



ALIVE!

DETOXING THE LIFESTYLE

A 24-YEAR-OLD MALE teacher began to have deviant thoughts of doing harm to his students. He sought professional help and complained of depression, insomnia, obsessive-compulsive tendencies, and anxiety along with the thoughts of inflicting harm. The counselor referred him to a psychologist. Thinking that perhaps he was possessed, he also sought help from a religious leader. After intensive therapy, the psychologist referred him to a physician who prescribed medication. However, the young man's experience only worsened. He left work on "sick leave." Side effects from the medication included weight gain, persistent nightmares, fatigue, and intractable constipation. With no family history of mental health problems, the patient was devastated to hear he had a chronic mental illness, requiring he take medication for life. His thoughts took on a suicidal nature.

The young man was then referred to a physician trained in environmental medicine, a branch of medicine that studies environmental inputs and the individual's responses to them. Testing revealed high levels of mercury. It was disclosed that he'd been eating one to two cans of tuna daily for the past three years after he had learned about the benefits of omega-3 fat intake on the brain. In fact, a nutritionist recommended he increase his tuna consumption after developing depression. He followed this advice and increased his tuna intake 50 percent.

Seafood has been identified as a major source of potential mercury exposure. Mercury is a neurotoxin and can accumulate in the brain. It's associated with what was labeled the Mad Hatter Syndrome in 17th century France. Felt hat makers, exposed to mercury by licking brushes dipped in mercury-containing solution, would eventually develop various psychiatric symptoms and were called mad hatters. After eliminating tuna from his diet and undergoing a detox process, "the patient's psychiatric symptoms completely resolved within 8 months, the intrusive ideation disappeared, he discontinued all medication, and returned to work as a happy, productive young man."¹

His thoughts took on a suicidal nature.

This true account illustrates how detoxification can have a dramatic effect on our physiology. While most of us are not consuming large amounts of tuna or experiencing such extreme symptoms, we all have been and are being exposed to numerous environmental contaminants, mercury being just one. Obtaining an accurate assessment of toxicity is difficult as toxins can be stored in the brain, bones, and fat tissue, not just in the blood. Up to 90 percent of mercury in the blood readily crosses the blood brain-barrier. Additionally, our exposure can be continuous, like it was with the teacher. Exposure can come even from our own mouths. The average American with 10 fillings containing mercury is continually exposed, with each filling leaching 1 microgram of mercury

into the body every day. China, New England, and Florida burn coal for energy, resulting in the release of mercury into the air and water.

Yes, we're exposed to pollutants in air, water, food, personal care products, our devices, clothing, and even receipts. We can help our bodies combat the deluge in multiple ways. While this article is not intended to guide you through a detoxification process, it will identify practices that can be incorporated into a detox lifestyle.

The first strategy is to minimize exposure. Identify potential contributors to the body burden of toxins and then determine how exposure can be reduced. In the case of the teacher, he stopped eating tuna.

Since detoxification is a nutrient requiring process, the second strategy is to buffer the effects of toxins with the right nutrition.

Various protein building blocks, called amino acids, are used as cofactors to important substances that carry on detoxification. Insufficient intake or poor digestion of protein leaves the body unable to adequately detoxify. Digestion of protein requires an acidic environment in the stomach. Unfortunately, antacids and medications targeted at alleviating acid reflux (proton-pump inhibitors or PPIs) suppress gastric acidity. These medications can also hinder adequate absorption of vitamins and minerals, which can be central to detoxification.

Cruciferous vegetables, such as broccoli, kale, cabbage, Brussels sprouts, and watercress, contain phytochemicals essential for activating detox. Some of these plant compounds are increased with cooking and others are destroyed. For optimum detox, eat some of your cruciferous vegetables raw or steamed for less than two minutes. This class of vegetables enhances the biotransformation and excretion of toxins.

Vegetables in general and other plant-based foods also facilitate detoxification by making the urine more alkaline. Urinary pH alkalization enhances the elimination of toxins through the urine. Consuming 200 grams of cooked broccoli, carrots, and cauliflower resulted in increased urine alkalization for up to four hours. Conversely, high protein diets (lots of meat, fish, and cheese) increase net dietary acid load and acidify the urine pH.

Fiber is an extremely important to effective detox. Research found rice bran fiber, for example, to effectively bind with several polychlorinated biphenyls (PCBs) and other organic pollutants. Fiber can help prevent the re-exposure of toxins as it can aid in the removal of toxins in the stool. Fiber can also aid detoxification by maintaining good bowel health. Constipation impairs elimination of toxins.

Chlorella supplementation was found to reduce contaminant levels in the breast milk of nursing women. Modified citrus pectin (MCP) was found effective at removing lead (which impacts learning and cognition) from the blood of children ages five to twelve years old.² MCP is largely made from the pith of citrus, the white part of the peel we tend to throw away.

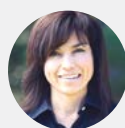
Green leafy vegetables, quercetin (found in apples and onions), turmeric, and sulfur-containing foods such as garlic have all been found to enhance detoxification. Sugar, however, impedes the detox process.

Sweating is one of the body's ways of excreting toxins and diminishing bioaccumulation. Exercise and sauna therapy have been found to diminish the body burden of several persistent organic pollutants, such as PCBs and pesticides, in exposed individuals.

The Bible refers to God as a Purifier (Malachi 3:3) who will purify unto Himself His own special people (Titus 2:14). He is the healer of body and soul. His presence within will enable the removal of the emotional and mental toxins that are as poisonous as arsenic to body and soul. Allow Him to empower you to live a detox lifestyle. 🌱

1. Stephen J. Genuis MD, "Toxicant Exposure and Mental Health—Individual, Social, and Public Health Considerations," *J Forensic Sci*, March 2009, Vol. 54, No. 2, http://www.academia.edu/30142645/Toxicant_Exposure_and_Mental_Health-Individual_Social_and_Public_Health_Considerations.

2. Zheng Yan Zhao, MD et al., "The Role Of Modified Citrus Pectin As An Effective Chelator of Lead In Children Hospitalized with Toxic Lead Levels," *Alternative Therapies*, Jul/Aug 2008, VOL. 14, NO. 4, http://www.promedics.ca/site/downloads/MCP_Chinese%20Children%20Lead%20Study%20ATHM%202008.pdf.



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