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Carolyn Dean MD ND

The Complete Guide to Mental Health

**Lifestyle Advice and
Nutrient Recommendations**

- **Support Your Brain with Nutrients:** Discover the vital nutrients that enhance brain function and mental clarity.
- **Thrive Under Stress:** Learn how to thrive and not just survive in high-pressure situations.
- **Boost Resilience and Adaptability:** Enhance your flexibility and ability to adapt to change.

We are living in a Post-Covid world where stress levels have soared, challenging our mental resilience like never before. Juggling unprecedented demands on family, work, and personal health with conflicting information leaves many feeling overwhelmed and uncertain. Enter *The Complete Guide to Mental Health: Nutrient Recommendations and Lifestyle Advice* – your indispensable resource for navigating these tumultuous times. Unlock the secrets to:

- Building Overall Health and Wellbeing: Cultivate a balanced life with proven strategies that nourish both mind and body.
- Supporting Your Brain with Nutrients: Discover the vital nutrients that enhance brain function and mental clarity.
- Thriving Under Stress: Learn how to thrive and not just survive in high-pressure situations.
- Boosting Resilience and Adaptability: Enhance your flexibility and ability to adapt to change.
- Healing and Growing: Employ time-tested techniques to recover from stress and expand your mental horizons.

In a world where the only constant is uncertainty, *The Complete Guide to Mental Health: Nutrient Recommendations and Lifestyle Advice* equips you with the knowledge and tools to not only weather the storm but to emerge stronger and more focused.



Medical Doctor, Naturopath, and Dedicated Researcher

Dr. Carolyn Dean MD ND is the author of over 50 books including best seller *The Magnesium Miracle*® and her newest book, *Magnesium: The Missing Link to Total Health (Revised)*. And, other noted publications including *IBS for Dummies*, *Hormone Balance*, *Death by Modern Medicine*, and 110+ eBooks to date. Dr. Dean is dedicated to helping anyone gain a better understanding of nutrients, how they contribute to the body, and proactive ways to encourage

making informed decisions about health and vitality.

In 2014, Dr. Carolyn Dean MD ND launched the RnA ReSet® brand based on nutrient protocols she built through 40+ years of experience in private healthcare practice. Dr. Dean's career as a medical doctor and naturopath resulted in a collection of unique, proprietary formulations that support precise applications while remaining safe for everyday use.

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THE COMPLETE GUIDE TO MENTAL HEALTH: NUTRIENT CRECOMMENDATIONS AND LIFESTYLE ADVICE

Carolyn Dean MD ND

A Completement Formula Book

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TABLE OF CONTENTS

INTRODUCTION	12
WHAT TO EXPECT.....	12
PART ONE: NUTRIENTS FOR MENTAL HEALTH.....	15
INTRODUCTION TO PART ONE.....	16
WHAT ARE THE LATEST MENTAL HEALTH STATISTICS?	17
CELLS ARE US	19
CHAPTER ONE: DEPRESSION AND ANXIETY	24
WHAT IS DEPRESSION?	24
<i>When Kids Are Sad.....</i>	<i>27</i>
<i>Post Partum Depression.....</i>	<i>31</i>
<i>Insomnia and Depression.....</i>	<i>32</i>
<i>Medical Rx of Depression</i>	<i>35</i>
<i>Increased Suicidality Caused by Antidepressants & Vice Versa</i>	<i>38</i>
<i>Magnesium Deficiency</i>	<i>39</i>
WHAT ABOUT ANXIETY?	44
<i>The Dynamic Adrenals.....</i>	<i>45</i>
<i>Cortisol.....</i>	<i>48</i>
<i>Anxiety Triggers.....</i>	<i>52</i>

<i>Lifelong Anxiety Reversed – Case History.....</i>	<i>64</i>
WHAT DO WE KNOW ABOUT NUTRIENTS FOR MENTAL HEALTH?	
.....	68
<i>Two Testimonials where Nutrients Support Increasing Mental Health</i>	<i>70</i>
CHAPTER TWO: MAGNESIUM FOR YOUR BRAIN.....	72
ANXIETY, DEPRESSION, STRESS, AND SLEEP	73
MAGNESIUM AND VITAMIN D	85
MAGNESIUM BRAIN RESEARCH	88
CHAPTER THREE: MAGNESIUM’S NUTRIENT PARTNERS	93
VITAMIN D FOR YOUR BRAIN	93
ZINC FOR YOUR BRAIN	99
<i>The Relationship of Zinc and Copper.....</i>	<i>103</i>
TRACE MINERALS FOR YOUR BRAIN	104
<i>Selenium.....</i>	<i>105</i>
<i>Copper</i>	<i>105</i>
<i>Manganese</i>	<i>108</i>
<i>Molybdenum</i>	<i>110</i>
<i>Boron</i>	<i>112</i>
B VITAMINS FOR YOUR BRAIN.....	115

OMEGA-3 FATTY ACIDS FOR YOUR BRAIN	121
<i>Omega-3 and Mental Health.....</i>	<i>125</i>
<i>Omega-3 Algae Versus Omega-3 Fish Oil.....</i>	<i>129</i>
<i>Building Better Brains with BDNF.....</i>	<i>131</i>
PART TWO: LIFESTYLE ADVICE.....	134
INTRODUCTION TO PART TWO	135
ACKNOWLEDGING THE STRESS.....	136
CHAPTER FOUR: DIET FOR MENTAL HEALTH	137
NUTRITIONAL PSYCHIATRY	137
WHAT NOT TO EAT	143
<i>Alcohol</i>	<i>144</i>
<i>Caffeine.....</i>	<i>144</i>
<i>Glutamate & MSG.....</i>	<i>145</i>
WHAT TO EAT	145
CHAPTER FIVE: AFFIRMATIONS, MEDITATION, PRAYER, AND VISUALIZATION	148
AFFIRMATIONS	148
<i>Best Practices for Repeating Affirmations.....</i>	<i>148</i>
<i>Small Property Affirmation</i>	<i>149</i>

<i>How to Use the Small Property Affirmation.....</i>	<i>149</i>
<i>Two Strategies to Improve Results from the Small Property Affirmation:.....</i>	<i>150</i>
MEDITATION.....	151
<i>Meditation and Prayer.....</i>	<i>151</i>
<i>Meditation and Trance.....</i>	<i>151</i>
<i>Meditation and Medication.....</i>	<i>152</i>
<i>Walking Meditation.....</i>	<i>153</i>
<i>Puttering Meditation.....</i>	<i>156</i>
<i>Walking a Labyrinth.....</i>	<i>157</i>
<i>Multitasking My Meditation.....</i>	<i>158</i>
<i>Make It Happen.....</i>	<i>160</i>
PRAYER.....	160
<i>The Benefits of Prayer.....</i>	<i>160</i>
<i>Defining Prayer.....</i>	<i>162</i>
<i>The Science of Prayer.....</i>	<i>162</i>
<i>Ho’oponopono Prayer.....</i>	<i>163</i>
VISUALIZATION.....	165
<i>Theater of the Mind.....</i>	<i>165</i>
<i>Right Thinking and Will Power Aren’t Enough.....</i>	<i>167</i>
<i>Low Self-Esteem.....</i>	<i>168</i>

<i>Reprogramming Your Thoughts and Beliefs.....</i>	<i>169</i>
<i>Theater of The Mind.....</i>	<i>170</i>
<i>Dr Maltz's Process</i>	<i>171</i>
<i>Theater of the Mind Procedure.....</i>	<i>172</i>
<i>Make It Happen</i>	<i>175</i>
<i>Questions and Answers.....</i>	<i>176</i>

CHAPTER SIX: BREATHING AND BREATHWORK FOR MENTAL HEALTH, AUTHOR: BEN PELTON..... 178

BREATHING ANATOMY.....	179
<i>Nose.....</i>	<i>179</i>
<i>Airway.....</i>	<i>180</i>
<i>Lungs</i>	<i>181</i>
<i>Diaphragm.....</i>	<i>182</i>
<i>Red Blood Cells</i>	<i>182</i>

BREATHING EXERCISES FOR ANXIETY AND MENTAL HEALTH 191

CHAPTER SEVEN: EMOTIONAL FREEDOM TECHNIQUES (EFT) TAPPING FOR MENTAL HEALTH, AUTHOR: CHRISTINE WHEELER 196

IMAGINE FEELING BETTER WITH JUST THIRTY MINUTES OF TAPPING A WEEK!	197
---	-----

TO START TAPPING	198
<i>Repeat Setup Statements while Tapping the Point on the Side of the Hand.....</i>	<i>199</i>
<i>Reminder Phrase while Tapping the Rest of the Tapping Points:.....</i>	<i>200</i>
<i>What's the quality of your pain?</i>	<i>201</i>
<i>Repeat Setup Statements while Tapping the Side of Hand Point:</i>	<i>202</i>
<i>Reminder phrase while tapping the rest of the tapping points:</i>	<i>203</i>
<i>What's Next?.....</i>	<i>204</i>
USE THIS AS A TEMPLATE	204
EMOTIONAL ASPECTS OF PAIN.....	204
<i>Repeat Setup Statements while Tapping the Side of Hand Point:</i>	<i>206</i>
<i>Reminder Phrases while Tapping the Rest of the Tapping Points:.....</i>	<i>207</i>
TAPPING REQUIRES PERSISTENCE AND PATIENCE.....	208
<i>Repeat Setup Statements while Tapping the Side of Hand Point:</i>	<i>208</i>

<i>Reminder Phrase while Tapping the Rest of the Tapping</i>	
<i>Points:</i>	<i>209</i>
THINK OF THE METAPHORS	210
<i>For Back Pain</i>	<i>210</i>
<i>Stomach Problems.....</i>	<i>211</i>
<i>Eye Trouble</i>	<i>212</i>
<i>Jaw Problems.....</i>	<i>214</i>
MIX AND MATCH AND SWAP	215
MAKE YOUR OWN METAPHORS	217
STRESS AND WORRY	218
<i>About Worry</i>	<i>220</i>
<i>Feelings about Our Health and Wellness</i>	<i>225</i>
<i>Worry and Anxiety Go Hand in Hand.....</i>	<i>233</i>
<i>More about Anxiety</i>	<i>234</i>
<i>What Was Happening in Your Life when You Got Sick?</i>	<i>236</i>
GENERAL RESEARCH	240
CHAPTER EIGHT: MENTAL HEALTH AND EXERCISE	241
THE IMPORTANCE OF EXERCISE.....	241
EXERCISE AND MENTAL HEALTH	243
EXERCISE AND MINDFULNESS.....	244

<i>What Is Mindfulness?</i>	245
<i>The Importance of Mindful Exercise</i>	246
STRETCHING.....	248
<i>Why Everyone Should Stretch</i>	248
<i>The Backward Back Bend</i>	252
<i>Side Bends</i>	254
<i>Hamstring Stretch</i>	256
<i>Quad Stretch</i>	258
<i>Piriformis Stretch</i>	259
<i>Questions and Answers about Stretching</i>	261
WALKING MEDITATION	262
QIGONG AND YOGA	263
<i>Yoga Versus Qigong</i>	264
<i>Qigong</i>	264
<i>Yoga</i>	268
NO MORE EXCUSES	270
CONCLUSION	278
APPENDIX A: GUEST BIOGRAPHIES	280
<i>Ben Pelton</i>	280
<i>Christine Wheeler</i>	281

APPENDIX B: JASON SMITH’S STORY	283
APPENDIX C: YEAST QUESTIONNAIRE.....	299
APPENDIX D: YEAST MANAGEMENT PROTOCOL	300
APPENDIX E: MAGNESIUM CONTENT OF COMMON FOODS	302
MEET DR. CAROLYN DEAN MD ND: THE DOCTOR OF THE FUTURE	305
DISCLOSURE	307

INTRODUCTION

This book on mental health is more important than ever because, through no fault of our own, life has become more stressful post COVID-19. Before this epidemic, people only dealt with a few problems at a time and rarely had to make life and death decisions about their family's healthcare and lifestyle with such far-reaching effects and so little information in such a short period of time.

We are now required to deal with multiple challenges coming at us one right after the other, with no time in between to process and integrate the experience. This creates an environment that is rife with stress, with few adequate support systems. So, this is the perfect time for me to write *The Complete Guide to Mental Health* and give you nutritional and supplement guidance and lifestyle tools to help you thrive in a deeply pressurized environment.

WHAT TO EXPECT

In Part One of this book, I share decades of experience with nutrients that support brain and overall health. Being grounded in our physical health increases resilience and helps us meet stressful challenges allowing the body/mind/spirit to adapt to change. This

is an important part of recovery and/or expanding our mental and general health.

In Part Two, my co-authors and I share lifestyle tools that can help you cope with post-Covid living. This is not an exhaustive list. But these chapters are written by customers, friends, and family who use these tools daily and are designed to give you options that can help positively shift your stress level, mood, response to challenges, and clear your mind.

Whether the global situation will change for the better in the future, no one knows. But if you can feed your body the nutrients it needs to build wellness during stressful times and use some commonsense tools to help you shift your state of mind, you can maintain a healthy level of detachment that will allow you to thrive in chaos. In this way, you will follow in the footsteps of those who have moved through challenging circumstances in the past and have created happy and fulfilling lives, despite what is happening around them. Making these few changes will set a pattern for those who see you as a leader and a role model and will be of immense comfort to your family members, and particularly your children.

NOTE: In order to share important health information, within FDA guidelines, we developed [a membership website](#), where you can find your own answers regarding building more wellness and using our formulas and information resources. So, you will see various references to information available to members throughout this book.

PART ONE: NUTRIENTS FOR MENTAL HEALTH

INTRODUCTION TO PART ONE

Back in the day, old-timey doctors would help the community rally around a stressed-out Mom, or an overworked Dad, or a bullied kid. I remember in my medical practice constantly giving commonsense advice and nutrient recommendations to my patients that relieved their stress and anxiety, without the need for drugs.

But with the current medical system being controlled by practice management groups and Big Pharma, doctors are no longer independent practitioners and must comply with the standard practice of care, which means drug-based solutions. Overnight, we lost the war on mental health and put it in the hands of psychiatric pill-pushers that may be complexifying the problem and creating victims where none exist.

The public in general, and few doctors, really know what's going on in the brain. It's a pretty complex structure connected to all parts of the body that controls thought, memory, emotion, touch, motor skills, vision, breathing, temperature, hunger – every

process that regulates our body.¹ The brain and spinal cord that extends from it, make up the central nervous system, or CNS.

Because of the complexity, we turn our brains over to the specialists. We've also neglected the nutrients that the body absolutely requires to function. Two-time Nobel Prize winner, Dr. Linus Pauling, the father of Vitamin C, turned his attention away from vitamins and onto minerals when he said that all chronic disease was due to mineral deficiency. He could also have added that chronic disease includes a mental and neurological component.

WHAT ARE THE LATEST MENTAL HEALTH STATISTICS?

I wrote the following in *The Magnesium Miracle*² in the late 1990s, and as you will see below this excerpt, the numbers have gotten much worse:

Social epidemiologist Myrna Weissman at Columbia University reports that more and more Americans are becoming depressed, getting depressed at a younger age, and experiencing more severe and frequent periods of depression. Each generation born in the twentieth century has suffered

more depression than the previous one, and since World War II the overall rate of depression has more than doubled.^{3,4}

A study in the Archives of General Psychiatry showed a doubling of depression in women from 1970 to 1992, with the use of psychiatric drugs skyrocketing as a result.⁵

Forbes Health gives a well-referenced, current overview.⁶ The information is staggering because society tends to ignore mental health and allow it to be stigmatized.

1. 23.1% of U.S. adults experienced a mental health condition in 2022
2. In 2022, 32.9% of U.S. adults experienced both a mental health condition and substance abuse
3. Approximately 5.2 million veterans experienced a behavioral health condition in 2022
4. 33.7% of ages 18 to 25 experience mental health concerns compared to 11.4% for ages 26 to 49 years
5. In 2020, suicide was the second leading cause of death for U.S. children ages 10 to 14
6. In 2021, 51.7% of U.S. women received mental health services compared to only 40% of men.

NOTE: Women are on more mental health medications than men, and that's because women see doctors for their depression, apathy, and insomnia more often and are prescribed medication. Whereas men express anger and irritability and either medicate with alcohol and street drugs or are sent off to anger-management programs.

I think it's safe to say that today the statistics are much worse because of the Covid lockdown. The confinement put such a burden on the population that the mental health consequences are top of mind and need to be addressed properly. And I don't mean by Big Pharma. Drugs do not prevent or treat fear and loneliness, which have led people into anxiety and depression. Mental health resiliency depends on nutrients and nurturing.

CELLS ARE US

I'll let you in on a little-known secret. All our cells come from the same place – they all respond to the same nutrients – they are all capable of being nourished – they are all under our control. When a sperm cell meets an egg cell, a 2-celled zygote is formed, and that union goes on to make our 10-trillion-cell human complex.

Throughout life, stem cells in the bone marrow continue to produce basic cell lines that turn into specific cells that go to specific tissues, but they all start out the same. By assigning complexity to brain cells, we have dismissed the notion that we can help perfect those cells. I say that by using the building block nutrients that help all cells we can absolutely improve our mental health.

I usually talk about the mitochondria in cells that require magnesium to make energy molecules called ATP-Mg. The importance of magnesium in the brain is evidenced by the fact that a neuron houses a staggering 2 million mitochondria! Compare that to the number of mitochondria in heart cells that harbor about 5,000 mitochondria. Just think about that difference. I'm constantly saying how important magnesium is for the heart because the heart needs all that energy to keep the heart beating – but look at what the brain needs! There is no comparison!

All those mitochondria may seem to make the brain neuron function more complex, but what's the bottom line? Those 2 million mitochondria need a LOT of magnesium.

And let's be clear, they don't need magnesium L-threonate, which we are led to believe, in a slick marketing scheme, is the "only"

magnesium that can get into the brain. In reality, a rat study showed that magnesium L-threonate had a 7% better absorption of magnesium into the cerebrospinal fluid than another magnesium compound. That doesn't give magnesium L-threonate exclusive access to the brain!

It's not about the type of magnesium compound but about taking a type of magnesium that's a picometer-sized, stabilized ion. It's the magnesium ion that makes its way past the blood brain barrier. It's a stabilized ion that is allowed to pass through the picometer-sized mineral ion channels in cell membranes. It's magnesium ions that do God's work in the 2 million mitochondria of each and every brain neuron.

Other magnesium compounds must go through a metabolic process to break apart the magnesium and the other part of the compound (threonate, citrate, oxide, glycine etc.) Then, the magnesium stands alone as a very unstable ion, but only for a mere fraction of a second, as it bounces right back into becoming a stable compound.

Let me expand the mitochondria conversation further. The liver is a very important organ, but its cells only maintain about 2,000

mitochondria. Just think about these numbers and how much your brain depends on magnesium for its proper function. Yes, please stop reading right now and drink some picometer magnesium water and know that you are nourishing your brain.

What I'm saying is the most important information you will ever hear about solving the mental health crisis – using picometer-sized, stabilized ions of magnesium make the cells function as God and nature intended. Other minerals, vitamins, and essential fatty acids also play a role in mental health, and I'll address that in more detail later in the book. But here is a short summary of some of their important functions.

Getting enough magnesium inside our cells depends on the proper functioning of the cell membrane, which is the bilayer lipid membrane that encloses every cell, including brain neurons. If we don't ingest the healthiest lipids/fats, our cell membranes become weak and vulnerable to damage, and we suffer the consequences as calcium builds up in cells and nutrients leak out. You hear about leaky gut, but leaky cells membranes are a whole other biological emergency.

The nutrients that support healthy cell membranes are Omega-3 fatty acids (I like algae.) and vitamins A, E, and D. The dietary fats that help make healthy cell membranes mostly come from fatty fish – however, our oceans have become contaminated, and fish can carry high amounts of mercury and other heavy metals that can be a health hazard. I remember a client in New York who ate salmon every day and had a high blood level of mercury! Alternatively, you can get Omega-3s from flax seed and flax seed oil, but you must be incredibly careful because flax tends to go rancid. The best option is to take Omega-3 algae capsules and keep track of your Omega-3 Index on blood tests, which you can obtain through GrassRootsHealth.org.⁷

NOTE: The Omega-3 Index is a blood test that measures the amount of omega-3 fatty acids (EPA and DHA) in red blood cell (RBC) membranes. It is expressed as a percentage of total RBC fatty acids. It is a long-term and stable marker of Omega-3 status, and it reflects tissue levels of EPA+DHA. An Omega-3 Index over 8% is associated with the lowest risk of death from heart disease and below 4% with the highest.

CHAPTER ONE: DEPRESSION AND ANXIETY

WHAT IS DEPRESSION?

Depression is a mood disorder wherein the patient experiences persistent symptoms of depressed mood, sadness, and a loss of interest in daily activities that affect their normal function such as appetite, energy levels, concentration levels, and sleep.

I think it's difficult for practitioners to truly know what a depressed patient is suffering, if they have never experienced depression themselves. I am very fortunate to be in that category – except for the first months of my menopause. Seconds before I would experience a hot flash, I would be overcome with a sense of impending doom and dread. I would feel hopeless, helpless, and devastated. Then, the hot flash would come, and the hijacking of my brain would instantly lift. Seriously, it would only last for a few seconds, but the depression I felt seemed endless. That experience taught me what severely depressed people might be going through full time. In my case it had to be some hormonal shift as the hot flash chemicals lined up to flood my circuitry. But from this

experience I realized how much biochemistry plays a part in depression and reinforced my belief that nutrients can be part of the solution and not drugs to suppress symptoms.

Allopathic medicine cites biochemical imbalances, as well as psychological and lifestyle factors, as the basis for mental health challenges. They have focused on the apparent lack of neurotransmitters like serotonin and dopamine and seek to manipulate them back into balance.

However, neurotransmitters also depend on nutrients. Here's the association between neurotransmitters and magnesium that I wrote about in *The Magnesium Miracle*⁸:

Serotonin, a neurotransmitter that elevates mood, depends on magnesium for its production and function whether it's made in the brain or in the intestines. Dopamine, a neurotransmitter that helps control the brain's reward and pleasure centers utilizes magnesium in several steps in its biochemical pathway. A magnesium-deficient brain is also more susceptible to allergens and foreign substances, which in some instances can cause symptoms similar to mental illness.

Then, there are the times when you are facing major stress or grief, and you are unable to sleep, stop exercising and eating properly, and deplete yourself of nutrients. This causes a vicious cycle of improper body care and can prolong problems or deepen distress.

Additionally, psychologists have identified a type of depression where a person who is grieving a loss – death, illness, or even adultery – will maintain their depression to show how much they care or how guilty they feel. Survivors' guilt is a real condition. Other reasons for emotional distress can include brain allergies from foods or chemicals, hypothyroidism, hypoglycemia, and yeast overgrowth. None of these factors are considered by allopathic doctors, and they don't address nutrient depletion that can cause or aggravate the above conditions.

Another underlying cause of depression to investigate is explained by *German New Medicine* and *Total Biology* as the "conflict basis of disease." According to this medical specialty, irresolvable conflict, which is a form of depression, can lead to physical symptoms as the body tries to find a solution to the conflict. Allopathic doctors will look at such cases and conclude that the

physical disease makes a person depressed, but it can also be the other way around.

When Kids Are Sad

Adolescent depression can accompany the normal youth rebellion against parents and society. Part of the rebellion often takes the form of not following parental guidelines for diet, sleep, and exercise. When I was in private practice, many observant parents saw the damage caused by a soda and potato chip breakfast.

Young people are growing their bodies and brains and need the best nutrition possible. Unfortunately, they eat too many ultraprocessed foods, fast foods, soda, and sugar. Such a diet can create severe nutrient deficiencies, especially the depletion of zinc, magnesium, and essential fatty acids. Reduced amounts of these nutrients are known to cause mood changes. Also, high sugar intake can deplete vitamin C and B vitamins, necessary for proper mood balance. If young people take the above supplements, get enough sleep, exercise, and have a good diet, they can often reverse the symptoms of depression.

According to Dr. Sharna Olfman, professor of clinical and developmental psychology, in her book, *No Child Left Different*, written in 2006:

The number of American children being diagnosed with psychiatric illnesses has soared over the past decade and a half. The National Institute of Mental Health (NIMH) estimates that today, one in ten children and adolescents in the United States 'suffers from mental illness severe enough to result in significant functional impairment.' During this same time period, psychotropic drugs have become the treatment of first choice rather than the treatment of last resort. Recent years have witnessed a threefold increase in the use of psychotropic medication among patients less than twenty years of age and prescriptions for preschoolers have been skyrocketing. Over 10 million children and adolescents are currently on antidepressants and about 5 million children are taking stimulant medications such as Ritalin.

According to *CDC National Center for Health Statistics*, 1 in 13 US children in 2014 were taking psychiatric drugs.⁹ *Psychology Today*¹⁰ in 2021 had the incidence numbers in the US at 1 in 12

children on psychiatric drugs, including 1.2 percent of preschoolers and 12.9 percent of 12- to 17-year-olds. These statistics are chilling and necessitate a more serious look at our children's diets, stress levels and need for supplemental nutrients.

We acknowledge the above remarks but how much of that mental trauma is due to social media. In my list of anxiety triggers, number 27 is social media, but I think I'll focus on it in this section because it most commonly affects young people.

Social media has manufactured anxiety in our youth causing untold harm, including suicide. And the only alarms sounded are cute stories about small groups of kids who participate in experiments where they give up their cellphones for a few days and their tremendous "deprivation" is documented."^{11,12}

Children on social media are put in an unprecedented behavioral Petrie dish that can even end in suicide when a ruthless mob of anonymous bullies abuse sensitive youth. Even more diabolical is that the uncertainty of puberty is being exploited by organized forms of bullying that focus on race and gender. Also, preteens are exposed to sexualizing images that can modify their behavior. Young people who have lived most of their lives on their phones

express fear over having to go for face-to-face job interviews or even make a job search cold call.

I don't have a solution for this social contagion, except to turn it off or at the very least don't give kids cellphones and access to social media until age 18! Picometer minerals and food-based vitamins will help make their brains less stressed and will also help the stress that their parents are suffering. But don't forget, this is a societal problem that will have to be dealt with sooner or later.

NOTE: Let me just slip in here some important information that will give a more detailed description of how social media is changing society. It's the work of Jonathan Haidt who wrote the book *The Anxious Generation*. He outlines the sections of this book on his website¹³ and hopes to "free the anxious generation."

- 1. The Tidal Wave: The basic statistics on the mental health of young people.*
- 2. The Decline of the Play-Based Childhood: How we messed it up by depriving children of play and role-models, damaging attachment systems, and erasing any clear path from childhood to adulthood.*

- 3. The Rise of the Phone-Based Childhood: And the harms that result; the harms to girls, and the harms to boys. And the "spiritual degradation" that is happening to all of us—including adults—from our new phone-based lives.*
- 4. Collective Actions for Better Childhood: What we must do to reverse the damage. How parents, school, governments, tech companies, and young people are trapped in "collective action problems" and how these can be resolved when individuals organize and act together.*

NOTE: I attribute part of my happy childhood to having a stay-at-home Mom and being a Brownie, Girl Guide, and Ranger in the Girl Guides of Canada organization.

Post Partum Depression

After pregnancy, women may suffer from nutritional depletion and postpartum depression (PPD) because of the intense stress of labor and delivery. Fluid retention and elevated blood pressure, indicate magnesium deficiency that can add to mood symptoms. Severe hormonal shifts naturally occur, but if you also have thyroid deficiency, they can manifest as mood swings. Thyroid hormones require 9 minerals for their production; if they are depleted by the

rigors of pregnancy, mothers can suffer symptoms of hypothyroidism.

PPD can be treated with picometer magnesium, picometer multiple minerals to support thyroid function, picometer zinc, and food-based and methylated B vitamins. Calcium will be important for breast-feeding mothers, and if you can't get a full 600mg of calcium from your diet, you can take a picometer calcium supplement.

Insomnia and Depression

Sleep is so important that severe lack of it can lead to psychosis. I'm talking about no sleep for days. On the road to psychosis, insomnia can cause depression. The following is an important excerpt from my book, *The Magnesium Miracle*,¹⁴ because magnesium is a major part of the solution.

We take sleep for granted, until we start losing it! There are countless causes of insomnia – remarkably, many of them are either due to magnesium deficiency or treatable with magnesium supplements. The long list includes numerous medications, caffeine, alcohol, heart disease, pounding heartbeat, nighttime cortisol surges, restless legs, pain,

hormone shifts, fear, stress, anxiety, heartburn, constipation, depression, dementia, OCD, ADHD, arthritis, and poor recovery from exercise. I'll talk more about these many of conditions and explain their relationship to magnesium deficiency in this chapter.

Insomnia is actually one of the first symptoms to be alleviated with magnesium therapy. There is a saying in magnesium circles that the mineral is so effective that if a person complains that magnesium isn't helping them sleep – then they just haven't taken enough. Many people find that the laxative effect prevents them from reaching therapeutic levels of magnesium. Fortunately, the discovery of ReMag solves that problem.

There are many sleep studies that confirm the effectiveness of magnesium supplementation. However, I find it frustrating that magnesium sleep research is repeated over and over, and doctors don't get the message to report this to their patients. If they do recommend magnesium, they reference magnesium oxide, which may partially work but it usually

causes an extreme laxative effect, and the patient discontinues the treatment.

How does magnesium help us sleep? Twitchy, restless, tense muscles keep you from falling into a deep sleep. Tight muscles make you hyperalert and irritable and any noise or even an active dream will wake you up. Magnesium relaxes tight, twitchy muscles so you can reach a deeper level of sleep. There are many other mechanisms that I will briefly outline in the following studies.

GABA is the main inhibitory neurotransmitter of the CNS and thus, activation of GABA(A) receptors favors sleep. One paper reported on the magnesium deficiency-induced, anxiolytic-like behavior in mice.¹⁵

Magnesium sleep-research shows that oral magnesium reverses age-related neuroendocrine and sleep EEG changes.¹⁶

Magnesium supplementation improves magnesium deficiency symptoms and inflammatory stress in older adults (over 51 years) with poor sleep.¹⁷

Magnesium reduces heart rate response to sympathetic nervous stimulation, to exercise and to sleep problems.¹⁸

Two studies showed that chronic sleep deprivation reduces intracellular magnesium, increases heart rate, and plasma catecholamines.^{19,20}

One last study found that dietary magnesium deficiency decreases plasma melatonin in rats.²¹

Medical Rx of Depression

Even the *New York Times* casts doubt on the use of drugs for depression in an article asking, “How Much Do Antidepressants Help, Really?”²² The article quotes an April 2022 study that “sheds light on how little is known about their long-term benefits.” And you would be correct to ask why it took so long for this information to come to light.

The problem is that clinical antidepressant drug trials typically only run for 8 to 12 weeks, and we don’t know scientifically what happens after that time. It’s hard to believe that there have been so few long-term studies on drugs that are so widely prescribed. I

believe the short timeframe is set on purpose to avoid having to report on the inevitable long-term side effects.

