

Too Many Toxins, Too Few Nutrients

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Think back - when was the last time you had a headache? Stomach ache? Skin or rash outbreak? Felt depressed or anxious? How about itchy, watery eyes from all the seasonal allergies? Oftentimes it's easy to pinpoint patients with life-threatening or debilitating diseases such as cancer, Parkinson's or Alzheimer's and offer them additional help. However, it's important to remember those who are just showing signs of suboptimal health. The largest part of my practice is made up of patients who suffer from the symptoms listed above. They come in seeking help for depression, [chronic fatigue](#) and allergies. And it's important to advertise that you can help!

The body is made up of essentials and non-essentials. Your heart, lungs and brain - these are all essential to life and the body will send every available nutrient and protective means to these items first. Everything else - skin, fingernails, hair, eyes, etc., you can survive without, so the body will not bother protecting and sending nutrients to these areas if either something else is going on in your body that is more urgent or you are simply taking in too few nutrients to allow the body to function optimally.



FLAMMABLE

EXTREMELY
FLAMMABLE
LIQUID



TOXIC

Keep away
from sources of
heat, sparks,
open flames

What this means is that the seemingly bothersome symptoms most of the population just "deals with" could actually be indicators of a greater problem. What's worse is that medical doctors are readily available to prescribe medication for each of these "nuisance" symptoms.

A 2005 survey found that nearly 60 percent of U.S. adults took a medication in the previous week for symptoms ranging from pain to high cholesterol to cancer.¹ Anti-depressants are particularly popular with women. In 1994, 2.3 percent of women in the U.S. were on an antidepressant; by 2008 that number had jumped to nearly 13 percent. Sadly, for women between the ages of 45-64, almost one in four were on [antidepressants](#) as of 2008.²

What these individuals might not realize is that there may be a more natural option. Prescriptions are not necessarily the only answer. One of my patients came to the office for a consultation with a plethora of "nuisance" symptoms. When I entered the room, the patient looked like she was in good health - she acted very pleasant, her hair and make-up had been done and she appeared to be very well-balanced mentally. It was only after she asked for help that I discovered the following: At just 33 years old, she suffered from almost-daily mood swings, depression, hot and cold flashes, excessive hunger and weight gain, acne, low energy, frequent headaches, chronic infections and constipation. She said she felt "somewhat crazy" and "not like herself." At night she woke 3-4 times in a panic with severe night sweats. At the time of the initial visit, she weighed 144 lbs at 5'3" and her blood pressure was 100/70.

You could not tell that this patient suffered from all of the above-mentioned symptoms just by looking at her. How many of your patients appear to be in good health? Next time they enter your office, ask - you may be surprised by how many pre-existing patients could use your help for something other than a chiropractic adjustment.

Before seeking my help, the patient had been to her medical doctor, who diagnosed her with general anxiety disorder (GAD) and prescribed five different medications to control her anxiety, depression, headaches and constipation. After three months of no relief, she was ready for a second opinion. While the medical community will quickly offer drugs to mask each symptom, I chose a more inquisitive approach and ran a series of comprehensive tests to try and find what underlying causes or deficiencies were causing these symptoms. Her quality of life had been seriously altered by these issues and perhaps signalled more serious developing problems.

Her bloodwork showed an interesting trend. Tests of her kidneys, liver, metabolic panel, glucose, vitamin D, lipids, etc., were all just slightly too high or low for optimal health. While very few were outside the clinical reference ranges used by medical doctors, they were outside what I call the "healthy range," which is a stricter guideline for each test used to detect progression toward disease. What this means is that she was on the verge of developing some serious medical problems.

