

WHAT YOUR DOCTOR STILL DOESN'T KNOW



ROBERT THOMPSON, MD & KATHLEEN BARNES

THE Calcium LIE II

A stylized graphic of a caduceus symbol (a staff with two snakes) is integrated into the word "Calcium". The staff of the caduceus is positioned vertically, passing through the letter 'i' in "Calcium". The top of the staff is a blue circle, and the two snakes are white with blue outlines.

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To my precious family, immediate and extended, I love you all. Without your continued support and love, life becomes more difficult. There are many ways to count our blessings. You bring much joy and immeasurable wealth to each and every day of my life.

To my children, Nathan and Tiffany, it has been a privilege beyond compare to watch you grow and to see you blossom. I am proud to know you, let alone to call you my children. Thank you for your love, your courage, and for making great choices and living lives of distinction, character, integrity and grandchildren. You make a dad smile.

To my patients and mentors for teaching me and challenging me and to my Lord for the wisdom, blessings and salvation you have given me. I am eternally grateful and thankful. May this book bring honor and glory to your name through my life.

And to my sweet daughter-in-law, Cristin, and my son-in-law Cody, I could not ask for a greater blessing of love for my beloved children. I love you and your families with all my heart. I am proud to call you my children-in-law. I am amazed and awe stricken that you are such perfect and beautiful soul mates.

—DR. ROBERT THOMPSON

For Joe, as always, with all my heart.

—KATHLEEN BARNES

Foreword

DR. ROBERT THOMPSON IS AN ENLIGHTENED PHYSICIAN.

His medical education gave him the knowledge of human physiology and biochemistry that he needed to become a competent physician. Dr. Thompson is among the elite, however, because his education did not end after graduation, but has continued throughout his career.

He became enlightened when he used his medical and scientific knowledge to surpass the knowledge of most other doctors, and formulated nutritional concepts based on basic scientific truths that are effective in treating and, dare I say, curing diseases that conventional medicine proclaims incurable.

Dr. Thompson is enlightened because of his unending dedication to helping his patients return to health and his passion for finding answers to his patients' health challenges.

Robert Thompson is a doctor in the true sense of the word. He is a teacher, as evidenced by his writings. Beyond all else, *The Calcium Lie* is intended to teach. Not only does this remarkable book teach about the intricate workings of the human body, it is also thought provoking.

The Calcium Lie can aid the average individual to understand and make sense of the complexities of the body in a down-to-earth fashion. This knowledge helps us to begin to ask questions about our health care rather than just accepting the status quo.

The Calcium Lie is a call to action to everyone who wants to become involved in and take responsibility for his own health.

Dr. Thompson's enlightenment is also demonstrated in the pioneering spirit of this book. The information contained herein is the wave of the future, because it teaches that we are individuals, and that therapeutic intervention should be based upon the individual need, and not merely a condition or disease process.

Dr. Thompson's viewpoint is certain to be controversial. It is my sincere hope that all readers, patients and physicians alike, carefully review the information offered here and recognize its value.

—David L. Watts, D.C. Ph.D., F.A.C.E.
CEO of Trace Elements, Inc., Addison, Texas

Introduction

WE ARE ALL VICTIMS OF HEALTH LIES. These lies, held with an almost religious zealotry, are quite literally killing us.

Primary among those lies is the notion that bones are made of calcium, with the dogmatic exhortation from almost every doctor on the planet that we all need supplemental calcium in order to have strong bones. This is absolutely untrue and without any reliable scientific evidence. In fact, our bones are made of at least 12 minerals, including calcium, and we need all of them in proper proportions in order to have healthy bones and a healthy metabolism. This is a “no brainer” found in every biochemistry textbook, and yet we are all programmed to believe that we need calcium.

From this scientifically unfounded “get your calcium” supposition comes a cascade of health consequences that are nothing less than devastating. In this book, we will expose The Calcium Lie.

All research confirms our simple observation. It quite simply makes sense: We must abandon the notion that we cannot have strong bones without supplemental calcium. We must reveal the truth behind The Calcium Lie as quickly as possible, and begin to correct our mineral deficiencies and imbalances by replacing trace minerals with balanced trace minerals. Bones are made of minerals, not just calcium. Calcium hardens concrete!

You must know for certain your sodium, calcium and potassium levels and get expert advice about exactly which minerals to replace and in what amounts and which to avoid. All nutritional and medical recommendations without this information are fundamentally and scientifically flawed.

This is serious stuff. Much of our civilization and the health of future generations depend on it. Please do not underestimate the significance of these truths we describe to your long-term health. This is of paramount importance. Tell everyone you know and love to take minerals, not just calcium.

We’ve written and expanded this second edition of this book from a place of passionate conviction that our collective health is at risk from The Calcium Lie and a handful of other nutritional lies to which we are all subjected.

The truths in this second edition include an update of the original text with a few new and added thoughts, more detail, more bold statements, additional new references and a new chapter. We hope what you read here will lead you to a new life of exceptional health. That is anyone’s most precious asset.

From Dr. Robert Thompson:

I am a caring doctor who went to medical school with altruistic ideas and a belief in doing the right thing and serving people. When I completed my medical training, I greeted my chosen career with great excitement about practicing medicine on the cutting edge, and doing the best job I could do for my patients.

