



## THE TRUTH ABOUT BOTTLED WATER

Water is one of the best fluid choices for us, and is essential for living. There are many benefits of water; it keeps us hydrated, healthy, and energized; it moves nutrients and waste through the body; it controls body temperature; and it cushions organs and joints. Although there is no debating how important water is for our health and well-being, some still question whether bottled water or tap water is better. In 2014, Canadians purchased 2.4 billion litres of bottled water, and 22% of households primarily consume bottled water at home.

It is a myth that we need eight glasses of water a day. The amount of water that a person needs to drink every day is different for everyone (e.g., based on age, gender, level of physical activity). What is most important is that we drink enough fluids (from all sources) to stay hydrated.

### Recommended fluid intake:

- 3.0 L for men 19 years old and over each day
- 2.2 L for women 19 years old and over each day

Bottled water is everywhere. It's refreshing, calorie free and convenient. However, as with many things, there are some areas of concern around bottled water.

### Water Quality

Bottled water is not subject to the same strict guidelines as tap water because it is classified as food under the Food and Drugs Act. This act does not set limits on specific contaminants, but food products cannot contain "poisonous or harmful substances" and must be prepared in sanitary conditions. Furthermore, monitoring of water quality in the bottled water industry is voluntary and internally regulated. However, tap water is regulated by Health Canada and the provinces and territories. *The Guidelines for Canadian Drinking Water Quality* (Health Canada, 2015) spells out the maximum levels of defined substances that are allowed in drinking water and municipalities test their water sources constantly.



## Health Concerns

Despite many reports that bottled water sold in Canada is not safe, it has actually been found to be of good quality based on independent sampling. There is no consistent evidence to support concerns that there are harmful chemicals in the water. Companies that bottle water use additional treatment and disinfection processes that reduce potential contaminants including: ozonation, UV disinfection, carbon filtration, and reverse osmosis. Tap water goes through an extensive process of filtering, cleaning, and testing as well; however, it still contains many essential minerals (e.g. magnesium and calcium) that can often be removed in bottled water through the treatment and disinfection processes

While providing many essential nutrients including calcium, vitamins D, A, and B<sub>12</sub>, magnesium, potassium, and phosphorus, milk and many alternatives to milk are also sources of protein and fluid. Essential for healthy bones and teeth, some of the nutrients milk products provide may also reduce the risk of some cancers, multiple sclerosis, osteoporosis, and respiratory tract infections. Despite these benefits, however, most of us do not come close to meeting the minimum recommendation for milk and alternative servings. According to the Canadian Community Health Survey (CCHS) (2006), Canadians of all ages do not consume enough milk and alternatives. More than one-third of Canadian children aged 4-9 years, 61% of teen boys and 83% of teen girls (aged 10 to 16), and 65 to 84% of adults (31 years and over) do not get the minimum recommended number of milk and alternative servings each day.

## Cost

Bottled water can cost anywhere from 10 cents per 500 ml bottle of house-brand water to \$2.50 for a high-end brand. In some cases, much of the water that corporations sell is obtained at a low cost from public water sources or municipal supplies. The water is treated, purified and then sold to consumers, often at much greater price. Bottled water costs 240 to 10,000 times more than tap water, which in most cases, costs Canadians \$0.00013 per glass.

## Environmental Concerns

Companies have tried to cut down on the amount of plastic they use for bottled water, and increase the proportion of recyclable materials, but the industry still generates significant waste. Water and fossil fuels are also consumed in the process of bottling and transportation. Municipalities are now dealing with large waste



management problems as Canadians consume increasing amounts of bottled water. It has been reported that about 35% of water bottles are not recycled and end up in landfills, accounting for about 0.2% of landfill content. This doesn't seem like much unless you consider that it can take hundreds of years for plastic water bottles to decompose or, even worse, they may not decompose at all. On the other hand, tap water uses no packaging, and has very little if no effect on the environment.

### **The Clear Winner**

If having to choose between bottled water and tap water, **tap water is the clear winner**. It typically undergoes a more thorough quality assurance system, has a lower cost, and less impact on the environment. Although tap water is clearly the better choice, the bottom line is that it is important to meet your fluid needs throughout the day. Some tips to getting enough fluid each day include:

- Drink a glass of water when you wake up each morning or before you go to bed
- Carry a container of tap water with you throughout the day (BPA free water bottle)
- Keep a jug full of ice tap water with lemon, lime, orange, or cucumber slices in your fridge at home or at work
- Eat plenty of vegetable and fruits throughout the day as in addition to being nutritious and delicious, they are high in water and help us to meet our daily fluid needs.

### **Key References**

Health Canada (2015). Drinking water. *Environmental and Workplace Health*.  
<http://www.hc-sc.gc.ca/ewh-semt/water-eau/drink-potab/index-eng.php>