



Heavy Metals, Immune Function and Resistance to Viral Infection:

How Detoxification Strengthens our Ability to Fight Off Diseases Like the Coronavirus

Turn on any news station these days and it's impossible to avoid hearing about the Coronavirus. While the number of daily new cases is decreasing in China where the virus originated, in other parts of the world it's on the rise. Most of those who contract the disease recover, but among those who don't, age and overall health are important factors.

More specifically, those whose immune systems are already compromised either through inflammatory conditions or by the medications they take to treat those conditions are at higher risk from the disease because they have fewer tools to fight it. But for all of us, boosting our immune systems is a proactive step we can take to be prepared for whatever happens amid the current climate of uncertainty.

There are many ways to go about it and we'll provide multiple suggestions and links at the end of this story. For the purposes of this article, we wanted to look at just one aspect of immune health that's often overlooked: the link between environmental toxins and immune function and how we can reverse negative impacts on our health.

According to the National Center for Biotechnology Information, certain heavy metals have been reported to seriously affect the immune system, potentially resulting in a broad range of harmful health effects. As authors J. Lehman and U. Sack point out in their article 'Metal Ions Affecting the Immune System,' "Since the key importance of the immune system is protection of the host against pathogenic agents, an impaired immune competency inevitably increases the susceptibility to invading pathogens."

Exposure to heavy metals such as arsenic, lead, mercury and cadmium has been linked to chronic-inflammatory reactions, cancer development, hypersensitivity, allergic and autoimmune diseases. All of us are exposed to these toxins - and many others - on a regular basis through pesticides on food, synthetic chemicals in our cleaning and beauty products, flame retardants in our furniture and a multitude of other sources.



An estimated 25 percent of the U.S. population suffers from heavy metal poisoning caused by processed foods, drinking water, industrial pollution, aluminum cookware, etc. Mercury, commonly occurring in seafood and ingested through pesticides, cosmetics and pharmaceuticals, decreases the production of white blood cells, including T-cells. It also inhibits primary, secondary and memory immune responses.

With environmental toxins so pervasive in modern society, they are almost impossible to avoid. However, eliminating them can provide our immune systems with a welcome boost and the process doesn't have to be dramatic or painful, despite popular conceptions of detoxification.

Clinoptilolite, a natural non-toxic zeolite, has been proven to not only remove heavy metals and other toxins - including viral particles - from organs and tissue, it actually increases T-cell production. One study found that zeolites can function as powerful immunostimulators for between 10 percent and 30 percent of the host's entire T-cell arsenal.

Another found that mice fed with zeolite over a period of 28 days increased their production of macrophages, large white blood cells with the ability to locate and 'eat' particles like bacteria, viruses, fungi and parasites. A white paper by The Good Inside notes, "Accumulating evidence has suggested that zeolites may significantly affect the regulation of the immune system."

Then there's the elimination process, which clinoptilolite achieves by a combination of its cage-like structure and magnetic charge. Clinoptilolite, particularly in the form of 'soluble zeolite' like Vitality Detox Drops, captures both heavy metals and viral particles in concentrations small enough to allow them to be eliminated from the body.

"The cage structure of clinoptilolite will grab onto these particles and bind them within the cages, which effectively slows down the viral replication process," says Clay Thomas, a toxicity industry expert. "Then something great happens. If the virus is slower to replicate, your immune system is able to respond to the threat and kill it quicker."

To be clear, detoxing alone using soluble zeolite will not ward off the coronavirus, nor will it prevent the infection from spreading. What it can do, however, is give our immune systems a fighting chance to do their job: protecting our bodies from pathogens. By eliminating toxins that



interfere with and suppress that capacity while increasing the production of macrophages and T-cells, soluble zeolite is a powerful tool to combat infection.

Other ideas for boosting immune function:

- Get enough sleep. Sleep boosts T-cell activation.
- Wash your hands and avoid touching your mouth and face.
- Eat plenty of fruit and vegetables. *Caveat. Buy organic as much as possible to avoid pesticides and other harmful chemicals that cancel out any benefits they provide.
- Add spice to your diet - literally. Foods like garlic, ginger, cayenne pepper, onions and turmeric have antioxidant, detoxifying and antimicrobial properties.
- Exercise moderately. Physical activity can help to flush bacteria out of the lungs and airways, thereby reducing our chances of getting sick. It also causes changes in antibodies and white blood cells. Too much exercise, however, can temporarily suppress immune function.
- Reduce stress. The stress hormone corticosteroid can suppress the effectiveness of the immune system. Yoga, meditation or any other practice that reduces your stress levels will be beneficial.

For an excellent overview of the Coronavirus, how it's spread and more ideas on how to minimize the risk of infection, read [How to Survive the Corona Virus](#).

Sources:

[“Harmful Interactions of Non-Essential Heavy Metals with Cells of the Innate Immune System”](#)

by A.J. Theron, G.R. Tintinger and R. Anderson. Journal of Clinical Toxicology.

[“Metal Ions Affecting the Immune System”](#) by J. Lehman and U. Sack, National Center for Biotechnology Information, 2011.

[“How to Boost Your Immune System”](#) Harvard Health Publishing, Harvard Medical School, September, 2014.

[“Clinoptilolite Zeolite and the Science & Research of Pure Body”](#) White Paper, The Good Inside.