But the real eye-opener was the results of a tissue mineral analysis. Using the patient's hair, we tested essential elements and toxic elements being expelled from her body. Nearly every toxic element we tested for came back clinically high. You'll also notice that many essential elements were not within optimal ranges (way too high or too low). (Table 1)

TABLE 1: INITIAL HAIR ANALYSIS

Test	Initial Test	Initial Test Outcome	Healthy Range	Clinical Range
<i>Toxic Elements</i>				
Aluminum	4.50	Hi	0.00 - 2.20	2.21 - 7.00
Antimony	0.05	C. Hi	0.00 - 0.03	0.04 - 0.05
Bismuth	0.21	C. Hi	0.00 - 0.05	0.06 - 0.10
Cadmium	0.13	C.Hi	0.00 - 0.05	0.06 - 0.10
Lead	0.48	Hi	0.00 - 0.20	0.21 - 1.00
Mercury	1.80	C. Hi	0.00 - 0.50	0.51 - 1.10
Uranium	0.10	C. Hi	0.00 - 0.03	0.04 - 0.06
Nickel	2.30	Critical	0.00 - 0.20	0.21 - 0.40
Silver	0.57	C. Hi	0.00 - 0.07	0.08 - 0.15
Tin	0.56	C. Hi	0.00 - 0.15	0.16 - 0.30
<i>Essential Elements</i>				
Calcium	652	Low	663 - 753	300 - 1,200
Magnesium	380	Critical	53 - 62	35 - 140
Sodium	740	Critical	37 - 45	24 - 180
Zinc	130	C. Low	150 - 160	140 - 220
Manganese	0.07	Critical	0.21 - 0.32	0.15 - 0.65
Phosphorus	158	C. Low	325 - 350	250 - 400
Opt - Current result is optimal. Hi/Low- Current result is higher/lower than the healthy range, but still within clinical ranges. C. Hi/C. Low- Clinically high/low. Critical - Critically high/low; is greatly outside the clinical range				

Toxins hitch a ride out of the body on essential elements like calcium or magnesium; therefore, high levels of essential elements are commonly seen with high toxin expulsion levels. In addition, when the body has excess levels of toxins (as was seen with this patient), it can actually deplete itself of [essential nutrients](#) due to the high expulsion levels - which explains why some minerals appeared to be low. This means that not only do the toxic elements have fewer nutrients to help expel them, but the body itself also has fewer nutrients to use for essential functions like cell regeneration, bone strengthening and healing.

We are exposed to these toxins every day in our environment; each one comes with a long list of side effects:

- *Nickel*:^{3,4} Found in atmospheric pollution, which attaches to particles in the soil and air. Also found in jewelry and cigarette smoke. Symptoms include lung cancer, dermatitis, chronic rhinitis, inflammation, liver and kidney dysfunction, headaches, GI pain, allergies and eczema.
- *Aluminum*:⁵ Found in water treatment, abrasives, furnace linings, vaccines, antacids,

astringents, antiseptic creams and ointments, buffered aspirin and deodorant. Symptoms: The nervous system is highly susceptible to aluminum with symptoms such as Alzheimer's, Parkinson's, ADD, autism, fatigue and headaches.

- *Mercury*:⁶⁻⁷ Found in chlorine gas, caustic soda, thermometers, dental fillings, batteries, skin creams, ointments, fish and shellfish. Symptoms: Affects the nervous system. Symptoms include irritability, tremors, vision changes, hearing loss, memory problems, chronic fatigue, depression and chronic infections.
- *Silver*:⁸⁻⁹ Found in jewelry, water, dental fillings, photographs, exhaust from alloys and solders, disinfectant in swimming pools, lozenges and nicotine relief gum. Symptoms: Linked to tumor growth in the liver and spleen, abdominal pain, asthma, and neurological effects.
- *Tin*:¹⁰ Found in canned food and beverages, toothpastes, perfumes, soaps, food additives, dyes, plastics, food packages, pesticides, paint and pest repellent. Symptoms: stomach issues, anemia (depresses growth of hemoglobin), liver/kidney dysfunction, nervous system dysfunction, loss of essential minerals and muscle weakness.
- *Uranium*:¹¹ Found in water and soil; can remain in soil for millions of years and is typically expelled by factories, coal mining and the making of phosphate fertilizers. Symptoms: Uranium acts as a substitute for calcium in the bones and has been linked to chronic fatigue and various cancers.
- *Cadmium*:¹² Found in cigarette smoke, industrial plants, batteries, pigments, metal and plastics. Symptoms: Damages kidneys, lungs, bones and creates stomach irritability. Can contribute to hyper / hypotension.
- *Antimony*:¹³⁻¹⁴ Found in soil, batteries, water, metal, pewter, textiles, plastics, paints, ceramics, glass, enamels; used as a fire-preventative. Symptoms: fatigue, muscle weakness, joint pain, headaches, ADD/ADHD, eye irritation, hair loss, lung damage, heart problems, fertility problems.

