

The Magnesium Manual: *The Forgotten Mineral Every Body Needs*

Missing magnesium in our food affects the whole family

By Robert Redfern

**Edition
2.03**

About Robert Redfern

Your Personal Health Coach

www.MyGoodHealthClub.com



Robert Redfern (born January 1946) has helped hundreds of thousands of people in over 24 countries through online health support websites, books, radio/TV interviews, and his nutritional discoveries. His new series of books brings this work together in an easy-to-read format that everyone can follow to help resolve their chronic health problem – once and for all.

Robert's interest in health started when he and his wife Anne decided to take charge of their family's health in the late 1980s. Up until 1986, Robert had not taken much notice of his health – in spite of Anne's loving persuasion. It took the premature death of his parents, Alfred and Marjorie, who died in their sixties, to shock Robert into evaluating his priorities.

Robert and Anne looked at the whole field of health, available treatments, and the causes of health problems. They found, from doctors researching the causes of disease, that lifestyle and diet were the most important contributions to health. Robert and Anne changed their lifestyle and diet and, together with the use of **HealthPoint™** acupuncture, the improvement to their health was remarkable.

As well as good health, they feel and look younger and more energetic than all those years ago – before they started their plan. At the time of printing, Robert, aged 75, and Anne have every intention of continuing to be well and looking younger, using their unique understanding of Natural Health.

**ROBERT REDFERN:
YOUR PERSONAL HEALTH COACH**
Provides step-by-step guidance on:

Essential Magnesium Therapy:

*Correcting Magnesium Deficiency
to Remedy Imbalance and Disease*



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From the Publisher:

This book does not intend to diagnose disease nor provide medical advice. Its intention is solely to inform and educate the reader in changing to and living a healthy lifestyle.

Disclaimer: Product recommendations may change as current research is updated. Products and packages offered on websites may have some adjustments not yet reflected in this book but still have my recommendation.

Warning: Some information may be contrary to the opinion of your medical adviser. It is not contrary to the science of good health.

Table of Contents

We can't live without it	6
The top 10 magnesium health studies, explained	7
Magnesium deficiency destroys good health and disrupts vitamin D	9
3 good reasons why magnesium is missing	10
Short-term symptoms of magnesium deficiency to pay attention to	11
Long-term symptoms of magnesium deficiency to take seriously	12
Warning: Calcium and magnesium deficiency do not mix	13
The symptoms you can't ignore	15
Here's how magnesium helps your body start healing	16
Magnesium in the diet: Here's where to find it	17
Really Healthy Food Pyramid: Garden of Eden	18
After decades of poor supplement absorption -- here's what works	19
How to get more from your magnesium	21
New magnesium range: Something for everyone	22
Daily Magnesium Rehabilitation Plan	30
Find the magnesium that fits your family	32
References	34
Recommended books	35

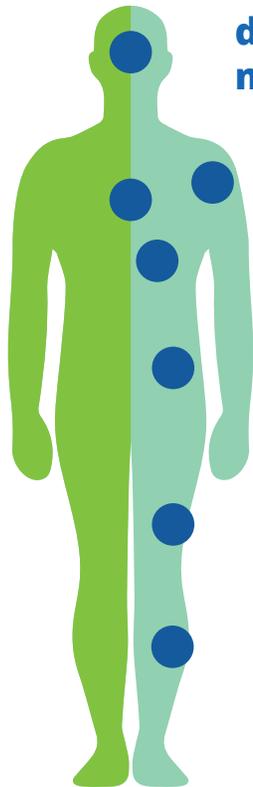
We can't live without it

 *Magnesium is more than just a mineral.*

Magnesium is a life force in your body. It is required by every cell in order for you to exist. Each cell in your body uses magnesium for cellular respiration. Magnesium as a mineral is chock full of energy — elemental magnesium that is ignited can burn at up to 3100 degrees Celsius! Burning magnesium is so powerful that even water can't put it out.

As the fourth most abundant mineral in the body, magnesium can be found in the body in large amounts. The average body may contain up to 25 g of magnesium, with almost half deposited in the bones. Magnesium ions regulate over 300 biochemical reactions in the body by playing a vital role as enzyme cofactors. Yet the truth is—because of modern-day agricultural practices that have depleted soil of minerals coupled with a nutrient-deficient processed food diet—most of us are deficient in magnesium, and we don't even know it.

How your body depends on magnesium



- Head-to-toe nervous system support
- Supports healthy heart function
- Reduces risk of high blood pressure
- Needed for cellular energy production
- Balances blood sugar and glucose levels
- Eases anxiety and improves sleep
- Reduces migraine frequency
- Short-term asthma remedy
- Natural muscle relaxant
- Protects against bone loss

So what does this mean for the health of your body? Your body needs ample amounts of bioavailable magnesium for countless bodily functions. One of the most important functions that magnesium supports is a strong and healthy nervous system.

The miracle of magnesium

Magnesium is essential to support hundreds of chemical processes in the body. Magnesium can also:

- Calm chronic pain
- Ease pain after surgery
- Enhance topical wound healing
- Function as a natural laxative to ease constipation
- Improve energy and endurance in athletes
- Promote healthy heart function
- Promote healthy brain function
- Relieve mood swings and bloating associated with PMS
- Remedy acid indigestion
- Support cleansing and heavy metal detox

And much more!

"Magnesium performs a number of critical functions in the body, including helping muscles contract and relax, assisting in nerve function, and keeping heart rhythm steady and strong. In fact, every cell in your body needs magnesium. One of magnesium's most critical functions is energy production."

- Mineral Resources International

The top 10 magnesium health studies, explained

Mg *Looking for further proof that your life depends on magnesium?*

Here's a quick look at what I believe to be some of the most intriguing studies that demonstrate how magnesium affects your health:

1. Arthritis

University of North Carolina researchers examined the magnesium in the diets of 2,112 men and women age 45 and older and also x-rayed their knees. Close to 40 percent of group participants showed some evidence of knee osteoarthritis. Caucasian participants had the lowest levels of magnesium in their diets and were more than twice as likely to have osteoarthritis of the knee, compared to participants in the next highest quintile. Researchers found the results consistent with other studies that showed a relationship between inflammatory diseases like arthritis and low magnesium. (*Arthritis Care and Research, September 2012;64(9):1306-1311*)

2. Chronic fatigue

Results from the first randomized, placebo-controlled, double-blind trial conducted at the University of Southampton medical school confirmed that chronic fatigue syndrome patients saw improvements in pain, energy, and emotional states after undergoing magnesium therapy. (*Lancet. 1991 Mar 30;337(8744):757-60*)

3. Depression

In 2017, American researchers found that daily magnesium brings an "astounding reversal of depression symptoms." Not only does magnesium effectively address symptoms of depression, but it offers a safer and easier treatment option that works better than prescription antidepressants. (*PLoS One. 2017 Jun 27;12(6):e0180067*)

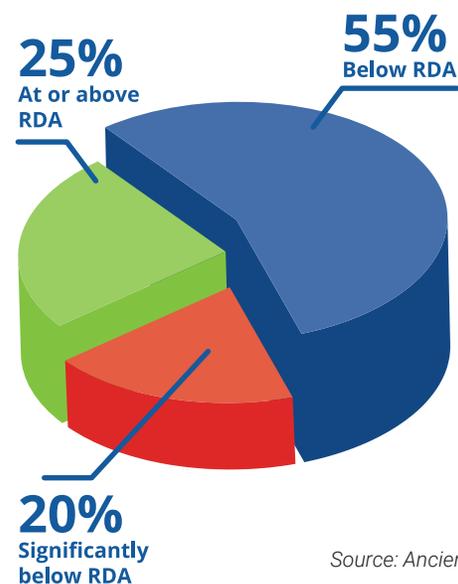
4. Diabetes

In a 2011 meta-analysis of 13 observational studies, published in the *Diabetes Care* journal, research conducted on nearly 540,000 participants and including 24,500 new diabetes diagnoses linked higher magnesium intake to a lower risk of diabetes. (*Diabetes Care. 2011;34(9):2116-2122*)

5. Heart disease

The Atherosclerosis Risk in Communities study tracked the blood magnesium levels of 14,000 adults without coronary heart disease over the span of 4-7 years, comparing blood levels between group participants who did and did not develop heart disease. Researchers concluded that higher blood magnesium levels were associated with a lower heart disease risk. (*American Heart Journal [serial online]. September 1998;136(3):480-490*)