Over the next few years, I grew increasingly disenchanted with my profession and with the uncharitable attitudes of many of my colleagues, who frequently resisted basic science and medical advances in the name of protecting their status quo. Even a local hospital where I worked was unhappy with me when some of my more advanced procedures (that included laparoscopic surgeries) resulted in outpatient, rather than inpatient, surgeries and shortened hospital stays. It really burst my idealistic new doctor bubble to learn that this hospital wanted its patients to stay in the hospital longer no matter what the trauma to the patient, because—“ca-ching”—the hospitals make more money that way. I guess I was just ahead of my time. Today, of course, outpatient surgery has become commonplace and routine as has laparoscopic surgery. For most of these procedures, the routine surgeries and profits are at an all-time high.

Finally, in 1996, I decided I was going to quit medicine. I was looking around for another career when I was notified I was chosen to be listed in an exclusive peer-reviewed directory, as one of the “Best Doctors in America.”

I was overwhelmed by the honor, and the irony, that the honor came at a time when I had decided to hang up my stethoscope for good. Maybe all that training was not a waste after all. I took it as a sign that I was to remain in the medical profession and continue to try to make a difference.

I took it as a call back to my medical school training and ideals, and to some of the basic scientific concepts I seemed to have lost in the intervening years. That was an epiphany for me, and an opportunity for me to take a new look at the way I was treating my patients.

I realized that many of my pregnant patients were taking supplements and that, in order to be conscientious about their treatment, I needed to know more about them: what was good, what was bad, what worked, what didn't, and how much to take. I began to do more extensive research to find out which ones were safe for use in pregnancy and which ones weren't.

That opened new doors for me. I began learning about herbs, homeopathics and other natural treatments. I continued to grow and evolve in this process over the next few years, helping patients in new ways, often getting the same results—or sometimes even better—with natural treatments as with prescription drugs, but with less toxicity and fewer side effects.

I soon realized that I was still treating my patients' symptoms, perhaps with less toxicity, but nevertheless, like most doctors, I wasn't treating the underlying causes of their symptoms. I began to be more aware of the impact of nutrition in this equation. That opened new insights for me about the supplements people were taking, what was true about human nutrition and, more importantly, what was not true. Eventually, I discovered The Calcium Lie, The Vitamin Lie, The Sodium Lie, The

Ascorbic Acid Lie, and other basic Nutritional Lies and I began to realize their impact on my patients' health and disease processes.

Along the way, I made many observations about what worked and what helped people get better and what didn't. As I continued to make recommendations to patients, I saw them continually getting better and overcoming their health problems, not just living with them. This is what all physicians were supposed to be doing all along. What a concept!

I was especially pleased to find ways to help my patients with type 2 diabetes and insulin resistance to overcome their blood sugar problems on a long-term basis. Were they "cured" of their diabetes? Maybe not, but what else can you call it when they have no symptoms and their laboratory tests and blood sugars remain in the normal range over many years?

I was tremendously excited about my discoveries. Unfortunately, I didn't find other caring physicians who shared my passion and were willing to listen to my ideas. Then I began attending meetings of the American College for Advancement in Medicine (ACAM) and the American Association of Anti-Aging Medicine (A4M), and another whole new medical world opened for me. In ACAM and A4M, I found like-minded doctors who realized there were better ways to treat patients who were concerned about getting patients better and who were motivated to find and share them.

I'm not a zealot. I believe there are many good elements to conventional medicine. There are good medications, fantastic surgeries and cures and amazing advancements that were not available a decade or two ago. We don't need to "throw out the baby with the bathwater."

However, our current medical system is not only exorbitantly expensive, it has created a system in which doctors are reimbursed for allowing people to get sick rather than for keeping them healthy.

There is something fundamentally wrong with a system in which an insurance company will pay to amputate the leg of a diabetic patient rather than address prevention and healing with nutritional therapies and hyperbaric oxygen therapy—at less cost. This is a travesty of everything we stand for as physicians, as Americans and as caring people.

The medical profession as a whole has become greedy to a fault, compounded by exorbitant price gouging at every level. There is simply no reasonable excuse for some doctors making hundreds of thousand dollars and sometimes millions at the expense of the people they have been chosen to serve.

The hospitals (especially the "nonprofits"), the pharmaceutical and the medical technology industries have quite literally made health care unavailable to the average person. Even insurance companies have struggled to keep up with the exorbitant prices. The system is broken at almost every level. Maybe we should require all physicians to get a salary like those who serve our military based on rank and level of training. Something has to change. Too many people are suffering.

The lack of accountability for poor results has been largely overlooked in the medical

profession of the U.S. The United States is now 46th in men's mortality with life expectancy of around 76 years, 47th in women's mortality with life expectancy of 80 years, and the U.S. has dropped to 34th in the world in infant mortality, a drop from 23rd ten years ago. In spite of all our high-risk obstetric and perinatal care and all the new technology, specialists and perinatal care, the U.S. is the absolute worst country in the industrialized world in first-day infant mortality.

