



Any time I hear about something that enhances mitochondrial health, I am all ears. The mitochondria are like energy factories in our cells. They make an energy currency called ATP that we need for life. Think of ATP as a type of battery that the mitochondria charge up and then the battery can go to parts of the cell that need energy and release enough energy to repair. And if our cells don't have sufficient energy, they can't repair and replicate.

So, paying attention to our mitochondrial health should be an underlying emphasis with each of us, regardless of our health status. Mitochondrial health is enhanced by many factors; exercise and intermittent fasting are two big ones. You may have heard of the nutrients Coenzyme Q 10, lipoic acid, and acetyl L-carnitine, which are antioxidants inside the mitochondrial energy factories. But I was surprised to learn magnesium plays a major role in optimizing mitochondria.

Here's why: As I mentioned, one of the major functions in mitochondrial health is to package energy in units called ATP. We need magnesium to form a complex called magnesium ATP. If magnesium is not present inside the mitochondria, it can't make ATP in a stabile form that the body can transport, like the battery analogy, and use efficiently. If we can't store and transport energy, cellular repair and regeneration is severely compromised. And that's what

Magnesium Deficiency

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defines DIS-EASE, the inability to repair and regenerate healthy cells.

Researchers are now saying Magnesium is a critical cofactor in more than 600 enzymatic reactions in the human body. Many of them are tied to energy production. Deficiencies in magnesium ultimately yield lower energy states, which mean cells can't maintain balance. The result of being out of balance means cells are more susceptible to environmental toxins and infections. This, in turn, causes free radicals to increase. Free radicals "inside the cells" damage DNA and mitochondria, which further reduce energy production and healthy cell replication.

This is a transcript from a "video magazine" we send out each week called the Wellness Minute. If you're not getting our Wellness Minute videos each week, sign up at the front desk. Let's look at why magnesium is the single greatest mineral deficiency. We start by realizing the magnesium in our soil is depleted. Next, as a culture, we consume foods that deplete magnesium. Processed foods are not only deficient in magnesium but require mineral reserves to make the enzymes needed to detoxify the food additives and chemicals we unknowingly ingest. Know anyone who complains of digestive issues? Because digestive issues reduce availability even further, we need sufficient HCL to cleave magnesium from its substrates.

You can see how our magnesium pools are low to begin with. What happens when add stress to this picture? Well, that depletes magnesium even faster. A form of stress we never consider is chronic illness. Many chronic conditions are tied to magnesium deficiency. But even more conditions drain magnesium reserves; diabetes, hypertension, kidney disorders, metabolic syndrome, inflammatory lung diseases, cancer, heart attacks, strokes, atherosclerosis, excess clotting, liver damage, heart conditions like arrythmias, further deplete magnesium pools. Another unavoidable stress is aging. In general, as we age, we eat less, and we eat less of the foods that are rich in magnesium. And the aging process itself depletes magnesium. And let's not forget many pharmaceutical agents deplete magnesium. Dr. Russell Blaylock, neurosurgeon, asserts that magnesium is the body's primary protectant against uncontrolled inflammation. And inflammation is tied to almost every major disease.

Your doctors can test you for magnesium levels, but since over 50% of the population doesn't get enough from our diet, and stress and disease deplete what we have stored, it makes sense to supplement. There are many forms of magnesium. Some forms are better for heart or brain health. Some forms are better as tablets or powders, and some forms can be added to a hot bath.

So if you are suffering from fatigue, muscle spasms, stress, or have some of the conditions we've discussed, consider magnesium and talk to your wellness professional about which forms are best for you.