Western magnesium intake

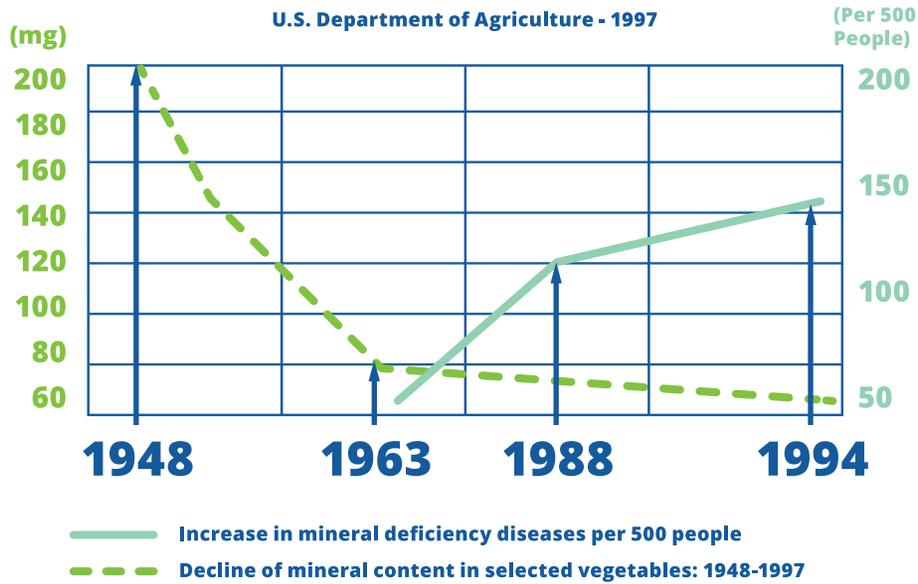


Source: Ancient Minerals

"These numerous studies have found low magnesium to be associated with all known cardiovascular risk factors, such as cholesterol and high blood pressure, arterial plaque build-up (atherogenesis), hardening of the arteries and the calcification of soft tissues. This means we have been chasing our tails all of these years going after cholesterol and the high saturated-fat diet, when the true culprit was and still is low magnesium."

- Dr. Andrea Rosanoff, research scientist

Decreasing food-borne minerals vs. Increasing mineral-deficiency diseases



6. Lung health

Results from a seven trial review that examined intravenous emergency room magnesium use in patients with acute asthma concluded that magnesium is both safe and beneficial to treat severe attacks. (*Annals of Emergency Medicine*. 2000;36:181–190)

7. Migraine

Clinical Neuroscience researchers discovered that sufferers of chronic migraines have lower intracellular magnesium levels, found in both white and red blood cells, compared to those who do not get migraines. (*ClinNeurosci*. 1998;5(1):24-27)

8. Osteoporosis

More magnesium in the blood can reduce the risk of fractures in older people, and it works both ways: Low magnesium can also increase hip fracture risk in older populations. In 2017, researchers from the UK and Finland found that higher magnesium levels decrease fracture risk by 44 percent. (*Eur J Epidemiol*. 2017 Jul;32(7):593-603)

9. Pregnancy and birth

In 2017 and 2018, ground-breaking discoveries were made about magnesium use during pregnancy. First, taking magnesium during pregnancy is perfectly safe at

the suggested dose (and required by the body for daily function). Second, when magnesium is taken before the 32nd week of pregnancy, it can reduce the risk of a baby developing cerebral palsy during pre-term birth, as well as the risk of fetal death. UK and Canadian researchers say that, for mothers and unborn babies, magnesium is neuroprotective. Magnesium taken during pregnancy also helped to protect fetal heart rates, reducing the need for infant resuscitation by 10 percent. (*Implementation Science: IS*. 2018;13:8)

10. Sleep

Taking into account that almost 50 percent of older adults suffer from insomnia or broken sleep, *Journal of Research in Medical Sciences* researchers observed that magnesium supplementation could help to improve insomnia and sleep disorders in the elderly, as well as the general population. (*J Res Med Sci*. 2012 Dec; 17(12): 1161–1169)

Exciting new magnesium research has been accumulating at the rate of 2000 new studies per year for the past 40 years. The compelling research listed above represents only the tip of the iceberg when it comes to how this magnificent mineral can impact your health.

"Research coming out of Europe indicates that magnesium likewise plays a key role in the release of many hormones and nutrients, and that it protects cells from heavy metals such as mercury and lead."

- Dr. Sandra Cabot, *Magnesium: The Miracle Mineral*

Magnesium deficiency destroys good health and disrupts vitamin D

Mg *Would you believe that in Western countries, up to 80 percent of the population is magnesium deficient?*

It's safe to say that magnesium deficiency will affect you or someone you love. This essential mineral is required by the body to survive and to thrive. As Dr. Norman Shealy stated clearly in his study entitled "Transdermal Absorption of Magnesium," published in the *Southern Medical Journal*, "Virtually every known disease is associated with magnesium deficiency, including asthma, hypertension, cancer, diabetes, migraine, allergies, heart problems, and depression."

Mg *Magnesium deficiency makes you vulnerable to imbalance and disease because almost all of your body depends on this mineral.*

Even a slight lack or full-blown deficiency can quickly cause problems—approximately 99 percent of the magnesium in your body can be found in bone, muscle, and soft tissue. Research

published in the *Journal of Intensive Care Medicine* goes so far as to say, "Magnesium (Mg) deficiency commonly occurs in critical illness and correlates with a higher mortality and worse clinical outcome in the intensive care unit (ICU)."

When you think of it that way, it's possible that the millions of people who are being prescribed expensive drugs to treat chronic illness could restore their health naturally and cheaply with a magnesium supplement.

As of 2018, American researchers learned that magnesium has a major impact on the levels of vitamins in the body. A randomized trial conducted on 250 people at risk for colorectal cancer showed that magnesium optimizes levels of vitamin D. Magnesium increases vitamin D in those with deficiency and also lowers high levels of vitamin D.

This is the first evidence of magnesium playing a pivotal part in reducing risk of health conditions related to low vitamin D, like high blood pressure, obesity, diabetes, heart disease, Alzheimer's disease, cancer, and premature death. So, getting more magnesium can help us get the healthy levels of vitamins we need.

Because of low magnesium, up to 50 percent of people may have inactive storages of vitamin D.

Today, many refer to our modern, widespread magnesium deficiency as a silent epidemic. Magnesium deficiency has already reached epic proportions in humans and most likely animals too. If this mineral is so important and so necessary to sustain life, then why is magnesium deficiency so common?

Recommended Dietary Allowances (RDAs) for magnesium

Age	Male	Female	Pregnancy	Lactation
Birth to 6 months	30 mg*	30 mg*		
7-12 months	75 mg*	75 mg*		
1-3 years	80 mg	80 mg		
4-8 years	130 mg	130 mg		
9-13 years	240 mg	240 mg		
14-18 years	410 mg	360 mg	400 mg	360 mg
19-30 years	400 mg	310 mg	350 mg	310 mg
31-50 years	420 mg	320 mg	360 mg	320 mg
51+ years	420 mg	320 mg		

*Adequate Intake (AI)

Source: National Institutes of Health Office of Dietary Supplements

"The Recommended Daily Allowance (RDA) for magnesium is between 350 and 400 milligrams per day, which is just enough to ward off outright deficiency. But for optimal health and for the twenty-two conditions that are triggered by magnesium deficiency, perhaps twice as much magnesium is needed."

- Carolyn Dean, MD, ND, author of *The Magnesium Miracle*

3 good reasons why magnesium is missing

There are a few explanations as to why your body isn't getting the magnesium it needs:

1. Mineral depletion in soil

Magnesium levels in the food supply have been dropping drastically for decades. Since 1950 alone, magnesium in food has reduced by anywhere from 30-80 percent, depending on estimations from the government and independent scientists. As I already mentioned, much of this is caused by mass soil depletion. Modern farming robs even the healthiest foods of critical minerals and antioxidants. It is entirely possible that no matter how healthy you eat, magnesium intake from food may not be enough.

2. Western Un-Natural Food Diet

Another big reason many of us may be magnesium deficient is because of the poor state of our gut. An unhealthy digestive tract bogged down with processed foods, starchy carbohydrates, and sweets (coming from the Western Un-Natural Food Diet) disturbs our body's naturally efficient digestive process. If you aren't eating Really Healthy Foods *and* boosting your gut with friendly bacteria from a probiotic supplement, your body won't be able to effectively break down food and utilize vital nutrients, like magnesium.