A 2022 study in the *British Journal of Psychiatry*²³ reported that: "Our findings indicate an association between long-term antidepressant usage and elevated risks of heart disease mortality and all-cause mortality." This was a 2-year follow-up study of Americans with depression who took antidepressants versus those who did not.

I'm sure *NY Times* writers get paid by the word because the article goes on and on, long after the point was made that antidepressants are associated with risks. I kept reading to see if they would talk about alternatives but nothing about nutrients was mentioned. Critics of the study, like me, said that "...it certainly doesn't settle the debate over the effectiveness of these drugs."

There was one commonsense observation "If we don't expect improvement from the continuous use of these medications, then the correct decision might be to stop the continuous use of these medications or add another kind of treatment, like cognitive behavioral therapy." Again, no mention of nutrients.

Another observation was that clinical trials may only show an improvement in depression symptoms in the first few months. I wonder if that could simply be the placebo effect. It was also noted that according to one study, 73% of Americans are simply handed antidepressants without a diagnosis of depression. And they report that other studies found that antidepressant benefits are similar to taking a placebo sugar pill.

When I find myself mentioning the placebo effect I recall talking with Dr. Mildred Seelig, a well-known magnesium expert. She said that in her first years out of medical school she worked for a big drug company. Her assignment was to determine the amount of nutrients in a patient's blood before and after taking medication. She was shocked to see that magnesium would become elevated at the onset of drug therapy, but after several weeks, magnesium would be depleted. She surmised that because of drug toxicity, the body would surge magnesium from storage to deal with the toxicity. Because magnesium stores are finite, magnesium would show deficits after several weeks. It was a shocking finding that was ignored by her superiors. What she found and the reaction she got catapulted her into magnesium research and advocacy.

The *NY Times* article ended with the assertion that “we need more careful research on how best to help the more than 16 million Americans who currently suffer from depression — and whose symptoms may well have worsened during the pandemic.”

But just before that, after acknowledging that antidepressants only work for a few months, it noted an analysis that found 15.5 million people have been on antidepressants for more than 5 years. Then the article mentioned the weeks or months of withdrawal effects when trying to get off medication, which may be why people feel they must stay on it.

What are the other risks of taking antidepressants? They increase the risk of strokes, heart attacks, falls and even death along with the common side effects: nausea, agitation, weight gain, lower sex drive, indigestion, and suicide.

Increased Suicidality Caused by Antidepressants & Vice Versa

What? Wait! Let’s read that again. Consider this frightening scenario – since 2003, the FDA has put a serious suicidal Black Box

warning on antidepressants that led to a decline in their use and an apparent increased rate of suicide.

Let me give you some context – I read this report in a Medscape article²⁴ that was written by someone who has received speaker and consultation fees from 13 different drug companies – so take a good dose of sea-salted water when you read this article. The bottom line seems to be that if you take antidepressants, they can lead to suicide but if you don't take them, researchers claim the same result. Wouldn't this type of double bind lead a smart person to look for solutions other than drugs? Apparently not. If you want to read the FDA warnings about the suicidal risk of antidepressants, go to the reference link above.

Magnesium Deficiency

We do not develop anxiety, panic attacks, or depression because we have a deficiency of Valium or Prozac. Our bodies do not require these substances for essential metabolic processes, we do require nutrients. We can develop a myriad of psychological symptoms because of a deficiency of magnesium, a nutrient our bodies do require. Does it make any sense to merely switch our addictions from sugar, alcohol, drugs, and cigarettes to prescription

medication without looking at the possible underlying metabolic causes? Psychiatrists, all too often, rely on prescription drugs for suffering patients and have no insight into the metabolic functioning of the mind and body and what happens when nutrients are deficient. Anxiety and depression are often nutrient-deficiency diseases and chemical sensitivities, certainly not drug-deficiency diseases.

A remarkable study of almost 500 depressed people by Drs. Cox and Shealy found that many sufferers were magnesium deficient. The authors of the study advised clinicians that they should consider the distinct possibility of a therapeutic benefit from the use of magnesium therapy in chronic depression.²⁵

Here is more information about depression and magnesium from my book, *The Magnesium Miracle*:

A 2016 study "Dietary Magnesium Intake and the Incidence of Depression: A 20-Year Follow-up Study" declared itself the first prospective study with 20 years of follow-up to report the association between magnesium intake and the incidence of depression in men. I think it's worth looking up this study even just to see the impressive list of references. It seems

that researchers have been proving the connection between depression and magnesium for a long time, but the medical world hasn't been paying attention. An earlier study in 2009, published by the same group, found an association between magnesium intake and anxiety as well as depression.

The way researchers report their results may prevent doctors from jumping on the magnesium bandwagon. In the 2016 20-Year Follow-up study, instead of shouting their conclusion from the rooftops that "magnesium intake may have an effect on the risk of developing depression," they mildly and merely say, "Further studies are needed to investigate whether sufficient magnesium intake could have implications for prevention or treatment of depression."

May I exclaim – Lord Suffering Cats! Why can't magnesium researchers come down from their ivory tower, make a definitive statement, and demand that clinicians listen to them? Lives are at stake! Instead, they make their observations, never draw conclusions, and continue to demand funding for never-ending research while the public waits for science to tell them what to do!

I often reference my experience in medical school, where there was a complete lack of education about nutrients, to explain why doctors consistently fail to recognize nutrients as viable therapeutic aids.

Let me explain one of the ways magnesium functions to relieve the mind of anxiety and depression. You may be familiar with serotonin, the body's natural "feel-good" brain chemical. Magnesium is important in the serotonin story because it is a necessary element in its production and the release and uptake of serotonin by brain and gut cells. With proper amounts of magnesium, nature makes sufficient serotonin, and you experience emotional balance. But when stress depletes magnesium, a vicious cycle spins out of control, and depression can occur.

Authors of the October 2014 paper "Role of Dietary Factors in Psychiatry" made the following statement: "It was found that the individuals with low cerebrospinal fluid levels of magnesium also have lower CSF levels of 5-hydroxyindoleacetic acid, which is a metabolite of serotonin, indicating serotonin deficiency. CSF levels of magnesium

were lower in patients with major depression as compared with controls, and CSF levels of magnesium were low in persons who attempted suicide. The paper concluded with this statement: "Deficiency of magnesium caused depression, behavior and personality changes, apathy, irritability and anxiety."

Instead of looking at the dietary factors in psychiatry, including magnesium deficiency, the pharmaceutical industry has focused its research for the treatment of depression on selective serotonin reuptake inhibitors (SSRIs), such as Prozac, to capitalize on serotonin's chemical effects instead of giving serotonin what it really needs—magnesium.

SSRIs create artificially elevated levels of serotonin in the body by preventing its breakdown and elimination; serotonin lingers longer in the brain and theoretically causes mood elevation. This is what is supposed to happen on paper, but everyone has a different reaction to the manipulation of his or her brain chemicals. For some people, prolonged, rising levels of serotonin can liberate them from long-term depression. For others, the drug can lead to anxiety and

irritability. A small but significant group can feel released from their apathy just long enough to act on suicidal or homicidal thoughts. Another group of people tends to have flattened moods in which they can neither weep nor laugh, keeping them from the extremes of depression or mania but relegating them to a one-dimensional life.

NOTE: I was pretty clear on the importance of magnesium for brain health in the above excerpt. But now, with the statistic that each brain neuron contains 2 million mitochondria and each mitochondria requires a lot of magnesium, I'm shouting it from the rooftops! And I'll also exclaim that the best way to get enough magnesium into the brain is by taking a picometer-sized, stabilized ion of magnesium.

WHAT ABOUT ANXIETY?

When the adrenals are no longer protected by sufficient magnesium, vitamin C, B vitamins, and sodium, the fight-or-flight hormones, adrenaline and noradrenaline, become more easily triggered. Magnesium especially, calms the nervous system through the HPA (hypothalamic, pituitary, adrenal) axis and relaxes muscle tension, helping reduce anxiety and panic attacks.

If the adrenals surge erratically, they cause a rapid pulse, high blood pressure, and heart palpitations. The more nutrient-deficient you are, the more exaggerated the adrenaline release is. After the acute response, if the stressors continue, there will be a chronic response with cortisol. Cortisol does great things for the body but in excess it can flip into a disrupting force. I'll say more about cortisol below.

The Dynamic Adrenals

We have a pair of adrenal glands – one on top of each of our kidneys, and they are tiny at only 3 inches long X 0.5 inches wide. If they fail, we fail. They have acute and chronic functions. We mostly think of them for acute “fight or flight” responses, which is provided by adrenaline, but they serve many other important roles provided by cortisol, in modulating:

1. Metabolism
2. Blood sugar levels
3. Blood pressure
4. Salt and water balance
5. Pregnancy
6. Sexual development before and during puberty

7. The balance of sex hormones, including estrogen and testosterone

NOTE: Magnesium supports the adrenals in the above 7 functions, but it also has a direct effect on all of them.

In *The Magnesium Miracle*, I wrote the following:

According to Hans Selye, the Canadian doctor famous for his work on stress, magnesium is depleted when the body shifts from a short-term fight-or-flight reaction to a chronic stress reaction. The adrenal glands produce stress hormones. One is norepinephrine, which acts like adrenaline and is more a short-term stress hormone. Another is cortisone, which is a precursor to cortisol. Elevated cortisol is an indication of chronic stress. Production of both norepinephrine and cortisone cause depletion of magnesium, and both can be active at the same time.

Chronic stress can come from feeling insecure and threatened, or from exposure to toxic chemicals, heavy metals, or even loud noise, all of which assault the nervous system and overwork the immune system. For example, in

one study, constant loud noise in an industrial work setting induced a significant increase of serum magnesium (as magnesium was released from tissues) and significantly increased urinary excretion of magnesium, indicating a magnesium deficiency, which lasted for forty-eight hours after exposure.

Stress is so prevalent in our daily lives that we have become desensitized to it and the message it is trying to give us, which is to slow down. Anxiety is a chemical reaction created when the adrenal glands respond to a stressful event by releasing adrenaline. Adrenaline is very useful if you're trying to escape from a dangerous situation, because it stimulates the fight-or-flight response: your heart starts pumping faster; digestion slows down; energy stores are released from your liver and made available to the heart, lungs, and muscles; and the muscles of your arms and legs are activated.

All of these responses require magnesium. Each time you experience any kind of stress, your magnesium stores are tapped to minimize stress reactions and to keep the body's 1,000 enzyme processes active. This magnesium depletion

itself stresses the body, which can result in panic attacks causing even more stress. Not only do your overworked adrenals cause magnesium depletion but even more adrenaline is released under stress. If your magnesium levels are already low, you feel even more irritable, nervous, edgy, or ready to explode. It's the proverbial Catch-22. To put an end to anxiety, you need to replace your magnesium daily.

Cortisol

As I've noted above, cortisol does great things in the body but it's cortisol that becomes a marker of chronic stress when it's elevated. And it's gotten a reputation of being associated with weight gain. That's because the body interprets stress as heralding famine, so cortisol directs the cells to store fat. If the stress continues, the fat build-up continues.

I've mentioned the HPA axis already. Here's what it stands for - the H=hypothalamus, is an almond-sized structure deep in the brain that regulates hormones. The P=pituitary is a pea-sized structure at the base of the brain below the hypothalamus that regulates the production of cortisol in the A=adrenal glands.

The feedback loop of the HPA causes the hypothalamus to release corticotropin-releasing hormone (CRH) when the levels of cortisol in the blood fall. The CRH pushes the pituitary gland to produce adrenocorticotrophic hormone (ACTH). ACTH then stimulates your adrenal glands to produce and release cortisol.

Magnesium regulates the hypothalamic–pituitary–adrenal axis as shown in the following study “Magnesium Deficiency Induces Anxiety and HPA Axis Dysregulation.”²⁶ In this study, magnesium restriction in mice enhanced anxiety-related behavior. The chemical findings showed elevated plasma ACTH levels, which indicates a revved-up stress response. In the second arm of the study, anxiety symptoms were reversed with anxiolytic and antidepressant drug treatments. Why on earth didn’t they just give magnesium to the poor mice?

Another study titled, “Benzodiazepine/GABA(A) Receptors are Involved in Magnesium-Induced Anxiolytic-Like Behavior in Mice”²⁷ gave a nod to benzodiazepines. However, these drugs can cause harmful side effects. The most recent attack on “benzos” comes in the form of a documentary called *Medicating Normal*,²⁸ which explores how long-term use of benzos can lead to impaired

thinking, confusion, disorientation and negative effects on intelligence. The following is from the *Medicating Normal* website:²⁹

It is estimated that of the 1 in 5 Americans taking such meds, 30% to 35% are gravely harmed by the very treatment meant to help them. 'Medicating Normal' focuses on the predicament of this group — individuals facing trauma and stress who are drugged needlessly and made sicker as a result.

Because of the level of chaos around Covid lockdowns and their aftermath, even teenagers are increasingly prescribed psychotropic medications for mental health issues. Office workers who spent two years working from home are having anxiety attacks about being forced to go back to work in an office environment.

Here's the question I ask in several of my books: *How do we graduate from being a calm person in control of our nervous system to an anxious, fearful individual?* I think it's due to a gradual, but chronic, decrease in nutrient reserves.

Millions of people try unsuccessfully to cope with their problems medicating themselves with overeating, cigarettes, alcohol, street drugs, and other addictive behaviors to suppress their pain. We are

a nation suffering from a 32 percent incidence of anxiety, depression, and drug problems.

Instead of treating stress reactions properly with nutrients, each year millions of people are introduced to the merry-go-round of psychiatric drugs and psychological counseling for symptoms that may, in fact, be rooted in nutrient deficiency. They're stressed out, not sleeping, tense, and irritable, and they don't know that simply taking high quality nutrients could pull them out of that downward spiral.

In the following chapters, I will give scientific references for individual nutrients needed by the brain for good mental health but here is one paper,³⁰ available online, that offers a worthwhile overview specifically for depression. It states that "Deficiencies in nutrients such as protein, B vitamins, vitamin D, magnesium, zinc, selenium, iron, calcium, and omega-3 fatty acids have a significant impact on brain and nervous system function, which can affect the appearance of depressive symptoms."

Let me repeat. We become nutrient-depleted for umpteen reasons and treat nutrient-deficiency with drugs that make us more deficient. It's a seriously flawed approach that we keep repeating.

Anxiety Triggers

Read this extensive list of anxiety triggers, and you will find the ones that most apply in you or your patient. But don't panic, these are real world causes, and in this overview, I'll show what nutrients can eliminate these triggers. Anxiety doesn't come out of thin air. Your job is to know the triggers and know the nutrients. I focus on magnesium and B vitamins as directly affecting anxiety, but Omega-3 fatty acids help create strong cell membranes that keep nutrients from "leaking" out; Vitamin D has been called an important neuro-steroid; nine trace minerals are required to make thyroid hormones, which have an important effect on mood; zinc has a role in brain health including postpartum depression.

1. Addiction

Alcohol, marijuana, and drugs may be self-medication for someone with anxiety but becoming addicted to these substances can actually worsen it. Substance abuse can alter brain chemistry, leading to increased anxiety. Additionally, the societal consequences of addiction, such as damaged relationships, financial difficulties, and legal troubles, add more layers of anxiety and guilt.

I can't leave this topic without introducing you to Jason, who presented his case history in my book, [Total Body ReSet for Men](#), which is available on my members' site and which I will feature in [Appendix B](#). Jason's downward spiral also stemmed from a brain injury as does our [case history on anxiety](#). Jason describes how he tried to use street drugs to drown his mental turmoil and emotional pain. This book is not about addiction, but addiction is a common consequence of trying to medicate emotional pain. Jason's story provides insight into addiction and the tools to help overcome it.

2. Air Pollution

A *British Medical Journal* article from 2015 analyzed data from 71,000 women and found an association between air pollution and anxiety. The good news is that magnesium prevents bronchial spasm, and vitamins B and C can help clear toxins from the lungs.

3. Alcohol

Drinking alcohol triggers the release of adrenaline stored in the heart. Plasma acetaldehyde, the main metabolite of alcohol, raises catecholamine concentrations in the heart muscle, acting as a heart

stimulant. Alcohol and the above metabolites stress the heart, causing a racing heart that you may interpret as anxiety.

Alcohol withdrawal results in increased release of catecholamines. Alcohol excess is associated with hypertension. The residues of sulfites, pesticides, and fungicides found in some wines can trigger reactions in susceptible people. Many concerned people are now calling any amount of alcohol a toxic substance.

Alcohol depletes magnesium and B vitamins as they try to detoxify acetaldehyde and eliminate it from the body. Alcohol also feeds intestinal yeast, resulting in yeast overgrowth and the production of 78 yeast toxins, including acetaldehyde.

4. Calcium

Whatever lowers your magnesium levels can lead to symptoms of anxiety. Calcium supplements, a high dairy diet, and eating calcium-fortified food and drinks (i.e., orange juice) can overwhelm your magnesium stores and lead to a relative magnesium-deficient state. When you lower your calcium intake, you may find that your anxiety diminishes.

5. Coronary Artery Disease (CAD)

CAD affects over 15 million Americans, making it the most common form of heart disease. It causes arrhythmia, angina, and heart attack. Having a diagnosis of CAD implies that you are suffering from magnesium deficiency and are subject to tension, irritability, anxiety, insomnia, and depression.

Treating a magnesium-deficiency condition with drugs that cause more magnesium deficiency just doesn't make sense, but that is exactly what is happening in modern medicine.

6. Dehydration

Adequate hydration with pure water fortified with minerals is essential for proper blood circulation and heart function – in fact for all cell function. However, when we purify water these days, we lose most of the good minerals with the bad chemicals we are removing, therefore hydration and remineralization go together.

I recommend drinking the equivalent of half your body weight in pounds in ounces of water and adding sea salt or Himalayan salt (1/4 tsp in every quart). Always carry your water bottle spiked with sea salt and picometer minerals.

7. Dental Problems

Lack of magnesium can cause the muscles of the face and jaw to go into spasm and cause tooth grinding, TMJ Syndrome, and jaw clenching. These are symptoms of tension and anxiety, but they are treated by dentists with medication and bite plates even though they are caused by magnesium deficiency.

8. Diabetes

One of the signs of diabetes is magnesium deficiency, so it's no surprise that diabetes and anxiety are associated. According to the Canadian Diabetes Association, 14% of people with diabetes have generalized anxiety disorder, and as many as 40% have some anxiety symptoms.

9. Electrolyte Imbalance

An imbalance of electrolyte minerals (magnesium, sodium, potassium, and calcium) can alter the way the heart conducts electricity. Many doctors prescribe potassium and calcium, tell their patients to avoid sodium, and totally neglect magnesium. As noted above, anything that diminishes magnesium can cause muscle tension, tachycardia, and symptoms of anxiety.

10. Gas, Bloating, and Hiatal Hernia

Mechanical pressure from the stomach and intestines can trigger tachycardia, which can, in turn, trigger anxiety. A hiatal hernia may cause direct pressure; gas in the stomach can press up underneath the heart and great vessels, or this direct pressure can irritate the vagus nerve and trigger tachycardia.

Avoiding alcohol, sugar, dairy, and gluten and treating yeast overgrowth can all be helpful in reducing gas and bloating.

11. Gluten Sensitivity

I'd like to refer you to an iPod interview with Dr. Kelly Brogan, a nutritional psychiatrist, who comments on the addictive nature of gluten and its association with anxiety and depression. The interview on the Gluten Free School website is titled, "How Gluten Impacts Mental Health".³¹ You can also access an informative paper in the journal *Nutrients* "Mood Disorders and Gluten: It's Not All in Your Mind! A Systematic Review with Meta-Analysis."³²

12. Heart Disease

The heart is one big muscle. The highest amount of magnesium in the whole body is found in the heart. When magnesium is deficient, the heart muscle can go into spasm, causing angina, a heart attack, tachycardia, palpitations, or atrial fibrillation, which can trigger an anxiety attack.

13. High Blood Pressure

High blood pressure doesn't cause anxiety, but anxiety and panic attacks can spike your blood pressure. Unfortunately, the three to four medications people are often given for high blood pressure cause or exacerbate magnesium deficiency and the potential for more anxiety attacks.

14. The Holidays

Travel is listed as its own trigger below, but official holidays can be even harder on your heart. If it's a family gathering like Thanksgiving, you have all the stressors of dysfunctional family interaction, overeating, too much alcohol, and not enough sleep, all of which deplete your nutrients.

15. Hypoglycemia

Low blood sugar can cause anxiety attack. When blood sugar drops below a certain level, mechanisms come into play that trigger the adrenal glands to release adrenaline to activate and release glycogen (sugar stores) from the liver. That same adrenaline surge can elevate the heart rate and trigger anxiety.

16. Infections

Viral infections cause fever which increases metabolism and the heart rate. As I've mentioned before, a simple elevation of your heart rate can make you fearful of having another anxiety attack, and that fear actually helps create the attack.

17. Lung Disease

According to WebMD, stress may directly affect the body or cause people to manage their asthma less effectively.³³ People with asthma have a higher rate of anxiety than those without. People have to be very careful of the medications taken for asthma. Many asthma inhalers are drugs containing fluoride, and fluoride binds magnesium, making it unavailable to the body.

18. Medications

Mood changes caused by medications tend to be overlooked, or, if they are recognized, simply treated with more medications. Chemicals like cocaine, marijuana, hallucinogens, OTC cold meds, prescription anti-seizure drugs, and pain-relieving medications, as well as alcohol and caffeine, can affect the way the brain functions and cause anxiety symptoms.

19. Potassium Deficiency

There is a correlation between anxiety, irritability, anger, depression, and potassium deficiency. Potassium deficiency may be found on a blood test, but doctors don't normally test for magnesium deficiency. However, if you have magnesium deficiency along with potassium deficiency, your potassium won't improve when you take potassium supplements unless you also take magnesium.

20. Exposure to Stimulants

Artificial sweeteners (i.e., Aspartame/NutraSweet and Sucralose/Splenda), caffeine, cola, and tobacco are stimulants that can act as neurotransmitters and speed up your heart. If you are

already magnesium and B vitamin deficient and your heart speeds up for no apparent reason, you may get scared, starting a vicious cycle of adrenaline surging through your body and possibly causing a panic attack.

21. Stress That Leads to Anxiety and Panic Attacks

Stress burns magnesium and B vitamins, which depletes the adrenal glands and leads to erratic surges of adrenaline, which triggers bouts of tachycardia. The adrenaline pumps up your heart rate, which can trigger an anxiety attack.

22. Surgical Procedures

Even minor surgical or medical procedures can be a physical and emotional trigger. Just think of “white coat syndrome,” where your blood pressure may soar, and your pulse may increase when a doctor or nurse takes your blood pressure. That racing and increased pressure, called “fight or flight,” can trigger an underlying anxiety attack.

23. High Sugar Diet

Sugar depletes nutrients, so high sugar intake can ultimately lead to tachycardia and anxiety. According to Natasha Campbell-McBride, in her book, *Gut and Psychology Syndrome (2010)*³⁴, twenty-eight atoms of magnesium are required to process one molecule of glucose. If you are trying to break down a molecule of fructose, you need fifty-six atoms of magnesium. That's an extremely unbalanced and unsustainable equation.

A high sugar diet can trigger frequent surges of insulin that quickly create low blood sugar, followed by surges of adrenaline to force the blood sugar back up by stimulating the release of glycogen stores in the liver.

24. Overactive Thyroid Gland

Thyroid hormones regulate metabolism. If you have "excessive" thyroid hormones, your metabolism and heart rate speed up.

25. Travel

The stress involved with the TSA, jet lag, dehydration, poor eating habits, problems sleeping, more alcohol than usual, late-night

meals, and forgetting to take your nutrients combines to become one big trigger for anxiety. Plan your trip well and take more nutrients to avoid all the above.

26. Yeast Overgrowth

This condition is the culmination of a high sugar diet, antibiotics and steroid medications, and layers of stress. Many practitioners and researchers also consider yeast the main cause of inflammation in the body. Yeast produces 78 different metabolic byproducts with far-ranging side effects. One of the byproducts is alcohol. Dr. K. Iwata in Japan diagnosed “drunk disease” in people with yeast overgrowth who had not consumed any alcohol but appeared to be intoxicated.

Another byproduct of the digestion of sugar by yeast is acetaldehyde. As noted above, it’s also the main breakdown (oxidation) product of alcohol and is believed to be the actual cause of the many problems arising from excessive alcohol consumption. Many people find that if you have yeast overgrowth and also drink alcohol, then you are hit with a double dose of acetaldehyde hangover, or “brain fog”.

27. Social Media Anxiety

I've left the worst for last. Social media has manufactured anxiety in our youth causing untold harm, including suicide. I talk about this overwhelming trigger in Chapter One under the subtitle, "[When Kids Are Sad](#)."

NOTE: This list of anxiety triggers may appear daunting, but I maintain that nutrient deficiency may be the true underlying cause for most of these triggers. Unfortunately, instead of a prescription for well-absorbed nutrients, you are given nutrient-draining drugs that will never treat the underlying deficiency and only make it worse.

Lifelong Anxiety Reversed – Case History

What follows is an eloquent and heart-wrenching presentation by someone who suffered depression and anxiety and found relief with picometer magnesium. It gives hope to patients and also hope to practitioners who want to help their patients with their mental health problems.

I always thought I might need magnesium but had negative reactions and little improvement with the standard

magnesium supplements available for the last half century of experimenting with various experimental self-healing strategies. In my most recent attempt, I tried picometer magnesium and the initial reaction was leg cramps that kept me up at night. I stopped taking it and therefore made zero progress with all the other symptoms of magnesium deficiency I was experiencing. But I stayed on your email list.

Then somewhere you mentioned putting it in water and sipping throughout the day. This was the trick! First of all, I never took sufficient amount by taking it all at once, so I did not get any positive response. Secondly, taking it all day to avoid the strong taste has helped remind me about water consumption (dehydration has always been my downfall), so I solved two problems at once. Then the real benefits exploded onto my consciousness!

I have lifelong issues caused by multiple TBI's (traumatic brain injuries) which nearly totally took over my brain, mood, cognition, consciousness, relationships, performance, productivity, etc., with its many manifestations including depression and the often concurring "Demon Anxiety."

Actually, I had come to understand the symptoms of anxiety as much worse than the depression symptoms because anxiety is so much more than an inability to get up and do something which might have a positive impact on oneself – this is classic depression. What anxiety does is to put the nail in your coffin in terms of self-healing because anxiety prevents you from ever arriving at the something you could do! Anxiety causes me to wander around at a snail's pace before sinking back into bed, to never be capable of making a decision about that object in my hand or across the room (glass of water, phone calls to respond to, music button to push, curtains to open up). I remain in an immobilized, indecisive state of total loss of any conscious thinking. Anxiety is totally immune to the influence of your own self-motivating efforts.

I tried picometer magnesium once again, this time using the new method – drinking the maximum dose throughout the day, and religiously. The bottom line is this: my lifelong anxiety has nearly completely disappeared.

This single most important discovery trumps all the other wonderful things I have figured out about cancers and diet and supplements because it gave me back my will to live. There is a big difference between having no will to live and having a will to die. Magnesium deficiency and the anxiety it caused in me had created the obsession to die – the will to die is exponentially worse than lack of will to live.

I think magnesium turned off the will to die because it removed the faulty wiring caused by my TBI's, and the evidence is that for the first time in my life, I walk through my day with this veil of anxiety removed – the entire world looks different, my thoughts are totally different, and every day I discover another connection in terms of the many body functions which were impaired or not happening at all due to functional magnesium deficiency. It's like being color blind to the color red – you can try to explain the color red to this person, but without them actually experiencing "red" they cannot grasp it.

Conversely, when the anxiety was gone, many things – moment by moment – happened in my conscious awareness

of something that was not there, or was being blocked, or was so impaired that I could not experience it enough to understand that body signal trying to alert me to the magnesium deficiency.

Magnesium is a kind of holy medicine that brings my psycho-spiritual health back in ways I did not know I was missing. I think the form or method of producing your picometer magnesium must be unique enough to make the difference in a very hard-to-treat person with multiple broken systems.

WHAT DO WE KNOW ABOUT NUTRIENTS FOR MENTAL HEALTH?

I've come to the crux of this book. I want to show the importance of nutrients in brain health and mental health. The text may seem rather dry as I cite studies and give information to prove my case. But it's necessary for the practitioners who are reading this book because if your use of nutrients is called into question, you want to have these statistics to show your critics. It's not even to prove to them that nutrients are necessary, most people already believe that. It's to prove to their employers and fellow practitioners that there is peer-reviewed research.

However, the first point to acknowledge is that allopathic doctors don't learn anything about nutrients in medical school and certainly not about using them for the treatment of mental health problems. That's probably why they are so critical. Unfortunately, when patients realize doctors are not educated in nutrients and are only trained to use pharmaceutical drugs, they think they're on their own. To drug-based practitioners, when all they have is a hammer, everything looks like a nail. But a new generation of practitioners and health coaches are embracing nutrient therapy.

NOTE: Addressing schizophrenia or psychosis is beyond the scope of this book. However, for many years I've been referring people to the work of Dr. Abram Hoffer, who, for five decades, successfully treated manic depression, bipolar disorder, and schizophrenia with diet, vitamins, and minerals. His treatment protocol, which should be supervised by a practitioner, includes high doses of vitamin B-3 (niacinamide), vitamin C, B complex, folic acid, vitamin D3, magnesium, chromium, and Omega-3 fatty acids. These supplements are taken either alone or combined with smaller doses of prescription medication.

NOTE: I never tell patients or customers that they must stop taking their medications before starting the nutrients I recommend. Take well-absorbed nutrients until you feel better and have fewer and fewer symptoms as you work with your doctor to wean off your medications if it's appropriate.

Two Testimonials where Nutrients Support Increasing Mental Health

The following are two testimonials from people using picometer magnesium and other picometer minerals as well as whole food, natural nutrients to rebalance their mental health.

I've been sleeping very well, experiencing very little or no anxiety, hardly any or no heart palpitations – this is after having suffered AFib and anxiety for almost 10 years. I'm stronger in the evening hours than I used to be and can do many, many things throughout the day and night that I couldn't do before without some kind of a reaction. I do relax and rest and pace myself. I faithfully take my picometer magnesium, multiple minerals, B vitamins and Drops. Sometimes I don't always get all my salt water down, but I aim to reach my goal every day.

I am doing all picometer magnesium, minerals, and whole food nutrients now as well as a soil-based probiotic and feel fantastic! My night sweats have ceased, and I've had no more issues with my Crohn's disease. Everything is moving along great. I have no more anxiety issues, and I have increased energy. What more could I ask for?

CHAPTER TWO: MAGNESIUM FOR YOUR BRAIN

Brain nutrients include Omega-3s, vitamin D3, magnesium, vitamin B complex, zinc, and trace minerals but of course I'm going to start with magnesium. Especially since I recently discovered that each brain neuron has 2 million mitochondria that all require magnesium in order to make brain energy!

I have written about how magnesium nourishes your brain in the past. So, I'll give you the highlights and update the information I have previously shared. If you want to do a more in-depth study of my findings, my eBooks are available on my [membership website](#).

