
Vitamin Deficiencies

Revelation Health, LLC.

In a perfect world, the air would be clean, our oceans and water supplies free of pollution, and everyone would get their vitamins and minerals from a well-balanced organic diet and plenty of sunshine. Considering the following wide-spread vitamin deficiencies, however, this is not the case. Most Americans are deficient in the very vitamins and minerals essential for basic body function. But vitamin deficiencies are not at the root of modern disease: the source is toxin-driven inflammation. To truly impact health, underlying inflammation must be decreased. Vitamins and minerals play a key role in this process. High-quality supplements provide nutrients missing from the diet which activate and support the body's God-given ability to heal. If you're reading this right now in America there's a good chance you're deficient in some or all of the five following vitamins, and if you're going to take supplements these are the five to take.

Vitamin D

Three quarters of the American population is deficient in vitamin D. This essential vitamin plays a significant role in many body functions including bone formation, calcium absorption, cell growth, neuromuscular and immune function, and decreasing inflammation. Low vitamin D levels are linked to an increased risk of major diseases such as heart disease, diabetes, cancer and neurodegenerative conditions. A low vitamin D level also predisposes you to various autoimmune disorders such as Multiple Sclerosis and Type 1 diabetes.

Vitamin D is proof that God knew what he was doing: the darker your skin, the more sun exposure is needed to raise your vitamin D levels. In the past, people with dark skin lived near the sunny equator, and could be out in the sun all day long. The problem today is that many darker-skinned people live in cloudy regions with little sun, so they easily become deficient. An increased risk of deficiency in turn leads to an increased risk of other diseases associated with a low vitamin D level.

In the past, doctors warned individuals to not supplement with vitamin D, stating it could cause cancer, hip fractures, or be easily overdosed and built-up in the body because it is fat soluble. Fat soluble vitamins do stay in the body longer than water soluble vitamins, which flush out of your system and are hard to take in excess. God designed fat soluble vitamins to remain in the body longer because we need them so much. The problem is that fat soluble vitamins (others include K, A, and E) all compete for the same cell receptors. When one vitamin is blocked by another competing vitamin, a functional deficiency occurs. This is why taking a fat soluble vitamin supplement that only contains vitamin D, for example, puts you at risk for deficiency of other fat soluble vitamins.

What is the best way to maintain adequate vitamin D levels? Get in the sun! If we're not getting enough sunlight, our body is not producing enough vitamin D. And unless you're eating a diet full of fatty fish and grass-fed dairy products, you're not getting enough vitamin D from your diet, so time spent in the sun is crucial. Do not stay inside all day and coat yourself in toxic sunscreen before you walk out of the door. Many people today are deficient in vitamin D because they are constantly slathering on sunscreen, fearful of media warnings that the sun causes skin cancer. Have you noticed that the more sunscreen we use the more skin cancer we observe? I believe the sun can actually prevent skin cancer and other diseases. Don't be fooled: we absolutely need sunlight to be healthy. Shea butter and coconut oil contain SPF and are good natural alternatives to toxic sunscreen, and wearing hats and protective clothing is important as well.

If you can't get enough sunlight, consider taking a high-quality vitamin D supplement. An effective supplement is balanced with other fat soluble vitamins. If you are taking a vitamin D supplement that does not contain vitamins A, K2, and E you will eventually create a functional deficiency. Do not waste money on a supplement that does not contain other fat soluble vitamins at the proper ratios for absorption. I take a vitamin D supplement made by Systemic Formulas, which can be taken

in pill or liquid form (for those with absorption issues). The average person can take 5,000 to 6,000 units daily, but those who are severely deficient may need more. Periodically, I suggest taking a high dose once or twice a week, up to 100,000 units, but dosage is at your health practitioner's discretion.

Vitamin K2

You may have heard about the importance of vitamin K1, known for its role in blood clotting, but what is vitamin K2 and why is it so darn important? For starters, it's estimated that nearly ALL Americans are deficient in K2. Vitamin K2 is responsible for promoting brain function, healthy skin and bones, and it helps to protect us from major diseases like heart disease and cancer. A deficiency is linked to autoimmune conditions, heart attack and stroke, and bone issues like osteoporosis and fractures.