Environmental toxins are silent troublemakers. They sit undetected in the body, creating problem after problem until you address the issue. The goal for this patient was to get as many of the toxic elements out of her body as possible, reduce exposure to prevent additional build-up, and boost vitamin and mineral levels so her body could focus on healing and repair.

There are a few keys to eliminating toxins: 1) Get rid of the chemicals in your home. Use natural-based cleaners, toss out chemical bug sprays / weed killers, eat organic foods, and use natural soaps, shampoos and toothpastes. 2) Purchase a reverse-osmosis water system. The best ones will remove 99 percent or more of particles in your water including lead, uranium and copper. 3) Add natural chelators to your diet. Cilantro, spirulina, most green herbs and vegetables are great chelators and very tasty. Also supplement your diet with chlorella or EDTA (also natural chelators).

I placed the patient on chlorella, valerian root (to help with her anxiety / sleep problems) and lots of minerals based on the deficiencies seen in the blood and hair tests. I also advised her to follow an organic diet based mostly around vegetables and clean sources of protein (hormone free). By cleansing, replenishing and focusing on a wholesome diet, I expected to see many of the blood and hair tests improve.

Two months later, the patient reported back to my office. The night sweats and excessive hunger were 95 percent better; she was sleeping at least six hours a night, had no signs of depression and was off all five of her medications! On top of that, she had lost 10 lbs, and her headaches, constipation, hemorrhoids and infection were gone. A true testament to her improvement, even her 9-year-old son

noticed a difference, saying he had a lot more fun since "his old mom" was back.

Follow-up blood work-up confirmed those results, with 16 tests improving. Her total cholesterol dropped almost 50 points and her thyroid markers moved into optimal levels. The improvements in the next hair analysis, done several months later, also showed improvement. (Table 2)

TABLE 2: SECOND HAIR ANALYSIS

Test	2nd Test	2nd Test Outcome	Initial Test	Healthy Range	Clinical Range
<i>Toxic Elements</i>					
Aluminum	7.80	C. Hi	4.50	0.00 - 2.20	2.21 - 7.00
Antimony	0.01	Opt	0.05	0.00 - 0.03	0.04 - 0.05
Bismuth	0.06	Hi	0.21	0.00 - 0.05	0.06 - 0.10
Cadmium	0.04	Opt	0.13	0.00 - 0.05	0.06 - 0.10
Lead	0.19	Opt	0.48	0.00 - 0.20	0.21 - 1.00
Mercury	1.00	Hi	1.80	0.00 - 0.50	0.51 - 1.10
Uranium	0.05	Hi	0.10	0.00 - 0.03	0.04 - 0.06
Nickel	0.08	Opt	2.30	0.00 - 0.20	0.21 - 0.40
Silver	0.06	Opt	0.57	0.00 - 0.07	0.08 - 0.15
Tin	0.14	Opt	0.56	0.00 - 0.15	0.16 - 0.30
<i>Essential Elements</i>					
Calcium	469	Low	652	663 - 753	300 - 1,200
Magnesium	47	Low	380	53 - 62	35 - 140
Sodium	300	C. Hi	740	37 - 45	24 - 180
Zinc	160	Opt	130	150 - 160	140 - 220
Manganese	0.12	C. Low	0.07	0.21 - 0.32	0.15 - 0.65
Phosphorus	209	C. Low	158	325 - 350	250 - 400
Opt - Current result is optimal. Hi/Low- Current result is higher/lower than the healthy range, but still within clinical ranges. C. Hi/C. Low- Clinically high/low. Critical - Critically high/low; is greatly outside the clinical range					

