

Prevention column

STAYING HYDRATED – JULY 2019

Water, water everywhere

Water: It's not only the best choice to quench your thirst and good for your health... You need it to live! Water is vital for everything from the circulation of blood to proper functioning of practically all our cells. This valuable resource is fortunately abundant in Canada, but we shouldn't take it for granted.

The human body is about **60%** water.

Up to **a quarter of all adults** are dehydrated.

The Great Lakes make up the largest body of fresh water on Earth.

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EXPERIENCE LA CAPITALE'S PREVENTIVE APPROACH



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The source of life

A human can go without food for a few weeks. However, we could only go a few days without water! Our bodies need water for a host of functions:

1. TRANSPORT

Water transports oxygen and all nutrients through the blood and other bodily fluids through our cells.

2. TEMPERATURE REGULATION

Our body's high water content protects it from fluctuations in temperature. It takes a lot of energy to make our body heat up or cool down.

3. COOLING

Sweat enables our body to cool down in hot temperatures.

4. PERFORMANCE

Practically all chemical reactions in the body require the presence of water, so dehydration leads to poor physical and mental performance.

5. PROTECTION

Many water-based bodily fluids are protection mechanisms. Tears remove foreign bodies from the eye, amniotic fluid protects the developing fetus, urine expels toxic waste, etc.



The best thirst quencher

Milk, juice, wine, coffee, tea, pop... The choices are endless but, as always, when you're thirsty, **water is still the best drink**. Because it has a neutral taste, it goes with everything but, if you like, you can flavour it with some slices of lemon, mint leaves or other aromatics. ■

[HOW much?]

The current daily recommended water intake is 3.7 L for men and 2.7 L for women, but that figure includes all liquids (coffee, juice, beverages...) and the water contained in foods. Actually, it is very difficult to determine the minimum quantity of water a person should take in daily in order to be in good health. Hydration needs vary based on a number of factors, such as:

- **Gender**, since women generally tend to sweat less than men. However, women need extra fluids when pregnant or breastfeeding.
- **Body type**, as a person with a large frame needs more fluids than a person with a small frame.
- **Heat and physical activity** increase our fluid needs and fluid loss through sweating and breathing.

- A high-protein **diet** requires more water to allow the kidneys to filter excess protein. The same applies to a high-sodium diet.
- **Alcohol consumption** inhibits the kidneys' ability to retain water, so a greater water intake is required.
- **Advanced age** results in reduced renal capacity to concentrate urine and less awareness of thirst.

ONE INDICATOR

Although it doesn't give you an exact measurement, **urine colour** is a good indicator.

- Dehydrated > colour of apple juice or darker
- Well hydrated > colour of lemonade
- Overhydrated > colourless

Dehydration

Dehydration means that your body lacks water. If you are slightly dehydrated, all you need to do is have a drink. If you are severely dehydrated, you need to add sodium and potassium. Thirst is not a reliable indicator of dehydration, because you may be already dehydrated when you become aware of your need to drink. What's worse is that severe dehydration may even inhibit thirst.

Symptoms

MILD TO MODERATE

Thirst, fatigue, irritability, headache, muscle cramps, dry mouth.

SEVERE

Increased heart rate, low blood pressure, vertigo, dizziness, fainting, confusion.

Persons at risk

ELDERLY

Apart from the sense of thirst, which lessens with age, seniors tend to drink less often for various reasons: loss of autonomy, confusion, fear of incontinence, etc.

ILLNESS OR USE OF MEDICATION

Vomiting and diarrhea are responsible for a significant loss of body fluid. Certain medications also have a side effect of increasing the production of urine or sweat.

YOUNG CHILDREN

Infants and young children are more at risk of dehydration during episodes of diarrhea or vomiting. During a heat wave, make sure they're well hydrated, to ward off heat stroke. ■

Bottled water

We have the good fortune to live in a country where there is an abundance of safe drinking water, and most people have access to excellent quality tap water. Still, many companies market a variety of bottled waters, which are divided into three distinct categories, defined by law:

- **SPRING:** Comes from an underground source without entering the public water system and contains **less than 1,000 mg/L of mineral salts**.
- **MINERAL:** Comes from an underground source without entering the public water system and contains **more than 1,000 mg/L of mineral salts**. Mineral water containing 20 mg/L or more of sodium is not recommended for people with high blood pressure. It is better to choose demineralized or spring water, paying attention to the mineral salt content.

- **TREATED:** Has undergone one or more treatments to render it safe for drinking and/or to remove certain organic components, odours or other materials. It may originate from an underground source, a river, a lake... and even a public water system! People with a weakened immune system (such as pregnant women, the elderly, those who have recently undergone surgery, young children...) should choose ionized, carbonated or disinfected water, because such treatments destroy harmful bacteria.

Different qualifiers may also be added, such as:

- **CARBONATED:** AKA "sparkling," to which carbon dioxide has been added.
- **NATURAL:** Spring or mineral water that has not undergone any settling, filtration or carbonation treatment.
- **MINERALIZED:** Spring or treated water to which mineral salts have been added.
- **DEMINERALIZED:** Spring or treated water from which mineral salts have been extracted to bring it down to less than 10 mg/L.

MARKETING

The bottled water industry is never short on ways of marketing its products, often at inflated prices. Adjectives such as "pure" and "energizing" are used in reference to glaciers or exotic sources. Bottles with an original design are used... All efforts are made to hook the consumer when, in fact, the product remains the same: water, pure and simple!

HEALTH

To date, no study seems to back up the popular belief that plastic bottles release contaminants into the water when frozen or heated. That said, the World Health Organization decided to examine the presence of microparticles of plastic in water following the bottling process. Research by an independent group in 2017¹ seems to have sounded the alarm in this regard. As we await the results, one thing is certain: Bottled waters are not sterile. Therefore, it is always preferable to store them in a cool place and to respect the best-before date.

PURIFIED? GOOD VALUE?

There are many methods for filtering water, from the basic pitcher method to an expensive home water treatment system. Unless the water is non-potable, most of these methods are not essential, but rather a preference (to remove an odour, a taste of chlorine, etc.). Be wary of sales tactics that are often based on unfounded fears. Before investing, make sure you have a good understanding of how the product functions. If you don't replace the cartridges for the pitcher or don't follow the maintenance recommendations for your water filtration system, your money is going to go down the drain! ■

In conclusion

We all need water to live. Water should always be your first choice when you're thirsty. Because there is not a specific minimum daily amount of water you should drink, pay attention to the colour of your urine: It should be clear. You can generally feel confident in drinking tap water, because the municipal water supply is rigorously tested, and tap water is much more environmentally friendly than bottled water. ■