

1400 Greenwood Hill Rd.
P.O. Box 189 Wellesley, ON N0B 2T0
T: 519-656-2358 F: 519-656-2534
www.greenwoodclinic.ca



SPRING 2014

HST EXEMPTION !

We are pleased to inform you that as of February 12th, 2014, Naturopathic doctors were added to the list of health care professionals whose services are exempt from HST under the Excise Tax Act. ***This means that you will no longer be charged HST on Naturopathic consultations.*** We hope this will provide greater access for

everyone seeking naturopathic care. We would like to thank the CAND for it's concentrated efforts in helping bring about this change which was announced as part of the most recent federal budget. We are still awaiting clarification on some of the details, but the exemption does not currently cover any supplements or lab testing.

TOXIC METAL EXPOSURE — A CONSIDERATION IN CHRONIC DISEASE LINDSAY BAST, B.SC., N.D.

Toxicity in our environment is an ongoing concern, contributing to many acute and chronic health problems. Toxicity can take many forms from Volatile Organic Compound (VOC) exposure to pesticides to toxic metals.

Many metals are essential for normal processes in the body (e.g. calcium, magnesium). Although almost any metal can be toxic if taken in excessive quantity, in this article, toxic metals are those metals which have no known function and in fact actually cause harm in the body. This may occur through direct means or by blocking the action of essential metals. (Note: 'heavy metals' is a popular synonymous term often used).



The 5 most common and harmful toxic metals are arsenic, aluminum, cadmium, lead and mercury. Other metals of concern include tin, antimony and nickel.

The effects of large, acute exposure to these metals are fairly well known in conventional medicine. Less well documented are the chronic, long term effects of smaller exposures, but this is what Naturopathic Doctors deal with most frequently.

WHEN AND HOW TO ASSESS

The range of symptoms that can be caused by toxic metal exposure is long. It can range from brain fog and fatigue to cardiovascular problems to increased cancer risk. Most major organ systems can be affected. Any chronic health concern that isn't improving with usual conventional or alternative treatments should be a signal to consider toxic metals. A first step is to consider potential sources of exposure – dental amalgams (i.e. silver fillings), occupation, smoking, drinking water (well water), among others. See the table at the end of the article for a more complete list of sources and effects of the common toxic metals.

If toxic metal exposure is suspected, the next step is to measure the levels present in the body. This can be done through hair, blood, urine or stool testing. Each method has its own benefits and drawbacks, however in practice I have come to use a challenged urine test most frequently.

Another type of test measures the body's reaction to different metals, rather than relying on the presence of a certain amount. This is essentially an allergy test for metals. This type of test may prove quite useful since we know people have different sensitivities and react to different levels of toxins. Once specific metals are identified you can look more closely for sources of exposure and take remedial measures.

TREATMENT

Avoidance

As with any toxin exposure, the most crucial step is avoidance of the toxin! To do this you must first identify and then remove or avoid potential sources of the metal in question. For example, if cadmium levels are high and you are a smoker, quitting smoking is the first step to take.



Elimination

After avoidance, aiding removal of excess metals from the body is usually the next step. Optimizing all routes of elimination and detoxification, through diet and digestive function is a good first step. For example, zinc and selenium help the body eliminate toxic metals, so ensuring adequate dietary intake and absorption are important. Certain compounds, such as those found in garlic, onions, kale, broccoli, collards and chard can optimize liver detoxification pathways. Additionally, there is evidence that some metals may be excreted in sweat, so an exercise regimen may also be beneficial.

One may then consider introducing some additional specific nutrients that may help to increase the natural rate of metal excretion. Things such as cilantro, chlorella or other seaweed products, alpha lipoic acid and n-acetylcysteine (NAC) may all be considered. Infrared saunas may also be useful at this stage to increase losses through sweating.

Chelation

In some cases this may be as much treatment as is needed, or tolerated. In other cases, more specific and aggressive metal chelators may be required. It is important to note that these chelators will not necessarily selectively remove toxic metals, but can remove essential elements as well. Testing, supplementation and timing become important in order to maintain adequate levels of essential elements.

Summary

Toxic metals come from a variety of sources and can have many detrimental effects in the body. If you are suspicious that toxic metals may be contributing to your health concerns talk to your healthcare provider about the next step to take.