For each nutrient I've gone to PubMed to find the number of scientific studies about each topic. For example, when I searched these two words – Magnesium and Brain – in PubMed, 7,522 results came up. I certainly didn't read through all the titles, so I don't

know the specifics of the studies, but you have to agree that 7.5 thousand studies on the brain and magnesium are a lot.

NOTE: PubMed is a free search engine that provides access to the MEDLINE database of references and abstracts on life sciences and biomedical topics. Most of the references in this book come from PubMed.

ANXIETY, DEPRESSION, STRESS, AND SLEEP

I've already talked about depression and sleep above, and now I'll go deeper into this information and also discuss how magnesium enters into discussion of anxiety, stress, and sleep with excerpts from my book, *The Magnesium Miracle* (2017).³⁵ In fact, this information is so important, it is also refrained in my book, [*Total Body ReSet for Men*](#), which is available on my members website.

How do we go from being a calm person in control of our nervous system to an anxious, fearful individual? I think it's due to a gradual but chronic decrease in magnesium reserves. When the body is stressed – and it can be for a dozen different reasons, our magnesium reserves dump this crucial mineral into our blood stream, and we can become one of those

people blessed with the ability to cope. We are both calm and alert. Our friends and relatives think it's just who we are but it's really how much magnesium we have in reserve.

If the stress continues and we don't rest or replace our magnesium between episodes, our magnesium stores become depleted. Then, when faced with the next stressor, our stress hormones (adrenalin and cortisol) don't activate our magnesium reserves with a calming effect. Instead, adrenalin revs up our heart rate, elevates our blood pressure, and tenses our muscles in a fight or flight reaction.

Three Things You Need to Know about Magnesium, Anxiety, and Depression

- *Magnesium supports our adrenal glands, which are overworked by stress leading to combined magnesium deficiency symptoms and adrenal exhaustion, symptoms of anxiety, depression, muscle weakness, fatigue, eye twitches, insomnia, anorexia, apathy, apprehension, poor memory, confusion, anger, nervousness, and rapid pulse.*

- *Serotonin, the "feel-good" brain chemical that is artificially boosted by Prozac, depends on magnesium for its production and function.*
- *Magnesium deficiency has been strongly linked to sleep disorders, which can either cause or increase anxiety.*

Millions of people try unsuccessfully to cope with their problems or medicate their stress with overeating, cigarettes, alcohol, street drugs, and other addictive behaviors to suppress their pain. We are a nation suffering a 32 percent incidence of anxiety, depression, and drug problems. Instead of treating stress reactions properly with magnesium, each year millions of people are introduced to the merry-go-round of psychiatric drugs and psychological counseling for symptoms that may in fact be rooted in magnesium deficiency.

You're stressed out, not sleeping, tense, and irritable and you don't know that simply taking a good magnesium supplement could pull you out of that downward spiral. All these symptoms are interwoven as you can see from the following

cases of people who fortunately discovered that much of their suffering was due to magnesium deficiency.

- *I have been using [picometer magnesium] for about 2 weeks for my anxiety attacks and they already feel so much better. I am up to 1 tsp. twice a day.*
- *I've been sleeping very well, experiencing very little or no anxiety, hardly any or no heart palpitations – this is after having suffered AFib and anxiety for almost 10 years. I'm stronger in the evening hours than I used to be and can do many, many things throughout the day and night that I couldn't do before without some kind of a reaction. I do relax and rest and pace myself. I faithfully take my [picometer magnesium, picometer multi-minerals, methylated and food based Bs, and the barley drops.] Sometimes I don't always get all my salt water down, but I aim to reach my goal every day.*
- *I found a one-minute testimonial on YouTube by Justin, who was giving a shout-out to our Completement Formulas and [picometer magnesium], which helped him deal with anxiety after exposure to black mold. Here's what Justin says:*

My magnesium miracle started back in 2016. I was exposed to black mold in a house I was living in, and it caused my stress response to spiral. My central nervous system felt like it was on fire all the time. I was doing a Post Doc and eventually resigned and spent a year and a half experimenting with different vitamins, supplements, and herbs. Eventually, came upon picometer magnesium thanks to a recommendation from a practitioner friend of mine. Basically, it had a very calming antianxiety effect, and it allowed me to get out of bed and get back to life. And now, even though I'm working from home, I have a good job and everything, and I really owe all that to picometer magnesium so thank you for a great product.

People do not develop anxiety, panic attacks, or depression because they have a deficiency of Valium or Prozac. Our bodies do not require these substances for essential metabolic processes. However, we can develop a myriad of psychological symptoms because of a deficiency of magnesium, a nutrient our body requires. It doesn't make any

sense to merely switch our addictions from sugar, alcohol, drugs, and cigarettes to prescription medication without looking at the possible underlying metabolic causes. Psychiatrists, all too often, rely on prescription drugs for suffering patients and have no insight into the metabolic functioning of the mind and body and what happens when nutrients are deficient. Anxiety and depression are often nutrient-deficiency diseases and chemical sensitivities, certainly not drug-deficiency diseases.

Magnesium Deficient Anxiety

Is anxiety driven by brain hyperexcitability or adrenaline surges? It's likely to be both. Neurons in constant firing mode can't turn off because there is too little magnesium to repel calcium, which is the firing trigger. The neurons keep firing until the cell collapses.

An important study in 1995 showed that even marginal magnesium deficiency could induce the brain to become hyperexcitable, as shown by EEG measurements. The study lasted six months, with thirteen women ingesting a very deficient 115 milligrams of magnesium daily. This amount is

only 30 percent of the RDA. They remained magnesium deficient on 115 mg for the first three months, during which time their EEGs showed hyperexcitability.

During the second three months, they received 315 mg daily—a little closer to the 360 mg RDA recommended for women. On this dose of magnesium (315 mg), it took six weeks for EEG readings to show significant improvement in brain function and decreased excitability. Studies like this one convinced me to recommend twice the RDA for people with obvious magnesium deficiency symptoms.

Stress is so prevalent in our daily lives that we have become desensitized to it and the message it is trying to give us, which is to slow down. Anxiety is a chemical reaction created when the adrenal glands respond to a stressful event by releasing adrenaline. Adrenaline is very useful if you're trying to escape from a dangerous situation, because it stimulates the fight-or-flight response: your heart starts pumping faster; digestion slows down; energy stores are released from your liver and made available to the heart, lungs, and muscles; and the muscles of your arms and legs are activated.

All of these responses require magnesium. So, each time you experience any kind of stress, your magnesium stores are tapped to minimize stress reactions and to keep the body's 1,000 enzyme processes active. This magnesium depletion itself stresses the body, which can result in panic attacks causing even more stress. Not only do your overworked adrenals cause magnesium depletion but even more adrenaline is released under stress. If your magnesium levels are already low, you feel even more irritable, nervous, edgy, or ready to explode. It's the proverbial Catch-22. To put an end to anxiety, you need to replace magnesium daily.

During stress reactions, calcium is also required to stimulate the release of adrenaline, but calcium excess can cause a flood of adrenaline. However, having sufficient magnesium will buffer excess calcium and keep it within normal levels, limiting the stress response. Magnesium is important because it naturally diminishes the excitability of the nervous system and lowers the level of calcium around nerve cells. This function of magnesium is also significant in heart disease and other stress-induced illness.

Magnesium regulates the hypothalamic–pituitary–adrenal axis as shown in the following study "Magnesium Deficiency Induces Anxiety and HPA Axis Dysregulation." In this study, magnesium restriction in mice enhanced anxiety-related behavior. The chemical findings showed elevated plasma ACTH levels, which indicates a revved-up stress response. In the second arm of the study, anxiety symptoms were reversed with anxiolytic and antidepressant drug treatments. Why on earth didn't they just give magnesium to the poor mice?

Chronic Stress

According to Hans Selye, the Canadian doctor famous for his work on stress, magnesium is depleted when the body shifts from a short-term fight-or-flight reaction to a chronic stress reaction. The adrenal glands produce stress hormones. One is norepinephrine, which acts like adrenaline and is more a short-term stress hormone. Another is cortisone, which is a precursor to cortisol. Elevated cortisol is an indication of chronic stress. Production of both norepinephrine and cortisone causes depletion of magnesium, and both can be active simultaneously.

Chronic stress can come from feeling insecure and threatened or from exposure to toxic chemicals, heavy metals, or even loud noise, all of which assault the nervous system and overwork the immune system. For example, in one study, constant loud noise in an industrial work setting induced a significant increase of Serum Magnesium (as magnesium was released from tissues) and significantly increased urinary excretion of magnesium, indicating a magnesium deficiency, which lasted for forty-eight hours after exposure.

Sleep And Magnesium

We take sleep for granted until we start losing it! There are countless causes of insomnia – remarkably, many of them are either due to magnesium deficiency or treatable with magnesium supplements. The long list includes numerous medications, caffeine, alcohol, heart disease, pounding heartbeat, nighttime cortisol surges, restless legs, pain, hormone shifts, fear, stress, anxiety, heartburn, constipation, depression, dementia, OCD, ADHD, arthritis, and poor recovery from exercise. I'll talk more about these many of

conditions and explain their relationship to magnesium deficiency in this chapter.

Insomnia is one of the first symptoms to be alleviated with magnesium therapy. There is a saying in magnesium circles that the mineral is so effective that if a person complains that magnesium isn't helping them sleep – then they just haven't taken enough. Many people find that the laxative effect prevents them from reaching therapeutic levels of magnesium. Fortunately, the discovery of picometer magnesium solves that problem.

Many sleep studies confirm the effectiveness of magnesium supplementation. However, I find it frustrating that magnesium sleep research is done repeatedly, and doctors don't get the message to report this to their patients. If they do recommend magnesium, they reference magnesium oxide, which may partially work, but it usually causes an extreme laxative effect, and the patient discontinues the treatment.

How does magnesium help us sleep? Twitchy, restless, tense muscles keep you from falling into a deep sleep. Tight muscles make you hyperalert and irritable; any noise or even an active

dream will wake you up. Magnesium relaxes tight, twitchy muscles so you can reach a deeper level of sleep. There are many other mechanisms that I will briefly outline in the following studies.

- *GABA is the main inhibitory neurotransmitter of the CNS, and thus, activation of GABA(A) receptors favors sleep. One paper reported on the magnesium deficiency-induced, anxiolytic-like behavior in mice.*
- *Magnesium sleep research shows that oral magnesium reverses age-related neuroendocrine and sleep EEG changes.*
- *Magnesium supplementation improves magnesium deficiency symptoms and inflammatory stress in older adults (over 51 years) with poor sleep.*
- *Magnesium reduces heart rate response to sympathetic nervous stimulation, to exercise and to sleep problems.*
- *Two studies showed chronic sleep deprivation reduces intracellular magnesium and increases heart rate and plasma catecholamines.*
- *One last study found that dietary magnesium deficiency decreases plasma melatonin in rats.*

Diet Advice for Anxiety, Depression, Sleep

- *Exclude alcohol, coffee, white sugar, white flour, gluten, fried foods, trans fatty acids (found in margarine and in baked, fried, and processed foods).*
- *Animal protein: Organic: grass-fed beef, free-range chicken and eggs, fish (wild salmon)*
- *Protein from dairy: fermented dairy, non-lactose cheese, our protein powder, which is non-casein, very low lactose whey, pea, rice protein.*
- *Vegetarian protein: legumes, non-gluten grains, nuts, seeds*
- *Healthy carbs: raw, cooked, and fermented vegetables and 2-3 pieces of fruit per day. The foods high in calcium are usually abundant in magnesium as well; they include nuts and seeds, sardines, bok choy, collards, and broccoli.*
- *Fats and oils: butter, olive oil, flaxseed oil, sesame oil, and coconut oil.*

MAGNESIUM AND VITAMIN D

Let me tell you how magnesium interacts with vitamin D and make it abundantly clear that nutrients don't act alone like we imagine drugs do.

All the nutrients I speak about in this book interact with each other. For example, magnesium regulates vitamin D, copper, zinc, potassium, calcification, and manganese levels in the body. All of these nutrients are involved with supporting the cells and tissues of the body including the brain.

NOTE: The number of studies I found on PubMed for the search terms – Vitamin D and Brain – was 2,787.

[GrassrootsHealth](#) (GRH) (primarily a vitamin D research organization) analyzed their dietary supplement intake data from thousands of members and asked the question “Are Both Supplemental Magnesium and Vitamin K2 Combined Important for Vitamin D Levels?” Here are their findings:

On average, those taking both supplemental magnesium and vitamin K2 have a higher vitamin D level for any given vitamin D intake amount than those taking either supplemental magnesium or vitamin K2 or neither. Specifically, 244% more supplemental vitamin D was needed for 50% of the population to achieve 40 ng/mL (100 nmol/L) for those not taking supplemental magnesium or vitamin K2 compared to

those who usually took both supplemental magnesium and vitamin K2.

In another paper that echoes the first, GRH asked” “Is Supplemental Magnesium Important for Vitamin D Levels?” Here’s their argument:

Using the data provided for their paper from over 3,000 participants with supplemental magnesium information, we plotted every participant’s supplemental vitamin D intake (dose) and blood level (response) and determined the average trends for participants who reported taking no supplemental magnesium, those who reported taking 1 to 399 mg/day, and those who reported taking 400 mg/day or more.

The dose-response chart in the GRH article shows that on average, those taking more supplemental magnesium have a higher vitamin D level for any given vitamin D intake amount than those taking less supplemental magnesium.

A study “Magnesium Status and Supplementation Influence Vitamin D Status and Metabolism” in *The American Journal of Clinical Nutrition*,³⁶ concludes that optimal levels of magnesium

may play an important role in the vitamin D status of an individual. They took information from over 12,000 individuals in the National Health and Nutrition Examination Survey (NHANES) 2001–2006. The research team found that individuals with high levels of magnesium intake, whether from dietary sources or supplements, had higher levels of vitamin D. They found that magnesium is a cofactor in the synthesis of vitamin D from both exposure to sunlight and dietary sources. They also saw that magnesium deficiency shuts down the vitamin D synthesis and metabolic pathways.

MAGNESIUM BRAIN RESEARCH

A 2020 *Nutrients* journal paper gives a great review of “The Role and The Effect of Magnesium in Mental Disorders.”³⁷ I’ll put the abstract in point form to highlight how magnesium acts like an antidepressant.

1. *The antidepressant action of magnesium is likely to be mediated by:*
 - a. *Modulation of the serotonergic system – even enhancing the effect of SSRIs.*

- b. The antidepressant action of magnesium is impaired when animals are pre-treated with a compound that inhibits the serotonin synthesis.*
- c. In rats, a diet deficient in magnesium was also found to be associated with alterations in the gut microbiota, ultimately leading to alterations in the gut-brain axis and the development of depressive-like behaviors.*
- d. Concentrations of both magnesium and zinc (Zn) were reduced in the hippocampal tissue of suicide victims, along with an altered glutamatergic NMDA activity in the hippocampus.*
- e. Several reports suggest that magnesium is a key mediator of the efficacy of antipsychotic medications.*
- f. Magnesium also appears to be involved in both prevention and reversal of movement disorders induced by the chronic use of typical antipsychotics as seen in animal studies.*
- g. It's involved in the blockade of NMDAR, which is the same target of ketamine.*

- h. Another glutamatergic transmission, the AMPA receptor, appears to be modulated by magnesium as well.*
- i. Magnesium deficiency is associated with dysregulation in the hypothalamic–pituitary–adrenal (HPA) axis, which is highly related to anxiety disorders and depression.*
- j. Increased levels of brain magnesium have been shown to enhance:*
 - i. the retention of the extinction of fear memory, through increased NMDA signaling*
 - ii. the brain-derived neurotrophic factor (BDNF) expression*
 - iii. synaptic plasticity in the prefrontal cortex (PFC)*

With all this incredible information about magnesium, I was disappointed in the conclusion that stated, “larger and more homogenous studies are required for showing the role and the effects of magnesium in psychiatric illnesses.” Unfortunately, this is the normal conclusion for researchers that are looking to fund more research to allow them to keep working. They never come to

a solid clinical conclusion urging doctors to take a stand and use nutrients to prevent and treat disease.

Having researched and written *The Magnesium Miracle* (2017) and *Magnesium: The Missing Link to Total Health* (2024), I know that magnesium, especially picometer magnesium, is perfectly safe to use alone or as an adjunct to any medical treatment for mental health problems, and we don't have to wait for larger studies to say it's OK. Any person whether healthy or suffering a medical condition or on medication can safely take picometer magnesium. There are four contraindications:

- 1. Kidney failure. With kidney failure there is an inability to clear magnesium from the kidneys.*
- 2. Myasthenia gravis. Intravenous administration could accentuate muscle relaxation and collapse the respiratory muscles.*
- 3. Excessively slow heart rate. Slow heart rates can be made even slower, as magnesium relaxes the heart. Slow heart rates often require an artificial pacemaker.*
- 4. Bowel obstruction. The main route of elimination of oral magnesium is through the bowel.*

Even with these contraindications, there are many exceptions to the rule including kidney failure that I write about in my book, *The Magnesium Miracle*.³⁸

CHAPTER THREE: MAGNESIUM'S NUTRIENT PARTNERS

In this chapter, I'll outline the nutrients that, along with magnesium, help grow, activate and protect brain function. I'll include important references, but they won't be exhaustive. If you wish to do a deep dive into any of these nutrients, just go to the reference list for any of the papers that I mention and do your own research. There are thousands of papers that you can choose from.

VITAMIN D FOR YOUR BRAIN

I've already given you a taste of vitamin D in Chapter One as it relates to magnesium. And the number of PubMed studies on the search terms – (Vitamin D and Brain) – is pretty high at 2,787. The search result for Vitamin D alone is 106,088. But that number is spread out over a few dozen conditions.

Vitamin D doesn't just prevent rickets or help calcium absorption, it's biochemically linked to emotional well-being, mood, cognition, and better mental health.³⁹ Because of our aging population, research is focused on the elderly with findings that higher brain levels of vitamin D are associated with a lower risk of dementia and

Alzheimer's Disease.⁴⁰ It also contributes to better cognitive function scores, a slower rate of cognitive decline, better language skills and improving memory.⁴¹ These studies also cite research or give proof that low levels of vitamin D contribute to all these symptoms and conditions.

Currently, one in every three seniors die with some form of dementia, and between the years 2000 and 2018, deaths due to Alzheimer's increased by 146%.⁴² An astounding one out of two people worldwide will be diagnosed with a mental disorder at some point in their lifetime.⁴³ This epidemic was triggered and accentuated during the COVID-19 pandemic with an observable increase in incidence of anxiety, depression, post-traumatic stress disorder and suicide.

We are getting reports from practitioners who use my formulas that they are turning their whole clinics over to the support of patients with irresolvable grief and PTSD. I know from the study of German New Medicine and Total Biology that unresolved conflict can lead to physical illness. The source of grief, stress, and frustration is easily quantified:

- Grandparents dying with no family members to hold them close.
- Anyone hospitalized was prevented from having family members by their side.
- Quarantine that kept people locked inside their homes with no social interaction.
- Being forced to take an experimental vaccine in order to keep their job – even people who worked from home.
- Not being given any simple or alternative methods to treat their viral illness.

Let's look at mental health in the general population in relationship to vitamin D. A 2020 review paper found that low vitamin D levels are associated with increased symptoms of depression and anxiety.⁴⁴ The recommendation coming from that review was to perform vitamin D screening on patients presenting with anxiety and/or depression. They reported that vitamin D has antioxidant properties and activity in brain tissue, making it important for the prevention and treatment of mood disorders.

An October 2017 study assessed the relationship between vitamin D levels and indicators of mental health such as depression,

anxiety, and stress among 7,518 adult Canadians.⁴⁵ All the indicators of mental health (emotional health, self-perceived mental health, self-perceived general health, and self-perceived stress) were positively associated with higher vitamin D levels.⁴⁶

An innovative study in 2022 examined concentrations of vitamin D in the brains of 290 autopsied individuals.⁴⁷ The researchers were associating the level of cognitive function prior to death with the amount of vitamin D found in the brain tissue. Higher concentrations of vitamin D were associated with a significantly lower risk of dying with dementia or mild cognitive impairment. Higher vitamin D levels in the brain were also related to better cognitive function scores, a slower rate of cognitive decline, and better semantic and working memory before death.

Vitamin D acts in the brain and nervous system to:

1. Stimulate neural cell growth and maturation during brain development⁴⁸
2. Protect neural cells from damage due to oxidative stress and inflammation⁴⁹
3. Help produce neurotransmitters (such as dopamine⁵⁰ and serotonin⁵¹)

Remarkably, low vitamin D is associated with the following conditions:

- Alzheimer's Disease & Dementia⁵²
- Cognitive decline⁵³
- Parkinson's disease⁵⁴
- Depression, Anxiety⁵⁵
- Seasonal Affective Disorder⁵⁶
- Schizophrenia⁵⁷
- Autism & ADHD⁵⁸
- Migraines⁵⁹
- Multiple sclerosis⁶⁰
- Macular degeneration⁶¹

If you delve into any of the referenced papers, you will see that other nutrients are also involved. These nutrients are not drugs that just treat a specific symptom of a disease. Nutrients are team players that work together. That's why I keep advising that my customers will do so much better if they are able to take a full complement of the basic nutrients that the body demands.

Again, researchers treat single nutrients like drugs, and they want to report a "cure" rate for these conditions using that one nutrient.

However, the basic nutrients that the body requires all work together. For example, Vitamin D needs magnesium in order to achieve activation. This means that when you run a vitamin D study you really should know the magnesium saturation in your subjects to determine if they are able to make active vitamin D. Low levels of vitamin D can actually be caused by magnesium deficiency.

Here are some more studies from the Fisher Research Center for Alzheimer's that support the importance of vitamin D for the brain.⁶²

- A study published in 2012 in the *Journals of Gerontology* measured vitamin D levels in 6,257 elderly women; those with levels below 10ng/mL had more cognitive dysfunction than women with vitamin D levels of 30 ng/mL and above.⁶³
- Researchers at the University of Manchester measured vitamin D levels in 3,133 middle-aged and older men in Europe and found that those with higher levels scored higher on tests for attention and improved the time it took to process information.⁶⁴

In the Fisher Center report one of their research doctors admitted that they don't know exactly how vitamin D functions to preserve

cognitive function. They suggest that it's because vitamin D influences acetylcholine, a brain chemical and neurotransmitter important for memory and other brain functions, that is found in low levels in many patients with dementia. This suggestion goes along with the current medical treatment of Alzheimer's with acetylcholinesterase inhibitors that help increase the amount of acetylcholine in the brain. They also note that vitamin D may help nerve cells grow by increasing levels of nerve growth factor. This is important because the information transmitted by the nerve cells in the brain is the foundation of everything our brains do, including memory, decision-making, judgment and complex thinking.

Another important factor in the report is the wide distribution of vitamin D receptors throughout the brain, which implies it may have some effect on brain function. There is also the classification of vitamin D as a hormone and a neurosteroid and that vitamin D affects proteins in the brain that are involved in learning, memory and motor control.

ZINC FOR YOUR BRAIN

My PubMed search for – Zinc and Brain – turned up an impressive 9,845 studies. Zinc also functions in 300 enzyme processes.⁶⁵

In 1963, a condition called parakeratosis was discovered to be related to zinc deficiency and proved that zinc deficiency was a cause of mental health problems.⁶⁶ Don't be thrown by the word parakeratosis – it's not a disease of parakeet birds. Keratosis refers to keratin, which is the main protein that makes hair, nails and skin.

The symptoms of this condition are widespread: general physical and mental developmental delays, testicular atrophy, anemia, liver, and spleen enlargement, and skin disorders. Remarkably, symptoms were eliminated within a few months following zinc supplementation, again proving the importance of zinc in all these realms.

Zinc-containing enzymes are involved in:⁶⁷

- DNA, RNA and protein metabolism
- Growth and wound healing
- Regulation of sex hormones
- Reproductive gland function and fertility
- Membrane stabilization
- Protection from free radicals via superoxide dismutase and zinc thionine

- Inhibiting intestinal absorption of toxic heavy metals (such as lead and cadmium)
- Fatty acid and prostaglandin metabolism
- Regulation of brain neurotransmitters
- Sensory functions (sight, hearing, smell, and taste)
- Immune defense (cellular and humoral immunity)
- Blood formation

We also know that it's a fantastic antiviral, antimicrobial agent.^{68,69}
Here's a list of how it affects the brain.

1. Zinc regulates brain neurotransmitters (GABA, glutamate, and the storage of histamine).⁷⁰
2. Zinc influences the sensory functions of taste, smell, vision, and hearing.^{71,72,73,74,75}
3. Zinc is necessary for thyroid functions including conversion of T4 to T3. Deficiency can result in hypothyroidism, which is associated with mood changes.⁷⁶
4. Thyroid hormones are essential for the absorption of zinc.⁷⁷

You can peruse any of the above references, but I'll give you the following excerpt, featuring specifics about the brain from a 2023

paper: “The Important Role of Zinc in Neurological Diseases” in the journal *Biomolecules*.⁷⁸

Zinc is one of the most abundant metal ions in the central nervous system (CNS), where it plays a crucial role in both physiological and pathological brain functions.

Zinc promotes:

- 1. antioxidant effects*
- 2. neurogenesis*
- 3. immune system responses*

From neonatal brain development to the preservation and control of adult brain function, zinc is a vital homeostatic component of the CNS.

Molecularly, zinc regulates gene expression with transcription factors and activates dozens of enzymes involved in neuronal metabolism.

During development and in adulthood, zinc acts as a regulator of synaptic activity and neuronal plasticity at the cellular level.

There are several neurological diseases that may be affected by changes in zinc status, and these include stroke, neurodegenerative diseases, traumatic brain injuries, and depression.

Accordingly, zinc deficiency may result in declines in cognition and learning and an increase in oxidative stress, while zinc accumulation may lead to neurotoxicity and neuronal cell death.

The Relationship of Zinc and Copper

Any time you talk about zinc, copper comes up in the conversation. Basically, if you take higher than RDA doses of zinc, you must also take copper because high doses of zinc can suppress copper absorption. That's why I have zinc and copper in my multiple and put zinc and copper together in a combined formula. Copper is also in my whole food vitamin C. Two copper atoms reside inside the tyrosinase enzyme molecule, which is found in food-based vitamin C supplements.

TRACE MINERALS FOR YOUR BRAIN

If we had unlimited funding to study nutrients, I'm sure all the trace minerals that we get in our diet could show benefits to our mental health. Because I believe this to be true, one of my main recommendations is to put unrefined sea salt in your drinking water. Sea salt is said to contain 72 trace minerals, which we have no hope of getting in our current sodium chloride saltshaker.

Here's my hydration-trace mineral formula protocol: measure your weight in pounds; divide that by half and drink that many ounces of water each day. Put ¼ tsp of sea salt into each liter of drinking water. Start with a pinch and work up and make sure the sea salt has some color in it, so you know the minerals have not been refined out.

In this section I'm going to limit the number of references to prevent crushing boredom for the reader. However, I've opened the door for you to do your own research if you want to investigate a particular mineral. My solution to epidemic levels of trace mineral deficiency is to use a daily multimineral complex of picometer sized stabilized ions in a low dose formula. I've already talked about magnesium, copper, and zinc, above. The next sections will give

you some information about several more of the 12 minerals in this formula.

Selenium

When I searched (Selenium and Brain) on PubMed I found 210 studies. One paper "Selenium and Selenoproteins in Health"⁷⁹ said that "Selenium is...essential for the maintenance of brain function." A 2015 paper titled "Selenium, Selenoproteins and Neurodegenerative Diseases"⁸⁰ noted that "It is unsurprising that our understanding of the role of selenium in neurological function is somewhat immature, considering its relatively recent discovery as an essential element to human health." Unfortunately, that's where we stand with the research on selenium – it's still in its infancy. The selenium research on immune function is more robust where "Selenium is an essential micronutrient that plays a crucial role in development and a wide variety of physiological processes including effective immune responses."⁸¹

Copper

When I first learned about copper in my naturopathic training it was all about the consequences of copper toxicity ala Dr. Carl

Pfeiffer.⁸² But I've since learned so much about the importance of this crucial mineral in the following ways:⁸³

- Formation of red and white blood cells
- Promotion of iron absorption from the intestines
- Presence in the antioxidant superoxide dismutase
- Importance in immune function and antibody formation
- Creation of the iron transport protein, ceruloplasmin
- Production of melanin production via tyrosinase

The review paper "The Role of Copper Homeostasis in Brain Disease"⁸⁴ acknowledges that

[i]n the human body, copper is an important trace element and is a cofactor for several important enzymes involved in energy production, iron metabolism, neuropeptide activation, connective tissue synthesis, and neurotransmitter synthesis. Copper is also necessary for cellular processes, such as the regulation of intracellular signal transduction, catecholamine

balance, myelination of neurons, and efficient synaptic transmission in the central nervous system.

Given the critical role of copper in a breadth of cellular processes, local concentrations of copper, and the cellular distribution of copper transporter proteins in the brain, are important to maintain the steady state of the internal environment. The dysfunction of copper metabolism or regulatory pathways results in an imbalance in copper homeostasis in the brain, which can lead to a myriad of acute and chronic pathological effects on neurological function. It suggests a unique mechanism linking copper homeostasis and neuronal activation within the central nervous system.

I know this book is about mental health, but before I close the chapter on copper, I must add more about ceruloplasmin because this vital protein wouldn't exist without copper. It contains 8 copper atoms per molecule and has numerous functions.⁸⁵

Ceruloplasmin is the major copper carrying protein in the blood, plus it:

- Oxidizes amines (e.g. catecholamines, serotonin)

- Oxidizes ascorbic acid
- Plays an important role in iron metabolism and transport. Copper deficiency can lead to iron deficiency even if blood tests show there are sufficient iron stores in the liver. If there is not enough ceruloplasmin to transport the iron, it doesn't move from the stores.
- Regulates cytochrome oxidase, which is the last and irreversible step of energy production in the mitochondria. Therefore, copper deficiency can cause decreased muscle performance and sluggish brain function.
- Impacts lysine oxidase, which is hugely important in connective tissue to form cross linkages between the peptide chains of collagen and elastin in making healthy skin, hair and nails.

Manganese

In the review paper "Manganese: Its Role in Disease and Health"⁸⁶ the author describes the importance of this mineral:

Manganese is an essential dietary element that functions primarily as a coenzyme in several biological processes. These processes include, but are not limited to, macronutrient

metabolism, bone formation, free radical defense systems, and in the brain, ammonia clearance and neurotransmitter synthesis. It is a critical component in dozens of proteins and enzymes and is found in all tissues. Concentrated levels of Mn are found in tissues rich in mitochondria and melanin, with both, liver, and pancreas having the highest concentrations under normal conditions.

“Brain manganese and the balance between essential roles and neurotoxicity”⁸⁷ describes the dual nature of manganese. It is essential to the human body, but it can also become toxic as indicated by exposure from its use in industry. It’s also been poorly researched. Here is how this mineral is described in the abstract:

Manganese (Mn) is an essential micronutrient required for the normal development of many organs, including the brain. Although it serves as a cofactor in several enzymes and is well known in maintaining optimal physiology, the overall biological functions of Mn are rather poorly understood. Alterations in body Mn status are associated with altered neuronal physiology and cognition in humans, and either overexposure or (more rarely) insufficiency can cause

neurological dysfunction. The resultant balancing act can be viewed as a hormetic U-shaped relationship for biological Mn status and optimal brain health, with changes in the brain leading to physiological effects throughout the body and vice versa.