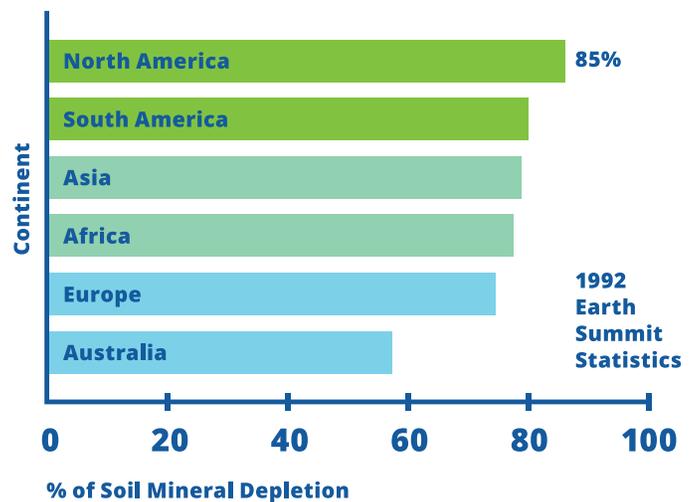
On top of everything I have just mentioned, time is not on your side. The body becomes less effective and efficient in absorbing vitamins and minerals as it gets older. Even the healthiest diet full of fresh, whole foods, including organic vegetables, can't meet your daily magnesium needs if your body can't absorb all of this vital mineral found in food. Some medications can also contribute to magnesium deficiency.

In other cases, it may not be physically possible or affordable to eat a large amount of magnesium-rich foods each day. A Really Healthy Foods diet is critical to give your body the daily vitamins and minerals it needs, but oftentimes, it isn't enough on its own.

3. Excessive mineral excretion

Your kidneys help to filter magnesium and recycle it back to the body so that 95 percent of the mineral can be resorbed. Kidneys are vital in preventing magnesium deficiency. They reduce how much magnesium is excreted as waste—an estimated 5 percent. But there are other factors in the body that can affect magnesium resorption after it has been filtered by the kidneys, including alcohol consumption and type 1 and type 2 diabetes (a lifestyle condition). Both factors increase magnesium excretion, with alcohol consumption nearly doubling your body's magnesium excretion rate!

Soil mineral depletion: Past 100 years



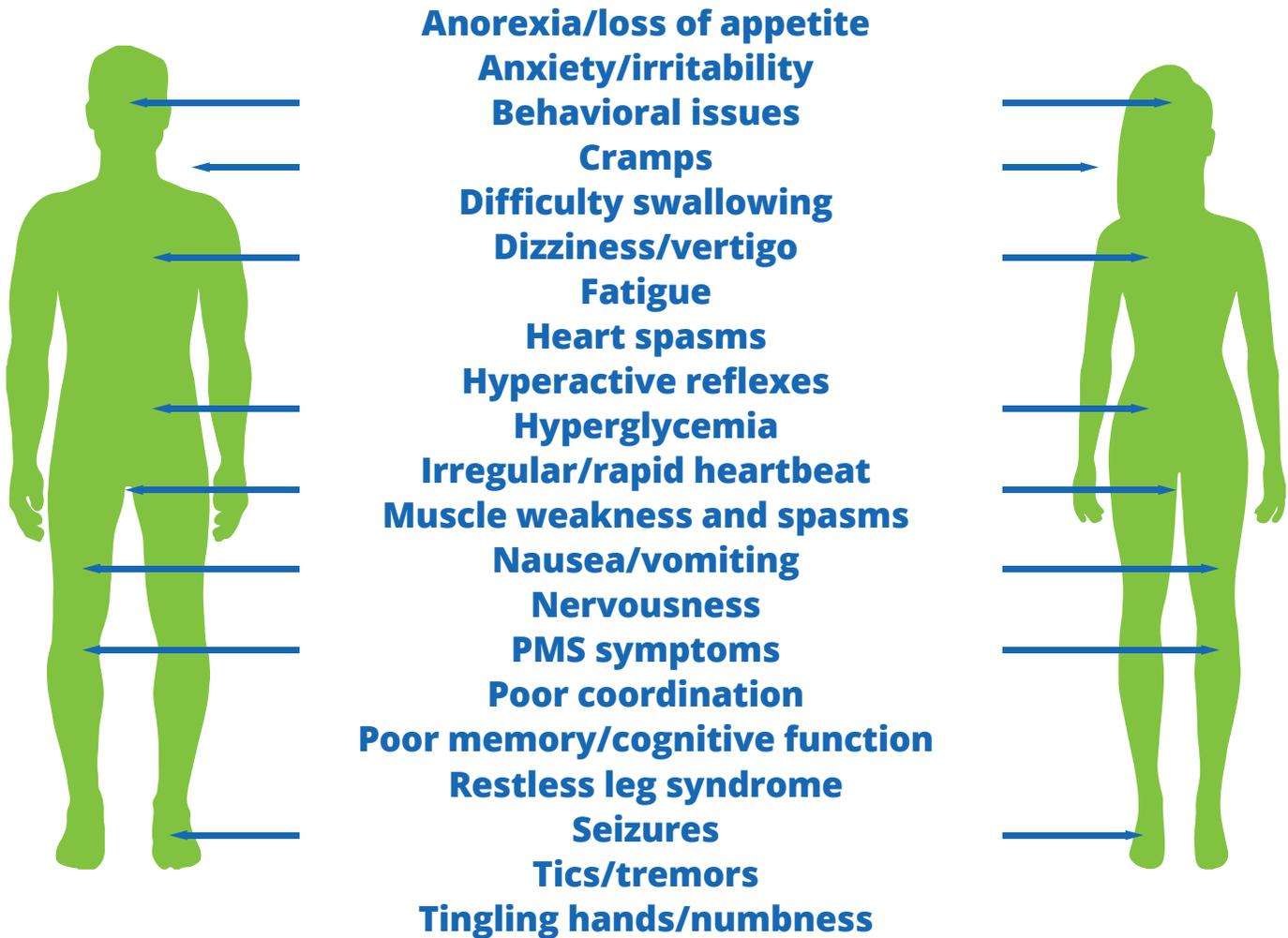
Source: Acupuncture Today

"The average American diet, government studies show us, provides only 40 percent—less than half the magnesium that we all need in a day. So almost everybody is low!"

- Dr. Sherry A. Rogers, author of *Wellness Against All Odds*

Short-term symptoms of magnesium deficiency to pay attention to

*These are the classic physical signs
of low magnesium levels in the body:*

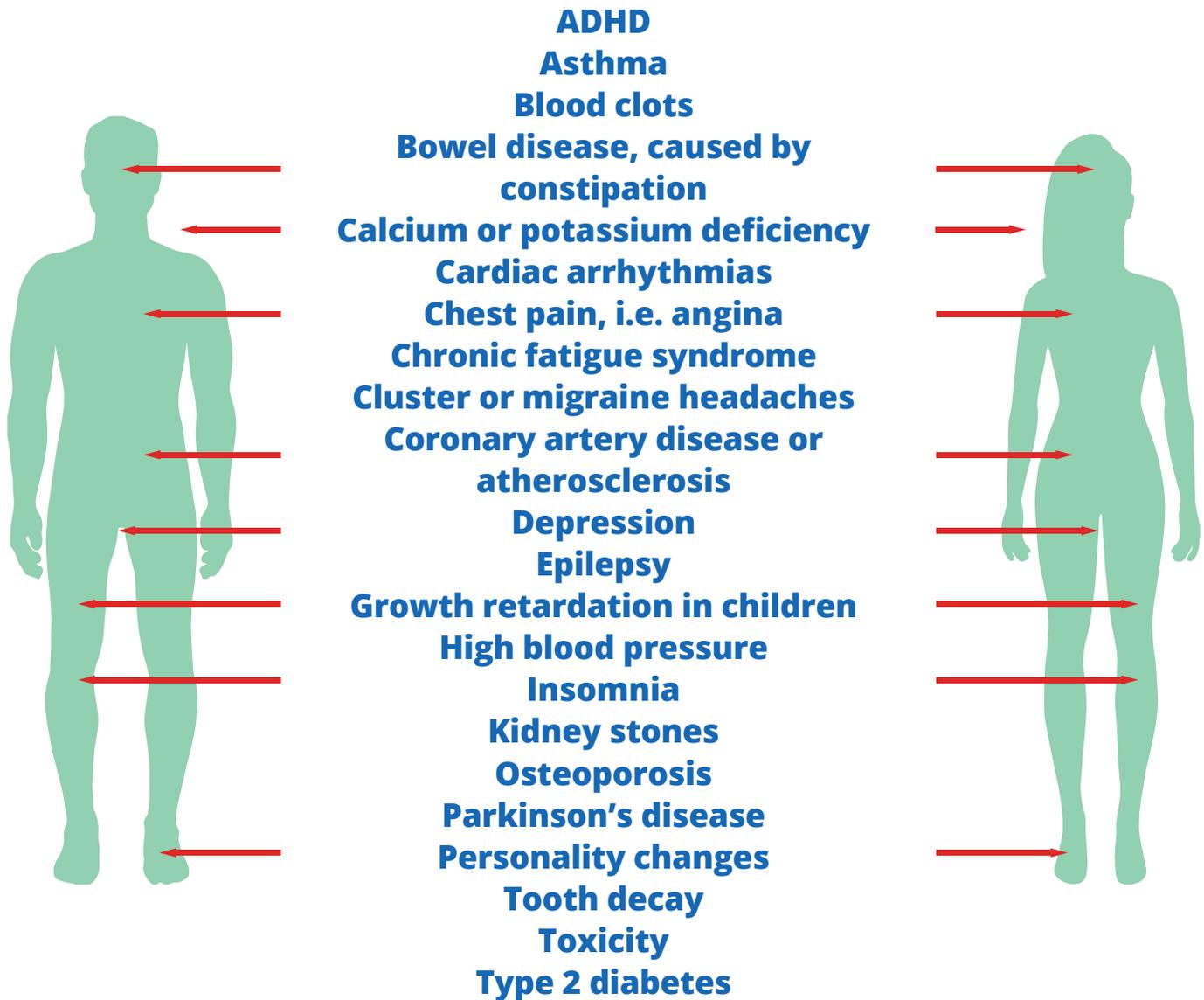


"Certain individuals are more susceptible to magnesium deficiency, especially those with gastrointestinal or renal disorders, those suffering from chronic alcoholism, and older people."