Metal	Current uses and sources of contamination	Effects on body systems and presenting symptoms
Aluminum	<ul style="list-style-type: none"> Industrial and commercial uses: packaging materials, containers, kitchen utensils, automobile and airplane components, building materials Inorganic aluminum in drinking water, cosmetics, cement and concrete catalyst Medical and personal uses: antacids, antiperspirants, vaccines, baking powder, process cheese 	<ul style="list-style-type: none"> Disrupts normal cell metabolism, leading to possible waste accumulation and reduced energy production Possible role in dementia and developmental behavioral and learning disorders Early symptoms of fatigue, headache, altered mental status
Arsenic	<ul style="list-style-type: none"> Air, water and soil contamination (from burning of fossil fuels, pesticides, old style pressure treated wood) Industrial and commercial uses: smelting, galvanizing, animal feeds, manufacture of electronic components, laser diodes, fireworks 	<ul style="list-style-type: none"> Accumulates in skin and skeletal tissue, hair, nails, thyroid, GI tract, liver, kidney and spleen Major antagonist of selenium Binds sulfur and phosphorus Impact on metabolic and enzymatic processes responsible for energy production (fatigue, weakness, neuropathy, dermatitis)
Cadmium	<ul style="list-style-type: none"> Occupational exposure: welders, rubber workers, cement workers, mining, smelting, pigments, paints, plating and batteries Tobacco smoke Contaminated air, water and some foods 	<ul style="list-style-type: none"> Lung disease (cough, pneumonitis, emphysema, possibly lung cancer), kidney damage, anemia Possible relation to moderate elevations of blood pressure Fatigue, weight loss
Lead	<ul style="list-style-type: none"> Lead batteries, ceramic glazes, ammunition, fishing weights, building materials, solder Previous uses in gasoline, paint and plumbing causing air, water, soil and food contamination (some old homes still contain leaded paint and plumbing) Some toys and plastics may be contaminated 	<ul style="list-style-type: none"> Neurotoxicity, adverse effects on memory & cognition, especially in infants and children (e.g. learning disorders, ADHD, anxiety) Kidney toxicity, immune dysfunction, disrupted red blood cell synthesis and vitamin D metabolism Headache, fatigue, gastric distress, loss of appetite, poor growth
Mercury	<ul style="list-style-type: none"> Industrial and commercial uses: switches, valves and pressure gauges, production of chlorine, caustic soda, gold and silver mining Dental amalgams Cosmetics Vaccines (currently only flu vaccine) Fish and seafood 	<ul style="list-style-type: none"> Suppresses selenium function Loss of appetite, decreased sense of touch, hearing and vision Neuromuscular dysfunction Peripheral numbness, tremors Fatigue, depression, cognitive dysfunction

SEASONAL RECIPE

Spring is an exciting time of year as it gives us the first glimpse of all the great fresh produce that is to come. One of the first available vegetables is asparagus. However, there are also some great, nutritious and edible herbs that are also early to grow in the spring. Stinging nettle (*urtica dioica*) is one of them. The following recipe uses both of these ingredients in a great spring soup. Although collecting and eating stinging nettles sounds intimidating, once dried or steamed nettles will lose their 'sting'. However, be sure to wear rubber gloves and long sleeves when collecting fresh nettles. Nettles can be identified by their ragged leaves which are covered by fine hair like needles, however please never eat a plant if you are unsure what it is.



Asparagus Nettle Soup

Ingredients:

- 1 bunch asparagus, washed and trimmed
- 3 tablespoons olive oil
- 1 medium onion, chopped
- 1 clove garlic, minced or chopped
- 3 medium potatoes, diced
- 4 cups tender nettle leaves, rinsed and dried
- 2 to 3 litres vegetable stock or water
- sea salt and freshly ground pepper, to taste
- lemon juice, to taste

Method

Slice the asparagus spears into 2cm pieces. Heat the olive oil in a large saucepan and add the onion and potatoes stirring occasionally. Cook until the mixture begins to colour

slightly, about 5 minutes then add garlic and continue stirring occasionally for 2 minutes.

Add 2 litres of stock and simmer, partially covered for 10 minutes after which time, add the asparagus stalks and simmer the mixture a further 10 to 15 minutes, or until the potatoes and asparagus stalks are tender. Return pot to a boil and add nettle leaves, simmering for 1-2 minutes. Remove from heat and allow to cool slightly. Using a hand held blender or food processor puree the soup until smooth.

Return the soup to the stove. Bring to a simmer over medium heat. If the soup appears too thick, add more stock to thin out the mixture. If on the other hand, the soup is too thin, bring the heat up to high and reduce the soup to the desired consistency. Add sea salt, pepper and lemon juice to taste. Serve hot or cold.

Variations

This soup can be made substituting watercress, rocket or spinach for the nettle leaves.

CLINIC UPDATES

Many of you will know Lindsay and his wife Becky had their first child, Gordon Aaron Bast April 21, 2013. As his first birthday passes they would wanted to share a photo.