Because of the dual nature of manganese, a good multimineral should stay below the RDA of 2.3mg per day for men and 1.8mg per day for women.

Molybdenum

Molybdenum is a mineral that you don't often hear about, except maybe as an industrial toxin. Molybdenum cofactor deficiency is a rare genetic disease, and a paper called "Molybdenum Cofactor Deficiency" outlines the signs and symptoms of that condition that show its importance for brain development.⁸⁸ When the enzymes dependent on molybdenum fail to work because they don't have enough of the mineral, there are intractable neonatal seizures, feeding difficulties, severe developmental delay, microcephaly with brain atrophy and coarse facial features.

I became interested in this mineral because it's a cofactor in enzymes that help the body break down toxins such as those from yeast overgrowth. These four enzymes may not be involved directly with brain health, but they are vitally important in processing proteins and genetic material. They are:⁸⁹

1. Sulfite oxidase: Converts sulfites to sulfates. Sulfites occur naturally in foods and are also food preservatives. A buildup of sulfites can cause allergic reactions.
2. Aldehyde oxidase: Metabolizes aldehydes that are toxic at certain levels. It can also help the liver break down alcohol, car exhaust, some drugs, and yeast toxins.
3. Xanthine oxidase: This enzyme converts xanthine to uric acid, helping break down nucleotides, which are the components of DNA, when the body no longer needs them.
4. Mitochondrial amidoxime reducing component (mARC): Helps remove toxic byproducts of metabolism.

As I mentioned, these molybdenum-dependent enzymes help the body break down toxic substances, which is the way I think it helps with mental health because a toxic build up in the brain can cause brain fog, poor concentration, and moodiness.

Molybdenum can be found in beans, peas, grains, and organ meats, but only if it's still present in the soil, which is questionable with most nutrient minerals. Also, pulses (beans, peas) and grains are poorly consumed by the current Keto, Paleo, or Carnivore crowd. Soil depletion and diet variations are the reasons why trace minerals are deficient, even though some may think trace mineral deficiencies are rare.

Boron

Boron is a little-known trace mineral that deserves more research funding. Below is an abstract from the article titled "Dietary Boron, Brain Function, and Cognitive Performance."⁹⁰ It gives a glowing review of the importance of boron for the brain and all its functions. It starts with:

The trace element boron has yet to be recognized as an essential nutrient for humans.

This paper was published in 1995, and boron is still not recognized as an essential nutrient. The abstract continues:

However, recent data from animal and human studies suggest that boron may be important for mineral metabolism and

membrane function. To investigate further the functional role of boron, brain electrophysiology (EEG) and cognitive performance were assessed in response to dietary manipulation of boron in three studies with healthy older men and women. When the low boron intake was compared to the high intake, there was a significant increase in the proportion of low-frequency activity, and a decrease in the proportion of higher-frequency activity, on the EEG, an effect often observed in response to general malnutrition and heavy metal toxicity. Performance (e.g., response time) on various cognitive and psychomotor tasks also showed an effect due to dietary boron. When contrasted with the high boron intake, low dietary boron resulted in significantly poorer performance on tasks emphasizing manual dexterity (studies II and III); eye-hand coordination (study II); attention (all studies); perception (study III); encoding and short-term memory (all studies); and long-term memory (study I). Collectively, the data from these three studies indicate that boron may play a role in human brain function and cognitive performance, and provide additional evidence that boron is an essential nutrient for humans.

Twenty years later, the research on boron has produced the following list of benefits:⁹¹

...boron has been proven to be an important trace mineral because it (1) is essential for the growth and maintenance of bone; (2) greatly improves wound healing; (3) beneficially impacts the body's use of estrogen, testosterone, and vitamin D; (4) boosts magnesium absorption; (5) reduces levels of inflammatory biomarkers, such as high-sensitivity C-reactive protein (hs-CRP) and tumor necrosis factor μ (TNF- μ); (6) raises levels of antioxidant enzymes, such as superoxide dismutase (SOD), catalase, and glutathione peroxidase; (7) protects against pesticide-induced oxidative stress and heavy-metal toxicity; (8) improves the brains electrical activity, cognitive performance, and short-term memory for elders; (9) influences the formation and activity of key biomolecules, such as S-adenosyl methionine (SAM-e) and nicotinamide adenine dinucleotide (NAD⁺); (10) has demonstrated preventive and therapeutic effects in a number of cancers, such as prostate, cervical, and lung, plus multiple types of lymphoma, including non-Hodgkin's lymphoma; and (11) may

help ameliorate the adverse effects of traditional chemotherapeutic agents.

Current papers on boron seem to be focused on bone health, with mental health being mentioned only briefly. As I noted earlier, it's likely that all trace minerals will prove to be helpful in brain health and mental health, and boron is no exception. Here is an interesting excerpt from a 2022 paper titled "New Insights into Boron Essentiality in Humans and Animals:"⁹²

Presently, the demonstrated prebiotic effects [of boron] on health mainly involve benefits for the gastrointestinal (GI) tract, innate and adaptive immune homeostasis, cardiovascular metabolism, mental health, and bone health [29,30,31].

B VITAMINS FOR YOUR BRAIN

When I searched PubMed for B Vitamins and Brain, it showed 11,676 studies. Searching for B Vitamins and Mental Health produced only 4,013 studies but I didn't delve deeper to see which Bs were studied. There are eight B vitamins and each of them has

a role to play in body and brain processes so each would be a topic that could fill a book.

However, a 2015 review paper “B Vitamins and the Brain: Mechanisms, Dose and Efficacy”⁹³ exposed the problem with vitamin B research in the following statements from the abstract.

The eight water soluble B vitamins have interrelated roles in cellular functioning, acting as co-enzymes in a vast array of enzymatic reactions.

They are active in numerous aspects of brain function, including energy production, DNA/RNA synthesis/repair, genomic and non-genomic methylation, and the synthesis of numerous neurochemicals and signaling molecules.

Most research has focused almost exclusively on the small sub-set of vitamins (B9/B12/B6) that are the most prominent (but not the exclusive) B-vitamins involved in homocysteine metabolism. Scant regard has been paid to the other B vitamins.

Adequate levels of all members of this group of micronutrients are essential for optimal physiological and neurological functioning.

Developed countries suffer from deficiencies. Administration of the entire B-vitamin group would be a rational approach for preserving brain health.

NOTE: B9 (folate), B12, and B6 are methylated Bs.

A 2020 paper called “B Vitamins in the nervous system” focused on thiamine (B1), pyridoxine (B6), and cobalamin (B12).⁹⁴ It’s a very informative overview of neurotrophic activity of the B vitamins. This is how the authors set the stage:

Neurotropic B vitamins play crucial roles as coenzymes and beyond in the nervous system. Particularly vitamin B1 (thiamine), B6 (pyridoxine), and B12 (cobalamin) contribute essentially to the maintenance of a healthy nervous system. Their importance is highlighted by many neurological diseases related to deficiencies in one or more of these vitamins, but they can improve certain neurological conditions even without a (proven) deficiency.

And this is their conclusion:

Taking into account the current knowledge on the neurotropic vitamins B1, B6, and B12, we conclude that a biochemical

synergy becomes apparent in many different pathways in the nervous system, particularly in the Peripheral Nervous System (PNS) as exemplified by their combined use in the treatment of peripheral neuropathy.

I really perked up decades ago when I learned that the B vitamins had displayed epigenetic characteristics in the body. Epigenetics is the science of how outside factors, like vitamins and minerals, can turn functioning genes on and off.

The following is the abstract from a chapter called “Vitamins and Epigenetics” from a 2022 book called *Molecular Nutrition and Mitochondria*,⁹⁵ which sets the epigenetic stage for the B vitamins.

Several nutrients are acknowledged to influence epigenetic phenomena, such as DNA methylation, histone modifications, noncoding microRNAs, and chromatin remodeling mechanisms, all of which impact the transcriptional regulatory pathways and the organism phenotypic plasticity. Among nutrients affecting gene expression through epigenetics, evidence demonstrates a special role for folate and the other B vitamins involved in one-carbon metabolism due to their involvement in the transfer of methyl groups that are

necessary for biological methylation, including that of DNA and histones, the main epigenetic features of DNA.

NOTE: B9, B6 and B12 are methylated B vitamins.

Something that I've learned clinically, but is not being researched scientifically, is that the very nature of B vitamin research may be tainted when high dose synthetic vitamins are used because they likely do not have the same effect on the body as food-based vitamins. Rather than more research in recent times, as we recognize rampant nutritional deficiencies, there were only 1,103 papers that came up when I searched (Vitamin B and Brain) from 2020-2024. Below, I'll give a reference for each B vitamin and its effects on the brain and mental health. You can use that reference to search for other papers if you wish to pursue a particular B vitamin. However, my approach is to recommend a vitamin B complex of all the B vitamins using low-dose, food-based and methylated B vitamins for the best clinical effect.

1. B1 Thiamin: "Alzheimer's disease is associated with disruption in thiamin transport physiology: A potential role for neuroinflammation."⁹⁶

2. B2 Riboflavin: "Biomimetic Remodeling of Microglial Riboflavin Metabolism Ameliorates Cognitive Impairment by Modulating Neuroinflammation."⁹⁷
3. B3 Niacin: "The Promise of Niacin in Neurology."⁹⁸
4. B5 Pantothenic acid: "Localized Pantothenic Acid (Vitamin B5) Reductions Present Throughout the Dementia with Lewy Bodies Brain."⁹⁹ And "Substantively Lowered Levels of Pantothenic Acid (Vitamin B5) in Several Regions of the Human Brain in Parkinson's Disease Dementia."¹⁰⁰
5. B6 Pyridoxine: "Pyridoxine induces glutathione synthesis via PKM2-mediated Nrf2 transactivation and confers neuroprotection."¹⁰¹
6. B7 Biotin: "Astroglial biotin deprivation under endoplasmic reticulum stress uncouples BCAA-mTORC1 role in lipid synthesis to prolong autophagy inhibition in the aging brain."¹⁰²
7. B9 Folate: "Folate and Other B Vitamins in Brain Health and Disease."¹⁰³
8. B12 Cobalamin: "Vitamin B12 deficiency: case report and review of literature."¹⁰⁴ Vitamin B12 deficiency in early

childhood is an important cause of neurodevelopmental delay and regression.

OMEGA-3 FATTY ACIDS FOR YOUR BRAIN

My first real exposure to Omega-3s was when I read an eye-opening article called “Essential Fatty Acids and Hyperactivity” written in 2000 by a friend, Helke Ferrie, a medical anthropologist and journalist for the Canadian publication *Vitality Magazine*. Before that I had learned about omega-3s as part of my naturopathic training and we were told that if you eat several servings of fatty fish a week, you will cover your body’s needs.

However, when the public began learning that fish accumulate toxic mercury, I think we all cut back – possibly leading to the current epidemic of omega-3 deficiency.

Omega-3 fatty acids are polyunsaturated fatty acids (PUFAs). Omega-6 fatty acids are also PUFAs. PUFAs are called ‘the good fats’ but we now know that too much omega-6 fats from seed oils can be inflammatory and therefore harmful. More on that later.

There are three types of omega–3s that are important in human physiology:

1. Alpha-linolenic acid (ALA, an essential precursor to EPA and DHA), found in plant oils (walnut, seeds, algal oil, flaxseed oil, hemp oil)
2. Eicosapentaenoic acid (EPA) and
3. Docosahexaenoic acid (DHA), both found in marine oils (marine algae and phytoplankton), and animal sources (fish, fish oils, chicken eggs, squid and krill oil).

Helke's article defines the way EFAs work in the brain and body with glaring examples in ADHD children. Since I can no longer find the article online, to give you the reference I'll give an excerpt:

Between 1976 and 1993, learning disabilities have increased three-fold in the USA. This riddle began to be solved in the 1970's and published in 1981 in Medical Hypotheses (vol.7) by a grandmother, Vicky Colquhoun and her daughter Sally Bunday in the UK. They noticed that ADHD kids were always a lot thirstier than other kids, but that a lot less urine was produced as well. Where did all that water go? They also noticed that ADHD kids had asthma and dry skin and hair far more often than other kids.

They learned that skin is waterproofed through the action of essential fatty acids which - like all vitamins - must be replenished daily through food. They concluded that ADHD children were losing water rapidly through their skin because the waterproofing mechanism wasn't working - the essential fatty acids were somehow chronically depleted. Their skin was, therefore, also less protected against infection and allergic reaction, hence the frequency of eczema and asthma. As they continued their search, they learned that essential fatty acids (EFAs) from food are converted through the liver and gut metabolism into polyunsaturated fatty acids (PUFAs). These PUFAs are the most important brain food without which perception, cognition, memory, attention, spatial behavior, and the eyes simply cannot work properly.

Vicky and Sally drew two important conclusions:

1. Hyperactivity must be due to a deficiency of EFAs (the omega 3 and omega 6 fatty acids).
2. These kids cannot convert the EFAs they do ingest into the long chain polyunsaturated fatty acids (PUFAs) that the brain requires.

In 1995 in the US, Purdue University did controlled studies providing incontrovertible proof of the EFA hypothesis. When research showed that human breast milk is rich in EFAs, but infant formula contained virtually none - resulting in highly significant differences in IQ - the American Society for Nutritional Sciences submitted a report to the FDA in 1998 which resulted in EFAs now being put into infant formulas at last.

You can get caught up with a 2021 review called "Perinatal Dietary Polyunsaturated Fatty Acids in Brain Development, Role in Neurodevelopmental Disorders."

With biochemists studying EFAs all over the world now, discoveries are piling up at an amazing rate: in clinical depression, for example, a highly specific type of PUFA is depleted, and through supplementation dramatic improvement has been achieved. Identical discoveries have also been made for heart disease by researchers at pharmaceutical giant Hoffmann-La Roche. The same story is emerging for arthritis, osteoporosis, and certain autoimmune diseases, such as multiple sclerosis.

Let me remind you that Helke wrote her words 25 years ago and yet there is still a general lack of awareness about omega-3s in

medicine and in the general public. This lack of awareness is shown in blood tests. Grassroots Health found that 82% of their members have an Omega-3 Index level below the recommended 8%.

GRH research on omega-3s found that levels over 8% are associated with heart health, longevity, brain health, reduced risk of breast cancer, lowered inflammatory markers, as well as improved immune response to viral infection.

The *Epoch Times* published an overview of the benefits of Omega-3 fatty acids, and here are some excerpts from the section called "Maintain Mental Health and Cognitive Function."¹⁰⁵

Omega-3 and Mental Health

Studies have shown that omega-3 (n-3) polyunsaturated fatty acids (PUFAs), including docosahexaenoic acid (DHA), might have beneficial effects on somatic and mental health, potentially partly due to their mitigating effects on three major biological stress systems: the immune-inflammatory system, the hypothalamic-pituitary-adrenal-axis (HPA-axis) and the autonomic nervous system (ANS).¹⁰⁶

Depression

There are many clinical trials and review papers that show the effectiveness of using omega-3 fatty acids in the treatment of depression. Start with this 2015 review article "Omega-3 Fatty Acids and the Treatment of Depression."¹⁰⁷ You'll find it in the National Library of Medicine where you can click on Similar Articles and also learn where this article was cited.

ADHD

A 2014 review paper¹⁰⁸ found that children with ADHD have lower levels of omega-3s and their symptoms improve when omega-3 is supplemented. This article catches you up to 2014. Also see similar articles where this article was cited.

Alzheimer's and Cognitive Decline

A 2023 meta-analysis of over 1,000 participants showed a 64% lower risk of developing Alzheimer's disease in long-term users of omega-3 supplements.¹⁰⁹

Bipolar Disease

A study in the journal *Nutrients* showed an association with a low intake of omega-3s.¹¹⁰ The abstract for this study gives an excellent overview of the Omega-3 dilemma. Let me quote it for you:

Most of the global population is deficient in long-chain marine omega-3s. In particular, docosahexaenoic acid (DHA), a long-chain omega-3 fatty acid, is important for brain and eye development. Additionally, DHA plays a significant role in mental health throughout early childhood and even into adulthood. In the brain, DHA is important for cellular membrane fluidity, function and neurotransmitter release. Evidence indicates that a low intake of marine omega-3s increases the risk for numerous mental health issues, including attention deficit hyperactivity disorder (ADHD), autism, bipolar disorder, depression and suicidal ideation. Studies giving supplemental marine omega-3s have shown promise for improving numerous mental health conditions. This paper will review the evidence surrounding marine omega-3s and mental health conditions.

NOTE: This study did not look at omega-3 algae, but, by all accounts, the results would be similar.

Epoch Times mentions that Omega-3s are also being studied for their role in the treatment of bipolar disorder. Consistent with that view, a review paper in *Expert Rev Neurother*¹¹¹ bipolar disorder is described as a severe, chronic affective disorder, associated with significant disability, morbidity and premature mortality. This paper concludes that omega-3 polyunsaturated fatty acids (PUFAs) seem to be an effective adjunctive treatment for unipolar and bipolar depression. Of course, they make sure to keep their research funding alive by warning that “further large-scale, well-controlled trials are needed to examine its clinical utility in bipolar disorder.” This is the same refrain for any nutrient testing ‘things look very positive, but let’s not make any clinical recommendations to the public until we do many more studies.’ I’ve seen this for decades with magnesium research.

The bipolar abstract makes a very important comment that “the molecular pathways are related to the role of n-3 as a neuroprotective and neurogenic agent, with a specific focus on brain-derived neurotrophic factor (BDNF). It is proposed that the omega-3-BDNF association is involved in the pathophysiology of the

brain and represents a promising target for developing a novel class of rationally devised therapies.”

You can translate that last sentence to mean that researchers will try to find drugs to manipulate BDNF and will likely be shocked to find that drugs won't help.

Omega-3 Algae Versus Omega-3 Fish Oil

I've had a sketchy association with omega-3s, mostly because fish oil makes me burp, so I try them, burp a lot and stop taking them. We are told that fish oil formulas won't be properly absorbed unless taken with a fatty meal, so you end up not taking them for that reason. I'm also not keen on depleting the ocean of krill (commonly used in fish oil formulas). Krill is the major food source for our awesome humpback whales that visit Maui every winter! It's also true that fish liver can be very contaminated with heavy metals and chemicals that are polluting our oceans, so fish liver has to be heavily processed to turn it into a dietary supplement. Finally, I'm wary of using fish oil from farmed fish because of the drugs and chemicals that are used in that industry.

Here is what the processing of omega-3 fish oil supplements looks like. This information was published on a site that promotes vegan omega-3:

- 1. Oily, cold-water fish are caught in the ocean.*
- 2. The oils are extracted from the fish using various methods, from boiling them down to applying chemical solvents like chloroform and methanol.*
- 3. The extracted oils are then shipped off to other places worldwide to be refined.*
- 4. The oils are refined via several chemical processes, including bleaching, degumming, deodorizing, and deacidification.*
- 5. The refined oils are then put into capsules, packaged, and shipped off again to be sold through various venues.*

When I decided to create an omega-3 formula, I had fish burping and fatty meals in mind. I took care of that problem by making an algae-based formula that doesn't require a fatty meal and doesn't make you burp. But just to be sure, I added fat-soluble vitamins A and E to help with absorption.

Here's what I learned – omega-3 algal oil, or algae is concentrated from marine algae. Fish eat marine algae and create omega-3 fatty

acids and that's what's stored in fatty fish and why they are harvested for their oils. And here's a very cool fact: Eating oily algae and concentrating it in their tissues keeps them from becoming too stiff in cold water, which would happen with more saturated fats.

Building Better Brains with BDNF

There is a recent nutritional spotlight on brain-derived neurotrophic factor research (BDNF). It's a neurotrophin growth factor protein that is encoded by the BDNF gene. It's such a new kid on the block that I didn't even write about it in *The Magnesium Miracle* (2017).

Probably the best advice to take away from this book is to follow the techniques that increase BDNF and take the handful of nutrients that I recommend. We want healthy neurons, and it appears that we can do that by maximizing our BDNF. Of course, we also take picometer magnesium to feed the two million mitochondria in each brain neuron!

Why do I say drugs won't help BDNF? It's because the list of things that help enhance and increase BDNF are lifestyle modifications and dietary supplements.

Dave Asprey's website (he's the Bulletproof Nutrition guy) has an overview of BDNF that I would like to quote, excerpt, and edit.¹¹²

The article starts with hyperbole saying that the protein, BDNF, "could be the answer to keeping you mentally switched on for life."

That reasoning may not be far off – it comes from the fact that "BDNF helps produce new brain cells and strengthen existing ones." And "It also eases depression, boosts weight loss, and protects against neurodegenerative diseases."

In my early medical training, we were told that the brain could not grow new neurons – we were stuck with our birth neurons. But the research on BDNF has blown that myth wide open.¹¹³ According to Wikipedia, BDNF helps support the survival of existing neurons, and encourages growth and differentiation of new neurons and synapses.

BDNF not only acts on certain neurons in the CNS but also in the peripheral nervous system supporting the survival of existing neurons and encouraging growth and differentiation of new neurons and synapses.^{114,115} It is active in areas vital to learning, memory and higher thinking.¹¹⁶

We often hear that as you get older, your levels of certain body hormones, proteins, and nutrients diminish and that's being said about BDNF. Is that inevitable or are there factors that can be controlled? The blocks to BDNF include:

1. Stress
2. Sugar
3. Social isolation

Taking the good things and stopping the bad things, according to Asprey, "flips the switch on a series of genes that grow brand-new brain cells and pathways. BDNF also strengthens the neurons you already have." Please go to the link for the original Asprey article in the References if you would like all the details.¹¹⁷

PART TWO: LIFESTYLE ADVICE

INTRODUCTION TO PART TWO

Now that we have discussed nutrient support for your brain and overall health in Part One, I'll kick off this section with the Diet for Mental Health. Then, my co-authors and I will share several lifestyle tools that we have used for decades to shift from disempowered to empowered states. Many of these tools have long track records, with their roots in ancient practice. It has been our personal experience that when you read this part of the book, one or two of the support systems will jump out at you, as something you would like to try. So, please feel free to experiment with any or all of these tools. Then, when you find one or two that help you shift into a better mood and mind, make them a part of your daily routine and place them in your toolbox so that they are available during stressful times.

Some readers will appreciate the more physical approach to exercise or other forms of movement. Certainly, it's proven that moving from one space to another is a fairly easy way to shift how you deal with your circumstances. For others, who like a quieter approach, we have shared several affirmations, prayers, meditations, and visualizations.

Again, the key here is to find something that works for you and use it on a consistent basis. Remember, your body, and in particular brain, appreciates consistency, more than massive effort. So, five minutes of movement or visualization at a particular time every day is more effective than hours of effort once a week.

ACKNOWLEDGING THE STRESS

The American Psychological Association talks about post-Covid mental health in its 2023 report, *Stress in America*,¹¹⁸ as follows:

The national public health emergency around Covid-19 officially ended on May 11, 2023, and while the return to "normal" has been celebrated by many, results from the most recent Stress in America™ survey paint a different picture. Psychologists with APA say a superficial characterization of day-to-day life being more normal is obscuring the posttraumatic effects that have altered our mental and physical health.

It's exactly because of reports like this that we need practical information that will bring us back to normal and reject the "new normal" that some may try to foster.

CHAPTER FOUR: DIET FOR MENTAL HEALTH

Although my focus in this book is on remineralization, I can't ignore the fact that you are what you eat, so there is a legitimate place for a good, balanced diet when supporting and increasing mental health. First, in this chapter I will share why diet is such an important part of brain health. Then, I suggest following an eating plan for increasing and maintaining mental health.

NUTRITIONAL PSYCHIATRY

I was happy to see that Harvard Health Publications, a Harvard Medical School website, published an article titled "Nutritional Psychiatry: Your Brain on Food"¹¹⁹ in September 2022. The author made all the usual analogies that your brain needs high quality fuel, just like an expensive car, and that the fuel we require comes from the foods we eat. She says that high-quality food should contain lots of vitamins, minerals, and antioxidants that nourish the brain and protect it from the waste produced during metabolism.

Unfortunately, we may be too late for a “dietary solution” to illness for the general public, when, according to a Feb 2024 CNN report, presently processed foods make up 70% of the US diet.”¹²⁰

It starts with the soil and if the nutrients are NOT in the soil, then they are NOT in the food, and no matter how much so-called “good food” you eat, it’s NOT going to give your body what it needs. Processing nutrient-deficient food into ultraprocessed junk food makes the problem even worse.

Sadly, even dark leafy greens do not hold enough magnesium to be of much help to your health. I’ve expressed this many times in my stories about raw foodists and green drink juicers who come to me with their heart palpitations and leg cramps. Neither do organic greens contain enough magnesium, if the soil in which they are grown has been depleted and not replenished with rock dust or the equivalent.

There is hope, however, because you can make up the difference in nutrients by taking well-absorbed minerals and food-based vitamins, along with soil-based probiotics. You can join a farm network, like Community Supported Agriculture, where you can buy a share in an organic farm and get fresh food during the

growing season. Please remember that organic doesn't necessarily mean mineral rich. The farmer has to amend the soil with plenty of mineral-rich rock dust in order to grow mineral-rich crops.

I'm happy to hear that medicine is finally studying nutrition and the brain, since it has turned its back on diet for too long. Here are some excerpts from the Nutritional Psychiatry article:

Diets high in refined sugars, for example, are harmful to the brain. In addition to worsening your body's regulation of insulin, they also promote inflammation and oxidative stress. Multiple studies have found a correlation between a diet high in refined sugars and impaired brain function — and even a worsening of symptoms of mood disorders, such as depression.

It makes sense. If your brain is deprived of good-quality nutrition, or if free radicals or damaging inflammatory cells are circulating within the brain's enclosed space, further contributing to brain tissue injury, consequences are to be expected. What's interesting is that for many years, the medical field did not fully acknowledge the connection between mood and food.

Today, fortunately, the burgeoning field of nutritional psychiatry is finding there are many consequences and correlations between not only what you eat, how you feel, and how you ultimately behave, but also the kinds of bacteria that live in your gut.

Serotonin is a neurotransmitter that helps regulate sleep and appetite, mediate moods, and inhibit pain. Since about 95% of your serotonin is produced in your gastrointestinal tract, and your gastrointestinal tract is lined with a hundred million nerve cells, or neurons, it makes sense that the inner workings of your digestive system don't just help you digest food, but also guide your emotions. What's more, the function of these neurons — and the production of neurotransmitters like serotonin — is highly influenced by the billions of "good" bacteria that make up your intestinal microbiome. These bacteria play an essential role in your health. They protect the lining of your intestines and ensure they provide a strong barrier against toxins and "bad" bacteria; they limit inflammation; they improve how well you absorb nutrients

from your food; and they activate neural pathways that travel directly between the gut and the brain.

Studies have shown that when people take probiotics (supplements containing the good bacteria), their anxiety levels, perception of stress, and mental outlook improve, compared with people who did not take probiotics. Other studies have compared "traditional" diets, like the Mediterranean diet and the traditional Japanese diet, to a typical "Western" diet and have shown that the risk of depression is 25% to 35% lower in those who eat a traditional diet. Scientists account for this difference because these traditional diets tend to be high in vegetables, fruits, unprocessed grains, and fish and seafood, and to contain only modest amounts of lean meats and dairy. They are also void of processed and refined foods and sugars, which are staples of the "Western" dietary pattern. In addition, many of these unprocessed foods are fermented, and therefore act as natural probiotics. Fermentation uses bacteria and yeast to convert sugar in food to carbon dioxide, alcohol, and lactic

acid. It is used to protect food from spoiling and can add a pleasant taste and texture.

The author's nutritional advice is like mine and very effective:

Start paying attention to how eating different foods makes you feel — not just in the moment, but the next day. Try eating a "clean" diet for two to three weeks — that means cutting out all processed foods and sugar. Add fermented foods like kimchi, miso, sauerkraut, pickles, or kombucha. You also might want to try going dairy-free — and some people even feel that they feel better when their diets are grain-free. See how you feel. Then slowly introduce foods back into your diet, one by one, and see how you feel.

When my patients "go clean," they cannot believe how much better they feel both physically and emotionally, and how much worse they then feel when they reintroduce the foods that are known to enhance inflammation.

The *Nutritional Psychiatry* article above gives a good overview of an effective mental health diet. I agree with all of it, except I tell people to be careful of kombucha because it can become

contaminated if grown in unhygienic situations. Additionally, kombucha may feed an overgrowth of yeast, so it is wise to assess any potential candida issues before using this fermented food.

What About Yeast Overgrowth and Mental Health?

The mental health result of yeast overgrowth is caused by yeast toxins like alcohol and aldehyde.

In order to find out if you have moderate to high yeast overgrowth that must be addressed, start by filling out the Yeast Questionnaire in [Appendix C](#).

Addressing yeast overgrowth entails a sugar-free, dairy-free, gluten-free, and alcohol-free diet, probiotics, and potentially a yeast detox program. I'll include a stepwise approach to treating yeast overgrowth in [Appendix D](#).

WHAT NOT TO EAT

I quoted Dr. Kelly Brogan, nutritional psychiatrist, on my list of Anxiety Triggers about avoiding gluten.¹²¹ She says her top three recommendations (for people trying to stabilize their mood) are to avoid GMO foods, gluten, and sugar.¹²² My mental health diet

recommendation is to avoid sugars: table sugar (sucrose), grains that break down into glucose, and non-fermented dairy (lactose). It's a basic anti-yeast diet to starve your intestinal yeast. For my protocol on treating yeast, please go to Appendix D.

Alcohol

When you put sugary drinks on your Do Not Imbibe list, you must include alcohol. Alcohol directly stimulates the heart, feeds yeast, and causes magnesium deficiency. Yeast toxins deplete magnesium; they also can cause mood symptoms. For example, a yeast toxin, acetaldehyde, is called "the hangover chemical." It causes brain fog and irritability, which can also turn into anxiety.

Caffeine

Caffeine has a stimulatory effect, and in susceptible people it causes "the jitters." I think anyone can be affected by caffeine if they take enough. People with magnesium deficiency are at risk of reacting to coffee. Most of my clients say that caffeine speeds up their heart rate, and, if you are subject to anxiety attacks, it's best to avoid caffeine in coffee, strong tea, and even chocolate. One ounce of chocolate has 12mg of caffeine.

Glutamate & MSG

Glutamate and glutamic acid deplete the body of magnesium. They are actually considered GRAS substitutes for salt, but they are also known as MSG. Because of the backlash against MSG, some companies don't put MSG on the label and rename it glutamate. You can find a very long list of MSG-contaminated foods at the MSG Truth website.¹²³

WHAT TO EAT

My basic diet recommendations are to eat organic, free-range, grass-fed, antibiotic-free animal protein and eggs, wild-caught fish, organic vegetables (fresh, cooked, and fermented), organic fruit (only 2-3 pieces a day), organic non-gluten grains, and small amounts of fermented dairy.

