

# Dehydration and Heat Illness Prevention Tips



## What is dehydration?

Dehydration is the excessive loss of fluids from the body. It happens when the total amount of fluids lost through sweating, urination, diarrhea, and/or vomiting is more than the fluids taken in. Sweating is the main cause of water loss, leading to dehydration.

It is important to keep in mind that children are often dehydrated before symptoms appear so **prevention** — by hydrating before, during and after play — is critical. Dehydration not only hurts performance but can put a child at risk of heat-related illness, such as heat cramps, heat exhaustion, or the most severe, heat stroke.

### Possible signs of Dehydration may include:

- Thirst
- Dry or sticky mouth
- Headache
- Muscle cramping
- Irritability
- Extreme fatigue
- Weakness
- Dizziness
- Decreased performance

### Possible signs of Heat Exhaustion:

Very serious, requires prompt attention as it can lead to heat stroke.

- Nausea
- Feeling faint or dizzy
- Heavy sweating
- Rapid, weak heartbeat
- Dark-colored urine
- Cool, moist, pale skin
- Cramps
- Headache
- Fatigue

### Possible Signs of Exertional Heat Stroke:

Most severe, *life-threatening*, a medical emergency — call 911 immediately.

- Hot skin, likely still moist if recently exercising
- Headache
- Confusion
- Nausea
- Collapse
- Dizziness
- Altered consciousness, disoriented, combative, emotional instability, irrational behavior\*
- Very high body temperature\*

\* Presence of these symptoms are main reasons to suspect exertional heat stroke.

## **PREVENTION: How to prevent *dehydration in children***

- The amount and type (water, sports drink) of fluids that need to be taken in depend on certain factors. For specific recommendations, talk with the child's doctor.
- Drink fluids (such as water) 30 minutes **before** the activity begins.
- Encourage mandatory fluid breaks every 15-20 minutes **throughout** physical activity—don't wait for the child to tell you he/she is thirsty. As a general guideline, for fluid intake during physical activity, the American Academy of Pediatrics (AAP) recommends:
  - 5 oz. for an 88 pound child every 20 minutes
  - 9 oz. for a 132 pound adolescent every 20 minutes
- Drink fluids **after** physical activity as well to make up for fluid loss.
- Use urine color as a guide for hydration status:
  - Light like lemonade then the child is likely **hydrated**
  - Dark like apple juice then he/she is likely **dehydrated**
- Another way to determine how much fluid has been lost (and needs to be replaced) is to weigh the child before and after activity (either without clothes or in the same, dry clothes).
  - Replace the amount of weight lost with an equal amount of fluids (for example, a 1 lb. weight loss should be replaced with 16 oz. of fluid).
  - The goal is to weigh the same before and after activity.



## **RESPONSE: What to do when *Dehydration or Heat Exhaustion* is suspected**

**Hydration should take place immediately.** Depending on the severity of the situation, immediate medical attention may be needed. Or, if a child's condition does not quickly improve back to normal or worsens, **call 911 immediately while making every effort to cool the child.**

- Move the child to a cool place and cool the body with water
- Have the child drink cool water or a sports drink—if unable to drink fluids, **seek medical attention immediately**
- Raise the child's legs 8-12 inches
- Remove any equipment and excess clothing
- Obtain medical clearance prior to returning to physical activity

## **RESPONSE: What to do when *Exertional Heat Stroke* is suspected**

- **Call 911 immediately while making every effort to cool the child**
- Immediately immerse the child in cold water while adding plenty of ice to the water and vigorously stirring
- If immersion is not available, soak the child with cold water from a shower or hose
- Inform emergency responders (EMS) of the situation when they arrive—with proper and quick medical response (through cold water immersion), heat stroke victims can and should be treated onsite prior to transportation to the hospital
- Keep the child from physical activity until medical clearance is obtained