

Heat-Related Illnesses

Heat-related illnesses are common and potentially serious problems. They result from too much physical activity when the weather is hot and humid; children are at higher risk. When it's very hot out, it may be necessary to take frequent rest breaks or cancel sports activities.

Get medical help immediately if your child has a very high body temperature and is experiencing confusion.

What are heat-related illnesses?

The milder forms of heat-related illness include heat cramps and heat exhaustion. Most cases of heat-related illness in children and teens occur during sports. When heat-related symptoms develop, it's essential to stop sports or other activities and rest out of the sun. Taking appropriate action can prevent dangerous heatstroke.

Heatstroke is a severe but much less common form of heat illness caused by excessive physical activity on hot, humid days. The body loses its normal ability to regulate temperature and becomes overheated. Heatstroke can cause death in young athletes.

What do they look like?

Mild heat illness: Symptoms occur when your child is very physically active on hot, humid days. Being in direct sun increases the risk of heat illness.

Initial symptoms may or may not occur before heat exhaustion or heatstroke:

- Cramps, especially of the calf and hamstring (back of the thigh) muscles.
- Breathing very fast (hyperventilation) may occur with swelling, tingling, or spasms (jerking movements) of the hands and feet.

Heat exhaustion:

- Headache.
- Nausea and vomiting.
- Dizziness, especially when standing up.
- Weakness.
- Pale, clammy skin.

Fainting. If your child faints in the heat, immediate medical attention is needed.

Heatstroke is the most serious form of heat-related illness. Get medical help immediately if the following symptoms occur:

- Confusion or other changes in thinking or behavior—possible unconsciousness (“passing out”).
- Profuse sweating.

What causes heat-related illnesses?

- Heat-related illnesses occur when your child's body cannot get rid of all the heat generated by intense exercise. The body loses its normal ability to regulate temperature and becomes overheated.
- In children, heat injury most often occurs during sports competition or practice. Although it happens on very hot days, high humidity can make the problem worse.

What are some possible complications of heat-related illnesses?

- Children with milder forms of heat injury usually recover completely. However, it is essential to stop activity and lower body temperature to keep the child from developing heatstroke.
- Heatstroke is a dangerous condition requiring immediate medical attention. Without effective steps to lower body temperature, heatstroke can be fatal.

What puts your child at risk of heat-related illnesses?

- Being very active on hot, humid days. Heat injury usually occurs during outdoor activities in direct sunlight. However, it can also occur in gyms or other indoor locations.
- Not drinking enough liquids on hot days.
- The risk may be higher in child or teen athletes who are obese, not physically fit, and not used to high temperatures. Certain medical conditions and drugs may also increase the risk of heat injury.
- Heat injury often occurs during summer football practice, especially in pads and helmets.

Can heat-related illnesses be prevented?

Heat-related illnesses, including heatstroke, are always preventable!

- If children are exercising on hot days, make sure they take frequent breaks for rest (out of the sun) and water.
- If it is very hot and humid, cancel the activity. Depending on the humidity level, it's a good idea not to do outdoor physical activities when the air temperature is 95°F (35°C) or higher.

- With repeated short exposures, your child will be better able to tolerate physical activity in high heat/humidity.
- *Make sure children drink frequently!* Give liquids before and every 20 minutes during exercise. Cold water is the best choice.
- Schedule practices and games in the early morning or late afternoon. Avoid practicing in full equipment on hot days.

 Stop activity and take appropriate steps if early symptoms of heat injury develop!

How are heat-related illnesses treated?

The goal of treatment is to prevent heatstroke. Symptoms of mild heat injury usually improve with rest and other simple measures

- *Heat cramps.* Give your child liquids (water or sports drinks, like Gatorade). Gently stretch the affected muscle(s).
- *Swelling.* Swelling decreases when your child gets used to the heat.
- *Hyperventilation.* Have the child breathe more slowly or breathe into a paper bag.

- *Heat exhaustion* requires more active efforts at cooling:
 - Get your child to a cooler location. Use fans to cool the body, if available.
 - Remove excess clothing.
 - Place ice on the groin and armpit areas.
 - Give liquids.

● *Heat stroke is a medical emergency!* If your child cannot drink, becomes confused, or develops any behavior change or reduced consciousness, call 911 or another emergency number. Aggressive cooling and fluid replacement are needed. 

When should I call your office?

- For children with milder symptoms of heat-related illness, get the child out of the heat and give fluids. Call your doctor for advice if the symptoms don't improve promptly.
- If the following symptoms develop, go to the emergency room or call 911: 
 - Fainting or passing out.
 - Confusion or behavioral changes.