If our seniors make it to 85 years of age, they have a 50 percent chance of having dementia and not knowing it. Even more worrisome, there has been an increase in maternal death in childbirth in the last decade for the first time in 50 years. We are also among the worst in the world in preterm births with 1 in 8 babies born before full term.

Nearly every disease is increasing:

- Based on the current rate of increase in autism, there will be *no* normal male babies born in the U.S. by 2030.
- The current rate of diabetes increase suggests that the disease will have stricken 90 percent of our adult population by 2030.
- Autoimmune disease now affects over 150 million of our citizens and increases every year.
- The number of children with life-threatening allergies has increased over 1000 percent.
- Toxic superbug bacteria are literally eating us alive.
- Cancer keeps increasing in frequency every decade unabated by our medical profession or its leadership, which seems to be stuck in protecting the status quo, the Almighty Dollar. Just look at the exquisite facilities for the treatment of cancer patients, all the new buildings, all the incredible technology for treating this disease, the expensive experimental drugs, the multimillion-dollar radiation therapy centers, and we easily see, cancer is big business. Cancer now affects nearly 50 percent of our population as does heart and vascular disease.

These are just a few of the most important health problems we face.

Obviously, our health is important to us. Our drug company-driven health care industry in the U.S. spends more than three times as much on our health care as any other developed country in the world (not including nutritional supplements) for what I would consider dismal and embarrassing results.

These statistics do not lie. They keep getting worse. That alone should be a clue we are going in the wrong direction. Health care costs in the U.S. are over \$2.8 trillion and increasing every year. This is big business! It is nearly five times what we spend on our national defense.

Unfortunately, the nutrition industry also has its flaws. Its focus is largely about sales. It

quite similar to the pharmaceutical industry in many respects, but once again, there are some amazingly effective supplements on the market today.

Physicians need to educate themselves about nutrition and learn to make a real difference in their health and their patient's health before it is too late. First, physicians must truly care. Rarely does the all-too-frequent commercial admonition to "ask your doctor" really get an educated answer. More often, it gets an uninformed attitude or belief espoused with ignorant arrogance. The physician most often remains ignorant about these matters by choice.

Supplements can produce good results for you if you take the right ones. There is also a tremendous waste here. Exorbitant amounts of money are spent on supplements that have little or no nutritional value or health benefit. Even more important, the best supplement in the world will not be as effective or will not work at all if the basic nutritional needs as outlined in this book are not being addressed or are being done so incorrectly.

I realized that, just as I would try to pick out the best medication for treating a medical problem, I needed to be accountable for trying to help my patients pick out the best supplements to make up for the tremendous nutritional deficiencies in our food and to do so in ways that change our health for the better and in ways that are measurable. Most patients would prefer that their doctors discover and treat the underlying causes of their disease rather than treating the symptoms. Unfortunately, some patients just want a pill to treat their symptoms; they are not really motivated to get better. Being healthy is a choice and a responsibility, not a right.

Your health is your most valuable asset. Obviously it is important to us, we spend exorbitantly on it. But we must take accountability for our results, which at this juncture are quite dismal. We must begin to apply the preventative information we know, and as presented in this book.

To keep doing the same things and expecting different results is insanity. To accept the current downward health trends is just plain unacceptable.

In the end, patients and physicians are going to have to realize that withholding care and rationing of care are likely to become commonplace because, as a society, we simply cannot afford to pay for all the health crises we are developing as our population ages. We must change our collective health now to decrease our future costs in financial and personal terms. We must carefully protect ourselves as best we can from nutritional deficiencies, imbalances and toxins or suffer from even worsening health statistics.

Colleagues and patients began to encourage me to write this book more than six years before the first edition of *The Calcium Lie* was published.

This message is so important, that it has caused the book to keep increasing in sales without an agent, without public appearances, without anything except an important message spreading from person to person.

Now, here comes the second edition. As in the first edition, I am putting this information on

there for patients and physicians alike to learn from it and grow into greater health awareness. There are many books out there; however, we believe this one is unique and profound. Since our first edition, an increasing body of research has confirmed almost every claim we have made. Much of the information we discuss has already existed as fact in various references, but has apparently been ignored. This book puts the most important of these facts together. It literally “connects the dots.”

The impact of *The Calcium Lie II* (as was the first edition, *The Calcium Lie*) is huge in terms of its potential impact on health care worldwide, now and in the future. Reversing many long-held beliefs, it represents fundamental changes in medical practice recommendations that can’t take place fast enough.

To the best of our ability, we have made an attempt to provide truth, facts and reliable information in simple terms, and in ways the average person can understand.

My coauthor, Kathleen Barnes, and I have written this book together, although much of it is in first person based on my experience.

Kathleen Barnes is a health journalist with great depth of experience, not only in conventional medical research and terminology, but through the passion she has had for natural health for more than 30 years. She is author or editor of 20 books, most of them on natural health subjects, and she wrote a weekly natural health column for *Woman’s World* magazine for more than six years.

Her ability to help translate complex medical terminology into simple and easily understandable terms has helped me to stay on the “straight and narrow” when I tend to get too technical in my concepts.

If you’ve read this book and it resonates with you, tell a friend. Give a copy to a friend. You may be saving a life.