I'd love to be able to say that if you eat lots of vegetables and fruits, then you will get enough vitamins and minerals to replenish your body, but you can't. When I was running a CSA (Community Supported Agriculture) on City Island in New York, I ate tremendous amounts of organic produce, yet I still suffered heart palpitations and leg cramps. It wasn't until I started exploring liquid

minerals, culminating in creating a picometer, stabilized ionic magnesium for my own use, that I finally overcame my magnesium-deficiency symptoms.

However, please do still eat organic to avoid the pesticides and synthetic fertilizers in commercial produce. Apparently, vitamins can still be found in organic fruits, vegetables, and grains, but you should still take magnesium and minerals that are stabilized picometer sized ions and drink sea (or Himalayan) salted water to obtain the full complement of minerals. [Appendix E](#) lists the “Magnesium Content of Common Foods” that can be magnesium-rich, but that also depends on whether or not the soil contains magnesium since the minerals may have been farmed out of the soil.

Unfortunately, there is a huge backlash against grains presently, which may be contributing to vitamin and mineral deficiencies. I do suggest that people with any health problems avoid gluten grains, but I don’t suggest you shun all grains. At the very least, do some food avoidance experiments to see if they help you or hurt you. Simply avoid a suspect food group for 2-3 weeks, then eat a large amount of that food and see how you feel. Of course, you should

not do this experiment with foods to which you know you have a strong allergic reaction.

CHAPTER FIVE: AFFIRMATIONS, MEDITATION, PRAYER, AND VISUALIZATION

AFFIRMATIONS

Affirmations are positive statements that can help you to challenge and overcome self-sabotage and negative thoughts. When you tell them to your mind, your body and mind begin to search out the mental pathways to bring them to life.

Best Practices for Repeating Affirmations

Generally, affirmations should be verbalized with consciousness and repeated often. As you make the statements, take the time to visualize and identify each symbol as easily as possible. Two powerful examples of life-changing affirmations I personally use are:

I break all links that hinder my growth.

I am filled with love and understanding.

Small Property Affirmation

From the brilliant work of Total Biology comes the affirmation “A Small Property” reminding the mind and body that health is returning to your body, and it’s under your control.

I was a small property ravaged by a storm. The fine weather has returned. The forest and the river have become calm. The house is vibrant and shines in the sun. And above all, the field is returning to its order, health, and beauty. Thank you, my diseased and depleted organs, for I know you have done all this to save my whole being. And thanks to myself for doing my healing.

How to Use the Small Property Affirmation

Repeat the Small Property Affirmation 10 times, three times a day, as follows:

- Verbalize this affirmation with consciousness by taking the time to visualize and identify each symbol as clearly as possible,
- Repeat 10 times in the morning (before getting up)
- Around lunch time for another 10 times; and

- 10 times at night (just before falling asleep).
- Write down any dreams or inspirations you remember!

Two Strategies to Improve Results from the Small Property Affirmation:

1. To break the links to past illness, listen to the song, "Time to Say Goodbye" – <https://youtu.be/g3ENX3aHlqU> (Editor - can you put this in a Click Here Link.)
2. Take Walnut Bach Flower Remedy, and repeat the following affirmation:

I break all links that hinder my growth.

Dosage: 5-10 drops three times a day

<http://www.vitacost.com/bach-flower-remedies-essence-walnut> (Editor - can you put this in a Click Here Link.)

MEDITATION

Meditation and Prayer

You'll hear comments from both ends of the spectrum that meditation and prayer are the same or that they are completely different. In the final analysis, I think it's up to you. If you're an atheist and you meditate, you're going to just clear your mind of thoughts, allowing it to take a break.

If you believe in a higher power, then your focus is probably on that higher power when you meditate or pray. If you believe that you're the center of your universe and you create your reality, your prayers and meditation will evoke what you want your universe to be.

For me meditation and prayer are interchangeable.

Meditation and Trance

A trance is any state of consciousness associated with single-minded absorption in a specific activity, without internal mental chatter about what's happening or what's in the environment. Most everyone can go into a trance state. Something as simple as daydreaming can put us into a trance state. So can running,

swimming, pain, fatigue, sensory overload, drumming, or psychoactive chemicals.

Chemically, what happens to the body is a release of beta-endorphins, an opiate several hundred times more potent than heroin. Just reminiscing about a time when you were in a relaxed state of pleasure can be enough to get you back there as these endorphins are released.

Meditation and Medication

I've often wondered why meditation and medication sound so similar. Is meditation just another form of medication? The definition of meditation for some is to "empty your mind." Are we being asked to suppress our natural mind activity?

Some say that meditation is a discipline that trains one's mind to "realize some benefit." It's another nebulous definition of something that can't be "done" to you but is a very personal and "internal" experience.

Practitioners of meditation may cultivate a feeling of compassion or love or focus on an external object or a word or phrase. In some religions, a phrase of a prayer or a mantra is repeated.

It seems there are hundreds of different types of meditation that are part of most religions around the world. But when all is said and done, and even after a thousand studies of meditation in the English-language alone, nobody really knows how meditation works.

The Meditation Society of America says meditation is a three-step process that leads to a state of consciousness that brings serenity, clarity, and bliss. Now we're talking! But the more I read their website, the less clear I became about meditation.

For me, meditation is putting aside the labyrinth of the mind and contemplating the beauty of Nature, and I do it while walking. It's the "intent" to meditate. It's saying to yourself, "I'm going to walk outside, gliding along like I don't have a care in the world and just walk."

Walking Meditation

I'm not going to make a list of the benefits of meditation because they are much the same as prayer – giving you a greater sense of awareness and possibility in your life.

When I think of walking meditation I imagine doing it outdoors. But some people walk indoors for any number of reasons: terrain, inclement weather, or privacy.

Basically, I can't sit still long enough to do sitting meditation, so I practice walking meditation. It's probably the best way for beginners to start meditating. As I said in the [Exercise chapter](#), it occupies your fidgety body and gives your eyes new scenes to observe but not necessarily engage.

Here are some suggested components of a walking meditation. There are no "rules." It's the last place you want to worry that you're not doing it "right." There is no right or wrong, there is only you with your intent to meditate and the rest will take care of itself.

1. Try to give yourself a minimum of 15 minutes to allow yourself to receive the benefit of slowing down your mind.
2. You can set your pace at a fast, normal or slow walking speed. Some people find that a slow pace is more contemplative.
3. Walk with your body loose. Check in with your muscles and try not to hold any tension as you swing your arms gently and stride along smoothly. Occasionally, do a mini slump to relax your whole body.

4. Be mindful of each step.
5. You may or may not want to focus on your breath. For some it can be a way to still the mind by focusing on the circular flow of your breath.
 - a. Or you may count your breaths in and out. One-two-three-four breathing in and one-two-three-four breathing out.
 - b. You can count your steps with each breath for another way of introducing a “mindless” activity.
 - c. Although you aren’t necessarily focused on exercising during your walking meditation, don’t be surprised if your lung capacity improves and you are able to take deeper and longer breaths.
6. Your body is loose, and your eyes should also be relaxed, observing but not judging everything you see. Don’t let your mind comment on what you are looking at beyond appreciating what you see.
7. Cultivate an inner smile and an outer smile. I first heard the term, “inner smile,” from Mantak Chia, a famous Qigong teacher. He talks about circulating the energy in your body and evoking an inner smile. I say you can begin with an

outer smile at the marvel of your body and allow that smile to touch your inner organs.

8. Most meditation books talk about walking in silence, with no vocalization and no inner voice chattering.
 - a. That's where I break ranks with the meditators because I like command the angels as I walk.
 - b. So, maybe I'm in the prayer section after all!
9. If you choose to do your walking meditation indoors, adopt a relaxed strolling posture. I gently hold my hands behind my back and scuff/walk very slowly with my eyes on the floor. I immediately feel calm and just concentrate on my breathing and counting steps.

Puttering Meditation

Some mothers have told me that they do their chores while practicing a form of walking meditation. The cleaning, folding wash, tidying all gets done but in a relaxed, almost trance-like state. Where you normally rush around, mindfully simply slowing your pace drops you into a meditative state. It's usually a quiet time, too. You're either alone, or everyone avoids you so that they won't have to pitch in!

Focusing on the job at hand keeps your mind from wandering, yet the tasks are usually not so complex that you must use much of your mind at all. A great added benefit is that you can look forward to this time rather than seeing the household chores as mundane, boring or yet another “Groundhog Day.”

Walking a Labyrinth

I’ve only walked a few labyrinths, but the mere mention of one makes my eyes go slightly unfocused, and I drop into a relaxed state. Maybe it’s another trance state. As I shuffle around a labyrinth, the twists and turns automatically slow me down, and I’m suddenly contemplating each footfall.

You can create your own labyrinth in your backyard. Get a number of stones to mark the paths and make a giant circle. Then within the circle make more and more circles. For more precise directions, you can go to www.labyrinthociety.org.

You can even make a labyrinth out of masking tape in a room in your house, so there is no heavy lifting.

If you find a real labyrinth to walk, the power of all the people who have walked before can almost be felt.

Multitasking My Meditation

Every morning – except Tuesday and Saturday when I volunteer at the Farmer’s Market and Oko’a Farm Store – I wake around 5am just before the sky begins to lighten and the clouds turn pink. I strap on my HOKA sneakers and glide off on my sunrise walk. My walk is along a huge golf course path that gives me incredible views of the Maui mountains Haleakala and Halemahina and the Islands Lanai, Kahoolawe and Molokini. Or I walk the beach path from Ulua to Polo Beach.

The area where I walk used to be on the southern border of the Maui Ranchlands. I read about this area in a wonderful book called *Born in Paradise* by Armine Von Temski.¹²⁴ (If you ever want to know some of the true nature of Maui, you will love this book.)

The Ranchlands are still above me on the very gradual slope of Mount Haleakalā. But instead of tough and exotic cowboys, I see modern day cowboys on the golf course dragging hoses instead of ropes behind electric carts instead of horses. They wrangle

sprinklers the size of geysers instead of cattle and sheep. Still, they tend the land with the same love and patience. I always get a nod and a wave when I pass by.

In one hand I carry a foot-long seed pod from a monkeypod tree. I use the seed pod to gently tap and relax the muscles between my neck and shoulders (the sternocleidomastoids). The tapping also allows me to count out a rhythm to aid my meditation. I can stay with the rhythm alone or count the taps 1-2-3-4; 1-2-3-4 as I walk. That along with the monotonous (but not painful) thumping distracts my mind from other thoughts.

Even so, the inevitable thoughts do spill into my monkey brain.... Wow, I didn't realize until now that I use a monkeypod seed pod to distract my monkey brain! How cool is that!

I also talk to the angels. As you can see, my morning meditation walk has all the features of a perfect prayer or meditation. And I wish you the same with yours.

Make It Happen

This couldn't be simpler. Whether you're praying or meditating makes no difference. As you build your "practice," it will become more defined for you and not be defined by someone else's experience.

1. First decide if you want to slow down your mind and do it while you're walking.
2. Find a quiet, peaceful area to walk in and count steps and/or breaths as you appreciate your breath and your steps.
3. Or stroll around your home to achieve many of the same benefits.
4. Imagine you are walking in a labyrinth.

PRAYER

The Benefits of Prayer

Jonathan Edwards, in the 1700s, reminded us that "Prayer is one of the greatest and most excellent means of nourishing the new nature, and of causing the soul to flourish and prosper." Edwards is "widely acknowledged to be America's most important and

original philosophical theologian." He grounded his life's work on conceptions of beauty, harmony, and ethics.

If our image of God is a deity who loves us unconditionally and is forgiving, patient, and kind, it can't help but evoke similar feelings in us. Contemplating or meditating on the story of Jesus can be the inspiration we need to live our lives.

What are the tangible benefits?

1. Prayer evokes healing. I once studied a technique where you could pray for another by allowing yourself to feel unconditional love for them. There were countless stories of healings that took place using this practice.
2. Studies show that people who pray regularly are physically and emotionally healthier than those who do not.
3. Depression, anxiety and many physical illnesses heal faster with prayer.
4. Prayer strengthens relationships. A prayerful posture puts you in another person's shoes. You see their side of the story and understand them in new ways.
5. Prayer opens you up to see the miracles in life: a smile, someone opening a door for you, the beauty in the face of a cloud or a sunset.

6. Prayer helps us to be thankful for what we have.

Defining Prayer

Prayer is the act of communicating with a deity – especially as a petition or in adoration or contrition or thanksgiving.

A deity or God is defined as a supernatural being conceived as the perfect and omnipotent and omniscient originator and ruler of the universe. The deity or God becomes the object of worship in monotheistic religions.

To me, prayer can be directed toward God, to the angels or to the God in me. And I feel it's mostly about giving thanks. I am thankful for all that I have and ready for more!

Too, often prayers are much like natural medicine where people go as the last resort. Whereas both can be used daily to stay on your true path.

The Science of Prayer

Scientists don't often study prayer. Science claims that an action or activity must be reproducible to be valid. It's only in the past few decades that some scientists have accepted that there are unknowns that can't be studied with our current methods and yet they still exist.

*Prayer Is Good Medicine*¹²⁵ is one of the many books by Dr. Larry Dossey that helps us understand prayer. Dossey clearly states that "I used to believe that we must choose between science and reason on one hand, and spirituality on the other, in how we lead our lives. Now I consider this a false choice. We can recover the sense of sacredness, not just in science, but in perhaps every area of life."

Ho'oponopono Prayer

A friend wrote the other day saying that she was having great trouble coping with the way her daughter and son-in-law were treating their children. I couldn't just toss out these phrases:

"It's not your job," which it isn't; "Relax and Allow," which she couldn't; "You can't create in another person's reality," which you can't.

Instead, I sent her the Ho'oponopono prayer. Simply stated it is:

I love you

I'm sorry

Please forgive me

Thank you

It's the ancient Hawaiian prayer to "make things right." It has since been called many things. A prayer for forgiveness, reconciliation, and taking responsibility. I've found it quite amazing to repeat it over and over as a mantra in my head when I want to clear something.

It somehow lets us take responsibility for ourselves, and then we realize that's all we can do and that's quite enough. We really have no influence on others. Like Jesus, we can only show by example. But remember, even Jesus said when people praised him for his "miracles" – "The things you see me do you shall do also, but greater."

On another level of interpretation, if you hold animosity in your heart, people react in defense. If your heart is pure, there is no reaction except to mirror your love to them.

Another thing I told my friend is that anger toward another person is like you taking poison and expecting them to die! How crazy is that!

The best thing about Ho'oponopono is that you can just say the prayer without joining any group or following anyone but yourself.

I found out about it by reading the book, *Zero Limits*.¹²⁶ It's about Dr. Ihaleakala Hew Len, a Hawaiian therapist who "helped heal an entire ward of mentally ill criminals — without seeing any of them" by using this prayer.

[Click here](#) to find out more about Ho'oponopono.

Try saying these simple phrases and see how they can transform your life!

VISUALIZATION

Theater of the Mind

Your subconscious mind can be your best friend or your greatest saboteur.

Psychologists say that at the unconscious level, it dictates your actions, your thoughts and even the involuntary functions of your body. Its effects on your overall health are manifold. Others call the unconscious "the labyrinth of the mind," which implies that some of its activities are intricate and hidden from us.

Either way, it's a good idea to oversee your mind just as it's a good idea to take charge of your body! If you see yourself as feeling

tired or weak, for example, because you didn't get enough sleep, you may subconsciously end up doing many things that ensure you feel tired. Your posture may slouch. Your breathing may decrease. You forget to drink water. Your mind is simply responding to the message you've sent it: "I'm tired."

Here's one scenario: I had "only" 5 hours sleep. By labeling it "only" 5 hours made me feel that I was already tired. I like to get 7-8 hours, so I've programmed my mind to demand that amount of sleep. If I don't get it, "the rule" I have about my sleep time is broken. I woke up at 4am and lay there until I finally got up by 4:30am. Around 8am I felt my left nostril congested, and by 11am I had to have a nap.

When going to bed many people think, "I'm so tired." No wonder they still feel tired in the morning. The thoughts you think as you drop into the land of sleep have a powerful effect on your life. Just to be clear, this isn't about the "Law of Attraction" or a new age "The Secret" approach to life. While I do believe there is a metaphysical aspect to life (what we sow, so shall we reap"), that's not what I'm talking about here.

Right Thinking and Will Power Aren't Enough

Right thinking is not enough. Right thinking doesn't happen when your mind is programmed otherwise. Just consider how many of your actions and thoughts emerge each day from the stories your mind has incorporated. Even reading these words is partly a subconscious activity. You are not consciously decoding each letter and defining each word. It's happening automatically, without conscious thought.

Or look at the way you react to things that happen in life – your reactions are usually subconscious or automatic. Sure, you can exercise your willpower and try to override the subconscious thoughts and resulting actions that get in the way of your being healthier. But willpower tends to work best if you are already feeling completely rested, content, and stress-free. Otherwise, you won't feel up to forcing your will on some aspect of your life, and you will simply allow your automatic mechanisms to take over.

Have you ever decided you would like to limit a certain food? Everything goes well for a while. Then, challenges and temptations begin to mount, and the next thing you know, your mind has convinced you that you deserve, need, or just might as well give

up and have, that which you thought you had decided you would go without. This is partly because you are still constantly imagining yourself eating the forbidden food. Your subconscious mind may even guide you into a situation that puts that forbidden food within arm's reach.

Low Self-Esteem

This is the type of behavior that manifests when our self-image is off kilter. Either we can't see ourselves being healthier, or we can't see ourselves enjoying healthy things. This type of behavior is related to self-esteem. We are often hyper-critical of ourselves at a deep level, even if we are not aware of it at a conscious level.

We have an image set in our minds of how healthy we can be, and what we can do. This image is usually ordained by years of bad habits and presents a limit beyond which we can't seem to progress. That image can be set by our parents or siblings or other relatives. We think that what happened to them is destined for us. But none of that must be true. We are the masters of our own universe, after all.

Reprogramming Your Thoughts and Beliefs

As you probably realize, there's a disconnect between the conscious and subconscious minds. The conscious mind says, "I will not drink coffee anymore." The subconscious mind only knows that every morning you drink a big cup of coffee. It's like a computer program that has been set to go off every morning at 7am to make you a cup of coffee. When it's met with resistance from the conscious mind, it continues to operate, trying to find some way to get that cup of coffee.

Instead, visualize or reframe yourself as someone who not only doesn't drink coffee (or at least not often), but otherwise doesn't really care for it, then your subconscious mind will work differently. You essentially, reprogram it. You override the instructions that say you are supposed to have a cup of coffee at 7am. After all, a habit is just something you've been doing for a long time, and it can be replaced by a habit of not doing that thing! As you can see, you can use the "Theater of the Mind Method" to override "bad programs" and create "good ones." Generally, I recommend doing both at the same time.

Don't visualize yourself not having the cup of coffee; visualize yourself feeling invigorated by a different beverage or food or a supplement like magnesium! Or visualize yourself getting more sleep so you don't feel the need for coffee. Or visualize yourself getting up thirty minutes early so you can exercise outdoors – invigorated by fresh air instead of stimulated by caffeine.

Amazingly, your mind really can't tell the difference between reality and imagination. Everything is just incoming signals. It will just go with the strongest images that contain the strongest feelings (good or bad). A belief is just a thought that you've been thinking for a long time. Override the belief that you are a coffee drinker with the belief that you are a water, tea, and juice drinker instead!

Theater of The Mind

In the 1960s, Dr. Maxwell Maltz, a cosmetic surgeon and author of the best-selling self-improvement book, *Psycho-Cybernetics*,¹²⁷ discovered that his reconstructive surgeries did nothing to cure the insecurities and unhappiness many of his patients were experiencing. He soon realized that how people saw themselves in their own mind was the true cause of their lack of contentment and success in life.

Dr Maltz's Process

Dr. Maltz developed a process he called, "Theater of the Mind." Essentially, you visualize yourself, as if watching a movie, doing, accomplishing, and enjoying those things that you otherwise feel are out of your reach. If you currently suffer from any health troubles, you can use this technique to visualize your life without those health problems. Visualize yourself doing those things which right now you are not able to do because of your health limitations.

You can also use this technique to visualize yourself experiencing improved health (instead of overcoming bad health). It's subtly different from practicing affirmations. By putting yourself in a movie scene, a useful sense of detachment is conferred. You're better able to accept a positive role in an imagined scenario, rather than negating it, as can happen with some affirmations. This type of visualization can be confused with daydreaming where you imagine yourself being the hero in some kind of tragedy. That can be a bit uplifting but can be too far-fetched to be useful in your day-to-day life.

Here are a few suggestions for the Theater of the Mind that include visualizing yourself:

1. Going about your business with great energy at those times of the day when you usually feel low.
2. Sleeping deeply and waking up refreshed.
3. Preparing, eating, and enjoying healthy foods.
4. Sitting down in the morning and evening to practice meditation, prayer, or other tension-releasing periods of silence.
5. Being able to think clearly and produce brilliant results in your line of work.
6. Losing weight if you are overweight and developing the physical appearance you always wanted.

Theater of the Mind Procedure

Here are the basic Theater of the Mind instructions, applied towards improving your health. For more detailed instructions, read Dr. Maltz's book, *Psycho–Cybernetics*.

1. Find a quiet place where you won't be disturbed. Dim the lights. Close your eyes. Keep your eyes turned upward, as this will stop you from falling asleep.
2. Tense your body, and then relax completely.

3. Inhale deeply and slowly to your own count, silently. Hold your breath for the same count. Exhale for the same count. Everyone has a different count according to the length of their breath. Repeat this six times. You want to get your mind into a calm, clear and receptive state. So, if you meditate or pray, this would be a good time to practice.
4. First, in great detail, visualize walking into a movie theater. Pick a theater that inspires you. You may prefer an old-fashioned cinema, a Shakespearean style theater, or a modern movie theater. It's up to you – it's your imagination. Pay for your ticket. Find a seat.
5. Now, visualize the curtains parting, and either a theatrical production beginning on stage or a movie beginning on a film screen. Start with a "short" film: Visualize a successful effort you have made in the past and the benefits you have reaped. If you've overcome health challenges or have otherwise stuck to a health program, these would be relevant and powerful examples. Otherwise, just pick a time when you successfully achieved a goal you pursued. Relive the experience in great detail, involving all your senses and the good feelings you experienced at the time. This will help

put you in the right mood and convince your mind that these experiences and feelings are already within your range of possibility.

6. Now, visualize yourself thinking and acting in such a way to achieve a particular health goal. See yourself performing those actions with all five senses – sight, sound, smell, taste and touch. Visualize as many details as you can. Feel yourself doing those actions with joy, contentment and determination.
7. Now, visualize the immediate results you want to experience from your particular health goal. Make sure to feel them fully. If your goal includes more energy, then feel the energy in your body. Use your imagination. If you currently have pain, feel harmony in that area of your body. It is amazing what you can experience in the land of imagination with a little practice.
8. Next, visualize the secondary benefits of your health goal. Visualize yourself doing and achieving those things that you currently cannot do because of your physical limitations. Better health can improve every aspect of your life, so you can have a lot of fun running multiple “spinoffs” in your

mind: a pay raise at work, better sex, playing sports with your kids, running a marathon, helping other people.

9. You can then spend time meditating or praying in silence.

The longer you sit after the visualization the more impact it will have. When it is time to get up, do it slowly, and don't engage in conversations too quickly. Carry the feeling of confidence you gained from the Theater of the Mind experience with you. If your visualization session is at bedtime, when you are through, most likely, you will, quickly, drift off to sleep.

Make It Happen

The instructions for Theater of the Mind may be quite detailed but once you have read them a few times you'll be able to practice the technique very easily. The best times to practice are upon waking or just before going to sleep. This is when you have the easiest access to your subconscious mind, when your conscious mind is not in full gear.

If you can't practice at both times, then before bed is optimal. Studies have shown that most of the reprogramming of the subconscious mind takes place while you are sleeping. This is why

when learning a new skill, it's always easier on the second day than it was on the first day. And if you're riding in a monotonous car, or on a bus, train or plane ride, you can easily slip into your theater. But don't do this if you are the designated driver!

Don't be surprised if this process brings you face to face with "inner scars" that have been doing more than just sabotaging your health. Every physical limitation is said to be linked to a subconscious thought pattern. Sometimes these thought patterns are deeply engraved in the mind as conflicts. It may take many visits to the Theater of Your Mind to rewrite your programming and experience the health you want. Or it could also take only minutes. Dive in and be the first to find out about your new life.

Questions and Answers

What if some "stuff" (psychological or emotional baggage) comes up that I don't want to face?

Write it down, talk to someone, a trusted friend, relative, or psychologist. The key to a healthy mind is expressing your fears and feelings, and not keeping them buried. It's unresolved conflicts that feed our worries and transfer worry into bodily symptoms. So,

expressing yourself and your feelings is the best way to stay emotionally and physically healthy.

CHAPTER SIX: BREATHING AND BREATHWORK FOR MENTAL HEALTH, AUTHOR: BEN PELTON

Today, as modern humans, we have stressors from work, technology, and sedentary lifestyles that can lead people to anxiety, depression, and even suicidal thoughts. In this chapter, we will focus on uplifting the mindset through the power of breathwork.

From the moment we leave our mother's womb, we are in the process of respiration. Because we spend so much time inhaling and exhaling, we can easily forget how important breathing is for our physiology and mental health. Generally speaking, we can survive without food for about three weeks, without water for about three days, and without breathing for about three minutes. I tell my clients this to emphasize the importance of breathing for our health and survival. Entire books have been dedicated to breathwork, so to keep this short and sweet, we will quickly discuss anatomy as it relates to breathing and how dysfunctional breathing

can affect mental health; we will finish with some simple exercises you can practice enhancing your mindset and body.

BREATHING ANATOMY

Nose

The nose is for breathing, and the mouth is for eating. Have you heard of this before? Think about it this way: the nose is perfectly designed to filter, condition, humidify, and sanitize the air that goes down the throat into your lungs. The mouth has teeth that work well for chewing food but not for breathing. One of the few acceptable times for using the mouth to breathe is during a period of recovery from maximal effort in exercise. The mouth can help expel excess carbon dioxide gas. After a few recovery breaths, it's recommended to start breathing through the nose again. Aside from that, mouth breathing should be limited as much as possible. For example, mouth breathing during sleep creates an imbalance in gas exchange, blowing off too much carbon dioxide. Regarding development in children, mouth breathing can lead to crowded teeth and poor maxilla expansion. In adults, it can contribute to sleep apnea.

The nose has hairs for filtering particles, similar to how a comb works. The nose also conditions the environmental air temperature to enter the lungs closer to the body's average temperature. If the environment is very hot, the nose will cool the air; if it is very cold out, the nose will warm the air before reaching the lungs. The nose will also humidify the air, adding moisture as it travels to the lungs. One of our first lines of defense for our immune system is stationed inside our nose. The paranasal sinuses create nitric oxide to enhance the body's defense mechanisms by inhibiting pathogen growth. Nitric Oxide is anti-bacterial, anti-viral, and anti-fungal. By breathing through the nose, we utilize this defense system with each breath.

Airway

As the air moves from the nasal cavity towards the lungs, it passes through the airway. The airway is made up of the Throat, Epiglottis, Esophagus, Larynx, and Trachea. The health of our airway is very important for our mind and body. Many factors can affect the quality of the airway, such as head posture, tongue posture, and jaw alignment. The space that makes up the airway determines

how much airflow we can move to and from our lungs. The larger the passageway, the better airflow can move, which improves the body's ability to bring oxygen into the lungs and deliver oxygen to our cells. The smaller the passageway, the harder it is to bring oxygen into the lungs. The result is less oxygen in the body, which deteriorates the mind and body. If you are concerned, speak to your doctor. Using three-dimensional CT imaging, they can get an exact measurement of the airway. This imaging can be used to observe the vertebrae and jaw alignment, which can paint a clearer picture of what is happening to the airway. To fix the airway, you will want to have a team of professionals trained in this specialty, such as a holistic dentist and osteopath. Together, they will form a plan of action that would include massage therapy, physical therapy, orofacial myofunctional therapy, and dentistry.

Lungs

Once the air reaches the lungs it branches off into the Bronchi which continues to branch off into smaller and smaller branches until we arrive at the Alveoli. The alveoli are little sacks where oxygen is diffused into the blood through the capillary network. A simple visualization of the alveoli are tiny bunches of grapes.

Diaphragm

The diaphragm is a muscle that rests below the lungs and attaches to the lower ribs of the ribcage. The diaphragm has three functions: respiration, lower esophageal sphincter, and postural stabilization. As the diaphragm muscle activates with inhalation, it will flatten out, creating negative pressure inside the lungs. This negative pressure draws air into the lungs, allowing oxygen to diffuse into the capillary network, bonding to red blood cells. When the diaphragm relaxes with exhalation, the lungs create positive pressure, pushing air out of the lungs. The exhalation will blow off excess carbon dioxide from the lungs.

Red Blood Cells

Red Blood Cells (RBC) act as transporters of oxygen and carbon dioxide gases throughout the entire circulatory system. When we inhale fresh air, a higher concentration of oxygen inside the alveoli sacks forms, which causes oxygen (O₂) to diffuse through the capillary network and bond to RBC. Inside the blood, a higher concentration of carbon dioxide (Co₂) is released from the RBC and

diffuses into the alveoli through the capillary network to be exhaled. This transfer of gases on red blood cells makes cellular respiration function.

Now that I have presented the basic anatomical components of respiration, we can discuss how dysfunctional breathing can impact mental health. Dysfunctional breathing can include snoring, sleep apnea, breathlessness, mouth breathing, excessive sighing, chronic over-breathing, breathing using the upper chest, and more. To further simplify our discussion on breathing, there are three lenses we can use to view the behavior of inhaling and exhaling: biochemical, biomechanical, and psychophysiological.

This chapter focuses on the psychophysiological effects of breathing on mental health. Based on how we breathe, our physiology moves towards a sympathetic or parasympathetic nervous system state. The shift in states has a direct impact on our psychology. Sympathetic states are positive when our body needs to activate energy to handle a stressful experience. Parasympathetic states are used to restore and relax. Problems can arise when the body is under chronic sympathetic activation. This means the body is acting constantly in survival mode.

When it comes to breathing, the brain has specific sensors that monitor the level of oxygen and carbon dioxide in the blood, the pressure in the blood, and the rate of respiration, which guides the brain when shifting through states. As the brain receives this information, the autonomic nervous system can automatically adjust the breathing behavior to accommodate the brain's needs. The powerful lesson here is that we can choose the type of breathing behavior we want to change the state of the nervous system.