- Linus Pauling Institute, Oregon State University

Long-term symptoms of magnesium deficiency to take seriously

These physical conditions, in addition to the symptoms listed above, may be related to chronic magnesium deficiency:



"Low magnesium intake may be a contributor to many diseases including diabetes, cardiovascular disease and osteoporosis."

- R.Swaminathan, Magnesium Metabolism and its Disorders

Warning: Calcium and magnesium deficiency don't mix

Most doctors will advise patients to take a calcium supplement, especially if you happen to be at risk for osteoporosis. In the medical community, this common calcium myth has been circulated: You need a lot of calcium for strong bones and teeth.

Mg *Magnesium is actually the mineral you need to build strong bones.*

This calcium half-truth has led many of us astray. Calcium is important to support bone health as the most abundant mineral in the body. In fact, almost all the calcium in your body is stored in your bones and teeth (an estimated 99 percent). Yes, calcium intake is important, but calcium *loss* is what has been linked to osteoporosis. Calcium loss can be caused by eating too many acidifying animal proteins and modern grains. Simply put, if you eat a Really Healthy Foods diet rich in fruits and vegetables, your bones will remain healthy and strong. Alkalizing fruits and vegetables naturally help the body retain calcium.

To prevent this calcium loss, many of us buy into the common calcium myth, thinking we need more and more calcium to keep bones strong. But taking extra calcium in the form of a supplement *cannot* prevent a condition like osteoporosis, and it may do more harm to the body than good. Popping a calcium supplement can overload the body with calcium. This will disrupt the delicate calcium-magnesium balance. Too much calcium can deplete the body's magnesium even more.

In his book *Magnesium: The Nutrient That Could Change Your Life*, J.I. Rodale explains, "For years, it was believed that high intakes of calcium and phosphorus inhibited decay by strengthening the enamel. Recent evidence, however, indicates that an increase in these two elements is useless unless we increase our magnesium intake at the same time. It has even been observed that dental structures beneath the surface can dissolve when additional amounts of calcium and phosphorus diffuse through the enamel at different rates. Thus milk, poor in magnesium, but high in the other two elements, not only interferes with magnesium metabolism, but also antagonizes the mineral responsible for decay prevention."

Mg *Extra calcium in your body can be dangerous if you are already deficient in magnesium.*



"Magnesium also plays a role in the active transport of calcium and potassium ions across cell membranes, a process that is important to nerve impulse conduction, muscle contraction, and normal heart rhythm."

- National Institutes of Health Office of Dietary Supplements

Ca *Calcium can't be absorbed and utilized by the body without its partner, magnesium.*

Once all the magnesium in your body has been used up in various daily processes, there is none of the essential mineral left to help your body absorb and use calcium most effectively. This leaves you with an excess of “free-form,” unused calcium that collects in your body, where it can accumulate to cause symptoms like achy joints, deteriorated cartilage, and even arthritis.

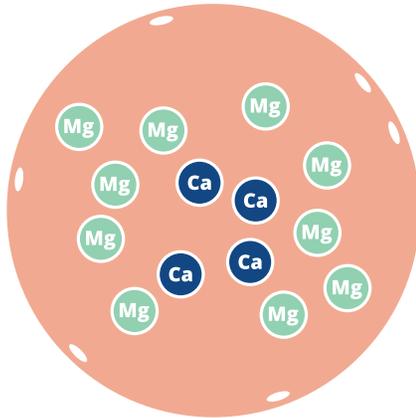
Here's a helpful way to understand how calcium and magnesium work together: Magnesium **relaxes** nerve and muscle cells, and calcium **contracts**. Magnesium holds the key to keep cell mineral channels functioning properly. Once magnesium deficiency occurs, these mineral channels won't be regulated by magnesium to open and close. The

cell channels will become vulnerable. Calcium can flood healthy cells to disrupt their function, trigger spasms, and contribute to a long list of serious health concerns, including asthma, high blood pressure, angina, atherosclerosis, and heart attack.

Regarding osteoporosis, magnesium is essential for effective calcium transport. In a review of a two-year osteoporosis study, researchers concluded that magnesium therapy could help to increase bone density and prevent fractures.

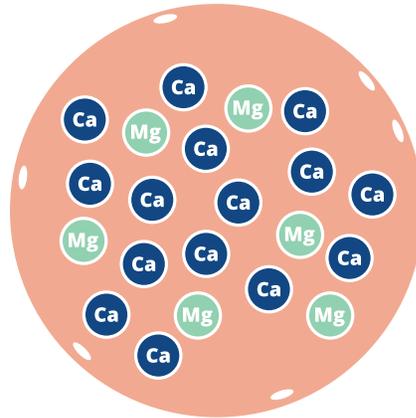
If magnesium isn't there to lend calcium a helping hand—because of magnesium deficiency—disaster is sure to follow. Calcium needs magnesium for balance. Dr. Carolyn Dean estimates that magnesium in the cells should be maintained at a concentration of 10,000 times greater than calcium. Without this daily support from magnesium, “free-form” calcium accumulating in the body can even be *fatal*, in the case of a heart attack.

Healthy cell



Proper magnesium levels keep calcium levels in check

Unhealthy cell



Magnesium deficiency allows too much calcium into cell

Source: SolomonsSeal.net

“All arthritis sufferers have a deficiency of magnesium chloride. This is the same type of magnesium that occurs naturally in your cells.”

- Billie Jay Sahley. Ph.D., C.N.C., Diplomate of the Academy of Pain Management

The symptoms you can't ignore

If you have experienced symptoms of magnesium deficiency, large or small, it's time to take your health seriously. Magnesium deficiency is common. Small symptoms are easy to overlook or brush off as stress or the common cold. But if you feel constantly fatigued, suffer from anxiety, or have difficulty sleeping, the answer could be as simple as increasing your intake of this "miracle" mineral.

Mg *This is the perfect time to get to know your body—and to pay attention.*

Because of its subtleties, magnesium deficiency is difficult to diagnose. Until you begin to experience multiple symptoms, it may be hard for your doctor to pinpoint what is going on. Magnesium deficiency cannot be detected in a standard blood test. Remember, only 1 percent of the magnesium found in the body is stored in the blood. What's more, most doctors don't make it a routine practice to check blood magnesium levels.

Magnesium, the central element in chlorophyll, lays the foundation for all life on earth. Since the center of the chlorophyll molecule contains magnesium, it makes sense that raw, green vegetables, like spinach, are an abundant source of magnesium. Chlorophyll gives these bright green vegetables their color.

Source: Ancient Minerals

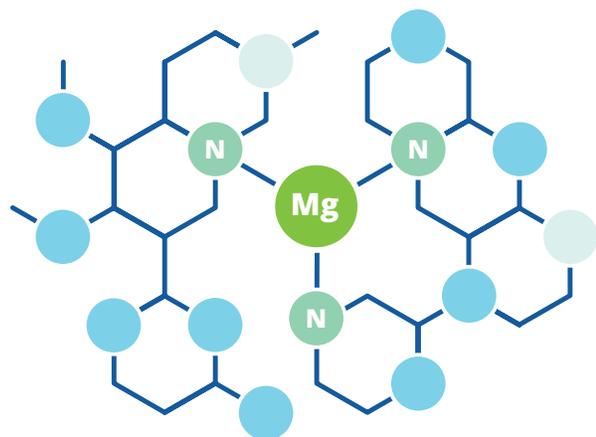
Mg *As Dr. Norman Shealy was quoted as saying earlier in this book: Magnesium deficiency may be responsible for more diseases than any other nutrient.*

Most doctors are slow to embrace this truth. Dr. Shealy, a well-known and respected physician, asserts that magnesium deficiency could be at the root of disease, yet you'll have a hard time finding a doctor who prescribes a magnesium supplement.