We invite you to copy the last chapter of this book and give it to your doctor, with our blessing. Better yet, buy a copy as a gift for your doctor. You and your fellow patients will reap the benefits if your doctor can be persuaded to invest the few hours it takes to read this book.

We wish you all the best in your quest to maintain and regain your health. If you apply the principles in this book, we have no doubt you will succeed.

—Robert Thompson, M.D., Soldotna, Alaska

—Kathleen Barnes, Brevard, North Carolina

Minerally Bankrupt

THERE'S A BIG LIE THAT HAS SUCKED US ALL IN, consumers and medical professionals alike. That Big Lie is killing us.

What's the lie?

It started with a wild notion that calcium is essential for strong bones. Nearly all of our doctors and most of us have bought into this "Calcium Lie," hook, line and sinker. We were all led to believe that unless we get loads of calcium, our bones will break and crumble to powder. It's not true. It's never been true and basic science taught in every university in the world shows us the error of this belief system.

Before we go any further, let us tell you that calcium is only one of at least 12 minerals that build strong bones.

If you take calcium to strengthen your bones and you already have an excess of calcium in your body, you are signing your own death warrant. Think of it like this: **Calcium hardens concrete**. Imagine what it can harden in your body! Excess calcium can cause:

- Kidney and gallstones
- Arterial plaque
- Bone spurs
- Calcium deposits in tissues other than bones
- Brain cell dysfunction, brain shrinkage and dementia

The story behind The Calcium Lie

What caused us to buy into The Calcium Lie and how are we paying for the error of our ways? Here is the story:

The invention of the refrigerator was the beginning of humankind's modern health crisis.

In 1876, the first practical refrigerator was invented and refrigerators became common and available by the turn of the century.

So why did this cause a health crisis for humankind?

The answer is simple: We stopped using sea or rock salt to preserve our meat and other food. We thereby robbed our bodies of the essential minerals in that salt that we need to survive and thrive.

(sea salt contains perfectly balanced ionic trace minerals). And henceforth, generation after generation has experienced declining tissue mineral levels.

Medical science has flourished in the past century with advances ranging from the invention of synthetic insulin to antibiotics to CAT scans, MRIs, robotic surgery, joint replacement and many more technical advances.

These medical miracles may all have their places, but without the basic building blocks of nutrition that we need to maintain, sustain and repair our bodies, we humans are never going to find the vibrant health that should be our birthright.

At the moment, this is a squandered birthright. However, we can begin to regain our health by simple and affordable nutritional means. In the process, we can reduce, successfully treat and even eliminate some of the greatest health challenges of our time including: obesity, diabetes, cancer, atherosclerosis (hardening of the arteries and heart disease), hypertension, hypothyroidism, osteoporosis, depression, migraines, dementia, many autoimmune diseases and many more illnesses.

How? The answer is so simple it will surprise you.

All we have to do is add back minerals into our diets daily in the forms of natural sea salt, rock salt and ionic balanced trace mineral supplements. We need to add minerals to our food and use them in supplemental form. We desperately need to put trace minerals back into our bodies every day, every way we can, from now on for the rest of our lives.

We must begin immediate and specific corrections of the mineral levels that are already out of balance based on reliable scientific measurement. The best form of this measurement is by reliable HTMA (hair tissue mineral analysis).

We also must begin to use whole-food vitamins only along with the correct minerals for individual needs. Minerals and whole-food vitamins are the basics. Without these basics, nothing else really matters.

A little painless biochemistry

Please bear with us for a few paragraphs while we review with you the basic science that underlies the astonishing shortsightedness on the part of humankind and specifically on the part of the medical profession. We have all failed to understand and recognize the importance of the basic biochemistry that lies at the heart of the medical conditions that plague modern humans.

You probably already know that our bodies are mainly water. On the average, 72 percent of your body weight is water, pure and simple. If you weigh 150 pounds, you have 108 pounds of water in your body. This is a basic premise of our physiology: Anything we put in our bodies MU.S.T be water soluble or have a specific transport mechanism to be absorbed.

The remainder of your body weight is minerals: all 28 percent of it. For a 150-pound person, this means you're carrying around 42 pounds of a life-giving soup of 76 ionizing essential and trace

minerals, ranging from the commonly known calcium, magnesium, sodium and potassium to the more esoteric chromium, manganese, selenium and copper, to the more rare trace minerals like lithium, rubidium, cobalt, germanium and molybdenum, to name a few.

Bear with us. This is getting exciting.

Now, the planet's oceans and salt beds contain *all* of the minerals and trace minerals we need to be in perfect health.

True sea salt and rock salt contain all of the minerals in the *exact* proportion that our bodies require (except sodium; more about that later). Quite simply, these minerals are necessary for every single body function to work: biochemical, electrical, chemical and physiological.

We don't know about you, but we find this awe inspiring, miraculous and perhaps one of the strongest scientific arguments for the existence of an intelligent creative force that is beyond our comprehension.

We're going minerally downhill

Getting back to the refrigerator, when we stopped preserving our food with naturally occurring sea salts, we became progressively deficient in some, if not all, of those essential minerals. Because a mineral "fingerprint" is passed from mother to child (more about that in Chapter 6), each generation has become progressively more deficient in these essential minerals.

