

Well Being

Stillpoint Rehabilitation & Wellness, LLC

Q&A: Penelope Shar, MD is a board-certified internist and Integrative Medicine physician here in Bangor. I asked her to address the recent media reports of heavy metals in the water supply and to help us understand this issue.

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SO: What are heavy metals and how do they get into our bodies?

PS: In small quantities, certain metal elements such as iron and zinc are nutritionally essential to good health. However other metals, such as aluminum, arsenic, cadmium, lead and mercury do not belong in the human body. One or more of these can cause a variety of problems in a susceptible individual.

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SO: What are some ways we are exposed to heavy metals?

PS: Heavy metals may enter the body through food, water and air. They can also be absorbed through the skin. Drinking water, whether from city water supplies, bottled water or well water has been recently in the news as a source for many different kinds of pollutants, including heavy metals. Here in Maine, arsenic has been found in some ground water. Lead is a very soft metal and was used in pipes, drains, and soldering materials for many years. Millions of homes built before 1940 still contain lead paint, leading to chronic exposure from weathering, flaking, chalking, and dust. Every year, industry produces about 2.5 million tons of lead throughout the world. Most of this lead is used for batteries. Target organs are the bones, brain, blood, kidneys, and thyroid gland. Cigarette smoke, even second hand, has quite a bit of cadmium and lead. Mercury exposure can come from dental amalgams, vaccinations, such as the flu vaccine, which use mercury as a preservative. Contaminated seafood is another source of heavy metals.

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SO: What are some common symptoms that patients consult you for?

PS: The symptoms of toxicity resulting from chronic exposure (impaired cognitive, motor, and language skills; learning difficulties; nervousness and emotional instability; and insomnia, nausea, lethargy, and feeling ill) are easily recognized; however, they are much more difficult to associate with their cause. Symptoms of chronic exposure are very similar to symptoms of other health conditions and often develop slowly over months or even years and can be difficult to track.

SO: How is heavy metal overload diagnosed?

PS: The diagnosis involves a comprehensive medical history, including the patient's occupation, past and present, hobbies, work and home environment to determine potential exposure. Unless there is a recent exposure, the blood test should be negative. There is no normal level of heavy metals in the blood. The body sequesters the heavy metals in order to prevent immediate damage. It puts mercury, for example, in the brain and kidneys. Lead gets put in the bones, brain, kidneys and thyroid gland. Cadmium is put into the heart, liver, brain, bone and kidneys. A provoked urine test can be done to determine body burden. This involves the use of a small dose of a chelating agent that will mobilize the heavy metals, bind with them, and take them out in the urine. The patient collects urine and sends a sample of it to a lab which analyzes it for heavy metals.

SO: How can we minimize our exposure to heavy metals?

PS: Get your water tested on a regular basis to identify contaminants such as heavy metals. Do your research and avoid contaminated seafood. You can start at this site: <http://www.nrdc.org/health/effects/mercury/guide.asp>.

SO: What is chelation therapy and how does it help?

PS: Chelation is an option whereby the damaging metal is incorporated into a molecule with a cyclic ring structure, which is then excreted by the kidneys and thus removed from the body. There are different chelating agents which bind to the metals. Heavy metal toxicity is a controversial subject. Some physicians see toxicity in every patient, and others claim that unless the blood level is markedly elevated, it does not exist. Patients, also, vary in their response to diagnosis and treatment. Chronic diseases for which there are no effective drugs may respond to chelation if testing shows elevation of toxic metals. There are a number of websites both for and against chelation. I encourage patients to research both sides, both pro and con. One website that does a good research-based evaluation of alternative and natural treatments is Life Extension Foundation, www.lef.org. Ultimately, each person must decide what treatment feels like the right treatment for him or herself. Testing for heavy metals is another piece of information that may help a person achieve optimum health.

"Whatever course you decide upon, there is always someone to tell you that you are wrong. There are always difficulties arising which tempt you to believe that your critics are right. To map out a course of action and follow it to an end requires courage."