One of vitamin K2's most important responsibilities is moving calcium into your bones and cells. Calcium is essential to life and is needed for many cellular processes. But most Americans consume and supplement plenty of calcium: what we are desperately lacking is vitamin K2. Without the presence of K2, calcium cannot be brought into your bones. Therefore, you can take loads of calcium, but without K2 it renders useless. Vitamin K2 is absolutely essential for the prevention of osteoporosis.

Why are the vast majority of Americans deficient in K2? We eat grass-fed NOTHING. Most people eat exclusively grain-fed and conventionally produced animal products, which contain virtually no vitamin K2. To obtain K2 from your diet you must consume full-fat, grass-fed animal products. Here's why: cows eat grass which contains vitamin K1 and convert it to vitamin K2 in their unique gastrointestinal systems. Humans do not have this ability, so we must get K2 from eating grass-fed animal foods. The foods richest in vitamin K2 are grass-fed, fatty animal products like butter, cheese, heavy cream, meat (including organ meats), cultured yogurt and fermented foods. Vitamin K2 is contained in fat, so fattier the better.

A unique product which contains loads of vitamin K2 is called X-Factor butter oil. The butter is named in tribute to Dr. Weston Price, a dentist who traveled the world in the 1930's and observed the diet and health status of many traditional populations. Price noted that when cows ate rapidly growing grass during short time periods in the spring and fall seasons, the milk they produced contained high amounts of a nutrient he labeled "Activator X." We now know Activator X is vitamin K2, and was a staple in the diets of the healthiest groups Price studied. We're blessed to have access to this butter made from K2 rich milk year-round. X-Factor butter oil is a great way to increase dietary K2, and is also healing for the gut and immune system.

Iodine

It's been estimated that one third of the planet is iodine deficient. A lack of iodine is linked to Attention Deficit Disorder, brain function problems, and lowered IQ in children. Iodine plays a key role in brain development, immunity, and thyroid function. Individuals who suffer from thyroid conditions are often lacking iodine because the body can't make thyroid hormone without it. Iodine is also involved in hormone health. Many women who are deficient in iodine are also low in an important estrogen called estriol, which is protective against hormone driven cancers and the effects of toxic estrogen. Fibrocystic breast issues are also related to iodine deficiency because iodine cell receptors are located in breast tissue.

Heavy metals in the body further contribute to iodine deficiency, and many people today are suffering the effects of heavy metal toxicity without knowing it. Heavy metals compete with iodine at the cellular level, specifically for the iodine cell receptor. The metals block iodine from the cell receptor so the body cannot use iodine, and it's flushed out of your system and not absorbed.

I believe the epidemic of iodine deficiency is largely due to the fact that iodine is no longer found in our highly depleted soil and is deficient in our food supply. Traditionally, soil would be turned over every seven years and crops rotated, but this is

not the case today. A toxic chemical called glyphosate, the active ingredient in Monsanto's Round-up and the number one herbicide sprayed on crops on the planet, is causing major problems. Glyphosate pulls minerals from the soil and weeds, thereby depleting them of the very minerals they need to grow. The mid-western part of our country is particularly affected by this issue because glyphosate is sprayed there extensively. When lecturing in the mid-west I observe large numbers of thyroid issues, no doubt correlated to iodine deficiency linked to the overuse of glyphosate.

What about iodine in iodized table salt? It simply does not provide enough iodine to make an impact on your health. The best dietary sources include ocean foods like seaweed and fish, but beware of the quality and source of your seafood because much of it is contaminated from polluted waters and contains heavy metals like mercury. The radioactive element cesium is also a contaminant concern, specifically in seafood caught in the Pacific Ocean due to the Fukushima disaster. Other sources of iodine include yogurt, pastured eggs, cow's milk and strawberries. If you're not getting enough iodine in your diet, consider supplementation. A high quality supplement from Systemic Formulas called TMI boasts the ideal ratio of iodine to iodide to support thyroid function. Most people need to supplement iodine due to the difficulty of getting enough of it from food, and could supplement for a few years when extremely deficient. I take an iodine supplement sporadically, but recommend getting it from non-toxic dietary sources as much as possible.

Magnesium

Magnesium is a vital yet often overlooked mineral that plays a role in most body functions. It gives us energy, keeps our hearts healthy, assimilates vitamin D, and is known as the "relaxation mineral" since it can help to relieve stress. Magnesium is also needed to maintain normal hormone function, crucial to overall good health.