Here is an example of using the breath to change the states of the brain and psychology. As a Brazilian Jiu-Jitsu athlete, one of the ways I prepare my mind and body for tournaments is by changing my breathing pattern leading up to the event. One hour and a half before my tournament time, I will begin using a breathing pattern called voluntary super ventilation. As the name describes, I am purposefully increasing the rate and volume of breathing to excite my nervous system into a sympathetic state. I intentionally shift my state towards sympathy to stimulate my body for the upcoming matches. The behavior of breathing during voluntary super

ventilation simulates a fight or flight experience before I get into the fight or flight event. This preconditions my biochemistry and psychophysiological state, which allows me to feel more centered during the actual competition. (Please NOTE that I am not suggesting you try voluntary super ventilation as this can create a more stressful experience in the body. I am a trained professional, and I have shared my practice to show you how different breathing behaviors alter your biochemistry and nervous system and how it can make you feel.)

Twenty minutes before the competition, I use another breathing style: light breathing mixed with small breath holds. This shift in breathing increases the carbon dioxide saturation in my blood and calms my nervous system, which can have a calming effect on the mind and body.

After the competition, my body is stimulated and full of adrenaline, my heart rate is elevated, and my mind is still racing. Being aware of that helps me change my breathing pattern intentionally, as I no longer need to be in fight or flight mode. I have to slow down my breathing and relax through the exhalations. The goal is to shift my nervous system into a parasympathetic state of restoration and

relaxation. I begin by inhaling for four seconds, exhaling for four seconds, and pausing for four seconds. Each cycle takes around 12 seconds to complete, and in 60 seconds, I complete five full breaths. Five breaths per minute is slow and soothing. Observing this pattern of breathing as a behavior makes it appear relaxed and calming. The brain recognizes this behavior as relaxing and shifts the mindset to match the behavior. Practicing this deliberately slow pattern only takes several minutes to relax me. I practice this after competing and on competition days before sleep.

Too often, we forget that the way we breathe has a direct influence on our psychology. I am here to remind you that you are in control. You can control how you breathe whenever you want to. There is a saying, "Breathe how you want to feel." Slow your breathing if you want to relax and calm your nervous system. It can be that simple.

When we look at respiration through the biochemical lens, breathing looks like performing chemistry in a laboratory. With each breath, you move a specific volume of gases in and out of your body. This mixture of gases coming in and out of your circulatory system through the lungs changes the pH level of the

blood. This change in biochemistry can create a shift in mindset. Our brain is very sensitive to carbon dioxide in the blood. As the blood increases in carbon dioxide concentration, the brain starts to feel a strong urge to breathe. When we hold our breath for an extended period, the buildup of CO₂ is one of the main drivers for needing to breathe again. The feeling of the need to breathe can create a sense of anxiety and stress the more intense it becomes.

A typical dysfunctional breathing pattern that modern humans suffer from and causes anxiety is called over-breathing. Over breathing or chronic hyperventilation syndrome results from hypersensitivity to carbon dioxide in the blood. If the brain becomes hypersensitive to carbon dioxide, the brain will signal to the lungs to increase the respiration rate to lower CO₂. This increased respiration rate lowers carbon dioxide, but as a behavior, it begins to look a lot like hyperventilation. Chronic low-level hyperventilation creates anxiety because the behavior of hyperventilation is associated with sympathetic activation or stressful activities. Another way to think about this is when we are in a dangerous environment, adrenaline is released, which causes our respiration rate to increase to prepare the body for fight or

flight. Our brain associates the behavior of fast breathing with stressful experiences. The opposite happens when our breathing is slow and relaxed; we begin to feel calm. When the body is hypersensitive to CO₂, the body feels the need to breathe more often, creating the behavior of breathing more often, which then chronically leads the brain into a state of stress that can feel like anxiety. This vicious loop can be helped by practicing slow, methodical breathing exercises. At the end of the chapter, we will review an exercise that will help correct a dysfunctional over-breathing pattern.

The third lens for viewing breathing is biomechanics. Biomechanics of breathing is the study of the mechanical aspects of respiration. It is important to bring your attention to your breathing mechanics to optimize the function of the breathing pattern. Remember, the behavior of inhaling and exhaling has a direct impact on our psychological state. The mechanics of breathing behavior are fundamental because they can either support a relaxed mindset or increase stress and anxiety. To visualize a framework for simply understanding breathing mechanics, we will use our imagination to bring new awareness to our breath.

First imagine your head as a balloon filled with helium. Envision the balloon (your head) wanting to go up, lifting your spine tall and long. You can practice this sitting or standing. Now, focus on the crown of your head and then notice that as your head continues to raise your ribcage, your pelvis will stack underneath your head. As the ribcage stacks on top of the pelvis we can create something called intra-abdominal pressure through the core.

Now, to optimize the stacking of the ribcage and the pelvis, visualize the diaphragm muscle as a spotlight that shines directly down onto your pelvic floor. The alignment of the ribcage should allow the diaphragm to shine its bright spotlight down on the base of the pelvis. Take this opportunity to gently breathe in through the nose and out through the nose. As you breathe in, follow the air as it enters your nose and flows down into your throat and then enters your lungs. Feel the pressure of the diaphragm move downward into the core, creating intra-abdominal pressure, which is felt down into the pelvic floor. As you breathe in, feel the head lifting, and as you exhale, notice your ribs floating down. Visualize the diaphragm spotlight shining brighter on the pelvic floor as you

inhale and becoming dimmer as you exhale. Spend some time practicing breathing with these visualizations.

Does your breathing pattern feel different now? Do you have more awareness of the depths of your breathing? Does your mindset feel more relaxed? By focusing on the posture of our bony structures, we can optimize the alignment of our muscles and improve our ability to breathe better. This is important for our mental health because poor breathing posture will affect our ability to bring oxygen into our body. When the body cannot quickly bring oxygen into the body because of poor diaphragm activation or shrinking of the airway volume, our brain will begin to feel stressed. Another way to describe this unfortunate situation is slow suffocation. Poor breathing mechanics can also lead to physical instability because the diaphragm functions improperly. This can compound the feeling of anxiety and stress because your body does not feel safe to move because of a lack of coordination of the diaphragm with the rest of the muscular-skeletal system as a whole. Do not be alarmed because creating awareness and improving the diaphragm's function is relatively simple and quick to do. In the next section, I will give two simple exercises to immediately raise

awareness of your diaphragm and improve your breathing mechanics.

BREATHING EXERCISES FOR ANXIETY AND MENTAL HEALTH

The first step for anyone is bringing their focus to their breath. Focus your attention on the sensation of inhaling through your nose and feeling the relaxation of the exhalation. The mind will want to wander away from this focus of the breath; however, you can hold your attention even longer with practice. Focusing on the inhalation and letting go through the exhalation will distract your mind from being busy with thoughts. Rumination can lead to distress and can contribute to more anxiety and depression. Bringing your attention to your breathing allows the mind to focus on something else besides negative or stressful thoughts.

Now that you're focusing on your breathing let's go ahead and bring our attention to the diaphragm. Here are two simple exercises you can practice improving your awareness of your diaphragm muscle. Lay down on your back with your knees bent so that the soles of your feet are resting on top of the floor. Then, place a book on your stomach. As you inhale, you will feel the pressure of the

diaphragm pushing down into the core and toward the pelvis. This will create a pressure wave, lifting the book slightly towards the ceiling. As you exhale, the diaphragm will begin to relax, and the pressure wave will dissipate, bringing the book back down toward the floor. This is a gentle movement. Practice this exercise for five minutes.

The second exercise is lying on your stomach in the prone position. You can stack your hands like pancakes to rest your chin on top of them like a pillow. Take your big toes and touch them together so that your heels roll away from each other. Now, focus on your belly button. Inhale through the nose and allow the pressure wave to pressurize against the floor. This pressure will begin to expand into the lower back. As you breathe in, your lower back will rise slightly towards the ceiling. When you exhale, you will notice your back begins to lower towards the floor. This exercise is called alligator breathing because we are trying to imitate the behavior of an alligator lying on its stomach and breathing into their back. This is a gentle movement. Practice this exercise for five minutes.

Practicing both exercises will help you become more aware of your breathing mechanics and proper diaphragm engagement, which

will, in turn, help you optimize your overall breathing during the day.

Now, here's a powerful breathing exercise you can use when you're feeling anxious. It helps correct a dysfunctional breathing pattern.

(Three-second inhale x three-second exhale) x 3 followed by three second breath hold.

Practice this cycle for five to ten minutes three times a day.

Let's do it together: focus on breathing as light and gentle as possible through your nose. As you breathe, begin to inhale for a count of three and then exhale for a count of three. Breathe in for three seconds and then exhale for three seconds. Remember, as you breathe, make the flow of air light, gentle, and quiet. One more time, inhale for three seconds and then exhale for three seconds. Now pause and hold your breath on the exhalation for three, two, and one. Repeat this again: take a gentle inhale for three seconds, and exhale for three seconds. Do two more complete breaths and then pause and hold your breath on the exhalation for three, two, and one.

How do you feel now? More relaxed? More aware? Feeling is understanding. The best way to understand the power of breathing exercises, the awareness they create in you, and the feelings they may evoke is to experience them. Make note of the changes as you continue developing your breathwork practice. As you do this routine five to ten minutes a day you will be able to notice a difference in your degree of relaxation.

This next exercise aims to slow down the breathing rate and increase carbon dioxide saturation in the blood. There are many benefits to slowing down the breathing rate. The brain will notice this behavior as relaxing and calming. Breathing light and slow will increase carbon dioxide saturation in the blood, which will act as a vasodilator. This will result in better blood flow to the brain and cells. The better blood flow will also allow for more oxygen delivery to the cells. Focusing on your breath will give your mind something else to focus on instead of ruminating.

Mental health is a serious subject that requires the assistance of trained professionals. Asking for help is essential and can be life changing. The information provided hereby is meant to complement working with professionals. My goal with this chapter

was to educate you on the anatomy of the respiratory system, explain how dysfunctional breathing can impact mental health, and provide simple exercises you can implement immediately to improve your mental health. Now is the time to become a detective and study your breathing behavior. Use the three lenses to look at how you're breathing. If you are someone suffering from mental health, there is a solid chance you are a good candidate for optimizing your breathing pattern. To learn more about improving your breathing, you can contact me at ben.pelton@gmail.com or through my website, www.benpelton.com, for breathing assessments and one-on-one coaching.

**CHAPTER SEVEN: EMOTIONAL FREEDOM
TECHNIQUES (EFT) TAPPING FOR MENTAL HEALTH,
AUTHOR: CHRISTINE WHEELER**

As I hop onto my computer to start this chapter, I see another new study verifying the positive effects of Emotional Freedom Technique (EFT) Tapping for mental health conditions. This time, it's for posttraumatic stress disorder (PTSD).

In this 2024 study, tapping was found to significantly improve PTSD symptoms as well as depression, anxiety, sleep and physical symptoms associated with PTSD as measured by the PTSD Checklist for DSM-5 (PCL-5). Participants completed the checklist before and after treatment. Thirty individuals participated for five weeks. This process requires each participant to spend only 30 to 40 minutes each week, which is only 5 to 6 minutes per day.

IMAGINE FEELING BETTER WITH JUST THIRTY MINUTES OF TAPPING A WEEK!

If you've not experienced tapping, the process is to simply use your own fingertips to tap on a specific set of acupuncture points while focusing your attention on something that's bothering you. For more than 25 years, tapping has been used by millions around the world to feel better. It has been used successfully for a myriad of ailments. Over the last decade, researchers have established tapping as effective for numerous emotional and physical challenges including physical pain, insomnia, food cravings, anxiety, stress and high cortisol levels.

EFT Tapping is another perfect tool you can choose to use to advance your wellness, because it addresses primarily the emotional conflicts that may be causing your physical health problems.

Everyone experiences pain at one time or another. To alleviate pain with EFT Tapping, begin by naming the physical pain you are experiencing while you tap on specific points.

Over 25 years, I have had a countless number of cases where clients came to me who were experiencing unrelenting neck pain. They had tried all kinds of physical and supplemental treatments and while they may have had some improvement initially, or after multiple treatments, the condition still persisted. Only after they tried tapping and continued to tap, as needed, were they able to minimize or alleviate the neck pain altogether.

The following are some basic tapping steps to manage neck pain, specifically. This same tapping technique can also be applied to other pain issues, which I've outlined after this section.

Simply practice the steps of this helpful healing technique, and feel free to [check out my guide](#) to learn more, plus see the illustrations on where the tapping points are located on the body.

TO START TAPPING

On a scale of 0 to 10, with 10 being the worst and zero being no pain, select a number that identifies the degree of pain or discomfort you have in the moment. Please write this number down. It's important to always write down the number because often, as the pain and discomfort shifts through tapping, a person

can lose sight of how bad it was at the start and how much better they feel now.

Begin by continuously tapping on the acupuncture point on the side of one hand with the opposite hand. While tapping, repeat a setup statement that is provided herein or that you write yourself. Tap on the setup statement three times in a row, to address and neutralize the negative aspect (neck pain) while offering a positive affirmation (I love and accept myself).

Repeat Setup Statements while Tapping the Point on the Side of the Hand

Even though I have this pain in the neck, I love and accept myself.

Even though I have this pain in the neck, I love and accept myself.

Even though I have this pain in the neck, I love and accept myself.

After you repeat the setup statement three times, continue to tap on each of the tapping points (See link above to access the page on christinewheeler.com to view the illustration to guide you on where the tapping points are located.) Using two fingers of one or both hands, tap four or five times on each point, while repeating the “reminder phrase” that focuses on the problem.

Reminder Phrase while Tapping the Rest of the Tapping

Points:

Follow the points from the top of the head and move down (from the eyebrow to the side of the head etc.) while saying the reminder phrase for the specific pain or problem. Each time, repeat your reminder phrase, such as: "This pain in my neck and/or "This neck pain", or simply say "neck pain" each time you move to the next point.

Eyebrow: *This pain in my neck*

Side of Eye: *This neck pain*

Under Eye: *This pain in my neck*

Under Nose: *Neck pain*

Chin: *This neck pain*

Collarbone: *This neck pain*

Under Arm: *This pain in my neck*

Top of Head: *This neck pain*

One round of tapping includes repeating the reminder phrase each time you tap on a point and moving through the complete set of points. Repeat the round as needed, until you feel a shift and begin to breathe more easily. Then check in with your level of discomfort now, after tapping on it after the first or few rounds and write down your new number that represents any changes you feel with your discomfort. Almost always, the new number will be different than the first number. The goal is for the pain to be better, but sometimes it can get a bit worse; and also, it may go away completely!

You might do a few rounds of the simple setup and reminder phrasing, checking the number representing your discomfort often. If there's not much movement or improvement, go a little deeper, and get more and more specific about the nature of the pain.

What's the quality of your pain?

Notice if the pain has a particular quality, like stabbing or throbbing. With my clients, I might even ask if the pain has an emotion, a temperature or color and I've never had someone be unable to describe the pain in these ways. Most people have never thought of their pain in any sort of detail, so this is a great exercise

especially when you're adding tapping to the mix. Just take a couple of deep breaths and focus on the pain and notice the words that spring to mind. There is no wrong answer!

So, as you do more tapping to go deeper, use a new, more detailed setup statement that more directly addresses the problem, while tapping the point on the side of the hand. Here are a few **examples** of possible setup statements. You can use any or all of them, mix and match and play with the words, and even change the physical symptom with something else that affects you right now. You can't get it wrong.

Repeat Setup Statements while Tapping the Side of Hand

Point:

Even though I have this throbbing neck pain, I love and accept myself.

Even though I have this angry neck pain, I love and accept myself.

Even though I have this red, hot neck pain, I accept myself anyway.

Even though this neck pain feels like it's stabbing me, I accept myself anyway.

Even though this neck pain is cold and dull, I love and accept myself.

Here are some reminder phrase examples to repeat (out loud if possible) after you've done the setup. Continue to tap as you move through the following sequence of points:

Reminder phrase while tapping the rest of the tapping points:

Eyebrow: *This horrible neck pain*

Side of Eye: *This stabbing pain in the neck*

Under Eye: *This red, angry neck pain*

Under Nose: *This angry throbbing neck pain*

Chin: *This awful neck pain*

Collarbone: *This red, hot neck pain*

Under Arm: *This cold, dull neck pain*

Top of Head: *This hot, throbbing neck pain*

Check the number representing your discomfort and write it down.

Again, you can use any or all of these combinations of phrases,

and/or create your own. It just takes a bit of practice with tapping to feel more and more comfortable creating your own setup statements and reminder phrases. Again, you can't do it wrong.

What's Next?

At this point, maybe the pain has subsided considerably. You can continue with several rounds of tapping, change up the wording, and include different qualities of the pain you're experiencing. Notice the words that spring to mind as you're tapping and include those words in your setup and reminder phrasing. Again, this takes practice, so give yourself the gift of persistence.

USE THIS AS A TEMPLATE

As mentioned previously, this example of tapping can be used as a template for any physical issue you're dealing with. Just replace "pain in the neck" or "neck pain" with any other ailment or problem.

EMOTIONAL ASPECTS OF PAIN

If you're still experiencing pain after a round or few of tapping, then try with something that describes it in different or better detail. This is important to do when you have some sort of

unrelenting physical symptom. Again, the medical, supplemental and physical treatments you've tried haven't given you the outcome and relief that you want to have. So, for the best benefit, explore more of the **emotional aspects of your physical ailment**.

In the work I do with clients, my perspective is that **there is *always* an emotional component to physical illness or discomfort**.

For the many people I've worked with to help relieve their neck pain, I ask this simple question:

"Who in your life is a pain in the neck?"

One hundred percent of the time, my client has a definite response. And quite often the number describing their discomfort goes up and they lay a hand on the distressed area.

One case comes to mind of a woman in her seventies who had unrelenting neck pain for twenty years. She had weekly acupuncture and massage for the previous five years and was taking a plethora of supplements. Her pain on a scale of 0 to 10 was constantly at a 6 out of 10, dipping to a 3 or 4 after

acupuncture or massage appointments. Within a few minutes of meeting, I asked her, “who in your life is a pain in the neck?”

She rolled her eyes and immediately responded, “My husband is such a pain in the neck. He’s a pain in the ass as well, by the way!” (She also suffered with hemorrhoids, but she didn’t make that connection until later).

So, we did some simple tapping. We repeated the setup statement three times while tapping the point on the side of the hand.

Repeat Setup Statements while Tapping the Side of Hand

Point:

Even though my husband (name) is a pain in the neck, I love and accept myself.

Even though my husband (name) is a pain in the neck, I love and accept myself.

Even though my husband (name) is a pain in the neck, I love and accept myself.

Then she tapped each of the rest of the tapping points with two fingers from either hand while repeating a reminder phrase.

Reminder Phrases while Tapping the Rest of the Tapping Points:

Eyebrow: *My husband is a pain in the neck*

Side of Eye: *My husband is a pain in the neck*

Under Eye: *My husband is a pain in the neck*

Under Nose: *He's such a pain in my neck*

Chin: *Always a pain in the neck*

Collarbone: *My husband is a pain in the neck*

Under Arm: *My husband is a pain in the neck*

Top of Head: *My husband is a pain in the neck*

After this round of simple tapping, we checked her current number and the pain in the neck was gone! In one round of tapping on a 20-year-old pain, she was pain-free after acknowledging and tapping on the fact that her husband was a pain in the neck. We did a couple more rounds tapping on him being a pain in the ass and she later reported that her hemorrhoid issue had improved!

TAPPING REQUIRES PERSISTENCE AND PATIENCE

While this was a wonderful, and not an unusual outcome, tapping for the emotional aspects of physical pain often requires more persistence. So, do more tapping. (Always do more tapping!) Also, get a bit more specific about the pain.

Here are some examples of setup phrases you can use, mix and match, and craft to your own specific situation. You can say one of these phrases three times, or tap on all of them and see what feels the truest:

Repeat Setup Statements while Tapping the Side of Hand

Point:

Even though they (use their name) are a pain in the neck when they won't listen to what I say, I love and accept myself.

Even though they are such a pain in the neck when they leave a mess for me every day, I accept myself anyway.

Even though they're a pain in the neck when they criticize what I'm wearing, I accept myself no matter what they say.

Even though their criticism is a pain in the neck, I'm ok and I accept myself.

Continue tapping the points below while repeating the reminder phrases.

Reminder Phrase while Tapping the Rest of the Tapping Points:

Eyebrow: *They're a pain in the neck*

Side of Eye: *Their criticism is a pain in the neck*

Under Eye: *They're a pain in the neck when they're being nasty*

Under Nose: *Their nastiness is a pain in the neck*

Chin: *What a pain in the neck when they criticize what I wear!*

Collarbone: *They're a pain in the neck when they're being messy*

Under Arm: *They're a pain in the neck when they don't listen*

Top of Head: *They're a pain in the neck when they're breathing!*

THINK OF THE METAPHORS

The use of metaphors like “my partner is a pain in the neck” can help to unlock some of the emotional components of the physical issues you’re experiencing. Here are some more examples of questions you can ask to identify the problem more specifically:

For Back Pain

Who stabbed you in the back?

Who didn’t have your back when you needed them?

Who won’t get off your back?

Repeat Setup Statements while Tapping the Side of Hand Point:

Even though they (name) didn’t have my back, I love and accept myself.

Even though it felt like they stabbed me in the back, I still accept myself.

Even though they won’t get off my back, I love and accept myself.

Reminder Phrase while Tapping the Rest of the Tapping Points:

Eyebrow: *They stabbed me in the back*

Side of Eye: *They didn't have my back*

Under Eye: *I needed them to have my back, and they didn't*

Under Nose: *Nobody had my back*

Chin: *Backstabbers!*

Collarbone: *I can't believe they stabbed me in the back that way*

Under Arm: *I wish they would get off my back about everything*

Top of Head: *Just get off my back!*

Stomach Problems

Ask: What happened that still makes you feel sick to your stomach?

Ask: What happened that was hard to digest?

Repeat Setup Statements while Tapping the Side of Hand Point:

Even though I'm still sick over what happened, I deeply and completely accept myself.

Even though I can't stomach what they did, I still accept myself.

Even though I still can't digest what happened, I love and accept myself.

Even though their actions turn my stomach, I still love and accept myself.

Continue tapping the points below while repeating the reminder phrases.

Reminder Phrases while Tapping the Rest of the Tapping Points:

Eyebrow: *It still makes me feel sick*

Side of Eye: *I can't stomach what happened*

Under Eye: *I can't digest what happened*

Under Nose: *It's sick what they did*

Chin: *I can't digest what they said*

Collarbone: *What they did turns my stomach*

Under Arm: *I'm still sick about it*

Top of Head: *It sickens me*

Eye Trouble

Ask: What was it that you didn't want to see?

Ask: What can't you bear to watch?

Ask: What are you keeping your eye on?

Repeat Setup Statements while Tapping the Side of Hand Point:

Even though I keep seeing the look on their face in my mind's eye, I love and accept myself.

Even though I can't bear to watch how they treat each other, I love and accept myself.

Even though the images from that night still haunt me, I accept myself anyway.

Even though I have to keep my eye on everything, or it will fall apart, I deeply and completely accept myself.

Reminder Phrases while Tapping the Rest of the Tapping Points:

Eyebrow: *The look on their face haunts me*

Side of Eye: *I can't bear to watch them*

Under Eye: *Those images still haunt me*

Under Nose: *I can't stop seeing what happened*

Chin: *I have to watch over everything, or it will crash*

Collarbone: *I have to keep my eye on everything*

Under Arm: *My mind's eye keeps seeing awful things*

Top of Head: *I keep seeing the nasty look on their face*

Jaw Problems

Ask: What happened that you keep chewing on?

Ask: Was there a situation where you had to bite back your words?

Ask: What's tough to swallow?

Repeat Setup Statements while Tapping the Side of Hand Point:

Even though I keep chewing on the things they said to me, I love and accept myself.

Even though I keep chewing on all the things I didn't say, I deeply and completely accept myself.

Even though my jaw aches because I keep chewing on that problem, I accept myself anyway.

Even though my jaw is clenched so I don't say what's on my mind, I accept myself anyway.

Even though that situation is really tough to swallow, and I keep chewing on it, I accept myself still.

Reminder Phrases while Tapping the Rest of the Tapping Points:

Eyebrow: *My jaw aches from chewing on that problem*

Side of Eye: *I still clench my jaw when I think of what they said*

Under Eye: *I'm gnashing my teeth over what they did*

Under Nose: *It's really tough to swallow what they did*

Chin: *I keep chewing on what I wish I'd said*

Collarbone: *If I don't clench my teeth, I'll say what I'm thinking*

Under Arm: *I keep chewing on what they did*

Top of Head: *I'm still chewing on what they said, I can't let it go*

MIX AND MATCH AND SWAP

Because we only have a few pages to talk about tapping for things that might be affecting your mental health and your physical health, remember this is just the basics that I'm sharing here. I've also added a number of common physical ailments and examples

of set-up statements and reminder phrases to mix and match as you move through this chapter.

As you work on your own physical discomfort, you can swap the words here to match your own experience. Instead of neck, jaw or back pain, maybe you have knee pain. Swap any of the tapping statements for knee pain and see what happens.

And remember, every physical pain seems to have an emotional component.

Part of what we're doing while tapping is focusing our attention on the particular problem we want to shift. Let me repeat and reinforce these simple steps:

1. Take a moment to think of the problem about which you'd like to feel better.
2. On a scale of 0 to 10 what number of discomfort or distress does it give you now in this moment? Write it down.
3. Create a setup statement: "Even though I have this problem, I deeply and completely accept myself."
4. Tap the tapping points with two fingers of either hand while repeating the reminder phrase: "this problem...."

5. After one or two rounds of simple tapping, check your number again.
6. Repeat these steps, and if there's still discomfort, think of the emotional aspects, (as we did earlier) and any metaphors that might apply and keep tapping.

MAKE YOUR OWN METAPHORS

Take a few quiet moments and focus your attention on the discomfort in your body. And like we did above, think of the metaphors that might be associated with the **purpose of that body part**. There are no wrong answers because you're sitting in communication with your body and your symptoms; so, notice the kinds of things that come to mind when you think of your physical pain. And as strange as it might be while you're exploring these physical and emotional issues, try to be playful with it; you might be surprised by what comes to the surface.

Also think of the words you use to describe how you're feeling emotionally. I've noticed that people adopt common terms to like:

I was gutted when that happened

I was really choked when they did that

It would kill me if that happened to me

These are all things to pay attention to when you're playing with tapping to ease your physical and emotional discomfort.

Another way to approach tapping on the emotional and physical aspects is to think about the things that make you stressed and worried and do more tapping.

STRESS AND WORRY

Yes, we're going to talk about stress! Depending on where you search online, you will discover that stress is responsible for 50 to 95 percent of illness and disease.

While there are many physical and emotional manifestations of stress, there are also chemical manifestations in your system. Specifically, levels of stress can be assessed by measuring the amount of cortisol (stress hormone) coursing through your veins. A 2020 study measured salivary cortisol levels before and after a one hour tapping group session and the cortisol levels dropped 43%! Symptoms of anxiety and depression also improved. This study replicated one done in 2012 which had similar results.

I have been helping people feel better, showing them how to tap on their stress, for more than a decade. When the first study came out in 2012, I was thrilled to have this kind of scientific validation. Tapping can reduce the stress hormone in your body in one hour!

Here's how to tap on stress. The technique remains the same. Always tap on the side of the hand with a setup statement. Then add the reminder phrases as you move through the points. Break stress down into manageable and tappable portions.

I always start with worry. First, I ask: on a scale of 0 to 10 with 10 being the most worried you could be – write down your number for worry right now. Then: write the set up and repeat phrases.

Repeat Setup Statements while Tapping the Side of Hand Point:

Even though I worry a lot, I love and accept myself.

Even though I'm always worrying about something, I deeply and completely accept myself.

Even though I'm a worrier, I love and accept myself.

Reminder Phrases while Tapping the Rest of the Tapping Points:

eyebrow: *I'm worried*

Side of Eye: *I'm always worrying*

Under Eye: *I'm a worrier*

Under Nose: *I worry*

Chin: *I'm worried*

Collarbone: *I'm always worried*

Under Arm: *So much to worry about*

Top of Head: *I worry a lot*

Take a deep breath and check your number now. I know it can be difficult to think about worry in this way, but you can't make a mistake here!

About Worry

So many people I've worked with over the years have been worriers and most of my worriers were also dealing with anxiety. I don't know if one causes the other, but they definitely go hand in hand. So, for this portion, we break down emotional stress into worry and anxiety. To me, worry is a thought you keep thinking about. And these thoughts you keep thinking are not helpful

thoughts. We are not judging your worried thinking, but we want to understand it a bit better so we can get you some relief with tapping.

A great approach is to fill in the blank:

I am worried about __X__.

Now, write this down as many times as you have worries. And besides each of your personal worries, write in the number on a scale of 0 to 10 that represents your worry level:

I am worried about my health. (10/10)

I am worried about my kids. (6/10)

I am worried about the future. (5/10)

I am worried about money. (10/10)

I am worried that my partner is cheating. (3/10)

I am worried about the world. (7/10)

Your list will look different (maybe) so please insert your own worries into the setup statement like so:

Repeat Setup Statements while Tapping the Side of Hand Point:

Even though I'm worried about __X__ I love and accept myself.

Even though I'm worried about money, I love and accept myself.

Even though I'm worried about my health, I deeply and completely accept myself.

Reminder Phrases while Tapping the Rest of the Tapping Points:

Eyebrow: I'm worried about __X__

Side of Eye: I'm worried about money

Under Eye: I'm worried about my health

Under Nose: I keep worrying

Chin: I'm so worried

Collarbone: I'm worried about everything

Under Arm: I can't stop worrying about my kids

Top of Head: I'm so worried

Having made this list with your numbers, you can simply tap on your worries, using the same protocol until your numbers start to

come down. I generally suggest putting aside 15 minutes a day to tap on your worry list, updating your numbers each time. You can start with the biggest numbers or with the smallest, it's up to you.

For ideas on some specific tapping that you can do regarding worries about your health, I'm going to give you a lot of example setup phrases and reminder phrases to get you moving in the direction of feeling better. Remember you can mix and match. Tap on everything, and just keep tapping.

Tapping on health worries in general can be helpful, and/or get specific and write it down. This helps target your concerns to fuel deeper clearing with tapping. For example:

Regarding my health, I'm worried about __X__.

Regarding my health, I'm worried about the pain in my left knee.

Regarding my health, I'm worried about my headaches.

Regarding my health, I'm worried about getting really sick.

Regarding my health, I'm worried that I don't sleep.

Write down a number on a scale of 0 to 10 that describes your degree of health-related worry. You might have more than one thing to worry about, and that's ok.

And while you're making this list, you might find that you're feeling a bit more anxious. This is normal. Read further on about anxiety. Start tapping on these health worries, and the discomfort you're feeling may reduce. Say the following phrases and begin tapping on the side of the hand point.

Even though I'm worried about __X__, I deeply and completely accept myself.

Even though I'm worried about the pain in my left knee, I love and accept myself.

Even though I'm worried about getting really sick, right now I'm ok.

Even though I'm worried about my sleep, I love and accept myself.

Reminder Phrases while Tapping the Following Points:

Eyebrow: *I'm worried about my health*

Side of Eye: *I'm worried I'll get really sick*

Under Eye: *I worry that I won't sleep tonight*

Under Nose: *I worry about my health*

Chin: I worry I won't get better

Collarbone: *I worry about everything*

Under Arm: *I'm worried about that weird pain*

Top of Head: *I worry about my health*

Again, be persistent with your tapping as you mix and match these setup and reminder phrases and invent your own.

