

Bulletin: Water and Hydration

Hot temperatures can increase the risk of dehydration. During hot, humid conditions and prolonged or intense physical activity, the body needs more fluids to replace sweat losses and prevent heat illness. Beat the heat by providing children with plenty of water and other fluids - thirst alone may not tell you of your body's need for water.

Water is an essential nutrient

Water:

- makes up about 60 - 70% of the body
- maintains body temperature and keeps blood flowing
- carries oxygen and nutrients to working muscles
- takes away wastes to be eliminated in urine
- produces sweat to keep us cool
- maintains blood pressure and heart rate
- cushions organs and lubricates joints
- helps store energy in the muscle
- helps to absorb nutrients



Fluid intake can come from drinking water (city tap water), beverages (such as milk, and 100% juice) and food (such as vegetables, fruit, and soups).

How much water is enough?

The amount of water you need depends on your age, gender, body size, level of physical activity and the climate in which you live.

Age or Stage	Total daily water needs from all sources (liters), approximate	
	Males	Females
4 - 8 years	1.7 L	1.7 L
9 - 13 years	2.4 L	2.1 L
14 - 18 years	3.3 L	2.3 L
19 + years	3.7 L	2.7 L
Pregnancy	-	3.0 L
Lactation	-	3.8 L

Signs you are not getting enough water:

- dark yellow urine
- dry mouth, thirst
- increased body temperature
- dizziness, irritability, tiredness, weakness
- less coordination, decreased concentration
- poor vision, cramps, nausea, headaches
- rapid heart beat

SOURCE: Institute of Medicine (2004). *Dietary Reference Intakes: Water, Potassium, Sodium, Chloride, and Sulfate*, Washington DC: National Academy Press.



Hydration Tips

- Whether it's very hot or not, encourage children to drink on a schedule (approximately every 15 to 20 minutes during physical activity).
- Enjoy tap water! It's readily available, safe, and inexpensive. It only costs 1 cent to fill a 1 litre water bottle more than 10 times.
- For added flavour, try water with a squeeze of lemon or a slice of fruit. In hot weather, children may drink more fluids if they are flavoured.
- Make sure all family members carry a clean filled water bottle when they are out. Note: water bottles should be personal and not shared.
- Wash, rinse, and sanitize personal water bottles daily. If refilling during the day, simply rinse a couple of times with clean fresh water and refill.
- Keep beverages cool. Add a few ice cubes to your water bottle and fill with cold water. Note: it is better to store beverages out of direct sunlight and in a cold environment, especially if they have been opened.

Hydration for Sports

Being active increases the need for fluids.

Children and youth are at greater risk for dehydration and overheating because they sweat less than adults but produce more heat during activity. Encourage them to drink often; don't wait for them to tell you they are thirsty.

- **Water:** Cool water is a must and the best choice for active children and adults.
- **Juice:** The high sugar content in juice can slow fluid absorption and increase the chance of a stomachache.
- **Sports Drinks:** Sports drinks are not necessary for children in community sports. Sports drinks are made for athletes who have been exercising and sweating intensely for 90 minutes or more.
- **Energy Drinks:** The high sugar and caffeine content of energy drinks can interfere with hydration, making these a poor choice during physical activity. Health Canada cautions that children avoid consuming energy drinks.