At about the same time salt was "purified," humankind in all of its wisdom began to severely deplete the soil in which we grow our food. The introduction of chemical fertilizers actually further robbed and depleted the soil of its nutrients.

We also began to build huge dams to control and reduce natural flooding. We might think that this was a good idea, but it wasn't necessarily so, since floodwaters actually carry essential mineral nutrients back into the land. Plants grown in these mineral-poor soils were increasingly unable to extract the nutrients into their produce and bring them to our tables. Without certain specific mineral vitamins cannot be formed (more about that in Chapter 7). In short, vitamins cannot be produced or work without minerals.

In 1936, the U.S. Senate actually warned the population that our soil was seriously depleted of minerals. The warning was based on research from such prestigious academic institutions as Yale, Rutgers, Johns Hopkins and Columbia in conjunction with the U.S. Department of Agriculture.

Dr. Charles Northern, one of the lead researchers in these projects, issued a prophetic warning at the time: ". . . Countless human ills stem from the fact that the impoverished soil of America no longer provides plant foods with mineral elements essential to human nourishment and health. Millions of acres no longer contain the valuable trace elements . . . It is not commonly realized, however, that vitamins control the body's appropriation of minerals, and in the absence of minerals they have no function to perform. Lacking vitamins, the system can make some use of minerals, but

lacking minerals, vitamins are useless.”

Decades later, Dr. Northern’s warning was underscored by Dr. Linus Pauling, winner of two Nobel prizes, who is credited with saying, “You can trace every sickness, every disease and every ailment to a mineral deficiency.”

Clearly the warnings fell on deaf ears.

Since then, the problem has gotten worse. A 1992 Earth Summit report placed the decline in mineral content of North American soils at 85 percent and seven years later, in 1999, a Rutgers University study revealed the mineral content of commercial fruits and vegetables was less than 1 percent of normal compared to vine-ripened organic produce, and the trace elements necessary for vitamin production were completely absent. Since the mineral content determines the vitamin content, our commercial produce has almost no nutritional value! As you will hear repeatedly in this book, we have to supplement our food and do so correctly in order to be healthy.

It’s no wonder that we are sick when we take into account the facts that much of our produce has often been shipped thousands of miles, picked before prime ripeness, grown in nutrient-deficient soil and loses nutrients during shipping.

Organic foods *may* have lower levels of organophosphates (pesticides and herbicides), but not increased nutritional value unless they are vine ripened. We’ll go into the benefits of vine-ripened and organic foods in coming chapters, but it’s important to know now that the mineral content of vine-ripened fruits and vegetables is substantially higher than that of commercially produced foods, so go vine-ripened, fresh, raw, unheated, fresh frozen or dried fruits and vegetables and go organic as much as you can! In winter, you can get some of your needs from raw nuts and seeds, but it will almost certainly be necessary for you to take a balanced ionic trace mineral supplement and the real vitamin C (not as ascorbic acid).

Mineral disruptors

Bromine is another serious issue in terms of food and medicine. Bromine has been implicated in thyroid disease and cancer, breast cysts, fibrous changes, cyclic tenderness and cancer, prostatic inflammation and cancer, pancreatic dysfunction and cancer, and ovarian hormonal dysfunction, ovarian cysts, endometriosis and ovarian cancer. These problems have been attributed to the bromine’s interference with iodine functions, which most severely affects the endocrine gland system.

Bromine has been added to our flour for over 30 years (except King Arthur brand flour and a few others). Bromine as methyl bromide is also sprayed on our fruits to stop mold from growing, especially on berries, and it cannot be washed off. It is added to many canned foods, bottled foods, carbonated drinks, energy drinks and bakery products as a leavening agent and as a food preservative. Bromine is also often used in swimming pools and spas to kill bacteria instead of the more volatile, less toxic chlorine (chlorine evaporates faster).

Animal studies have shown that hypothyroidism (low thyroid function) is a result of eating foods containing bromine. Worse yet, the toxicity of bromine is increased in pregnant women, so be particularly careful if you are pregnant or planning on becoming pregnant.

The U.S. Department of Agriculture (USDA) mandated the addition of bromine to flour in 1980 despite the fact that bromine has been shown to cause apathy, decreased concentration, depression, headaches, irritability, delirium, schizophrenia, psychomotor retardation and hallucinations as well as the endocrine cancers as suggested above.

The only antidote for bromine is increased iodine intake and increased intake of chloride or sodium chloride (salt). The kidneys have a difficult time in eliminating bromine when the body is deficient in sodium chloride, which extends the time it takes to eliminate the bromine by more than 800 percent in laboratory animals.

Table salt is a health destroyer

Then came the final blow: Early in the 20th century, more “scientific” advances brought us pretty white, convenient table salt that was composed only of two minerals: sodium and chloride or sodium chloride. It was a fine and granular salt. It was convenient and didn’t clump in humidity like sea salt. Scientists of the time apparently considered the other 74 ionizing minerals present in rock salt and sea salt to be unnecessary, unsightly and inconvenient due to humidity causing clumping, so they were “purified” out.