Feelings about Our Health and Wellness

So many of us have health challenges from which we can't seem to find relief. I know Dr. Dean is a specialist who helps people who've **not found help**. She cares about and supports those who can't find answers in the mainstream medical world.

So, let's explore some of the feelings you might be having about the care you've received regarding any health challenges you've been experiencing. Of course, this contributes to your worry and

anxiety, but you can get some relief with tapping. Below are some set-up statements that you can use, based on feedback you've given Dr. Dean over the years. You can tap on all of these. Pick one and do a complete round, mix and match, or create your own based on your unique experiences.

One of the first things folks often say about chronic illnesses is that their regular doctors don't understand, they don't seem to care and they're certainly not being very helpful. Many people have been to many doctors and specialists and tried many different alternatives. In fact, they often say they've tried everything. The fear that nobody knows what's wrong with them; that doctors don't believe them; or that what they have is incurable, paralyzes people and keeps them feeling stuck and hopeless. You can ease those feelings with some tapping.

When you think about the treatment you've received from doctors, please notice, on a scale of 0 to 10, how upsetting it is in this moment with 10 being the most upsetting. Write this number down. Don't change the facts of what's happened and hopefully, after you've tapped a bit, you can feel a bit more peaceful and less stressed about it.

Repeat Setup Statements while Tapping the Side of Hand Point:

Even though my regular doctors don't listen to me, I love and accept myself.

Even though my doctors don't seem to understand what's happening with me, I deeply and completely accept myself.

Even though my doctors don't care, I love and accept myself.

Reminder Phrases while Tapping the Next Series of Points:

Eyebrow: *My doctors don't care*

Side of Eye: *They don't know what's wrong with me*

Under Eye: *They don't understand me*

Under Nose: *They don't take me seriously*

Chin: *Nobody cares*

Collarbone: *They don't listen to me*

Under Arm: *They don't seem to care*

Top of Head: *I'm not getting any help from doctors*

Check the number now against what you wrote down originally, and hopefully you feel a little more peaceful. And continue tapping. When a problem has been bothering you for a long time, give yourself the gift of being persistent with your tapping.

Along with the feelings that doctors aren't helping, many folks are left with the feeling that nothing helps the condition. On a scale of 0 to 10, write down how upsetting this idea feels for you right now if/when you think that nothing is helping.

Repeat Setup Statements while Tapping the Side of Hand Point:

Even though I've tried everything and nothing helps, I love and accept myself.

Even though I keep trying everything to feel better, I deeply and completely accept myself.

Even though I'm so tired of trying to feel better, I love and accept myself.

Reminder Phrases while Tapping the Next Points in the Series:

Eyebrow: *I've tried everything*

Side of Eye: *Nothing works*

Under Eye: *I keep trying to feel better*

Under Nose: *Nothing seems to help*

Chin: *No matter how hard I try*

Collarbone: *Nothing helps*

Under Arm: *I'm so tired of this cycle*

Top of Head: *I don't know what else to do*

Then take a few moments and check the intensity you're feeling about this on a scale of 0 to 10 and keep tapping.

If you have tried everything and you're not getting the help you need medically; you can start to feel helpless. And even if you've found some resources, researched for more information, and are taking the supplements by Dr. Dean, helplessness might feel like it's become a habit. This is something to definitely tap on. Please check in with yourself and say the phrase: "I feel helpless". Then write down a number on a scale from 0 to 10 on how helpless you feel. Next tap and repeat the setup and phrases below and write down the feelings that best represent how you truly feel.

Repeat Setup Statements while Tapping the Side of Hand Point:

Even though I feel helpless, I love and accept myself.

Even though when it comes to my health, I feel helpless, I deeply and completely accept myself.

Even though I feel helpless, I'm ok right now.

Reminder Phrases while Tapping the Next Points:

Eyebrow: *I'm feeling helpless*

Side of Eye: *I don't know what else to do*

Under Eye: *I feel helpless*

Under Nose: *It's stressful feeling helpless*

Chin: *I'm feeling so helpless*

Collarbone: *And nobody is helping me*

Under Arm: *I'm feeling helpless*

Top of Head: *I'm helpless*

This tapping round isn't meant to be a quick fix for your helpless feelings, but by tapping through these phrases a few times, you'll

be able to interrupt the thought patterns that create a feeling of helplessness. There's no judgment about feeling helpless; it's an unfortunate but normal feeling to have when you've been dealing with chronic illness. So, give yourself some grace and keep tapping.

Many people who've found Dr. Dean's resources have expressed that they'd been feeling hopeless about ever getting relief from their illness. Despite getting some new medical information and supplements to support their health in a new way, they were still feeling stuck and hopeless.

So, if this happens to you, continue to tap, and check in with the phrase: "I feel hopeless" and keep writing down the number representing how you feel. Following is another round of setup statements followed by some phrases you can use.

Repeat Setup Statements while Tapping the Side of Hand Point:

Even though I've been feeling hopeless, I love and accept myself.

Even though I feel hopeless right now, I deeply and completely accept myself.

Even though I'm feeling hopeless, I'm ok.

Reminder Phrases while Tapping the Following Points:

Eyebrow: *I feel hopeless*

Side of Eye: *This hopeless feeling*

Under Eye: *I'm feeling hopeless*

Under Nose: *This hopelessness*

Chin: *Hopeless*

Collarbone: *I feel hopeless*

Under Arm: *I'm feeling hopeless*

Top of Head: *This hopeless feeling*

Keep tapping this simple phrasing. It will help neutralize the hopeless feelings that have been stuck in your energy system.

At this point, it's important to mention that you're doing simple tapping on these thoughts and feelings, and you may have to be persistent to make considerable shifts in how you're feeling. Often, complex feelings like helplessness and hopelessness require more care and attention than you can provide for yourself. So, if such feelings persist, please seek support with a qualified EFT tapping

professional or mental health professional. These exercises are not meant to be a replacement for more personalized care.

Worry and Anxiety Go Hand in Hand

As mentioned, your worries are the thoughts you keep thinking, and anxiety is how worry manifests in your body. This has consistently been my experience about how worry and anxiety present as a pair of problems for my clients.

Here is an example of how to manage feelings of anxiety. First say to yourself: "I feel anxious when I worry about __X__."

Create a Setup Statement Right Away and Start Tapping the Side of Hand Point:

Even though I feel anxious when I worry about __X__ I love and accept myself.

Even though I feel anxious when I worry about __X__ I love and accept myself.

Even though I feel anxious when I worry about __X__ I love and accept myself.

Reminder Phrase while Tapping the Rest of the Tapping Points:

Eyebrow: *I feel anxious when I worry about __X__*

Side of Eye: *I feel anxious when I worry about __X__*

Under Eye: *I feel anxious when I worry about __X__*

Under Nose: *I feel anxious when I worry about __X__*

Chin: *I feel anxious when I worry about __X__*

Collarbone: *I feel anxious when I worry about __X__*

Under Arm: *I feel anxious when I worry about __X__*

Top of Head: *I feel anxious when I worry about __X__*

You get the idea, and of course you can swap out “X” for anything you’re worrying about. Check the list you made earlier. Then look for the connection between the things you worry about and the anxiety you feel.

More about Anxiety

Of course, anxiety is connected to your thoughts and feelings, but what do you feel in your body when you're worried about something? Many people know they're anxious because they feel it

in their body. Is it in your stomach, gut, throat, or your neck? It could be anywhere. Following is a list of statements for the places in the body people have typically said is where they feel anxious.

Repeat Setup Statements while Tapping the Side of Hand Point:

Even though I feel anxious in the pit of my stomach, I love and accept myself.

Even though my throat feels tight from anxiety, I love and accept myself.

Even though my gut is expressing my anxiety, I deeply and completely accept myself.

Even though my anxiety is showing up in my neck, I love and accept myself.

Tap on any or all of these suggestions or write new ones that reflect your personal experience.

Reminder Phrases while Tapping the Next Points in the Series:

Eyebrow: *This anxiety in my guts*

Side of Eye: *I feel anxious in my guts*

Under Eye: *This anxiety shows up in my neck*

Under Nose: *Anxiety is a pain in my neck*

Chin: *This tight throat anxiety feeling*

Collarbone: *My stomach is full of anxiety*

Under Arm: *This anxiety in my body*

Top of Head: *This anxiety in my guts*

Anxiety is complex, and this is a simple, basic tapping exercise. So, take care of yourself while you're doing this tapping and of course, if appropriate, seek out a caring EFT tapping practitioner to take you into deeper levels of healing to clear your anxiety.

What Was Happening in Your Life when You Got Sick?

Here's the final thought I want to share with you about tapping for mental health. It's one of the first questions I ask a client who has been dealing with chronic illness, which is: what kind of stress was happening in your life in the months before your condition began or became noticeable?

Take a moment and after taking a couple of deep breaths, think about what was happening in your life, or around you, before you got sick. Don't judge the event, and whether or not you think it was "bad enough" to contribute to your illness. Just notice what comes to mind when you focus your attention on this idea.

While the top stressors in life tend to be death, divorce, job loss, moving or illness, these aren't the only things that can create stress in the mind and body.

Perhaps there was a shock that you experienced, like a betrayal, an unkind comment, any kind of upset that was hard to let go of. I don't want you to stress about finding a stressful event, so I'll offer some examples and tapping phrases. I suggest tapping on all of them, even if they don't seem to apply. That might loosen things up so you can find your own stressful event.

Repeat Setup Statements while Tapping the Side of Hand Point:

Even though it was stressful during my divorce, I love and accept myself.

Even though my parent's death was stressful, I deeply and completely accept myself.

Even though I never really got over losing my job, I love and accept myself.

Even though I've not been myself since moving out of my house, I deeply and completely accept myself.

Even though my father abandoned me when I was a child, and I never really got over that, regardless I love and accept myself.

Even though I was shocked when I found out they were cheating on me, I deeply and completely accept myself.

You can see the scope of the kinds of stressful events that can happen to anyone. Another approach is to write down everything that's been stressful, unresolved, shocking or upsetting. Create setup statements and reminder phrases, then write down your number on a scale of 0 to 10 and start tapping.

Here are some reminder phrases to mix and match or stick to only one at a time while tapping on all of the points.

Reminder Phrases while Tapping the Following Points:

Eyebrow: My divorce was very stressful

Side of Eye: My parent's death was so stressful

Under Eye: *Dealing with my partner's illness was too much*

Under Nose: *Losing my job broke me*

Chin: *Finding out they were cheating was shocking*

Collarbone: *Being abandoned as a child changed my life*

Under Arm: *Losing my home was so stressful*

Top of Head: *All this stress in my life*

Again, remember to choose one of the setup statements and say it three times while tapping the side of your hand, then repeat the corresponding reminder phrase or phrases while tapping the points. Don't worry about finding the perfect words, just tap on the words that fit your situation to get things moving in the right direction. With more practice, it becomes easier to find your own words.

It's also possible that the stressful event that's affected you is a traumatic event. Of course you can continue tapping on that event, but trauma is even more complex than stress. My suggestion is to find an excellent EFT/tapping practitioner or a mental health professional who can provide you with appropriate support.

NOTE: Tapping sessions can be done over the phone or on Zoom.

So, keep tapping, be persistent, and know that the possibility of feeling better is literally at your fingertips.

GENERAL RESEARCH

Reexamining the effect of emotional freedom techniques on stress biochemistry: A randomized controlled trial. Stapleton, P., Crighton, G., Sabot, D., & O'Neill, H. M. (2020).

Reexamining the effect of emotional freedom techniques on stress biochemistry: A randomized controlled trial. *Psychological Trauma: Theory, Research, Practice, and Policy*, 12(8), 869–877.

CHAPTER EIGHT: MENTAL HEALTH AND EXERCISE

As an M.D. and naturopath, I see the body as a whole organism, with each system dependent on the others. This is why I feel it is so important to acknowledge the overall benefits of exercise when we talk about mental health. Study after study shows the positive benefits of exercise on mental health as well it supports memory and thinking well. We just can't have a complete sense of well-being if we experience lack of wellness on another level. So, I suggest you review the following information to learn about some basic benefits of exercise. Then review how exercise specifically improves mental health.

THE IMPORTANCE OF EXERCISE

During my [November 16, 2020 podcast](#), I talked about the importance of exercise:

I think when the astronauts first went into space and came back with osteoporosis, I realized the extreme importance of movement. Similarly, if anyone's been laid up in bed for a few

weeks, your muscles just atrophy. Well, you need the pull of gravity, and you need movement to keep your bones kind of recirculating. Your bones are constantly breaking down and building up, breaking down, building up, and they'll just break down if you don't exercise. Same with the lymph; your lymphatic system does not have a pump, and it depends on you pumping your muscles to move the lymph through and out of the body and the lymph is what drags the toxic byproducts of metabolism out of the body. Any movement will do.

Studies are beginning to include a myriad of health advantages from exercise. For example, an article published by Harvard Medical School, "[The Science of Exercise Shows Benefits Beyond Weight Loss](#)," summarizes studies reported by Dr. Susan Cheng where she lists several benefits:

Many of the benefits of exercise have been known for quite a long time, notes Dr. Cheng, the author of "Interrogating the Age-Old Wisdom of Exercise," an editorial in a recent issue of the journal, Circulation. Exercise reduces weight, lowers blood pressure, prevents diabetes, improves cholesterol, increases

muscle strength, improves sleep quality, improves mood, and even sharpens the mind.

With so many benefits, it's no wonder that whenever anyone asks me if we must exercise to build more wellness, my unequivocal answer is, "Yes!"

EXERCISE AND MENTAL HEALTH

As I just mentioned, I personally and professionally have noted that exercise is good for building wellness on every level. In his article, *Exercise Is Good for the Mind and Body*,¹²⁸ Dr. Paul Reed agrees:

Mental health and physical health are closely connected. No kidding — what's good for the body is often good for the mind. Knowing what you can do physically that has this effect for you will change your day and your life.

Physical activity has many well-established mental health benefits. These are published in the [Physical Activity Guidelines for Americans](#) and include improved brain health and cognitive function (the ability to think, if you will), a reduced risk of anxiety and depression, and improved sleep and overall quality of life. Although not a cure-all, increasing

physical activity directly contributes to improved mental health and better overall health and well-being.

EXERCISE AND MINDFULNESS

What is even more astonishing is that the effectiveness of exercise and movement is increased by adding the practice of mindfulness to the mix. Mindfulness is defined below, but first I'll share; Dev Roychowdhury's review on the research that lists over a dozen accessible references that supports this assertion¹²⁹:

There is a substantial amount of research linking the efficaciousness of mindfulness to a range of physical and psychological health outcomes. Studies examining the associations among mindfulness, PA (physical activity), and health behaviors have concluded that higher levels of mindfulness lead to higher levels of PA [30,31,32], self-efficacy [24], positive emotions [33,34], healthy eating [31,35], better quality of sleep [30,31,35,36], satisfaction [37], and well-being [38]. Conversely, it was also found that individuals who were successful at maintaining PA tended to score higher on measures of mindfulness [39] and that participation in a single session of mindful PA was shown to

positively alter individuals' mood [40]. Furthermore, Zvolensky and colleagues [41] examined the role of mindfulness-based attention in predicting perceived health status and functioning in a community sample of young adults and found that greater levels of mindfulness-based attention were associated with perceptions of better physical and psychological functioning.

What Is Mindfulness?

*Greater Good Magazine*¹³⁰ gives the following definition of mindfulness:

Mindfulness means maintaining a moment-by-moment awareness of our thoughts, feelings, bodily sensations, and surrounding environment, through a gentle, nurturing lens.

Mindfulness also involves acceptance, meaning that we pay attention to our thoughts and feelings without judging them—without believing, for instance, that there's a "right" or "wrong" way to think or feel in a given moment. When we practice mindfulness, our thoughts tune into what we're

sensing in the present moment rather than rehashing the past or imagining the future.

The Importance of Mindful Exercise

Bringing mindfulness into the time we spend moving/exercising corrects several issues that we experience when we feel imbalance, stress, anxiety, and depression, including:

- Disconnection from any higher power that brings hope
- Disconnection from the earth and nature
- Disconnection from self and other people
- Dislocation in space (where am I exactly?)
- Focus on mistakes of the past
- Focus on fears for the future

When we feel alone with no one to help us, we don't know where we are, and we focus on the past or future we feel powerless. As Eckhart Tolle says:

Realize deeply that the present moment is all you have. Make the NOW the primary focus of your life.¹³¹

So, in the next sections I am going to share four types of movement/exercise that lend themselves to mindful practice. The next two sections contain exercises I personally do daily, Stretching and Walking Meditation. Then, the following two sections introduce Qigong and Yoga, two types of ancient movement systems that are built on the principles of mindfulness. Remember to incorporate mindfulness in doing these exercises:

1. Begin by taking a deep breath and exhaling
2. Then, pay attention to your breathing as you move (NOTE: Qigong and Yoga practices have particular breathing instructions for each movement, which you will be able to pick up from an in-person teacher or expert video.)
3. Let your thoughts just run through your mind as if they are something that you know is there, but to which you pay no attention.
4. Bring your focus to your body and how it moves
5. Notice how your body responds to moving

NOTE: Stretching, Qigong, and Yoga can all be done from a chair, if mobility is an issue.

STRETCHING

The following section is taken from my article on Sensuous Stretching.¹³² In this section I share the stretches I do daily.

Why Everyone Should Stretch

Stretching isn't relegated to any culture or even species. Cats and dogs are actually the best stretchers you will ever see. We could take a lesson from them. Stretching is a no-cost exercise. You don't have to join a health club or buy any special equipment. You just need your body for most of the basic stretches and if you require a prop, you can use any wall or chair.

Your head can be all the weight that you need to put a good stretch on your neck muscles!

In the short time it's taken me to write several paragraphs, while thinking of the next thought I want to convey, I've done three stretches: one for my neck, one for my torso, and one for my legs. I'll go into the details of those three stretches in a minute.

What I want you to know is how easy it is to incorporate stretching. You may be surprised to realize that you are constantly and maybe unconsciously stretching. Now I'll show

you how you can do it more consciously and make the most of your stretches.

Many of the stretches that I'll speak about, you may recognize as partial yoga postures. Because some people feel intimidated about doing "yoga" – as if you need a tight leotard, a yoga mat and the lotus position to stretch -- I want to break it down to a few very simple postures. They have nothing to do with turning yourself into a pretzel but everything to do with improving your health. So, let's get started right away with...

Neck Tilts and Rolls

If you're reading this either sitting or standing, you're already in the right position for doing neck rolls! So, there's no excuse. I do neck rolls quite frequently, sometimes it's just a tilt to each side and sometimes it's a full rotation. I find this exercise very important because I'm always on my computer with my shoulders a bit tense from typing and holding up my heavy head!

I've attended exercise and yoga classes where the instructor doesn't want you to rotate your neck in a full circle. I think it's a liability issue. They don't want people overdoing it and maybe getting dizzy and falling down. So, guide yourself accordingly. If

you're able to look up at the sky or the ceiling without pain and without getting dizzy, then you should be able to do a complete neck roll. You must always be the final judge of how much you can do.

The start and finish position is when your head is firmly planted on your neck (easy enough) and looking straight ahead. Just so you know, the average head weighs 4.5-5 kg (9.9-11 lbs.). That's a lot of weight to be carrying around. Bowling balls can weigh from 6 pounds to 16 pounds. Yes, you're carrying a bowling ball on your neck and your neck feels your pain.

Just imagine carrying that 10-pound bowling ball in your hand all day. After a while your hand and arm will cramp up. Cramping means that the muscles are tensing and shortening to try to deal with the load. What stretching your neck muscles, or any muscles, will do is lengthen them back to normal size, shape and function.

Do a quick check in the mirror to see if your neck muscles are already tight and shortened.

NOTE: The position of your shoulders, then consciously drop them and relax them. That's what you want to happen all the time: your neck long and straight and your shoulders dropped.

Sorry for the long preamble. But I've never been content to just be told "do this exercise, it's good for you" (or to do anything for that matter) without knowing as much as possible about what I'm about to do!

That "knowing" nixes the niggling, nagging questions that may prevent you from trying a strategy that I suggest. And that's why I smooth it all out so you can understand all the whys and wherefores and participate with full disclosure!

Neck Roll Directions:

1. Head straight, eyes looking straight ahead, take a few deep breaths and pay attention to your neck and shoulder muscles.
2. Slowly tilt your head to the right. It may feel tight and that's where you stop and just let your bowling ball head create a passive stretch. If there is pain, stop doing this stretch.
3. Next, slowly tilt your head to the left.
4. Then tackle rolling your head backwards. When your head is tilted to the right begin to roll it back very slowly over your shoulder, straight back and then up to the left.

5. Continue rolling your head to the center and lift it up to look forward.
6. Repeat this stretch several times, only if it feels comfortable.
7. You can do this stretch 2-6 times in either direction holding for 5 seconds each time about 3 times a day.

Vary It with a Twist: I don't want you to twist your neck but twist your arm. Here's what I mean. When you do a neck tilt to the right, you'll find that you can create an added stretch by moving your hanging left arm behind you a few inches.

I love this added twist because it helped stretch out a shoulder dislocation that I had from a bike accident. Sometimes I even put my right hand on my left wrist or elbow and push it back a few more inches. Again, be guided by how you feel.

The Backward Back Bend

We weren't born tied to a desk, but unfortunately most of us work as if we were! And our two-legged position often has us sagging forward when we stand or sit. It's good to have a stretch to counteract our forward slouch.

This is a back extension stretch that some may recognize as the beginning part of the sun salutation yoga posture. In fact, it's a

great posture enhancer. And it counteracts the forward pressure on the front part of your vertebral disks. Giving them some space, even a few millimeters can be enough to improve circulation, pump fluid into a slightly dry disk and even prevent disk prolapse.

Back Bend Directions:

1. Stand with your feet parallel, about a foot apart with slack knees
2. Look forward with your arms by your side
3. Tuck your chin in slightly to put your neck in alignment
4. Take a few deep breaths
5. Inhale and lift your arms up from your sides like a fan and bring them overhead, keep your elbows slack and touch your palms together
6. Try to place your arms beside your ears rather than in front or behind them
7. Breathe in and out deeply in this position for 15 seconds. You're already stretching
8. Slowly, and only to the extent that you feel comfortable, moving from the waist, bend your whole torso, head and arms back a few inches and hold for a few seconds

Repeat this stretch 3-4 times and do it several times a day. If you are working all day in an office, try to get up and do it every hour or half-hour. It will actually increase your productivity by preventing tension in your back.

Vary it from Your Chair: The key to doing the back stretch from a seated position is your beginning posture. Sit forward in your chair, this will give you the space to bend backward. Make sure your sitting bones are in contact with the chair, and that you are relaxed. Follow the steps above.

Side Bends

Side bending may not seem like an important stretch, but believe me, it is. This is a simple exercise you can do to lengthen your spine; I think it's a hedge against loss of height. It's also another stretch you can do to take the pressure off your vertebral disks. The back stretch opens up the disks in front. This one opens up your disks at the sides.

The directions for the side bend begin with positioning your feet shoulder-width apart. Unless you're in front of a full-length mirror you don't really know if your feet are shoulder-width apart. And

you don't usually have a measuring tape handy to plot out your position.

Here's what I do. Many years ago, someone told me to measure parts of my body to use as an impromptu tape measure. So, I know the distance between the tips of my little finger and thumb. It's called, "a handspan."

To take your own measure, place your palm down on a ruler or tape measure on a flat surface and stretch your fingers as much as is possible and comfortable. Measure the distance between the outer little finger and outer thumb. My handspan is seven inches. Knowing that, I use my hand to measure from shoulder to shoulder and get about 14 inches. Down on the floor I measure two widths and get my correct position of 14 inches. (I measure to the outside of my feet not the inside.)

Side Bend Directions:

1. Stand up straight with your feet pointed forward shoulder-width apart
2. Give your torso a little lift upward as you bend from the waist to the right with your arms flat against your sides and thighs

3. Your right arm will slide down your right leg
4. Let your head follow and you'll experience a little neck stretching too and the weight of your upper body is creating the stretch on your torso
5. Hold for a few seconds and come back slowly to your starting position
6. Do the same on the left
7. Next time, when bending to the right, raise your arm up in an arc and place it beside your ear alongside your head to give an additional stretch to your side and your shoulder joint
8. Continue alternating the stretch and do 5-10 times on each side

Hamstring Stretch

Just so you know, the hamstrings refer to a group of three muscles in the back of your thigh. They got the name "strings" because you can grab the thick string-like tendons of these muscles on either side of your knees. The hamstrings enable you to extend your hip forward to move your thigh when you walk

and allow you to bend your knee. This makes them pretty important for walking etc.

The hamstrings tend to be one of the tightest muscle groups in the body...second only to the trapezius muscle in the neck and shoulder. They get shortened and tight because we are so often in the sitting position, which creates a shortening of these muscles. If you try to touch your toes, these are the muscles that hold you back. But they can be lengthened and relaxed by some simple stretches.

Hamstring Stretch Directions:

In the beginning, you may want to stand near a chair back to hold onto for balance while you get used to doing this stretch. I stand in a doorway and hold on both sides of the door jamb as I lower myself down. I've gotten flexible enough to put my fingers on the ground and get a very good stretch. In this position it's almost impossible to bend your knees so you're really only working the hamstrings in your upper legs and also stretching out your back muscles.

1. In a standing position, cross your right foot in front of your left

2. Bend at the waist and very slowly and very gently lower your upper body aiming your forehead at your right knee. If you have back pain, don't do this stretch
3. Do not bend your knees
4. Hold for 5-10 seconds. Then slowly raise yourself up
5. Cross your left foot in front of your right and repeat the sequence
6. Do 3-4 repetitions once or twice a day

When you first do this stretch, note how far you can bend. You'll be amazed that in no time at all you are stretching your muscles enough to give you much greater flexibility and mobility.

Vary It On The Floor: If you have a back condition, don't do this stretch without your doctor's (medical or chiropractor) permission. Instead, you may be able to lie on your back and pull one thigh into your chest with your hands behind your knee. Extending your leg upward will put a stretch on your hamstrings.

Quad Stretch

Another set of muscles in the front of your thigh keeps your knees attached to your hips. If you have any knee issues, strong and relaxed quads are extremely important. If they're tight or in

spasm, the quads can put an unnatural tension on your knees throwing them out of balance. The knees are the largest joint in the body. They depend on the attachment of surrounding muscles to keep them in alignment and in control. I'm convinced that tight quads are one reason for knee arthritis.

Quadriceps Stretch Directions:

1. While standing, hold onto the back of a chair with your right hand
2. Reach back with your left hand and grab your left ankle
3. Pull in your lower leg with your heel toward your left buttock keeping your knees close together. If you have knee pain, go very slowly and gently
4. Hold for at least 10 seconds and repeat
5. You can build up to 5-10 repetitions on each side

Piriformis Stretch

This is my favorite stretch to keep my sciatic nerves happy. In 2004 when I wrote four books in a row, I sat the whole time on a chaise lounge couch. Bad move. Mostly because I forgot to put a pillow under my knees, which meant I put a continuous abnormal stretch on my sciatic nerve.

The piriformis is a small muscle deep in the buttocks that can cause, oh, so much pain if it's too tight. It's attached to the base of the spine and to the top of the thigh bone (femur). Its job is to rotate your hip laterally. It's obvious that a relaxed piriformis muscle is important for overall hip flexibility.

The sciatic nerve is the size of a rope, and it runs next to the piriformis for a few inches in the buttocks. And if the piriformis is tight it puts an irritating pressure on the nerve, which can cause pain down the leg and into the foot.

A more common cause of sciatica is vertebral disk herniation putting direct pressure on the sciatic nerve causing numbness, weakness and tingling.

Piriformis Stretch Directions:

I do this stretch when I lie down in bed at night just before going to sleep.

1. Lie on your back and cross your legs as if you're sitting in a chair
2. Grab your bottom leg with both hands and pull your knee into your chest to feel a stretch in your hips and buttocks
3. Hold for 30 seconds and repeat on the other side

4. You can do this stretch 3-5 times on each side

Questions and Answers about Stretching

The next day after first doing all these stretches, I really felt my muscles. Why should simple stretching make me think I've just had a hard workout?

The short answer is that you have had a hard workout. It didn't seem hard, but the stretches are probably working muscles that were tight and haven't been stretched in a long time. That action lengthens muscle fibers and increases circulation, which will wake up your muscles.

I remember once when I began to do neck rolls and backward bends. The next day I couldn't figure out why the muscles in the front of my neck were so sore. Just think of it as waking up your muscles but don't stretch so hard and so much that you cause pain.

Also, be aware that you should consult your doctor if you have any joint or muscle problems that might limit your ability to stretch.

I'm still not clear on how many times I should do these stretches.

It's really up to you. Most stretches are held for 10-30 seconds and repeated 5-10 times – that range can be your guide. Unless you have a personal trainer, you must use your own personal guidance system or intuition to discern how you feel after doing each stretch and ask your body if it wants to do more.

How should I breathe when stretching?

Here is some basic guidance. Take a deep breath just before you do a stretching movement and slowly let it out as you stretch. As you hold the stretch, hold your breathing for a count of 5 in and a count of 5 out. You can breathe in through your nose and out through your mouth or in and out through your nose.

WALKING MEDITATION

Since I find walking meditation so helpful in my life, I am going to direct you to the section on [Walking Meditation](#) in the Affirmations, Meditation, Prayer, and Visualization chapter of this book. For emphasis, I quote a few paragraphs here:

I'm not going to make a list of the benefits of meditation because they are much the same as prayer – giving you a greater sense of awareness and possibility in your life.

When I think of walking meditation I imagine doing it outdoors. But some people walk indoors for any number of reasons: terrain, inclement weather, or privacy.

As I mentioned I can't sit still long enough to do sitting meditation, so I practice walking meditation. It's probably the best way for beginners to start meditating. It occupies your fidgety body and gives your eyes new scenes to observe but not necessarily engage.

QIGONG AND YOGA

Both Qigong and Yoga systems are ancient, and the movements, breath patterns, and other practices are passed from teacher to student. You can search for local centers and teachers in your area if you wish to learn Qigong and/or Yoga in a group setting. However, since the advent of COVID-19, there are many beneficial and effective websites and videos to help you learn and practice Qigong and Yoga. So, immersing yourself in these movement systems is easier than ever. In this section, I'm not going to describe Qigong or Yoga exercises but direct you to links that will give you all the information you need to begin these practices.

Yoga Versus Qigong

The Cleveland Clinic compares Yoga and Qigong by saying:¹³³

*Qigong is not a **form of yoga**. Yoga's poses tend to require more strength, balance and stretching than qigong. Yoga also originated in ancient India and is not rooted in TCM.*

"As a child in Taiwan, I would see people doing qigong in the park on my way to school," Dr. Lin recalls. "A lot of them were older people. The slow, purposeful movements of qigong are less challenging to your balance. These movements are easy for most people to do, and you can modify them. People can also do chair-based qigong if they can't stand."

