HOLISTIQUE MEDICAL CENTER · BELLEVUE, WA

Environmental Toxins and Detoxification

Justin Newell, ND

October 29, 2019

Over the last several years, there has been a growing body of evidence and literature suggesting a strong association between toxin exposure and chronic degenerative conditions. The Environmental Protection Agency (EPA) uses the word toxicant to denote a toxin and has noted that each toxic substance has a defined concentration in the body at which it will produce a negative effect. Environmental toxins have a physical and physiologically negative effect on the body even at low doses.

What are Toxins and why are they so dangerous?

Virtually everyone is exposed to organic pollutants, specifically the halogenated hydrocarbon PCB (Polychlorinated biphenyl), mainly through our food. In studies, PCBs have been shown to suppress our immune system and decrease thyroid function. The EPA has classified PCBs as a “probable carcinogen”, although research has shown that exposure increases cancer risk. Exposure can also lead to an increased risk of cardiovascular disease, hypertension, and diabetes. A few studies have shown that PCB exposure is associated with cognitive problems and the ability to learn/remember.

Pesticides are another environmental toxin that people are consistently exposed to. Many of the industrial chemicals are developed for their toxic effect on certain organisms, which are then commercially sold as pesticides, insecticides, and herbicides. Pesticide exposure has been linked to the development of Parkinson’s disease, anxiety, depression, ADHD, leukemia and Non-Hodgkin’s lymphoma.

The general public is exposed to endocrine disruptors that interfere with the body’s endocrine system and can produce adverse developmental, reproductive, neurological and immune effects. Some of the common types are phthalates found in plastics, PCBs, some pesticides and synthetic steroids found in meat. Endocrine disruptors mimic or partially mimic naturally occurring hormones in the body like estrogens, androgens and thyroid hormones leading to adverse physiological effects.

Heavy metal exposure like lead, mercury, aluminum, cadmium, and arsenic are environmental toxins present in the air, drinking water, food, and countless products. Heavy metal toxicity often has delayed effects because the toxicants accumulate in different parts of the body. Lead for example can be

© 2026 Holistique Medical Center · Bellevue, WA

sequestered in bones, replacing calcium, where it has a half-life of 62 years. Heavy metals have been linked to DNA damage, decreased immune system function, anemia, hypertension, kidney damage, and tooth decay.

We are also exposed to toxicants through food additives, preservatives, and drugs. Artificial food coloring has been associated with an increase in symptoms in children with ADHD. Nitrates and nitrites can interfere with thyroid function and lead to an increased risk of certain types of cancers. Growth hormone and anti-bacterial drugs given to cattle have been found in certain types of meat, further increasing the toxic load on the body.

We cannot consider toxin exposures individually since we are exposed to many toxins at once. Toxins have an additive effect on the body and may take many years to manifest symptoms. Some fat-soluble toxic substances sequester in body tissues and remain there for years. This accumulation of toxicants in the tissues can cause people to be exposed to higher doses than the environment concentration would suggest are pres

ent.

How do we get rid of toxins?

So now that we know of some common ways we are exposed, how exactly do our bodies remove toxins? To first understand this process, we need a quick lesson on water-soluble and lipid-soluble toxins. Water-soluble toxins can be directly excreted out of the body through urine. Lipid-soluble toxins cannot directly enter into the urine and instead are attracted to lipid molecules inside cell membranes, where the toxin exerts its

toxic effect. Our bodies have a system in place to convert lipid-soluble substances to water-soluble ones, which can

then be excreted out of the body. This detoxification system has two steps: phase 1 called bioactivation and phase

2 called conjugation. These two phases work together to remove toxins in the body. Production of energy molecu

les called ATP is vital for the body’s detoxification pathways. ATP requires healthy mitochondria function, which toxicants can impair and destroy, leading to decreased detoxification capacity.

How Holistique can help

Nutritional and dietary support is important to maintaining healthy metabolism during a detox program. There are many dietary recommendations and supplements that will help to optimize the body’s ability to manage and excrete toxins. At Holistique Naturopathic Medical Center and IV Lounge, the

© 2026 Holistique Medical Center · Bellevue, WA

naturopathic physicians can help patients reduce their toxic load while optimizing overall health. Come stop by our IV lounge and get a detox IV along with a glutathione push and see how we can get you back on the path to wellness.

Dr. Newell

Liska, DeAnn J. "The Role of Detoxification in the Prevention of Chronic Degenerative Diseases." ANSR—Applied Nutritional Science Reports (Aug. 2002) (2002).

Medical disclaimer: This article is for educational purposes only and reflects the clinical perspective of Holistique Medical Center. It is not a substitute for individualized medical advice, diagnosis, or treatment. Consult a qualified healthcare provider before starting any new therapy or making changes to your health regimen.

Statements on products, services, and certain therapies offered and discussed on this site are not approved by the U.S. Food and Drug Administration and are not intended to diagnose, treat, cure, or prevent disease.

Holistique Medical Center and IV Lounge, Bellevue, WA · Call or text (425) 451-0404 · holistique.com/contact-us