This is the time to get to know your body and take your health into your own hands. A magnesium deficiency may never be formally diagnosed by a physician. But year after year, your body won't be getting the magnesium it needs to support more than 325 enzyme reactions, including those responsible for energy production and cholesterol balance.

Until you take matters into your own hands to improve your diet and supplement with magnesium, your health may never improve. Over the years, small symptoms like muscle cramps and irritability could get much, much worse. Minor symptoms caused by magnesium deficiency may eventually result in devastating disease.

Magnesium in chlorophyll



"Every sickness, disease, and ailment is linked to a mineral deficiency or imbalance."

- Dr. Linus Pauling, Nobel Laureate

Here's how magnesium helps your body start healing

Magnesium is a vital mineral that everyone needs, every day. So, how do you correct this common deficiency? First, it helps to know how much magnesium your body needs. Second, it's important to understand the options available to you to supply your body with this essential mineral each day.

As Dr. Carolyn Dean pointed out, the Recommended Daily Allowance for magnesium at 350 to 400 mg may only meet bare minimum requirements—if that. Dr. Dean estimates that we need as much as twice this amount of magnesium every day to uphold basic body functions and ward off chronic disease.

Research confirms that, even with diet and supplements, most of us only meet half our recommended daily intake for magnesium. Over eight out of 10 people do not intake enough magnesium to meet the minimum daily amount.



Let's not forget—growing children need magnesium too.

Magnesium deficiency is just as common in babies and children as it is in adults. However, many of these common magnesium deficiency symptoms in children, like behavioral issues and anxiety, may be attributed to other serious medical issues like autism and ADHD. Increasing magnesium levels can visibly improve your child's emotional, mental, and physical health—and may even alleviate chronic health problems that appear without explanation.



"Autistic children and children with other spectrum disorders had significantly lower plasma concentrations of Mg (magnesium) than normal subjects."

- Dr. M. Strambi, Biological Trace Element Research

Magnesium in the diet: Here's where to find it

Really Healthy Foods rich in magnesium

Food (100 grams)	Magnesium content (mg)
Seaweed, agar, <i>dried</i>	770 mg
Coriander leaf (spice), <i>dried</i>	694 mg
Pumpkin seeds, <i>dried</i>	535 mg
Cocoa, dry powder, <i>unsweetened</i>	499 mg
Basil, <i>dried</i>	422 mg
Flaxseed	392 mg
Brazil nuts, <i>dried</i>	376 mg
Parsley, <i>freeze dried</i>	372 mg
Cumin seed (spice)	366 mg
Almond butter	303 mg
Cashew nuts, <i>roasted</i>	273 mg
Whey, sweet, <i>dried</i>	176 mg
Leeks, <i>freeze dried</i>	156 mg
Kale, scotch, <i>raw</i>	88 mg

The first and most logical choice is to increase the magnesium-rich foods you eat. After all, it just makes sense that if you may be at risk for a magnesium deficiency, you would eat more foods that contain magnesium. These magnesium-rich foods are a wonderful addition to a Really Healthy Foods diet and may include leafy greens, fish, lentils and beans, buckwheat, nuts and seeds, and avocados.



Avocados are the ultimate superfood, as well as an excellent source of magnesium.

Eating two avocados per day is recommended to receive the greatest health benefit. Just one average avocado can offer up to 7 percent of your daily magnesium intake, at 29 mg of magnesium per 100 g of avocado. Avocados provide almost a complete spectrum of nutrients and support heart disease, diabetes, and osteoporosis rehabilitation.

You can also restore gut health to improve magnesium absorption from the foods you eat. This can be achieved by cutting out starchy carbohydrates altogether, i.e., breads,

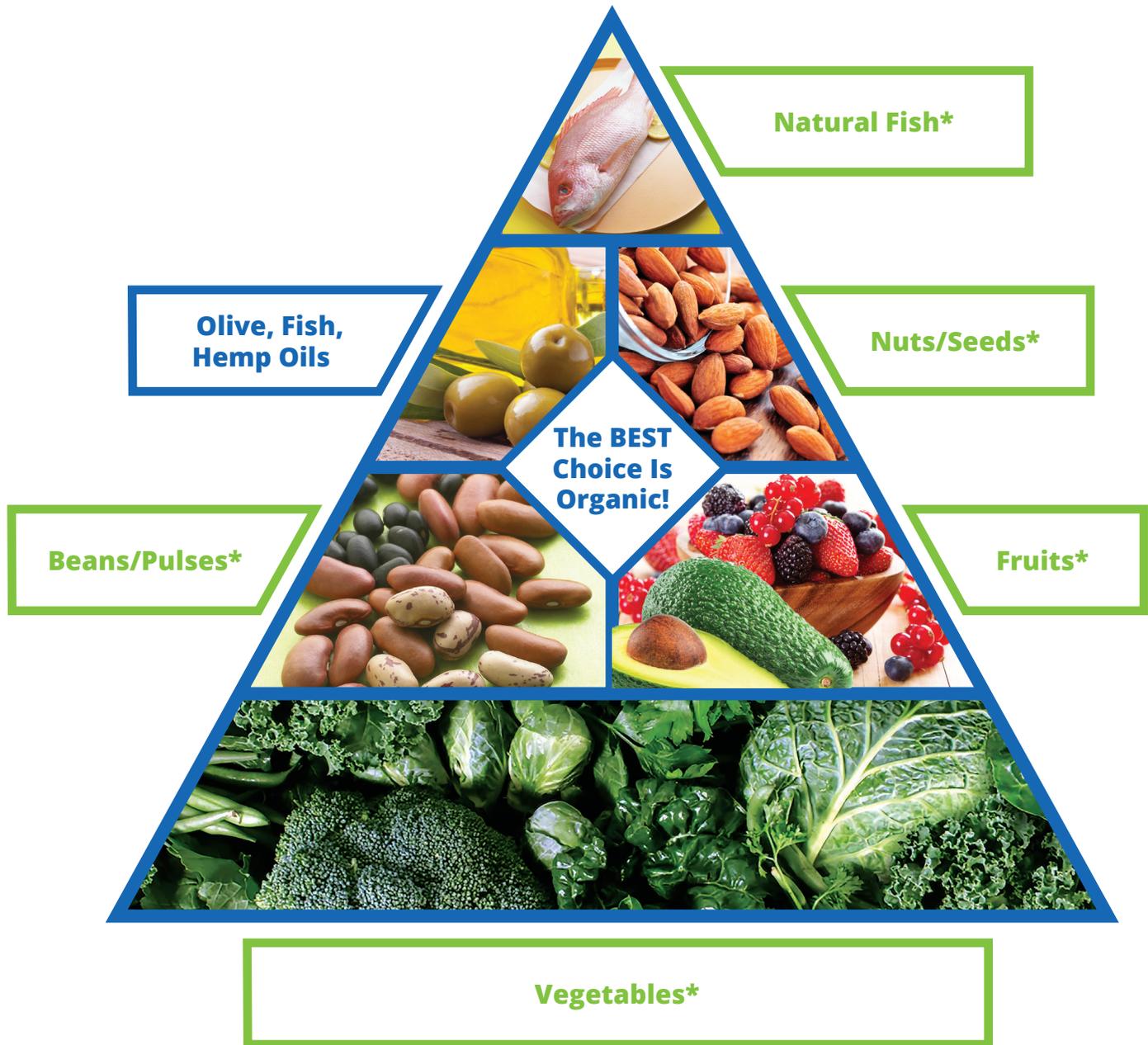
pastries, cookies, breakfast cereals, pasta, and potatoes, as well as processed foods and milk products.

Cooking and processing magnesium-rich foods can deplete their magnesium levels. A diet that includes high protein, excess sugar, alcohol, and coffee can further diminish the body's magnesium levels.

There's something very important to understand about magnesium levels in our food. Magnesium in the food you eat can be destroyed by processing and cooking. But if magnesium has already been used up in the soil and has not been replaced (modern fertilizers don't contain magnesium), every crop grown after that won't contain adequate magnesium. Chemical fertilizers also rob the soil and crops of essential nutrients. Magnesium levels estimated in our food may be inaccurate for this reason. Even a perfect diet full of these magnesium-rich foods may not be enough. Really Healthy Foods lay the foundation, but it's almost impossible to correct a lifelong magnesium deficiency with diet alone.

"If you're deficient, I suggest taking magnesium supplements first."
- Dr. Dennis Goodman, author of *Magnificent Magnesium*, quoted by *Men's Journal*

Really Healthy Food pyramid: Garden of Eden



***Good sources of magnesium.**

"Magnesium is the most important mineral to man and all living things."

