

Zinc Deficiency is a Global Concern

Posted by [Dr. Mercola](#) | October 08 2009

Experts say as many as 2 billion people around the world have diets deficient in zinc, and studies are raising concerns about the health implications this holds for infectious disease, immune function, DNA damage and cancer.

Zinc is essential to protecting against oxidative stress and helping DNA repair. One new study has found DNA damage in humans caused by only minor zinc deficiency.

Zinc deficiency is quite common in the developing world. Even in the United States, about 12 percent of the population is probably at risk for zinc deficiency, and perhaps as many as 40 percent of the elderly. Many or most people have never been tested for zinc status, but existing tests are so poor it might not make much difference if they had been.

Sources:

» [Science Daily September 17, 2009](#)

Dr. Mercola's Comments:

It's well known that one of the symptoms of zinc deficiency is frequent colds and infections, and this trace mineral became popular a few years back in the form of lozenges to relieve cold symptoms (zinc is directly toxic to cold viruses and stimulates your body to produce antibodies to destroy the virus).

However, zinc is essential for much, much more than just taking away the sniffles. There are more biological roles for zinc than for all other trace elements put together. It plays a crucial role in such things as:

- Cell growth
- Gene transcription (the process that allows your cells to read genetic instructions)
- Keeping your immune system strong
- Stabilizing your metabolic rate
- Balancing your blood sugar
- Maintaining your sense of taste and smell

Adding zinc to the diets of teenagers has even been shown to cause [improvements in memory and attention span](#).

Zinc is also important to protect your body against oxidative stress and DNA repair. While some level of oxidative stress is a normal result of your body processes, many, many factors, from pollution to [obesity](#) to mental stress, can cause an excess of free radicals in your body -- and this is associated with oxidative stress and various chronic diseases and aging.

If you are deficient in zinc, however, your body may become less able to repair genetic damage caused by oxidative stress. Having low levels of zinc has even been found to cause strands of DNA to break and studies have linked zinc deficiency to various types of cancer, infection and autoimmune diseases.

A report in the *British Medical Journal* reported that more than 300 catalytically active zinc metalloproteins and more than [2,000 zinc-dependent transcription factors](#) involved in gene expression of various proteins have been recognized.

But despite all the evidence, practically no attention has been given by the world's organizations to the problem of zinc deficiency.

Are You Deficient in Zinc?

Zinc deficiency is common in the developing world, and it's thought that about 12 percent of the U.S. population, and up to 40 percent of the elderly, are also at risk for zinc deficiency. Part of the problem is that many people do not eat enough zinc-rich foods, while the mineral is also not well absorbed.

Compounding the problem is that most people are not tested for zinc levels, and the available tests are not very accurate anyway.

So perhaps the best way to determine if you may be deficient in this essential mineral is to watch out for these common signs that you may need more zinc:

- Lack of appetite
- Depression
- Impaired sense of taste or smell
- Frequent colds and infections
- Growth failure in children

Autism and Lyme Disease

Dr. Dietrich Klinghardt is one of my primary medical mentors and one of his new passions is treating those with pyroluria or KPU, which results in high levels of pyrroles in the body from defective synthesis of hemoglobin. This results in massive excretion of zinc.

Dr. Klinghardt finds in his experience most with autism or Lyme Disease have this acquired defect and will not improve unless they take massive doses of zinc, somewhere on the order of 200 mg or more a day, which is about ten times the RDA. Unfortunately, this dose causes nausea in many that use it.

I will be posting a video and comprehensive protocol in the future that details this interesting hypothesis.

Is a Zinc Supplement a Good Option?

Zinc is an essential component of human nutrition and deficiency can result in some [devastating symptoms](#), so should you take a supplement just in case?

Well, the key to supplement use is understanding who needs them and when. This usually involves an individual assessment so that you can be sure YOU are being treated, not just your set of symptoms.

So it is important to avoid the conventional paradigm approach to nutrients -- and that is often targeting a specific nutrient for a specific disease. In reality, nothing is isolated in your body, and taking zinc indiscriminately can be quite problematic.

If one does not suffer with pyroluria zinc supplementation can lead to excess zinc, which may:

- Cause you to become deficient in copper, which may lead to [anemia](#)
- [Double your risk of prostate cancer](#) (for men)
- Lead to nausea, stomach pain, vomiting, and even diarrhea if you take too much

So about the only time you may want to consider a zinc supplement would be if you come down with a cold, as zinc lozenges (that you suck on, and don't just swallow) may help to relieve your symptoms.

Beyond that, my personal recommendation would be to hold off on the zinc supplements, with the exception being if you are working with a natural health care practitioner who has determined you are deficient and in need of supplementation. This may be of particular importance for pregnant women (adequate zinc is essential for development of the fetus) and vegetarians, as it's thought that zinc from plant sources may not be well absorbed.

But for most people, the best option would be to simply increase zinc in your diet from the foods you eat. Some of the best food sources of zinc are:

- Liver
- Grass-fed beef
- Crimini mushrooms
- Spinach
- Sea vegetables
- Pumpkin seeds
- Green peas

Again, it's thought that zinc is better absorbed from animal sources than plant sources, so if you are serious about increasing your zinc intake you may want to add more organic grass-fed beef or liver to your diet.

For reference, the recommended daily allowance for zinc is eight milligrams a day for women and 11 milligrams for men (anything over 50 milligrams a day may be excessive). Just how many high-zinc foods will you need to eat to get to that amount?

- Four ounces of liver will supply you with 72 percent of the daily recommended value
- Four ounces of beef tenderloin will supply you with 42 percent
- Four ounces of lamb will give you about 31 percent
- Five ounces of crimini mushrooms or one cup of spinach will give you around 10 percent

Related Links:

- » [Zinc Deficiency](#)
- » [Zinc Can Cure Diarrhea](#)
- » [Zinc Supplementation May Help Increase Growth in Stunted Children](#)

Reference website: <http://articles.mercola.com/sites/articles/archive/2009/10/08/Zinc-Deficiency-is-a-Global-Concern.aspx>