Magnesium is a key player in a function called methylation. Methylation is an ongoing biochemical process that affects many other functions such as repairing DNA, detoxification, stress adaptation, regulating sleep, and more. The body needs methylation to turn stress hormones on and off, and when unable to methylate, remains in a state of stress. Physical, chemical, and emotional stress depletes our ability to properly methylate. Without methylation, problems occur with our hormones, brain function, and energy at the cellular level. Methylation is crucial to health and magnesium supports this constant process.

So why are many of us deficient in magnesium? As in the case of iodine, very little remains in our current food supply due to glyphosate pulling magnesium out of our food crops. Excessive consumption of caffeine, sodas, sugar, processed foods and alcohol also deplete magnesium. Our bodies have a greater need for magnesium today because we're more depleted than ever due to our modern diet and environment.

Magnesium can be consumed in kelp seaweed, beans, almonds, cocoa, halibut, spinach, oysters, and bone broth. But if you're not eating mostly organic foods, ensure adequate magnesium intake by taking a high-quality supplement. Many of my patients are magnesium deficient and often notice dramatic results when they begin supplementation. They often notice improvements in their muscles and joints, energy level, brain function, adaptation to stress, and hormone balance. Most magnesium supplements sold in stores are poor quality and will not impact your health. Low quality supplements contain magnesium oxide and hydroxide, forms that are not well absorbed by the body, and will do little more than move your bowels and flush out your system. I recommend supplements containing magnesium malate, glycinate, or even citrate for best results.

Vitamin B12

Vitamin B12 deficiency is more common than most people realize, with perhaps two fifths of our population having an undetected marginal deficiency of this vitamin involved in nearly all cellular processes. Vitamin B12 impacts our brain and

nervous system function, aids in the formation of healthy blood cells, and greatly influences our energy level. Like magnesium, B12 also plays a role in the process of methylation. If you lack B12, you lack methylation, and many of us are undoubtedly methyl depleted and suffering the consequences.

Most Americans get plenty of vitamin B12 from animal foods. So what is causing the deficiency? We're simply not absorbing it. Vitamin B12 has to be absorbed through our gut. Most people today have varying degrees of gut issues and absorption problems, and unhealthy guts cannot absorb B12 and cause the deficiency to develop over time. One common gut condition linked to B12 deficiency is leaky gut. Leaky gut occurs when the tight junctions that make-up the gut wall become inflamed and cause undigested food proteins to leak across, resulting in inflammation. Certain medicines (like proton pump inhibitors) reduce the natural production of gastric acid and also inhibit B12 absorption from food. Basically, gut issues lead to lowered absorption of B12, which causes a lack of methylation that eventually leads to disease.

What about B12 supplementation and shots? The trouble is that most shots and supplements do not contain the active form of B12, so it is not absorbed by the body. The inactive form of B12 is called cyanocobalamin, and needs to be converted by the body into the active form in order to be absorbed. Unfortunately, most people cannot make the conversion. The two active forms of B12 are called methylcobalamin (containing a methyl group) and hydroxocobalamin. Most B12 supplements found in health food stores contain the inactive cyanocobalamin, which is inferior to the active forms and can even be toxic to some individuals. I often give patients the sub-lingual supplement form of active B12 in combination with folate to enhance B12 absorption. When folate and B12 are taken together as a "methyl bomb" the B12 goes directly into the cell and thereby promotes methylation. The active forms of B12 are more expensive, but since most people are unable to convert the inactive form of B12 to the active form, taking a low-quality B12 supplement is futile.

Note:

For those looking to take a high-quality multivitamin, I recommend a product called SPECTRA from Systemic Formulas, which is the only true whole-foods based multivitamin on the market today. SPECTRA contains two components: SPECTRA 1 capsules that provide water soluble vitamins and SPECTRA 2 liquid which is an oil-based solution that provides fat soluble vitamins. Together the capsules and oil provide complete cellular food. The nutrients are extracted from organic vegetables in their whole state, thus are well absorbed by the body so less is needed for results. I obtain most vitamins and minerals from a whole-foods, organic diet but occasionally take SPECTRA to cover the bases. It's a great multi-vitamin to take if you do not eat mostly organic.

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