- Dr. Jerry Aikawa, The University of Colorado

After decades of poor supplement absorption -- here's what works

If diet is not enough to give you the magnesium you need, then a supplement must be the only choice. This is true, but not just any magnesium supplement will do. The key to choosing the right—and the most effective—magnesium supplement is all in the delivery system.

Magnesium capsules are available at almost any health food retailer. Though magnesium capsules are a popular supplement choice, they cannot be absorbed by the body well enough to compensate for a magnesium deficiency.

These capsules may also contain magnesium stearate—a supplement additive that may do more harm than good. As a word of warning, if you see magnesium stearate listed on an over-the-counter supplement, steer clear. Magnesium stearate is a white powder commonly added to tablet and capsule supplements for the purpose of lubrication—to prevent the formulations from sticking to the production machinery. This additive is *not* a source of magnesium. As a “flow agent,” magnesium stearate may inhibit nutrient absorption in the digestive tract.

 **High-quality magnesium supplements do not contain magnesium stearate.**

The chalk-like magnesium stearate found in these supplements may come from an un-natural source, like genetically engineered (GE) hydrogenated oils. I will say it again because it bears repeating: *A supplement containing magnesium stearate should be avoided at all costs.*

 **Transdermal magnesium is the answer.**

The best way for your body to absorb magnesium is topically, right through your skin. It may seem strange to apply a magnesium supplement to your skin, but remember, your skin is the largest organ in your body. Taking a magnesium powder or tablet sounds like a good idea, but it will quickly bring you back to the problem you had in the first place: Your digestive system may not be equipped to fully absorb a magnesium supplement. Applying magnesium to the skin offers a **direct delivery system** straight to the bloodstream.



“Without enough magnesium, cells simply don’t work.”

- Dr. Lawrence Resnick, Cornell University

This superior method of magnesium delivery is endorsed by none other than Dr. Shealy, physician and founder of the American Holistic Medical Association, based on the results of his clinical trial. Dr. Shealy discovered that when magnesium oil was applied to the skin for just six weeks, it increased magnesium levels in the body equivalent to taking magnesium tablets for a total of two years.

Mg *In translation: Topical magnesium achieved in six weeks what it can take magnesium tablets two years to do!*

Dr. Shealy found that supersaturated transdermal magnesium had unique properties that allowed it to be absorbed directly into the skin. Through "transdermal therapy," topical magnesium application created tissue saturation that allowed magnesium to travel at a high dosage to tissues and cells throughout the body *without a loss of absorption through the gastrointestinal tract.*

Mg *It's not only about how much magnesium a supplement may contain—what matters is its delivery system and how well your body will absorb it.*

By now, it's clear that magnesium capsules, tablets, and powders are just not effective enough to correct a magnesium deficiency and improve your health. Over-the-counter magnesium supplements may have absorption rates as low as 5 to 10 percent. Most commercial magnesium supplements are not readily assimilated by the body because they are inorganic. The best, and the most trustworthy, form of magnesium delivery is through the skin as a topical supplement.



"But if you put it on the skin—just applying it to the skin like you would suntan lotion, or you put a couple of pounds in a bath, it goes right through the skin. It's for me the best way of applying magnesium."

- Mark Sircus, author of Transdermal Magnesium Therapy

How to get more from your magnesium

Shopping for magnesium supplements can be confusing because there are so many to choose from. On top of that, you may soon realize that there is no supplement that provides 100-percent pure magnesium. The reason for this is because, in order for magnesium to be welcomed and absorbed by your body, magnesium must bind to another ion. The partner that magnesium binds to in a supplement can affect both absorption and bioavailability.

 **Along with calcium, magnesium has another good friend.**

MSM, an organosulfur compound that is naturally found in all vertebrates, is also called methylsulfonylmethane. MSM is a critical source of organic sulfur, and sulfur is the third most abundant mineral in your body. OptiMSM® was introduced in 1989 as the premium trademarked form of MSM, backed by extensive clinical research. OptiMSM® is the only MSM supported by double-blind clinical trials. Each batch of OptiMSM® is distilled four times to ensure purity and undergoes rigorous testing for both safety and efficacy.

When topical magnesium is combined with OptiMSM®, it improves the absorbability of the MSM dramatically. This is why it is always important to choose subdermal magnesium with OptiMSM®.

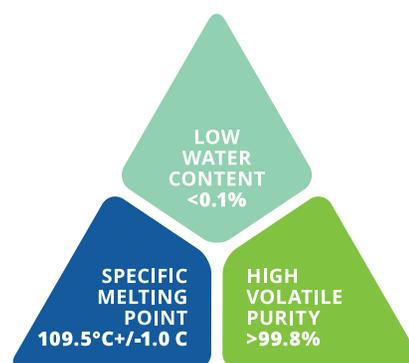
OptiMSM® has its own proven health benefits, like:

- Essential nutritional support.** Sulfur, found in the organic sulfur compound OptiMSM®, may be one of the most important nutrients in the body. Sulfur can be found in most proteins in sulfur-containing amino acids, as well as in nitrogen and phosphorus; these three elements are the building blocks of healthy tissue, and sulfur provides tissue with resilience and strength.
- Critical antioxidant production.** OptiMSM® is biological sulfur that supports the production of glutathione, called "The Mother of All Antioxidants." Researchers observed higher antioxidant levels after study participants took an MSM supplement for just 10 days.
- Easier detoxification.** Glutathione, supported by OptiMSM®, is a prime detoxifier and cleansing antioxidant

in the body. MSM also improves cell permeability to help flush excess fluids, toxins, and waste.

- Stronger bones and joints.** OptiMSM® is a known supporter of bone and joint health — it can dissolve calcium phosphate and break up calcium deposits in the body known to cause degenerative disease. In a randomized, double-blind, controlled clinical trial, Department of Orthopedics researchers at the Assaf Harofeh Medical Center in Israel saw an improvement in osteoarthritic symptoms in study participants who took MSM for 12 weeks.
- Healthier skin.** Sulfur plays an important role in skin health, and MSM is made up of 34 percent sulfur by weight. A building block of keratin that provides hair and nails with their structure, sulfur may promote collagen and proteoglycan cross-linking to create the essential framework of the skin. MSM may also block pro-inflammatory mediators that can weaken the skin's natural defense.

OptiMSM® may even have application in cancer treatment. As a sulfur compound, MSM helps make cells more permeable, which can support cancer treatment. MSM also strengthens collagen, which can support skin health and may stop cancer growth. MSM ensures a proper pH balance in the body, creating an unwelcome environment for cancer cells that thrive in acidity. R. Webster Kehr of the Independent Cancer Research Foundation explains that scientists discovered that MSM could turn malignant tumors into benign tumors in the 1950s, before research stopped suddenly.



OptiMSM® Purity Standard

OptiMSM® is distilled to remove as much water as possible. When pure MSM is heated to a boiling point, it can be separated from non-volatile and volatile contaminants

"MSM is in almost all raw foods. It's in leafy green vegetables. Interestingly enough, there's MSM in beer and coffee. Actually, it's been identified as one of the main flavoring constituent in port wines... Raw milk has the highest naturally occurring content of MSM."

- Rod Benjamin, Director of Technical Development at Bergstrom Nutrition, operator of the only global facility dedicated to proprietary MSM production

NEW Magnesium Range:

Something for everyone

Magnesium is missing, and almost every one of us could benefit from a daily increase in our magnesium. This includes infants, children, and adults, and especially those who are pregnant, elderly, or ill and may need more support from magnesium.

Lets recap:

What's transdermal magnesium?

- It's convenient "through the skin" magnesium supplementation.
- It's nothing new, as many examples can be found throughout the centuries and from different cultures.
- It's an easy "do it yourself" way to get more magnesium.

Magnesium is our fourth most abundant mineral, and we can't live without it. We may need more magnesium during pregnancy and lactation and in times of stress or injury.

What about getting magnesium from food?

- Eat good food sources of magnesium like mackerel, spinach (boiled), artichokes, okra (boiled), quinoa, almonds, cashews, and pumpkin seeds.
- But, keep in mind that most of us don't meet our RDA because of agriculture, soil, and diet changes in the last century.
- It can be hard to get enough magnesium from food alone.

Adults, children, pregnant women, nursing mothers, and the elderly need a steady supply of magnesium daily.

What about powders and tablets?

- Not all types of magnesium deliver the same benefits.
- Magnesium oxide, the most common form sold as a tablet or capsule, has been shown to have a low absorption rate and can create a laxative effect.
- Magnesium chloride is viewed by many as the "master magnesium compound" due to its high potency and efficacy.

Magnesium: The Most Important Mineral has seen a 60% REDUCTION IN FOOD IN THE PAST 50 YEARS.



