and good for certain conditions, and it's a science. I know a bit about herbs, but not a lot. I might study herbs because I'm fascinated with that. They're natural medicine. The only difference between foods and herbs is that there are no dangerous side effects with foods. With herbs, you've got to be careful because when you're pregnant or you give the wrong herb to the wrong guy, you could make things worse. If you give the right herb to the right guy at the right time, you could save his life. I'm kind of fascinated with herbs.

I'm sure that this is a special time right now. Maharishi warned us about it, told us about it. He called it the dawning of the age of ... He didn't call it the age of enlightenment. He called it the dawning of the age of enlightenment. It's the end of Kali-Yuga and the beginning of Satya-Yuga. It doesn't happen in one day. It may happen in one or two, maybe

three generations. Kali-Yuga is the end of the age of ignorance, when man was killing each other and man was growing plants for profit and poisoning the plants to kill other men, not to kill other men, but for a profit. That's what we're doing. What we're doing to animals. It's sad to think about how we treat animals, the cows and the pigs, and the chickens. These are beings, living cousins of ours on this planet, and we treat them pretty badly. There are factory farms that just crank them out for their meat and poison them and abuse them.

We're abusive to each other. Look at all the bad things that are going on in the world. It's disheartening. You can get upset and get pissed off at the politicians and the world leaders and the governments and find fault with them and go to war with them, but people just act from their own level of consciousness. The solution is not more regulations or more laws to pass. The healthcare solution is not more insurance or more doctors or more hospitals or more insurance. The solution is on the level of consciousness. When people wake up, they'll treat animals better, our planet will treat us better, and we'll treat each other better. It's a matter of awakening. Maharishi had told us it may take a while, but it is now the dawning of a new age, and it's always darkest right before dawn. This is a time when you look around and see all the wars and all the shit and all the things people are doing to each other, it's the ultimate of the age of ignorance.

It's also the age where a lot of people are waking up. They are becoming enlightened and being in tune with nature and the flow with the divine and living a heaven on earth. It's not someplace out there in some sky, some far-away cloud with some angels and stuff. It's right here and right now living on this planet and being in tune with the present moment as it is and accepting it as it is with all its good and bad because nothing is good or bad, except thinking makes it so. Here it is. Enjoy it. Make it hell or make it a heaven.

NOTES

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