

Guidelines to Prevent Dehydration in Sport



When it's hot and humid, common sense tells us to encourage our young athletes to drink more. But are they drinking enough?

Many young athletes will not drink enough even when fluids are available. Their poor hydration habits present the risk for dehydration and heat illness. Dehydration can lead to a dangerously high body temperature, increased heart rate and poor performance.

Dehydration is preventable. The following recommendations support proper fluid intake to reduce the risk of dehydration and heat illness. By following these guidelines, your organization will be taking the necessary steps to ensure your athletes are practicing and performing at the top of their game!

Establish team rules designed to encourage fluid intake.

- ✓ Encourage all participants to bring a personal fluid container (i.e. water bottle). Clear fluid containers are best and should be marked in 100 mL increments to provide a visual reminder of the amount of fluid that is required.
- ✓ Drink early in the exercise and continue to drink small amounts throughout the exercise.

Educate sport participants about the importance of proper fluid intake.

- ✓ Recommend water as the most important performance-enhancing nutrient when exercise and heat stress are combined.
- ✓ Watch for participants that play harder and/or tend to sweat more; recommend use of a sports drink (e.g. Allsport®, Gatorade®, Powerade®) during prolonged exercise in high heat to better replace and retain fluids.
- ✓ Provide resources about fluids to sports participants and their parents including *Stay Cool with More Fluid*, *Sports Drinks versus Water* and *Nutrition for Athletes* (copies provided). Also, check the Health Unit website for more information, www.wehealthunit.org.

Incorporate drink opportunities into practice and event situations.

- ✓ Require **all** participants to drink fluids at break times to match fluid losses.
- ✓ Monitor fluid intake of participants, especially teenaged males, to ensure they are drinking during the exercise session.
- ✓ Encourage good drinking habits during the exercise, even when events are shorter than one hour in length.
- ✓ Require **all** participants to drink fluids at the completion of the exercise session.

Assist sport participants with preparing a fluid replacement plan.

- ✓ Encourage those participants that tend to sweat more (e.g. males, participants with larger body size, participants that are unfit as well as more fit) to bring more than one fluid container. Participants may be encouraged to bring water as well as a sports drink.
- ✓ Recommend participants drink **100-150 mL** (approximately ½ cup) of fluid, or amount tolerated, every **10-15 minutes** during exercise in warmer temperatures .
- ✓ Encourage participants to drink every 20 minutes for one hour after the exercise session to replace fluid losses. Participants should drink up to 500 mL (2 cups) for every 0.5 kg (1 lb) that is lost during exercise.

Monitor fluid intake habits of sport participants to create awareness of whether participants are meeting hydration goals.

- ✓ Recommend flavoured, sodium-containing fluids, including a sports drink or a homemade sports drink (see *Stay Cool with More Fluid*) if participant consumes little water.
- ✓ Discourage carbonated beverages or soft drinks, fruit juices as well as caffeinated beverages as the main choice of fluids.

Provide cool, flavoured, good-tasting drinks, which are readily accessible, during practice and events when permitted by organization.

- ✓ Provide chilled beverages to encourage better fluid intake.
- ✓ Recommend use of a drink containing 4-8% carbohydrate or 4-8 g carbohydrate per 100 mL (sports drink i.e. Allsport®, Gatorade®, Powerade®) when exercise is hard, longer than 60 minutes and/or stop-and-go. Drinks providing more than 8% carbohydrate (contain more than 8 g carbohydrate per 100 mL), including some fruit juices, soft drinks, carbohydrate gels and some sports drinks (energy drinks) are not the recommended beverage choice *during* exercise.

Encourage sport participants to begin all practices or events well-hydrated.

- ✓ Remind participants to consume a generous fluid intake 24 hours before exercise:
400-600 mL (1½ - 2 cups) of water or sports drink 2-3 hours before exercise
200-300 mL (1 cup) of water or sports drink 10-20 minutes before exercise.
- ✓ Advise participants to assess **urine colour** and **volume**; urine should be of greater volume and light in colour.

Educate all coaches and support staff to recognize basic signs and symptoms of heat illness.

- ✓ Monitor and remove participants promptly from the practice/event if any of the basic signs and symptoms of heat illness occur. Recommend that participants move to a cooler, shaded area and consume a sports drink containing 5% carbohydrate as well as sodium (e.g. Allsport®, Gatorade®, Powerade®) .
- ✓ Recognize that heat illness is more apparent among overweight and poorly conditioned individuals.
- ✓ Signs and symptoms include:

Chills	Head/neck heat sensations	Reduced sweating
Cramps	Headache	Thirst
Dizziness	Irritability	Vomiting
General discomfort	Nausea	Weakness

Modify schedules and events to minimize the risks associated with exercise in the heat.

- ✓ Be aware of temperature and relative humidity to evaluate the potential environmental heat challenge. In some situations, the practice/event may need to be postponed to a later time or day.
- ✓ Reduce the exercise **challenge** and **length of time** during the first several sessions in a hot environment; gradually increase exercise to reach normal demand and length of time.
- ✓ Hold breaks or teaching moments in the shade.