The result: The first evidence of our grave error came in 1924 when we began to see iodine deficiency within our population leading to the widespread development of thyroid goiter and increasing mental retardation (enlargement of the thyroid gland and thyroid hormone deficiency and “cretinism”). This led to the addition of another mineral to sodium chloride, as potassium iodide and iodine, and our pretty white table salt became “iodized salt.” This should have been our first clue that many other vital nutrients were missing. But we failed to recognize the signals. Our collective downhill slide into widespread mineral deficiency began to accelerate.

Our bodies began to desperately seek the minerals we need to survive, to the point where they even drew on similar-acting minerals to try to duplicate the missing nutrients, actually substituting for the minerals needed. This is the Thompson-Döbereiner principle of mineral substitution. (See Chapter 3)

The Calcium Lie in brief

The Mineral Lie was the first of many lies. The Calcium Lie, which is an outgrowth of the Mineral Lie, has led us to a host of health problems of untold proportions. We’ll go into them in greater detail in the coming chapters, but here is the foundation of The Calcium Lie:

Most people, even many medical professionals, began to believe that bones are made

calcium. As we've said before, our bones are actually composed of at least 12 minerals. One of them is calcium, but a proper balance of all these minerals is essential for bone health, strong bones and the prevention of osteoporosis. By the way, osteoporosis is defined as a loss of minerals from the bone, not a loss of just calcium. Remember, calcium hardens concrete, not bones!

Our doctors told us we needed more calcium to keep our bones strong, so we started popping calcium supplements, adding calcium to many of our foods and we were told to drink at least two glasses of calcium-rich milk every day. This false belief also commonly leads nondairy consuming individuals to "fortify" with extra calcium in their diet.

This gross oversimplification for the apparent benefit of the dairy industry's (The Dairy "Give Your Calcium" Lie) is similar to The Mineral Lie, The Vitamin Lie (Chapter 7) and the Iodine Story. What we've sacrificed in the name of simplification and convenience has led us to serious errors and the propagation of outright lies in an approach to health that has taken a devastating toll.

Ask yourself, what are your bones made of? What builds strong bones? What is osteoporosis? a loss of what from the bones? Almost everyone, including educated medical personnel, dieticians and even physicians, will all answer, "Calcium." That's The Calcium Lie.

This is a big mistake! We are so programmed to believe that our bones are made of calcium that it has almost become dogmatic.

Here's the truth: If you take calcium supplements and eat calcium-rich foods (probably on the recommendation of your doctor), you'll build up excess calcium in your system coupled with increasing mineral deficiencies and imbalances that will help cause plaque in arteries, kidney stones, gallstones, bone spurs, osteoarthritis, hypertension (high blood pressure), thyroid hormone resistance or what I have correctly described as type 2 hypothyroidism, obesity, type 2 diabetes, brain shrinkage and dementia and many other diseases we'll address in this book.

When we took the unrefined salts like sea salt and rock salt out of our diets, we lost about 10 percent of the nutritional value of our foods.

Incorrect suggestions to limit sodium intake, even as sea salt, increased our mineral deficiencies. Adding calcium to our diets to try to correct multiple mineral deficiencies and prevent or treat osteoporosis won't help. This is a failed and incorrect hypothesis. Taking calcium alone will actually make our mineral imbalances worse. Excess calcium causes more mineral deficiencies and creates mineral imbalances leading to a downward spiral of numerous medical problems.

In addition, calcium doesn't significantly improve fracture risks from osteoporosis and calcium excess leads to a myriad of other nutritional problems, including nutrient digestion and absorption issues and multiple diseases.

Our belief that calcium is the essential element for strong bones is an erroneous idea that has turned into an outright lie. Today nearly all of us believe we need extra calcium to have healthy bones and to prevent osteoporosis. More is better, so we add calcium. It is added to everything from orange

juice to sports drinks, cereal, baby food, soy-based drinks and pasta. The list is endless.

We need minerals. We need *all* of them, not just one mineral.

Worst of all, we feed our children calcium-rich milk in the mistaken belief it will give them strong bones. By doing this we are subjecting them to hardening of the arteries later in life, hypothyroidism, hypoadrenalism, autoimmune disease, allergies and even obesity. We can all give thanks to the dairy industry's advertising for that lie.

[BEGIN INSET]

FROM DR. THOMPSON

Over the last 18 years, I have continually been faced with The Calcium Lie. Lay folks can be forgiven for their ignorance of biochemistry, but it is appalling when I encounter physicians and dieticians who hold the same disastrous misconception. In fact, I've repeatedly encountered doctors who tell me they are going to continue to recommend calcium and the calcium-elevating hormone vitamin D to their patients, even after they are reminded of the basic biochemistry of our bodies. They doggedly go back to what they want to believe.

This is what the drug company-sponsored research, public advertising and the dairy industry have preached to us with a religious fervor. This is programming personified, intellectual dishonesty or just downright ignorance. Could these so-called protectors of our health be practicing a religion, not a science? To ignore these basic facts, after one is made aware of them, is most certainly intellectual dishonesty.

The medical profession must abandon the error of recommending calcium without knowing if it is warranted.