Ralph Waldo Emerson

For more information about Dr. Shar's practice: www.optionsinhealing.com or call 207-217-8878

Watch Your Omega-3/Omega-6 Ratio

Omega-3 and Omega-6 are types of essential fatty acids (EFAs). Our bodies cannot produce these so we need to obtain them from our diet. The body uses these EFAs as building blocks for hormones that control immune function, blood clotting, cell membrane formation and cell growth.

Most people these days consume an excess of omega-6 fatty acids because they are typically found in refined oils used to make processed snack and fast foods.

The Omega-3 fatty acids are found in fatty fish, like salmon, sardines, herring, mackerel, black cod and bluefish. The fatty acids (alpha-linoleic acid) in walnuts, soybean, canola oil, kale brussel sprouts, spinach and flaxseeds can be converted by the body into omega-3 fatty acids. Studies have found these fatty acids to be of benefit in cardiovascular disease, cancer, inflammatory bowel disease, rheumatoid arthritis, lupus, depression, skin disor-

ders, age-related eye disorders, brain function among others.

The body requires a balance of both omega-3 and omega-6 fatty acids to make hormones that control inflammation, cellular proliferation and blood clotting. Since we all get enough omega-6 in our diets, the challenge is to increase omega-3 intake by eating some of these foods every day.

If this is not possible, there are many fish oil supplements available. Look for a quality brand since they assure that you are not getting mercury, PCBs or other contaminants in the fish oil and you do not want it to be stale. Go to the health food store for this, not the big-box store. The brands usually recommended are Carlsons, Nordic Naturals and Nature Made. Look on the label for the omega-3 fatty acids DHA and EPA. Together they should

add up to 500-1000mg. This would be your daily dose for prevention. If you are already sick, you may need a higher dose and should check with your doctor.

Recently, Dr. Mercola has been singing the praises of krill oil

<http://krilloil.mercola.com/>

He reports it is cleaner and more easily absorbed than fish oil. He sells his own brand, but you can look for Neptune krill oil 500mg at the health food store or online. I like Dr. Mercola because he is a health fanatic, has access to new research and questions everything that most doctors take for granted and that is a healthy thing.

The bottom line is that these fatty acids are lacking in the Standard American Diet (SAD) and we need to either get more of these in our diet or use a supplement. Think about it.

Laugh Your Way to Better Health

Laughter involves the entire physiology of the body. It releases endorphins, the body's natural painkiller, and promotes a general feeling of well-being. It raises your resistance against infections by revving up your immune system. In addition, laughter is simply a good cardio workout, increasing heart activity, and thus stimulating circulation. A good belly-laugh contracts the abdominal muscles and diaphragm, as well as the facial muscles, increasing blood flow everywhere and releasing stress.

The stresses of daily life affects us in many ways. It constricts blood vessels, lowers our immune systems, and ability to fight off disease. Studies have shown that laughter lowers levels of the stress hormones cortisol and epinephrine, in effect reversing the constriction of blood vessels.

The most famous story of laughter as medicine is that of Norman Cousins. Norman Cousins had been the editor of the Saturday Review for over thirty years, and has written many books including Anatomy of an Illness. In 1964, Norman Cousins was diagnosed with ankylosing spondylitis, a painful spinal condition. He began to research the effects of stress on the body, and learned that it could be detrimental to the immune system. He hypothesized that if the negative emotions were detrimental to your health, then the positive emotions should improve health. Cousins hired a nurse who would read him humorous stories, and play Marx Brothers movies for him. He found that the laughter relieved pain and would help him sleep. Cousins published his story and his claims of the benefits of laugh-

ter. Finally, in 1989, the Journal of the American Medical Association acknowledged that laughter therapy could help to improve the quality of life for patients with chronic illnesses. An increase in threshold for pain during laughter has been confirmed in laboratory studies and it is believed that laughter has the ability to strengthen the human immune system.

When used in addition to conventional care, laughter can reduce pain and aid and speed the healing process. Laughter groups have been formed all over the world to improve health and quality of life. Laughter Yoga is a more recent development which includes gentle movement and breathing. Laughter is infectious—in a good way.

<http://www.youtube.com/watch?v=2EGTETc5oFU>