Qigong

The National Institute of Health's National Center for Complimentary and Integrative Medicine describes Qigong well¹³⁴:

Qigong, pronounced "chi gong," was developed in China thousands of years ago as part of traditional Chinese medicine. It involves using exercises to optimize energy within the body, mind, and spirit, with the goal of improving and

maintaining health and well-being. Qigong has both psychological and physical components and involves the regulation of the mind, breath, and body's movement and posture.

In most forms of qigong:

- *Breath is slow, long, and deep. Breath patterns may switch from abdominal breathing to breathing combined with speech sounds.*
- *Movements are typically gentle and smooth, aimed for relaxation.*
- *Mind regulation includes focusing one's attention and visualization.*

Dynamic (active) qigong techniques primarily focus on body movements, especially movements of the whole body or arms and legs. Meditative (passive) qigong techniques can be practiced in any posture that can be maintained over time and involve breath and mind exercises, with almost no body movement.

Benefits of Qigong

Here are some of the benefits of Qigong which have been studied in Western Medicine:¹³⁵

- Reduces pain
- Improves
 - balance
 - hand grip strength
 - torso flexibility
 - [blood pressure](#)
 - resting heart rate
 - rehabilitation
 - quality of life during cancer treatment
- reduces [stress](#)
- strengthens respiratory muscles
- reduces [inflammation](#)
- supports the immune system

Qigong Resources

A few examples of resource-rich Qigong websites:

Best Qigong Videos for Beginners and Intermediates:

<https://www.trueself.com/best-qigong-videos-2630284457.html>

<https://www.holdenqigong.com/blog/top-10-videos-and-blog-posts-of-2020>

<https://www.qigongforvitality.com/our-most-popular-qigong-videos/>

Qigong videos on YouTube:

https://www.youtube.com/results?search_query=qigong

One of my staff members has studied Qigong for years with the following teachers and highly recommends connecting with their material:

<https://qigong.com/> (specialty in breathwork and food healing)

<https://www.springforestqigong.com/> (specialty in healing support)

Yoga

According to most references, yoga is an ancient practice that connects the mind, body, and spirit through physical poses, breathing techniques, and meditation. Additionally:

The word "yoga" comes from the root word "yuj," which means "to yoke" or "to bind." The word itself has numerous meanings, from an astrological conjunction to matrimony, with the underlying theme being connection.

Yoga asana is the physical practice and postures of yoga.

The scientific research into yoga's benefits is still somewhat preliminary, but much of the evidence so far supports what practitioners seem to have known for millennia: Yoga is incredibly beneficial to our overall well-being.¹³⁶

Benefits of Yoga

Research shows that yoga can improve physical health by lowering [inflammation](#), aiding digestion, and increasing strength. It may also have mental health benefits, including stress relief

and improved self-confidence. Here is a list of scientifically supported benefits:¹³⁷

1. Improves Flexibility
2. Increases Strength
3. Improves Balance
4. Promotes Better Posture and Body Awareness
5. Teaches Breath Control
6. Reduces Inflammation
7. Protects Joints
8. Improves Cardiovascular Function
9. Improves Bone Health
10. Improves Sleep
11. Improves Brain Function
12. Boosts Immunity
13. Aids Stress Relief
14. Improves Mental Health
15. Reduces Anxiety
16. Boosts Self-Esteem
17. Helps With Burnout

Yoga Resources

Information-Rich Yoga websites:

<https://www.yogajournal.com/practice/beginners/yoga-for-beginners/>

<https://www.verywellfit.com/best-online-yoga-classes-3567242>

<https://www.yogajournal.com/yoga-videos/best-yoga-youtube-channels/>

Yoga Videos on YouTube:

https://www.youtube.com/results?search_query=yoga

NO MORE EXCUSES

A little bit of movement is good for everybody. There's an old Asian saying to the effect of, "a body without movement is like standing water, moldy, spoiled and rotten." We're designed to move our bodies through space. Unless you are entirely bedridden, there is always some way to get in a bit of movement, which you can build upon little by little.

One of the reasons we may have a psychological block to exercise is that we think we must devote a single, large chunk of our day to

it. Where can anyone find a half hour or an hour to do anything more than what we're doing now? But what if you put in a few minutes here and there? That's right, they all add up!

In fact, research shows that several 5-minute sessions of heightened activity followed by rest may be more beneficial than a whole hour of exercise.

So, by following these routines you can get a great workout in less time than you thought. What do you gain? More energy, improved circulation, weight loss, better health, and more confidence. This could be just a few of the benefits of increased movement. All in 5-minute chunks spread throughout the day.

The key to moving your body is to not only be flexible physically but mentally. Be ready to change your form of exercise at the drop of a hat. That's the first key.

The second key is to only do the exercises you really love and really want to do. I give you plenty of choices here, and there are hundreds of other exercises demonstrated on YouTube. So, you can't use the excuse that you don't love exercise, because if you're moving, you're already exercising.

What follows is a long list of activities you can do to make your body move. Don't be overwhelmed by the following 38 ways to

move your body. Go through the list and put a check mark by the ones that appeal to you. It shouldn't be too hard to find a dozen that you can do right in the comfort of your own home or even at work. All-in-all you end up saving time and money by not having to travel to or join a gym.

In the morning:

- Take a morning walk and bring along your 3-lb weight like I do to bulk up your biceps and triceps.
- Do some yoga stretches – Downward Dog, Side Oblique, Crescent Pose are all good stretches
- Pull out a jump rope and go at it for a few minutes
- Jump on the mini trampoline in the corner
- Try a few arm pushups with your hands on the bathroom sink as you contemplate the person looking across at you in the mirror
- Fit in a few mini squats while you swish your sesame oil, or as you brush your teeth
- Even just rising on the balls of your feet and holding for a few seconds will help exercise your leg muscles

- While showering, do Progressive Muscle Relaxation where you tense and then relax various muscles in your body
- In the shower, you can also do some neck stretches with the hot water running on your muscles to loosen them up
- When you pass by a convenient windowsill, do a runner's stretch to release your calf and thigh muscles
- As you're walking around your home be conscious of tightening your buttocks with each step
- Heighten your pace as you move up and down the stairs. Make sure you breathe deeply and never unconsciously hold your breath
- Take every opportunity to go for a swim. The best-case scenario is to find a non-chlorinated, saline pool

Out on the town:

- Don't use drive-ins. Walk into the bank or restaurant
- At the gas station take a stroll inside to pay
- Give your arms some exercise by cleaning your windows with the squeegee at the pump

- When doing errands or going to work, park at a distance to get a few blocks of walking under your belt
- When you stop for red lights, stretch your neck, do some more Progressive Muscle Relaxation on your shoulders and thighs
- In the car, have a soft ball on hand that you can squeeze to exercise your hands and wrists when stuck in traffic
- For arm exercise, carry a shopping basket instead of pushing a cart in the grocery store
- While shopping, use cans and bottles as impromptu weights, doing a few curls before you pick up the next item. (You may start a fad.)
- While waiting in lines (bank, grocery store, ATM machine) silently and under cover of your clothes, do some modified Stomach Vacuum exercises. Suck in your belly and tighten your abdominal muscles

At work:

- On the phone, you can stand up and do lunges or squats. Step forward and lunge. Or stand in one spot and do a squat

- You can also incorporate the stretching exercises from the Stretching section of this chapter
- Do push-ups in your chair. With hands on the arms of your chair lift yourself up off your seat for a few seconds
- While sitting and working, rotate your ankles in both directions
- Remember to also do your eye exercises, look away from your screen for 10 seconds every 10 minutes
- Take every opportunity to walk around the office to speak to someone instead of phoning or sending an email
- Do arm circles every hour
- Every time you go to the rest room, do a series of jumping jacks, a few side stretches and toe touching
- Go for a walk during your lunch break

In the evening:

- Coming home from work is another opportunity for a walk or even a bike ride around the neighborhood
- Bench press your laundry basket several times while carrying it to its final destination

- Put on the radio, pop in a CD, or click on Youtube.com and perform some impromptu dancing. My most fun dancing song is "Move It Move It" by Will.I.Am who wrote it for the movie Madagascar 2
- While watching TV, the commercial breaks become your personal movement time
- Look for excuses to run up and down the stairs while doing chores
- Do a few side bend stretches before bedtime. It will start you yawning and get you ready for a deep sleep
- When I lie down in bed, I do knee hugging. Cross one leg over the other, wrap your hands around the outer leg and pull them both into your chest. This is an excellent stretch for your hips, and it also tightens your abdominal muscles. Change sides
- You can also alternate stretching one leg out and hugging the other. I'm up to about 400 a day to build strength.

- Before I drift off to sleep, I do another stretch. I cross my knees and with my legs together let them flop to one side, then the other. I re-cross my knees and do it all over again

With these suggestions, you are doing your best to make sure you are getting enough movement, so your body doesn't become like standing water.

CONCLUSION

This might seem obvious to you, but for things to change, you have to change some things. This is even more important in an ever-shifting environment where it is difficult to trust what little information you receive. There is no “magic bullet” that will miraculously help you build more resilience and adaptability. But you can increase the nutrients you feed your body and consistently use one or two tools that you know will shift you into a better state. In this way, your ability to solve problems as they come up and deal with stress will increase. This is a gift you can give yourself, your family members, children, and loved ones as they go through this journey with you.

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APPENDIX A: GUEST BIOGRAPHIES

Ben Pelton

I am Benjamin Pelton, a philosopher, athlete, and mentor to many, seeking out the truths of this wonderful world we live in. I attended Florida State University to play men's lacrosse and study mechanical engineering & philosophy. While playing lacrosse I was awarded FSU's Defensive Player of the Year in 2010 and was nominated as a Team Captain. After graduating from FSU with a bachelor's in philosophy I became focused on teaching corrective exercise and human performance as a consultant. The human body is designed to move, and I have always been interested in understanding the biomechanical laws that govern our physiology. For the last twenty years I have tried to "figure out" the body's abilities to perform at high levels in athletics. I compete regularly in Brazilian Jiu Jitsu and climbed the ranks as one of the top blue belts in the world. I have attended courses ranging from Thomas Myer's Bio Plasticity to Dr. Pavel Kolar's Dynamic Neuromuscular Stabilization from the Prague School of Rehabilitation and more recently GOATA Movement Systems. In 2016 I was a part of the first class of USA certified Wim Hof Method

Instructors. Wim immediately blew me away with his accomplishments and feats of strength. Wim lit a fire in my spirit to push myself further than I ever thought possible. He changed my life for the better and is delivering a message that resonates deeply with me.

I have the same respect for Dr. Carolyn Dean and the products at RnAReSet.com. These are the only products that I can fully endorse. They complete everything I've learned about the body and its biomechanics. Integrating these formulas into my routine allows me to manage stress, move and breathe. I know Dr. Carolyn Dean's formulas are a powerful and effective way to manage my nutrition and create a happier, healthier life. To learn more, you can follow me on Instagram @benpeltonplan.

Christine Wheeler

For more than two decades, I've dedicated myself to supporting folks like you to unlock and clear mental, emotional, and physical blocks that diminish your health, vitality and wellbeing. Using energy psychology tools like Emotional Freedom Techniques (EFT) or Tapping, we'll gently navigate the events, thoughts, feelings and beliefs that have kept you feeling stuck on your journey to

wellness. And create new levels of focus for your body, mind and spirit so that you can be in a place of thriving.

My goal is to help you achieve a new sense of peace while ensuring you have this healing tool, literally, at your fingertips that you'll be able to use for the rest of your life.

APPENDIX B: JASON SMITH'S STORY

My Mental Health Journey by Jason Smith

Sometimes you just have to say "WTF!"

It's like being in a cellar, dark and musty, or a deep well surrounded by silence and ire.

It's not a choice; it just shows up. Is it caused by diet? Is it caused by injury? Is it caused by a hangover? Probably, possibly, maybe not. It's tough to pinpoint, but I do believe that each is a factor.

When I think about my personal experience with an unhealthy mental state or more commonly revered to as mental illness. I hate it when a word or phrase becomes cliché, but in our case, this brings some light to a huge struggle people face. Especially rough and tough males. We aren't supposed to be weak and the catch 22 is that this "stigma" is causing us to sink deeper into our state of depression. You are not alone. There is hope, TRUST ME!

When I think of my experience this is what comes to mind.

When it hits you, it hurts. It's lonely and bitter. Ominous. Self-medication. Self-anesthetize with drugs and alcohol.

Feel anything but the pain and darkness that you are currently feeling. Empty, alone, narrow and confined. Struggle. Anxiety. Anger. Sadness. Despair. Drowning in a small, enclosed room full of water and darkness.

Separation. Darkness overcomes you. You become the darkness, depressed. Deep scares. Happiness is a unicorn, a mythical place, or a very distant planet. Sludging through the mud and swamp land. Mass confusion. Struggle through life, emotional pain. Trauma. Pain.

I think the trouble with mental illness or mental health is we don't understand it very well. I think the spectrum of mental health issues is widespread and we are exposing it more, but it's still stuffed in the closet due to pride, discomfort, shame and guilt.

Some interesting causes are trauma, head injuries or concussions, alcohol and drug abuse, stress, and physical and mental abuse. I think it's very peculiar that people stand on their soap boxes and say, "GET OVER IT!", "Be Strong", "Get Help". So powerful, but yet we struggle with this on the reg. We struggle and we suppress it to the point it explodes, and we are left stuck in a mess or more of a shit show than when we were suppressing these emotions.

Or you can go on YouTube or DuckDuckGo, thousands of wellness modalities that are supposed to “CURE” mental illness. The thing is, you can try 999 of the 1000 modalities and not come up with something that is effective for you and helps you repair, rebuild, and find peace.

I can't say what caused yours, but I know that I have had a few traumatic experiences that exacerbated my mental illness and my struggle with finding peace. I sometimes feel that I don't belong here on planet Earth, or I just don't fit into society's ways. I look around and think that this existence has to get better. The cold fact is until you find your peace, and that could be a single modality or multi-modalities, you will continue to struggle and feel alone and sit in your pain as you look around your office or train ride to work, thinking all these people have it so much better than I. Wrong. Don't compare your internal struggles or mental illness with an assumption. This exacerbates your situation even more and you make everything worse.

This is what I know. I had a major concussion when I was young. Age 4, maybe younger, possibly 5. I struggle with this time period of my life. I was playing on the roof of my mom's car with my

brothers. One of them convinced me that I was Superman, and I could fly. I jumped and for 2 seconds I did, I flew. Then crash! The concrete met my skull with unapologetic force. BAM! I ended up in the hospital with a major head injury. Like I said earlier, I don't remember much about that day or a few years in that time frame of my life, so I know it was substantial. To top it off, there were little to zero studies on brain trauma in the 1970s especially in a small suburban hospital. Luckily it didn't mess me up too much. I had, from what I can remember, a normal 1970s childhood. Except I just didn't fit in. I had friends, I played sports, I was on the honor roll, I had crushes and girlfriends, I competed in sports and was rather successful. To the layman, I was fine. I was excelling. I was lucky.

No. I was struggling and was in pain. I was filled with hate and destruction. I was drowning and could barely keep my head above water.

Then I found self-anesthetization. Wow!! I remember the first time I got nitrous, aka laughing gas, for my Dead Heads. This was amazing. I felt free. I felt at peace. This seemed to cut the edge,

and I was “HAPPY” for once. But if you have ever done whippets, it’s short-lived, gone as fast as it came.

But what a rush. What a release. I thought about getting a shit ton of cavities, so I could keep going to the dentist. Until I had my 1st sip of alcohol. It was in those airplane bottles, and we were at a classmate’s house in 5th grade. “Try this,” he says. I put my tongue on the bottle and let the alcohol touch my tongue. It burned. But the next time I took a gulp. For the rest of the day, I felt pretty good. Not as good as the nitrous, but I felt way better than I was used to.

And so it began, my exploration of self-prescribing to escape the entrapment I was living in. We started hocking (stealing or borrowing) beers and liquor from our parents. I had some friends whose parents probably let them have it. Drinking was a way of life back then. Way more acceptable, especially at younger ages. Smoking and drinking were unhealthy, YET.

I never did drugs until college, but I was really into drinking. It worked, it was acceptable, it was easy to get. Either from older siblings or finding that guy that would buy it for you from the liquor store. We had the Old Man. He was an old man, and he would just

ask, are you 21? Yes of course. I looked 12 when I was 18. C'mon man, but at the time I was thankful. Not sure if all my friends were going through the same types of trauma self-anesthetization, I was treating myself too, but we all found each other. Birds of a feather as they say.

Now, I was dealing with some sort of faulty wiring going on in my brain from my failed attempt to fly or, let's say, a successful 1.6 seconds of flight. I think that beat the Wright Brothers maiden voyage. Then, add in the alcohol abuse starting at an early age, and my brain development ceased. I was not only dealing with my pain; I was shrinking my functioning healthy brain with alcohol abuse. Take a depressive state add a depressant and excess sugar and this is a cocktail of Fucked Up! I'm surprised I made it that far. I'm talking about age 18 not now currently.

The depression caused a self-hate, a lack of self-respect. I deprecated myself as often as I could and I drank to gloss it over until I was hung over then the avalanche of misery multiplied and mega depression set in, until the hangover wore off just enough to start drinking again. Vicious. No healing. No Help. No answers. No balance. No peace.

It's like you are stuck in a very deep, dark well. Confined and drowning. Alone and with no way out because I was too worried about just keeping my head above water, I couldn't think of anything to stop the pain and drowning, and I was definitely too cool to ask for help. The funny thing here is that I thought I was fine. Nope. I thought I was great, doing just fine. Healthy and a contributing member of society. When you are the life of the party and you can go all hours of the night, there is nothing wrong with you. You are cool and fun. A joy to be around and the guy everyone loved. Just wait till we talk about drug abuse, but I will not bore you with all that. I just wanted to let you know that I was a Dr of Pharmacy of self-diagnosis and chaos, introducing other sick friends to my solution and guide to wellbeing. I have the chills writing this, talking about how lost and buried I was in self-hatred, self-destruction, guilt, shame, anxiety and depression. I was slowly committing suicide, passively, because I was too into myself to actually be proactive and just do it. I have sat alone, distraught, and in agony many a time thinking about ending it. Easing the pain. Not having to wake up anymore in my own prison. It crossed my mind. Jumping. Taking more or drinking more to just put me at peace. End this battle of darkness, guilt and shame, pain.

Luckily my Soul didn't allow my ego to make that decision. I think my Soul was too strong, too beautiful, and too energetically contacted to allow my Ego to make that decision. My Soul was strong enough to fend off my raging EGO, to keep me moving forward and searching for answers. I thought drugs and alcohol were the answer. That they would fill me up. I thought jumping off balconies and speed were the answer. I thought change of scenery was the answer. Tried all these and didn't have much success for 35 plus years. My Soul was pushing me to sobriety and other wellness modalities that would eventually get me to a place of homeostasis or balance. That Ego was a bitch though. It didn't want to relinquish control and ended up souring relationships, poor career choices, lack of thought moves, and relocations.

At this point, the scoreboard reads: 4 major head injuries and a stroke and only one concussion attributed to playing sports.

Being active and living near water most of my life helped keep me close to the path of health. It was like I was the worst archeologist ever. Indiana Jones found everything, I was always a day late and walked right by the clues and signs. Even though I had the map, I

just missed the mark. I wasn't thinking right, I wasn't sharp, I just didn't understand or enjoy my journey. Until 2015.

This is when I started to get into wellness and what it actually is. I enrolled in a Certified Holistic Health Coach course, which lasted a year, and, oh, my, did I learn. But this was only a drop in the bucket, and the real exploration started. My eyes were open. I was able to accept teachings that seemed crazy as fuck like cold showers, meditation and eating veggies. I was on a mission. I was excited. I was not miserable, which was way better than I was.

On Christmas Day 2015 I stopped drinking. Something was calling on me to do this. Hmmmm, maybe my Soul, and from that point on, I could feel a shift in my wellness, especially the mental side. Now, I have a daily protocol that I've been working on since then and it seems to help with the struggle I had most of my life. I feel better and I don't have those episodes of despair or deep depression. I'm able to enjoy simple things in life. I'm happier. I feel blessed and part of a larger purpose and energetically connected to an amazing, beautiful energy.

I will list my daily morning ritual, but just because it works for me, it may or may not work for you. This is 7 years in the making. A lot

of trial and error, but it's been an amazing journey of self and self-discovery. If you hear of people having success with different wellness modalities, please try them. If they work, add it to your daily ritual. If not, don't worry, there are plenty more.

Wake up after 8 hours of sleep. I sleep cold. I have an ambient temperature of around 68 degrees, and I sleep on the Chili Pad cooling system at 62-55 degrees. I sleep great. I work on my Circadian rhythm. A circadian rhythm, or circadian cycle, is a natural, internal process that regulates the sleep-wake cycle and repeats roughly every 24 hours. It can refer to any process that originates within an organism and responds to the environment. These natural processes respond primarily to light and dark and affect most living things, including animals, plants, and microbes. The reason I bring this up is sleep and how important sleep is to me. I work at it, and I enjoy sleep. This is my body and mind's time to recuperate, heal and be in balance. I work on an earlier night bedtime and a daybreak or just before dawn wake up. Turn off your TVs, devices and Wi-Fi. The blue light is killing you. Get prepared for bed. It's worth it.

I wake up and pray. I find that my gratitude I have in life reflects the gratitude I have for my relationship with God and vice versa. He created us perfect in his image. Pray and be grateful, it's such a gift.

I do a meditation I picked up from Wim Hof the Iceman. He is all over YouTube. Look into his work on breathing, meditating and cold therapy. After I do my breathing/meditation, I take a cold shower. In the summer it's more like lower 60s, in the winter I can get it to high 50s. Make sure you have the cold water run over your forehead aka your frontal lobe and face, down the back of your head and spinal column. Cold showers have numerous benefits and one of those is it reduces your stress and anxiety that you process in the frontal lobe of your brain by literally cooling it down.

The frontal lobe is located behind the forehead, at the front of the brain. These lobes are part of the cerebral cortex and is the largest brain structure. The frontal lobe's main functions are associated typically with 'higher' cognitive functions, including decision-making, problem-solving, thought and attention. The frontal lobe is the slowest part of the brain to mature, continuing to create and prune neural connections until a person's mid-twenties. This means

that brain damage early in life renders the frontal lobe particularly vulnerable, potentially affecting behavior and cognition forever. I'm sure that my head trauma and alcohol abuse contributed to my maturation process or lack thereof.

Another benefit of a cold shower and this applies to us most. Reduces Depression. I used to hate the cold. HATE IT! Now I embrace it because it's been so beneficial to my wellness journey.

Here is my morning fuel protocol. This to me has been the most important change in my lifestyle. I eat better, cleaner and more organic. I try to eat 12 servings of veggies every day. I truly believe that if we work on healing our gut and digestive tract, we heal everything in our bodies. We eat terribly, we are overweight, we are toxic, we eat too much and eat too much crap. Chemicals, dyes, food additives for taste and preservation, alcohol and prescription medication are all wearing out our gut. We recuperate from the gut. We heal from the gut. If it's unhealthy or bogged down, we are out of balance and we become fat and sick. Please don't think I am hating on prescription drugs. They do help, but we as a society are over-medicated. Causing more health issues. Ever listen to a

pharma ad? Way more side effects. I have to mention this. A pill may help, but pills are no bueno. Use wisely.

I flush my system with warm lemon water. About 12 oz of water and a big squeeze of fresh lemon. This helps flush out the digestive track.

Fresh 4 oz ginger shot. I chop up fresh ginger root with a little lemon add to 2 oz of water and blend in my Vitamix. This helps boost immunity and is a prebiotic for my health gut.

I make a green smoothie. 5-7 servings of veggies with 20-30 grams of protein and 15 grams of fat.

I do drink coffee. Sometimes I add coconut oil and grass-fed butter, sometimes just black with cinnamon.

I make a hydration drink and add my mixture of picometer magnesium, picometer multi-minerals, Vitamin C, picometer potassium and picometer zinc.

I drink anywhere from 90-120 oz of water per day. I filter my water through my Berkey water filter and reconstitute my water with my mineral mixture. I also take omegas, probiotics, vitamin B complex

and vitamin D3. All these vitamins and minerals have helping benefits to anxiety and depression.

I didn't just wake up one day and start all this. I was on a journey to wellness. I have been on this journey for most of my life, but more efficiently as of late. More direct. More personal.

The journey starts the self-exploration, self-healing and self-love. I think for me the journey, which is still a work in process, is in itself the healing. It keeps my mind working, thinking and trying new and interesting modalities. Searching through all the stuff the experts have to offer. The terrible tasting, weird pronunciation, ancient, new wave, religious, non-religious are all worth a shot if it HELPS YOU! My intuition keeps me on the lookout for another modality to add to my daily routine that will keep me sharp, healthy and happy.

I don't have all the answers. I didn't come up with most of this stuff. I used my gut as unhealthy as it was, but it guided me to a routine that has me work on myself. I don't spend time worrying what is on the news or what bozo is doing what or what this or that podcast says. That's me. If you need these in your search,

please by all means, stay on your course and use what works for you.

I will search out something holistically as opposed to taking a pill or going to see a doctor. That is just me because I went that route once and it didn't work for me. If you need to talk to someone, do it. I know therapy is very beneficial. You see there are many ways to skin this cat. If you find something that works for you, like I have said, go for it. Deer antler root or swim in a frozen lake or mushrooms even the new studies on Psychedelic-Assisted Therapy. Countless ways for you to find something or many things that work for you.

The key is to get on the journey, talk to someone, DuckDuckGo search, listen to podcasts, enroll in health coaching classes, meet with a self-help group, any of these is a means to something brighter, something a little more enjoyable, something happy, something that will ease that pain and suffering you battle on a day-to-day basis. Don't take my word for it because I said it, take my word for it because I live it every day. I'm on the front line with you battling the ongoing war on mental health.

Now, someone can say that yes you have “mental Illness” and prescribe you a pharma solution, but are you getting the best possible healing for you? I can’t answer that for you. Only you can. Don’t quit something cold turkey, use appropriate steps and measures that will be in your best interest. Start your journey, holistically as God intended. Humbly, I believe nature gets it right. Human intervention gets it wrong. It’s time to take your health in your own hands. Trust your gut and nature to get it right. Use multi modalities. Most importantly know that you are not alone. There is help available for you. Just ask.

Over the years, many patients, clients, and customers of mine have said that they wish they had “found the cure” earlier. But I would caution people not to live in regret but acknowledge that the happy conclusion to their healing journey probably happened right on time.

APPENDIX C: YEAST QUESTIONNAIRE

If you answer, "Yes," to several of these questions, you should follow up with your health care practitioner and talk to them about yeast overgrowth/candida.

1. Have you, at any time in your life, taken "broad-spectrum" antibiotics?
2. Have you taken tetracycline or other broad-spectrum antibiotics for one month or longer?
3. Are your symptoms worse on damp, muggy days or in moldy places?
4. Do you crave sugar?
5. Do you have a feeling of being "drained"?
6. Are you bothered with vaginal (or penile) burning itching or discharge?
7. Are you bothered by burning, itching or tearing of eyes?

APPENDIX D: YEAST MANAGEMENT PROTOCOL

Yeast treatment can be long and drawn out, which is why most doctors don't even treat *Yeast Overgrowth*, but with the introduction of *Yeast Management* using fermented foods, a natural antifungal, probiotics, prebiotics, and Pico-Ionic silver, treatment time can be reduced and allow you to "live with yeast" instead of always being at war with it.

Here's the plan:

1. Start your *Yeast Management* with a yeast-free diet and fermented foods.
2. Make sure that you are [well-hydrated](#).
3. Add the antifungal, *S. boulardii* along with humic/fulvic acid for probiotic and prebiotic support. As with all new products, start slowly.
4. You can add bentonite clay and psyllium seed powder to neutralize toxins. 1 tsp – 1 TBSP of each with 6-8 oz of water once or twice a day, 1 hour away from food or supplements.

5. Also take 1 tsp of Pico-Ionic Silver twice a day. Silver is an antifungal and it also mops up debris so it can help neutralize die-off reactions.

Note: *S. boulardii*, beyond managing yeast helps treat IBS and other gastrointestinal symptoms including chronic diarrhea. Many of our customers do complain about various levels of diarrhea that may worsen as the body goes into detox mode.

APPENDIX E: MAGNESIUM CONTENT OF COMMON FOODS

The USDA found that 100 years ago the average diet contained 500mg of magnesium. Today we are lucky to get 200mg. That means the soil has been depleted. The following foods MAY contain the amounts of magnesium indicated but those amounts cannot be guaranteed. I contend that everyone needs to supplement with magnesium, and the best absorbed form is a picometer, stabilized magnesium ions.

Food: Milligrams per 3 ½ oz (100 g/10 tbsp)

Kelp	760
Wheat Bran	490
Wheat germ	336
Almonds	270
Cashews	267

Molasses	258
Yeast, brewer's	231
Buckwheat	229
Brazil nuts	225
Dulse	220
Filberts	184
Peanuts	175
Wheat grain	160
Millet	162
Pecans	142
English Walnuts	131

Rye 115

Tofu 111

Spinach
(boiled) 90

Broccoli
(boiled) 15

MEET DR. CAROLYN DEAN MD ND: THE DOCTOR OF THE FUTURE



Dr Carolyn Dean MD ND is the author of over 50 books including best seller *The Magnesium Miracle* and her newest book, *Magnesium: The Missing Link to Total Health (Revised)*. And, other noted publications including *IBS for Dummies*, *Hormone Balance*, *Death by Modern Medicine*, and 110+ eBooks to date. Dr Dean is committed to helping anyone understand more about nutrients, their requirements in the body, and ways to promote health and vitality in a proactive manner.

In 2014, Dr Carolyn Dean MD ND launched the RnA ReSet brand based on nutrient protocols she built through 40+ years of experience in private healthcare practice. Dr Dean's career as a medical doctor and naturopath resulted in a collection of unique, proprietary formulations that support precise applications while remaining safe for everyday use.

Dr Dean continues to provide her leadership and vision for enabling people to take control of their own health. This includes her 45+ years of educational resources including guidebooks, presentations, and a history of other audio, video, and written assets for anyone wanting to learn more about nutrients and their health.

DISCLOSURE

Dr. Dean has a creative and economic interests in the innovative products of RnA ReSet, including, but not limited to: *RnA ReSet Drops, ReMag, ReMyte, ReAline, ReCalcia, Pico Potassium, ReStructure, Pico Silver, Pico Zinc Plus, Pico Selenium, Flora ReVive, Whole C ReSet, Vitamin C ReSet, D3K2 ReSet, Omega-3 Algae A+E, ReNew Serum, ReMag Lotion Plus, ReMag Balm, Flora ReFresh*, her *PicoPets* line of products, and our agricultural product, *Mighty Mash*. For more information regarding all the *Complement Formulas*, go to the product website [RnA ReSet](https://www.rnareset.com). If you have questions, email Customer Service at support@rnareset.com. If you wish to place an order by phone, call 1-888-577-3703.

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Carolyn Dean MD ND www.DrCarolynDean.com 313

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