"Get your Calcium" is a failed hypothesis. Bones are quite simply not made of calcium alone. Calcium should no longer be considered the treatment for osteoporosis. We must replace our mineral deficiencies with balanced ionic trace minerals.

In the process of completing a medical education, the average physician has taken at least four six-hour courses in chemistry, organic chemistry and biochemistry. This is sufficient for even a single one of them to understand far more than the essentials of biochemistry and human physiology. But for some reason, doctors choose to be programmed, to quit thinking, to conveniently "forget" or simply not to absorb these scientific truths. Could it be that their own mineral deficiencies have affected their thought processes or their backbones?

Of course, I'm being a little facetious here, but The Calcium Lie is the result of selective and misleading advertising and biased and flawed research that has deceived our country and our medical professionals and the world.

Two “prominent” physicians at a hospital where I worked attacked me over the first edition of this book and did so admittedly without reading it and without examining a single reference. This is a sad, but true story. They chose to remain ignorant and to maintain their false beliefs, all the while disparaging me personally for speaking out and disagreeing with me without knowing what it was specifically that they were disagreeing with. This is truly shameful.

The cost of *The Calcium Lie* has been enormous. It has cost us our health and that of the coming generations.

I am amazed at the degree of mineral deficiency in our populations all across the earth. I now have patients from Australia to the Netherlands and everywhere in between, so I know these mineral deficiencies and imbalances are worldwide. Today, it's worse than ever in our younger population. Yet, the American government and many of its “intelligent” organizations and agencies still push the idea that we all need one to two servings of dairy products or a calcium supplement every day.

About 90 percent of us do not need any extra dietary calcium at all! Since dairy products are the major sources of dietary calcium in the Standard American Diet (SAD for short), this opens the dairy industry to suspicion.

When will we ever forget our programming? Please press the “delete” button in your mind to erase the calcium obsession and replace it with the idea that minerals are your body's greatest need after its need for pure water.

My goal is that, after reading this book, at a minimum you will stop taking calcium supplements and start taking balanced ionic trace minerals and spread the message as fast as possible to those you love and care about.

[END INSET]

The U.S. government, our research institutions and most of all our doctors, should have instantly grasped this simple biochemical truth: Too much calcium causes an imbalance of minerals in the body. This leads to an accumulation of calcium in the tissues. This calcium excess not only causes huge changes in our intercellular (between the cells) metabolism, but it also leads to calcium deposits in the intracellular (inside the cell) spaces. These calcium deposits form gravel-like plaque throughout our arteries, kidney stones, gallstones and joint deterioration. Excess calcium also accelerates brain aging and causes impaired memory, brain shrinkage and dementia.

Yes, we do need some calcium. For most people, the calcium in balanced ionic trace mineral supplements is totally adequate and scientifically correct. Yes, calcium is still important, but most of us get far too much of it. This imbalance is causing us to take more medications in order to treat the mineral deficiency-related diseases caused by these mineral imbalances. This includes increases in all diseases of aging, cancer, stroke, type 2 diabetes, obesity, metabolic syndrome, type 2 hypothyroidism, depression, anxiety, insomnia, migraines, circulatory diseases, hypertension, heart disease, immunodeficiency, and osteoporosis.

compromise, dementia and many more health problems.

What are we doing? We are slowly turning ourselves into concrete statues. Remember calcium hardens concrete!

Why have we been victimized by this illogical thinking? Is it false and unscrupulous advertising, a vast conspiracy, special interest lobbying groups, capitalism gone awry or government complacency? We have no answers to these important questions, but our current national state of health is living (or perhaps dying) proof that this has happened to our collective psyche. The proof is in the pudding. We believe rational and intellectually honest humans can deduce the truth and realize the error of the “get your calcium” message.

We simply must change this message to “get your trace minerals.”

Calcium and adrenal gland function

Here comes some more biochemistry. Please bear with us!

Too much calcium causes the adrenal glands to be suppressed in order for the kidneys to hold on to the necessary magnesium in an attempt to keep these two minerals in balance. This adrenal suppression results in sodium and potassium being continuously excreted into the urine in large amounts, draining intracellular stores of these important minerals, even though our bodies are desperately seeking additional sources of these two essential minerals. Sodium is needed for stomach acid production, protein digestion, for facilitating transfer of glucose and amino acids into the cells of all our organs and tissues, except fat cells. Potassium is essential for thyroid hormone function and helps maintain cell membrane electrical potential.

These essential minerals are critical to ensure a steady heartbeat so that muscle and nerve fibers will fire when they are needed. They also insure that blood pressure remains stable. It is no contention that most all atrial fibrillation (commonly called Afib) is caused by or directly related to these chronic mineral imbalances and deficiencies. These mineral deficiencies and imbalances lead to electrical failure in the electrical conduction cells of the heart. It can be induced over time by depriving these cells of minerals with bisphosphonate drugs used to treat osteoporosis. Over time these drugs can cause Afib as a downstream effect from robbing the body and especially the heart of the mineral stores it needs because the needed minerals are being kept in the bone. This problem can be prevented with adequate balanced trace mineral replacements that will help correct the imbalance and prevent the deficiencies.