In the late 1990s, a rare and pristine source of unadulterated magnesium chloride was found located in an ancient geological formation -- the ancient Zechstein Seabed. Applying this magnesium to the skin can increase the body's magnesium levels equivalent to two years of tablet use -- in just six weeks.



Compared to magnesium tablets, transdermal magnesium does not come with side effects.

May be needed by those:

1. With excessive consumption of sugary, starchy foods -- causes the body to excrete magnesium through the kidneys.
2. Regularly drinking caffeinated beverages, like coffee or tea -- another factor that can cause the kidneys to release magnesium.
3. Drinking more than seven alcoholic beverages a week -- magnesium deficiency has been confirmed in excessive drinking.
4. Under high stress or undergoing exercise -- causes magnesium deficiency.
5. With neuromuscular symptoms, such as cramps, tics, and muscle spasms.
6. With calcium problems and imbalances.

10 important ways topical magnesium can benefit our health:

1. Relieve headaches/neck tension.
2. Ease muscle spasms/cramps - legs, back, and chest.
3. Relieve painful symptoms of fibromyalgia.
4. Alleviate anxiety and depression.
5. Improve symptoms in autism and ADHD.
6. Soothe psoriasis, acne, and eczema.
7. Balance blood pressure.
8. Applied to chest for relief for seizures and coronary spasms caused by deficiency.
9. Support more restful sleep.
10. Relax the nervous system and relieve stress.

AUTHORISED CLAIMS FOR MAGNESIUM:

- Magnesium contributes to a reduction of tiredness and fatigue.
- Magnesium contributes to electrolyte balance.
- Magnesium contributes to normal muscle function.
- Magnesium contributes to energy-yielding metabolism.
- Magnesium contributes to normal functioning of the nervous system.
- Magnesium contributes to normal protein synthesis.
- Magnesium contributes to normal psychological function.
- Magnesium contributes to maintenance of normal teeth.
- Magnesium contributes to maintenance of normal bones.
- Magnesium has a role in the process of cell division.



Magnesium Oil

Ultra / 200ml, 100ml, 30ml (travel size)

20 sprays per day contains approx 300mg elemental magnesium and 396mg OptiMSM.

- ✓ All the benefits of Original Oil – PLUS OptiMSM, The World's Purest MSM.
- ✓ Improves deep absorbability into skin and tissue.
- ✓ Reduces the appearance of fine lines and leaves healthier-looking skin.
- ✓ Delivers improved immune response.
- ✓ Helps maintain mobility of the neck, back, and joints.
- ✓ Healthier hair and scalp (apply at bedtime).
- ✓ Faster relief of headaches and migraines.
- ✓ Faster recovery from exercise-induced inflammation.

Original / 200ml, 1000ml (save 50%)

20 sprays per day contains approx 335mg elemental magnesium.

- ✓ Guaranteed 100% Zechstein Magnesium Oil.
- ✓ 100% natural and 250 million years of preservation make it the purest.
- ✓ Professional strength – you cannot buy better.
- ✓ Can be diluted up to 50% with water for sensitive skin.
- ✓ Supports energy, muscle and nervous system function, teeth, heart, bones, and cell regeneration.
- ✓ Helps you relax in the evening, fall asleep easier, and sleep better through the night.
- ✓ Essential for good health, sore muscles, leg cramps, headaches, migraines, and various body aches.
- ✓ Absorbs better than supplements and can have an immediate effect on symptoms, e.g., cramps.
- ✓ Delivers magnesium precisely where you need it: feet, legs, back, neck, chest, lungs, and more.



Magnesium Lotion

Ultra / 200ml

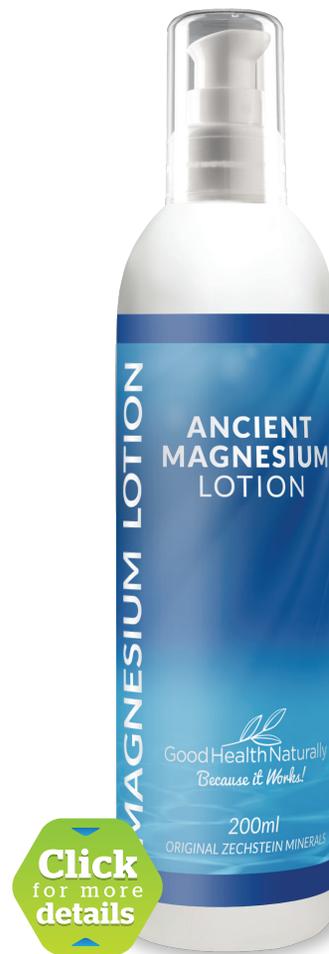
5ml contains 130mg elemental magnesium, 650mg OptiMSM.

- ✓ All the benefits of Oil Lotion – PLUS OptiMSM, The World’s Purest MSM.
- ✓ Improves deep absorbability into skin and tissue.
- ✓ Reduces the appearance of fine lines and leaves healthier-looking skin.
- ✓ Faster relief of headaches and migraines.

Original / 200ml

5ml contains 130mg elemental magnesium.

- ✓ All the benefits of Original Oil -- PLUS skincare.
- ✓ Replaces daily moisturizer with added health benefits.
- ✓ Features Magnesium Oil combined with **shea butter**, **sweet almond oil**, and other organic ingredients to make this the only daily moisturizer you need.
- ✓ 100% natural to provide the gentlest health care for your skin.



Magnesium Lotion

Cool Relief / 200ml

5ml contains 138mg elemental magnesium.

- ✓ All the benefits of Original Oil Lotion.
- ✓ 100% natural and contains Therapeutic Menthol.
- ✓ Faster relief of acute inflammation, pain, and strained muscles.
- ✓ Faster relief of headaches and migraines.

Melatonin / 200ml

5ml contains 130mg elemental magnesium, 650mg OptiMSM, and 1.5mg melatonin.

- ✓ All the benefits of Original Oil Lotion.
- ✓ 100% natural and contains melatonin for enhanced sleep.
- ✓ Apply to forehead, neck, and shoulder muscles.
- ✓ Makes it easier to fall asleep.



Magnesium Cream

Body Butter Ultra / 200ml

5ml (1 teaspoon) contains 130mg elemental magnesium and 650mg OptiMSM.

- ✓ All the benefits of Lotion ULTRA + OptiMSM.
- ✓ Replaces daily body moisturizer with added health benefits and rich hydration.
- ✓ Features Magnesium Oil combined with **shea butter**, **sweet almond oil**, and other organic ingredients to make this the only daily moisturizer you need.
- ✓ 100% natural to provide the gentlest health care for your skin.

With CBD Oil / 100ml

5ml contains 130mg elemental magnesium, 650mg OptiMSM, and 5mg CBD oil.

- ✓ All the benefits of Lotion ULTRA + OptiMSM.
- ✓ 100% natural and contains CBD.
- ✓ Help for emotions, pain, distressed skin, and cell health.
- ✓ Apply to forehead, neck, and shoulder muscles and at the point of need.



Magnesium Flakes

Ultra / 750g, 2000g

100g flakes contains 10.75g magnesium and 8.5g OptiMSM.

- ✓ All the benefits of Magnesium Flakes + OptiMSM, The World's Purest MSM.
- ✓ Improves deep absorbability into skin and tissue.
- ✓ Reduces the appearance of fine lines and leaves healthier-looking skin.
- ✓ Delivers improved immune response.
- ✓ Helps maintain mobility of the neck, back, and joints.
- ✓ Healthier hair and scalp (apply at bedtime).
- ✓ Faster relief of headaches and migraines.
- ✓ Faster recovery from exercise-induced inflammation.
- ✓ Turns aching fungus feet healthy when used in a foot bath.

Original / 750g, 3600g

100g flakes contains 11.75g magnesium.

- ✓ The gentle way to get magnesium into your body.
- ✓ Makes bath time a Therapeutic Spa Time.
- ✓ Relax in a bath any time you feel stress, muscle tension, or an aching body.
- ✓ Warm water accelerates magnesium absorbency.
- ✓ Get whole-body benefits.
- ✓ Detoxes the skin, removes toxins, and improves metabolism.
- ✓ Perfect for hyperactive children (and grown-ups) before bed.
- ✓ Gently relieves eczema and psoriasis.



I have said it before, but it is worth repeating. Magnesium is vital to almost every process in the body. Those who regularly use transdermal magnesium and MSM as a supplement see great improvements in relaxation, better sleep, renewed skin health, ache and spasm relief, and balanced heart rhythm. Taking a transdermal magnesium supplement is easy—just soak in a bath or apply it to your skin.

