



Flint Michigan and Understanding the Neurotoxicity of Lead

By Pamela Costello, MD, PhD, Holistic Neurosurgeon, Neuroscientist

Drinking water in Flint Michigan, previously sourced from the Detroit river, was changed to the Flint River in Michigan. With the intention of saving money, Michigan authorities allowed the Flint River, which is full of corrosive compounds that rapidly accelerate lead leaching from corrosion of lead pipes, to acutely poison its residents, who are now suffering major health crises.

Relevant facts to take from this horrendous disaster include that all lead pipes and plumbing solder throughout the country's plumbing infrastructure corrode and release lead. Lead bioaccumulates in all individuals, preferentially in lipid (fat) bearing tissues, such as the brain, glands, and our bony skeletons. However, the accumulated lead that stores in these tissues can be measured in all individuals, removed, and the associated brain and tissue inflammation repaired.

Lead impacts everyone, and has increasingly done so with the rise of lead from industrialism saturating our ecosystem, as well as with our aging municipal and plumbing infrastructures. As part of this ecosystem, we have all been silently poisoned. This process is often a slow, yet inevitable one that leads to compromised neuroimmunologic systems, compromised brain development in children, and cognitive and behavioral dysfunction in children and adults. Lead also acts as toxic stress on our gastrointestinal and cutaneous systems, manifesting as gut distress, hair loss, skin rashes, and poor wound healing. I test every one of my patients for neurotoxic heavy metals, and over 95% register lead as their highest neurotoxin level.

Keeping our water safe is mandatory, as it is the substance upon which all life is based. The earth's water supply, however, is in severe crisis, and the recent news events surrounding the acute poisoning of residents of Flint, Michigan are a wake-up call to the planet that we must protect our drinking water from further contamination by industrial byproducts. Toxic lead, mercury, solvents such as chlorine and fluoride, petrochemicals, and radiation from the nuclear energy industry, continue to find their way into our water supply and the air we breathe.

Both acute and chronic lead poisoning through environmental exposure pose an increasing health concern. Exposure to lead can be through lead based paint, pigments (in pottery and cosmetics/hair dyes), plumbing, drinking water, brass, bronze, mining, roofing materials, caulking, petroleum by-products, ceramics, photography, solder, lead crystal, pesticides and fertilizers, etc. Although lead has been removed from some forms of paints and automotive gasoline in the United States, it still remains one of the primary environmental hazards facing humans today.

Much of the public continues to live their lives unaware of the dangers to the nervous system of this poison. Similar

to mercury poisoning, environmental lead exposure has both acute and long-term effects on the developing and mature nervous systems, including Autism, developmental delay, and behavioral disorders such as ADHD. In adults, we see an increased incidence of neuroinflammatory and neurodegenerative diseases such as MS, ALS, Parkinson's disease, brain fog/cognitive difficulties, neuropathies, tinnitus, etc. Research reveals that people who have worked in jobs with high levels of lead exposure are up to 3-4 times more likely to develop Alzheimer's disease.

The good news is that there exists objective, simple methods of determining your lead burden and potential areas of past and ongoing exposures, as well as safe and effective measures to detoxify the lead in your nervous system. In doing so, you identify and minimize a known neurotoxin, thereby contributing to your brain and body's highest health.

If you'd like a comprehensive brain health assessment, to include your lead neurotoxin burden, with a safe, customized treatment plan for your best brain health, please contact my office at 505-503-8325. Visit my website: www.drpamelacostello.com

Most Insurance Plans Accepted

Dr Pamela Costello MD, PhD

Holistic Neurological Medicine

11000 Spain Rd NE, Bldg. A
Albuquerque, NM 87111

505/503.8325

505.503.8343 fax
drc@drpamelacostello.com
drpamelacostello.com