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~*~Water~*~



How much water to drink and what the healthiest source of water is are ongoing questions. In this issue, Naturopathic Doctors Caralei Peters and Laura Grant offer their suggestions.

How much water should I drink daily?

Though six to eight glasses of water are the suggested quantity, each individual has varying needs. The following calculation provides a more accurate measure of how much water one should drink:

$$\text{Daily water consumption (oz)} = \text{Weight (lbs)} \div 2$$

What is the healthiest source of water?

With many different filtration systems and sources of water, it is difficult to determine which is most beneficial for the environment and your health. Outlined below are the benefits & drawbacks of some commonly available water filtration systems.

Carbon Filter

This is the most effective filter for removing organic contaminants from water, improving the water's taste and smell.

Granular Carbon

Granular activated carbon (GAC) filters, such as Brita, use a cartridge packed with pellets of activated carbon. When water passes through the filter, the filter's numerous carbon pellets trap particles and remove substances dissolved in the water, such as chlorine, heavy metals and harmful organic compounds.

Cons: large pore size allows many molecules through.

Solid Block Carbon

Solid-Block Activated Carbon filters have absorbent carbon particles that have been packed into a dense block through which water travels. With very small pores and a larger surface area for the carbon to absorb particles, there is a better chance of trapping contaminants such as pesticides, chlorine, lead and asbestos than there is with other filters; while leaving the beneficial minerals in the water. A typical filter will produce between 7500 and 15000 litres of water before needing replacement.

Price Range: starting at \$148 incl. countertop unit and filter.

This is our favourite system based on physical health and environmental impact!

Reverse Osmosis

Reverse Osmosis systems use a semi-permeable membrane with tiny pores.

Pros: It is incredibly effective at removing salt and pathogens from water. Overall, it is an ideal process for the removal of contaminants and minerals, incl.: chromium, mercury, copper, chlorine, and pesticides.

Cons: Wastes a large amount of water (2-3 gallons of water for every gallon it produces), and removes beneficial minerals in addition to the harmful ones. Depends on high water

pressure to force water through the membrane.

Price Range: Reverse osmosis unit prices vary, from \$400 to \$2,500. Replacement pre-filters range in price from approximately \$100 – \$200 each.

There are water systems available that reintroduce minerals removed from reverse osmosis, such as **Santevia** www.santevia.ca



Distillation

Distillation is a process in which water is boiled, evaporated and condensed, leaving nearly all of the solid contaminants behind.

Pros: Particularly effective in removing bacteria and viruses, as well as dangerous heavy metals such as lead, arsenic, and mercury. Distillation also removes soluble minerals that may harden water, like calcium, magnesium, and phosphorous.

Cons: Strips water of natural trace elements, resulting in very acidic water, and mineral deficiencies in the body following long term consumption. In addition, distillation is a slow process, potentially taking up to several hours just to provide one gallon of cleansed water, and requiring 5 gallons of tap water just to generate 1 gallon of purified water. Requires electricity to heat the water.

Price Range: Distillation unit prices vary, from \$250 to \$1,500, plus additional carbon filter.

Bill C-51

What can you do to help?

Write letters to your MP, the Health Minister (Hon Tony Clement) and PM (Hon Stephen Harper). Information on Bill C-51 and **sample letters** are available for download from our website:

www.naturopathicperspectives.ca



Bisphenol A (BPA)

What is it, and where is it used?

BPA is a chemical molecule that mimics estrogen in the body.

BPA is a synthetic chemical compound used in a wide range of consumer products including:

- Baby bottles
- Water bottles
- Food cans

BPA is primarily used to make polycarbonate plastics and epoxy resins, which are used in the lining of these products.



Helpful Hint:

Products that contain BPA will be labeled with this recycling symbol:



However, not all products containing BPA will carry this label.

What does it do, and why should you be concerned?

Exposure to BPA occurs when this chemical leaches out of its container and into the contents where it is then ingested. This occurs without the added effect of heat; however, heat can lead to further leaching.

BPA is a concern because it is a xenoestrogen (estrogen produced outside of the body) and thus a hormone disruptor. It mimics the naturally occurring hormone estrogen in the body, potentially leading to infertility, early puberty, as well as prostate, breast and endometrial cancer with long term exposure.

Who is at risk?

Due to the fact that BPA is found in many everyday products, everyone is exposed to it. However, infants and children using bottles, prepubescent teens and sensitive individuals are particularly vulnerable.

Alternative products...

The most effective way to reduce our exposure to BPA is simply to avoid any products that contain this chemical and to substitute them with non-toxic alternatives such as:

- Glass food storage containers, such as Pyrex, glass water bottles and glass baby bottles
- Stainless steel refillable drinking bottles, such as Klean Kanteen and Thermos
- "Born Free" baby bottles and sippy cups, available at health food stores
- Stainless steel, or enamel coated steel camping dishes



Other ways of reducing your exposure are:

- Never heat or microwave any food or drink in plastic
- Avoid using or heating plastic wrap
- Hand-washing any plastic containers versus using the dishwasher
- Fresh or frozen fruits and vegetables (limit your use of canned foods since cans are lined with BPA-containing plastic)

Herbal Iced Tea

With the warmer temperatures fast approaching, a healthy smoothie made with your favourite wheatgrass is a great way to add nutrients and boost energy throughout the day.

- ½ cup fresh lemon balm leaves
- 4 cups filtered water
- 3 tbsp unpasteurized honey
- 1 tbsp flaxseed oil
- 2 small limes, thinly sliced

In saucepan, bring water and honey to boil. Pour over lemon balm and 1 lime, and allow to steep, covered for 25 minutes. Strain and chill. Serve over ice with remaining paper-thin lime slices. Relax and enjoy with a good book!

body from radiation. It works to clear the body of toxins and heavy metals, and due to its powerful antioxidant properties many people think of it as an anti-aging remedy.

ACES

Short for vitamin A, C, E, and selenium, ACES is an antioxidant. The vitamins A and C work to strengthen the immune system, while Vitamin E and selenium reduce heart diseases and risks of cancer. Vitamin A is safest taken in the form of beta-carotene as this does not build up in the liver and become toxic. For those whose stomachs are irritated by Vitamin C, ester-C (ascorbic acid and calcium) is beneficial. It is important to supplement with natural forms of vitamin E (mixed tocopherols) as synthetic forms negate antioxidant processes.

Coming soon! Klean Kanteens

We will be ordering Klean Kanteen water bottles soon. If you are interested please call the office and specify the size/colour/lid type. Check out their website: <http://www.kleankanteen.com>

Herbs & Nutrients to Protect your Body from Heavy Metals



Chlorella

Chlorella is single-celled green algae that contains chlorophyll. Chlorella provides protein, fiber, vitamins, and minerals. It is used for stimulating the immune system and to protect the

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