Mg *Topical magnesium is the only truly effective way to take a magnesium supplement.*

Chinese medicine aptly refers to magnesium as the “beautiful mineral.” It’s easy to appreciate magnesium’s beauty when you see that it is as essential to the body as water or air. Not only is magnesium an ancient remedy, but it is considered by many to be the most powerful medicine available anywhere in the world. Keeping topical magnesium in your medicine cabinet is one easy way to balance your body and prevent disease.

Mg *Magnesium is the forgotten mineral you can’t live without.*



Choosing the right magnesium supplement to meet your needs is easy when you stick with this helpful criteria:

- ✓ Does it contain magnesium stearate?** No! Ancient Magnesium is 100-percent magnesium stearate-free, made with Genuine Zechstein™ Magnesium Chloride extracted from the isolated 250 million-year-old Ancient Zechstein Sea found 2 miles below the earth’s surface.
- ✓ Is it highly absorbable?** Yes, Ancient Magnesium offers a highly saturated source of magnesium chloride in a transdermal delivery system that is most effectively absorbed by the skin to reach the bloodstream. This topical magnesium is ultimately healing as it is quickly absorbed by the living, breathing organ that is the skin to re-mineralize where it is needed throughout the body.
- ✓ Does it have any side effects?** No, while many magnesium supplement formulations can cause gastrointestinal distress when used as stool softeners or laxatives, Ancient Magnesium does not have any such side effects. The laxative effect associated with magnesium supplements is minimized or eliminated completely as the skin naturally self-regulates the absorption of magnesium.
- ✓ Is it easy to apply?** Yes! Taking a daily magnesium supplement has never been easier when you can apply Ancient Magnesium to the surface of the skin — in convenient oil, gel, lotion, or bath soak form. Topical magnesium is a welcome alternative to taking potentially ineffective magnesium supplements as a pill or powder.

Daily Magnesium Rehabilitation Plan

FOR ADULTS

PRODUCT	DOSAGE	USE
Magnesium Oil	20 sprays per day.	Depending upon magnesium requirements, it's advised to begin with a modest amount for the first few days, then increase intensely for 3-4 months, then reduce the daily amount thereafter.
Magnesium Lotion , Cream, or Butter	1 daily application to hands, face, or body.	Depending upon magnesium requirements, it's advised to begin with a modest amount for the first few days, then increase intensely for 3-4 months, then reduce the daily amount thereafter.
Magnesium Bath Flakes	1 cup flakes for a 20-minute minimum foot bath. 2 cups flakes for a 20-minute minimum full-body bath.	It's recommended to take 2-3 magnesium baths per week.

FOR CHILDREN

Please note that the magnesium dosage for children is a recommendation and not a set guideline. Consult with your healthcare provider for a more accurate dose for your infant or child based on age and weight:

- **Magnesium Oil** - 1 spray. Apply 1 spray of magnesium to arms and legs, 20 minutes before showering. Wash off after 20 minutes.
- **Magnesium Lotion/Cream/Butter** - ¼ - ½ tsp. Apply ¼ - ½ tsp. of magnesium lotion to clean skin.
- **Magnesium Bath Flakes** - ¼ - ½ cup bath flakes. Dissolve ¼ - ½ cup magnesium flakes into a footbath or tub, soak for 30 minutes.

Autism

"A child who usually shies away from crowds was actually dancing in a room full of people! For me the night was flooded with compliments on how fantastic she looked. (Normal even!) But I know I must give the credit for that day to the magnesium bath we gave her the night before."

- Amy P., mother of a child with autism

Eczema

"When I learned about this Ancient Minerals bath, I was very intrigued and hopeful that this would be a great solution for my daughter's eczema. I'm very pleased to say that the very first time I put her into one of these baths and had her soak for 20 minutes; she had absolutely no reaction to the bath at all in terms of activation of her eczema. Her skin was not red when she came out. For the first time in three years, my daughter wasn't crying saying, 'Mommy, my skin hurts!'"

- Jayne P.

Fungal infection

"I have been massaging the Ancient Magnesium Oil onto my fungal toe nail on a daily basis, and I'm already amazed by the difference. The pain has eased, and my toe nail is now looking back to its normal color again."

- Bev

Gum disease

"I was diagnosed seven years ago with periodontal disease. Every night I would wake up with blood on my pillow. My gums were bleeding profusely. No matter how many products I took, I never could remedy this situation. Well, after taking the magnesium oil, putting it in my mouth, and swishing it around, after about five days there is absolutely no bleeding anymore, and my gums feel entirely new."

- Mona L.

Headaches

"For about the last 10 years, I would get migraines at least two times per week. These migraines were debilitating, I couldn't sleep, eat, work... nothing. I have used it for about 60 days now, and not ONE migraine, not even one headache. This product is amazing and has completely changed my life. I don't have to miss work, I sleep like a log, I'm happier and more stable all because of one mineral that I was deficient in. Why this wasn't recommended to me earlier, I will never know!"

- Samantha G.

Heart palpitations

"I have had premature ventricular contractions for 17 years, because of low magnesium. I take 900mg of magnesium pills a day and eat high magnesium foods. Most of the time this keeps my PVCs under control. In the past year, however, I have had to get a magnesium IV and that only worked for a few months. I tried this oil spray and, within a week, my heart was beating normal again. I use it twice a day and haven't had any problems for over a month now."

- Layne R.

Mental health

"I love this stuff. It's highly effective for many things, but I use it for anxiety. I spray my arms, mid section, and back of my neck before going into stressful situations or in the midst of a panic attack and without fail in about 20-30 minutes I'm calmer."

- Mrs. S.

Psoriasis

"I have been taking Ancient Magnesium Oil and Curcuminx4000 for about three weeks now and notice a slight difference in my psoriasis, which is great. Thank you again for your time."

- Louise G.

Find the magnesium that fits your family

Magnesium Oil

Magnesium oil applied as a topical spray can improve the uptake of magnesium ions, enhance cell membrane permeability, increase joint mobility, and even ease inflammation to aid in pain management. This next-generation oil spray is quick, effective, and easy to use. Magnesium oil with OptiMSM® can provide the strongest boost of magnesium and is ideal for more serious health conditions.



Instructions: Apply liberally to arms and legs. If irritation occurs, you can dilute with 1 part water to make it 50-percent strength. You may notice a salt-like mineral residue remaining (varies on climate/temperature and amount applied). To avoid this, apply 20 minutes before showering and then rinse, by which time the majority of magnesium will have been absorbed. Avoid direct contact with eyes, mucus membranes, and other sensitive areas. If redness or irritation occurs, rinse with cool water.

Magnesium Lotion

Magnesium lotion is perfect for those with sensitive skin—added ingredients like **shea butter**, **sweet almond oil**, and OptiMSM® work in harmony to soothe the skin. This topical magnesium delivery system can improve cellular magnesium levels, ease aches and pains, relieve stress, and support detoxification.



Instructions: This is light enough to be used as a daily moisturizer. Simply apply the desired amounts to your hands, face, and body. A little goes a long way. For best results, apply to clean skin.

Magnesium Cream

Magnesium cream is both calming and hydrating. With benefits for stress reduction, pain relief, and more, a daily cream offers an easy way to supplement this missing mineral for adults, children, and the elderly.



Instructions: This is light enough to be used as a daily moisturiser. Simply apply the desired amounts to your hands, face, and body. A little goes a long way. For best results, apply to clean skin.

Magnesium Bath Flakes

Soaking in a bath full of magnesium flakes is as soothing as it sounds. A magnesium bath can support detoxification and increase cellular magnesium levels, ease aches and pains, and reduce stress and anxiety levels. Magnesium flakes are an ideal treatment for children and the elderly, conveniently used in a warm bath or foot soak.



Instructions: For a foot bath - Add 150-200g (1 cup) flakes in warm (not hot) water and enjoy it for minimum 20 minutes or longer if desired. For a bath soak - Add 250-300g (2 cups) flakes in a warm bath and relax for minimum 20 minutes or longer to obtain full body rejuvenation.

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- **Autoimmune disease**
- **Alzheimer's disease**
- **Heart disease**

And much more!

"I started using magnesium flakes and oil when it was suggested I may have a deficiency which resulted in me having an anxiety disorder. This really helped, and then I fell pregnant. I came off my prescription medication (for the sake of the baby) and stopped using magnesium, until symptoms were too bad to bear, so I re-introduced using magnesium bath flakes. Not only did my anxiety subside, but so did any pregnancy tiredness, swelling, aches and pain. I continued with normal dosage use until the end of my pregnancy where I began to suffer from palpitations, so at the onset of any attack I rubbed magnesium into the heart area with an almost instant result. I continued to use magnesium after baby Jake was born, and this helped with healing of stitches, fatigue, aches and pain. Jake also has a small dosage of flakes in his own bath, to help with sleeping and all the little bugs he picks up."

- Sian Redfern, daughter-in-law of Robert Redfern



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