Excess calcium and the resulting deficiencies in sodium and potassium cause a failure of the cell membrane electrical potential (CMEP) and this severely limits energy production in the cells with far-reaching health consequences. The calcium, potassium, sodium and magnesium balance inside and outside our cells is critical to life and health and is maintained by this electrical potential at the cell membrane.

Specialized pores in the cell membrane help move potassium into the cells, where it is bound to the protein molecules imbedded in the cell membrane. Sodium is moved out of cells, and potassium into the cells, with the help of a microscopic electrical charge. This same electrical “pumping” mechanism that moves sodium out of the cells brings glucose, amino acids and other nutrients into every cell in our bodies along with sodium, except fat cells, which absorb glucose directly without the help of sodium.

It’s not hard to imagine what happens when there is not enough sodium and potassium to create this electrical membrane pumping system. The body’s ability to get amino acids and glucose into all its cells is severely limited (except fat cells, which still absorb glucose and continue to grow). This electrical potential membrane failure causes many other cellular metabolic failures that have long-reaching consequences. Without these amino acids, your body cannot grow and repair itself. Without glucose, your cells have no fuel for energy. We must have electrons donated by minerals for every biochemical reaction that takes place in our cells. Thus mineral deficiency creates serious consequences for your health and your whole body.

In my practice, I’ve discovered that the average patient has only 7.5 to 15 percent of the normal intracellular sodium and potassium content in spite of blood tests that show “normal” levels. That’s why I tell patients with confidence, based on tissue mineral analysis results, that they are making a big mistake when they boast that they “hardly eat any salt.” I call this The Sodium Lie. More than 90 percent of us need *more* sodium. Only HTMA testing can tell you for sure.

Go ionic

If you are adding supplemental minerals to your regimen, be sure they are balanced ionic minerals. These are the only ones that are water soluble in your water-based body. They are the only types of minerals with an electrical charge that allows them to move freely into the cells where they can participate in beneficial cell function and help to maintain the all-important cell membrane electric potential. (More about this in Chapter 4.)

In the presence of enzymes, ionic minerals allow trillions of chemical reactions to take place in our bodies every second, at a relatively neutral pH of 7.4, and a consistent temperature of 98 degrees Fahrenheit. This is quite simply a miracle.

Ionic minerals are the most plentiful form of minerals found on earth. They are found in a fresh water, inground deposits in places where oceans once existed and, of course, in the oceans themselves. All fresh water tables on earth have specific fingerprints of approximately 55 ionic minerals.

Fresh water makes its way to the ocean through a wide variety of mineral strata. As our water finds its way to the sea, it continues to pick up minerals, eventually forming the great rivers that empty into our oceans, which are the world’s “great mixing pot” of all ionic minerals in salt form.

These oceans (and sea salt deposits from dried ocean beds), by some miracle, contain a supersaturated solution of all the minerals found in mammals and humans in the perfect balance and concentration we need for good health, except sodium. (More about that later.) Sea salt has all the ionic minerals and trace minerals we need for good health.

You may have heard of colloidal minerals. Some misinformed people have pushed them as the be-all and end-all of human nutrition. They are dead wrong. You will be too, if you listen to them.

Think about minerals like iron or copper or even chalk-like calcium. How can you get these heavy molecules into your body?

It's time for another painless biochemistry lesson.

Remember what we said earlier about your body being 72 percent water? The *only* way for your body to absorb and use minerals is for them to dissolve in water with an electrical charge, in other words, become ionic. It is simple science. No matter how much a mineral may be mixed, pulverized and powdered, or derived from decayed plant materials (sometimes called colloidal minerals), which by definition don't dissolve, don't conduct electricity and don't cross cell membranes easily if at all, can't be absorbed. There is no way on God's green earth that your body can use this form of mineral effectively.

These solids and suspensions, no matter how small they are, cannot pass through cell membranes or conduct electricity, so they are of no use to the body.

In fact, colloidal minerals can even be harmful because their mineral residues can end up between your cells, or in your bloodstream, clogging up things and generally getting in the way. Eventually, these mineral residues become permanently deposited between the cells, causing inflammation, cell compression, peripheral vascular disease, atherosclerosis, heart disease and stroke. That's how these substances escalate the disease processes they are touted to treat.

The best example of these harmful mineral supplements is colloidal silver, which over time will accumulate permanently between your cells, including the skin, causing it to look black and tarnished (the oxidation process of silver). These so-called "nutritional supplements" simply don't dissolve, don't conduct electricity, don't cross semipermeable membranes and their byproducts have to accumulate somewhere. Their internal use should be completely abandoned or prohibited for humans.

Never, ever, take colloidal minerals! There is simply no real benefit and significant potential for harm.

You may also have heard of chelated minerals. These types of fine mineral powders bonded with amino acids do have their place. They do allow varied amounts of absorption. Chelated minerals can be important when a specific individual mineral deficiency has been identified and needs to be corrected. Routinely taking vitamins or supplements that contain chelated minerals, however, may cause problems, especially if those specific minerals are already in excess in the body. So, you still

sample content of The Calcium Lie II: What Your Doctor Still Doesn't Know: How Mineral Imbalances Are Damaging Your Health

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