While it's clear there's still some work to do, the improvements are easy to see with nearly every toxic element dropping into or very close to optimal levels. Every day, we are exposed to industrial pollution, pesticides, manufacturing, cleaning solvents and a plethora of other potentially dangerous substances. [These toxins](#) deplete the body of nutrients, disrupt hormone balances and are a starting point for many diseases and problems like hypertension, high cholesterol, anemia, liver dysfunction, Alzheimer's, Parkinson's, ADD/ADHD, etc. Is your body able to flush out these dangerous contaminants? Is your patient's? The only way to tell is to get tested. I urge you to test yourself and

use those results to encourage your family, your staff and your patients to see if there is an alternative solution for their health needs.

References

1. Slone Epidemiology Center. Patterns of Medication Use in the United States 2005 [report on the internet]. Boston (MA): Boston University; 2005 [cited 2011 Jun 23]; [87K bytes]. Available from: www.bu.edu/slone/SloneSurvey/AnnualRpt/SloneSurveyWebReport2005.pdf
2. National Center for Health Statistics (US). Health, United States, 2010: With Special Feature on Death and Dying [Internet], National Health and Nutrition Examination Survey. Hyattsville (MD): CDC (US); 2011 [cited 2011 Jun 23]; pg336-345. Library of Congress Catalog Number 76-641496. Available from: www.cdc.gov/nchs/data/hus/hus10.pdf#094
3. Agency for Toxic Substances and Disease Registry. [Public Health Statement - Nickel](#). Atlanta: Department of Health and Human Services; 2005 August. CAS#: 7440-02-0.
4. Occupational Safety & Health Administration: [Nickel, Metal and Insoluble Compounds](#). Washington, D.C. United States Department of Labor; 2009 [cited 2011 Aug 4].
5. Agency for Toxic Substances and Disease Registry. [Public Health Statement - Aluminum](#). Atlanta: Department of Health and Human Services; 2006 Sept. CAS#: 7429-90-5.
6. Agency for Toxic Substances and Disease Registry. [Public Health Statement - Mercury](#). Atlanta: Department of Health and Human Services; 1999 April. CAS#: 7439-97-6.
7. Sandstead H. A brief history of the influence of trace elements on brain function. *Am J Clin Nutr*, 1986;43(2):293-298.
8. Agency for Toxic Substances and Disease Registry. [Public Health Statement - Silver](#). Atlanta: Department of Health and Human Services; 1999 July. CAS#: 7440-22-4.
9. Ibid.
10. Agency for Toxic Substances and Disease Registry. [Public Health Statement - Tin and Tin Compounds](#). Atlanta: Department of Health and Human Services; 2005 August.
11. Agency for Toxic Substances and Disease Registry. [Public Health Statement - Uranium](#). Atlanta: Department of Health and Human Services; 1999 Sept. CAS#: 7440-61-1.
12. Agency for Toxic Substances and Disease Registry. [Public Health Statement - Cadmium](#). Atlanta: Department of Health and Human Services; 2008 Sept. CAS#: 7440-43-9.
13. Agency for Toxic Substances and Disease Registry. [Public Health Statement - Antimony](#). Atlanta: Department of Health and Human Services; 1995 Sept. CAS#: 7440-36-0.
14. Agency for Toxic Substances and Disease Registry. Toxicology Profiles, 16-21(2). Atlanta: Department of Health and Human Services; 1996.

DECEMBER 2011