

Preventing Hyperthermia in Children: Keep Your Kids Cool

When the weather heats up, children become more active. Overall, this increased activity is great. The only problem is that it increases their chances of falling prey to hyperthermia.

Remember:

Children's thermoregulatory systems are not as efficient as an adult's is.

Children's body temperatures warm at a rate 3 to 5 times faster than an adult's does.

Heat Exhaustion

Heat exhaustion often occurs when people exercise (work or play) in a hot, humid place and body fluids are lost through sweating, causing the body to overheat. At high temperatures, the body cools itself largely through evaporation of sweat. When it is very humid, this mechanism does not work properly. The body loses a combination of fluids and salts. When accompanied by an inadequate replacement of fluids, disturbances in the circulation may result that are similar to a mild form of shock. The person's temperature may be elevated, but not above 104°F.

Heat exhaustion symptoms

Pale with cool, moist skin

Sweating profusely

Muscle cramps or pains

Feels faint or dizzy

Headache, weakness, thirst, and nausea.

Core (rectal) temperature elevated-usually more than 100°F-and the pulse rate increased

Heat stroke (Hyperthermia)

Hyperthermia is life threatening. It occurs when the body absorbs more heat than it can dissipate. The person's cooling system, which is controlled by the brain, stops working and the internal body temperature rises to the point where brain damage or damage to other internal organs may result (temperature may reach 105+°F). Heat stroke may develop rapidly. It is a medical emergency and requires immediate treatment to prevent disability and death.

- People who are taking many types of blood pressure, allergy, or depression medication may be particularly at risk and should avoid hot environments.
- Medical conditions that impair the body's ability to sweat may predispose people to this problem.
- Heat stroke often occurs in people who are unable to modify their environments: infants, the elderly and bed-ridden people.

Heat stroke symptoms

1. Unconscious or has a markedly abnormal mental status (dizziness, confusion, hallucinations, or coma)
2. Flushed, hot, and dry skin (skin may be moist initially from previous sweating or from attempts to cool the person with water)
3. May have slightly elevated blood pressure at first that falls later
4. May be hyperventilating
5. Rectal (core) temperature of 105°F or more

Seek Medical Care

A doctor should be called if you are not sure what is wrong, if you do not know what to do for the problem, or if the person is not responding to what you are doing for them. An ambulance /911 should always be called for a person with suspected heat stroke.

Home care is appropriate for mild forms of heat exhaustion.

Rest in a cool, shaded area.

Loosen or remove clothing.

Apply cool water to skin.

Salty snacks are appropriate as tolerated.

Give cool fluids such as water or sports drinks (that will replace the salt that has been lost).

Do not use an alcohol rub.

Do not give any beverages containing alcohol or caffeine.

For heat exhaustion, a person should go to the hospital if any of the following are present:

Loss of consciousness, confusion, or delirium.

Inability to drink fluids

Continuous vomiting

Temperature more than 104°F

Temperature that is rising despite attempts to cool the person

Symptoms of shortness of breath, chest pain, or abdominal pain may indicate that the heat exhaustion is accompanied by more serious medical problems.

Suspected heat stroke is a life-threatening medical emergency. Call 911 immediately and request information as to what to do until the ambulance arrives.

1. Move the person to a cooler environment, or place him or her in a cool bath of water (as long as he or she is conscious and can be continuously monitored).
2. Alternatively, cool the skin with lukewarm water and use a fan to blow cool air across the skin.
3. Give cool beverages by mouth only if the person has a normal mental state and can tolerate it.

Prevention

1. Avoid engaging in strenuous activity in hot, humid environments.
 2. Avoid strenuous activities during the hottest part of the day.
 3. Dress in light colored, cool clothing.
 4. Incorporate rest periods during play and other activities.
 5. Hydrate before, during and after active periods – avoid caffeinated, high sugar drinks.
 6. Cut short any activity if the heat warrants it. Use your judgment and thermometer to determine what is right.
 7. Watch for the signs of hyperthermia.
1. ***NEVER LEAVE A CHILD UNATTENDED IN A VEHICLE. Cracking" the windows has little effect. IF YOU SEE A CHILD UNATTENDED IN A HOT VEHICLE CALL 9-1-1***

Be sure that all occupants leave the vehicle when unloading.

Lock your car and ensure children do not have access to keys or remote entry devices.

If a child is missing, check the car first, including the trunk.

Teach your children that vehicles are never to be used as a play area.

Keep a stuffed animal in the car seat and when the child is put in the seat place the animal in the front with the driver.

Place your purse or briefcase in the back seat as a reminder that you have a child in the car.

Make "look before you leave" a routine whenever you get out of the car.

Have a plan that your childcare provider will call if your child does not show up for school.

Remember: Car temperatures rise quickly: Average elapsed time and temperature rise

- 10 minutes ~ 19 deg F
- 20 minutes ~ 29 deg F
- 30 minutes ~ 34 deg F
- 60 minutes ~ 43 deg F
- 1 to 2 hours ~ 45-50 deg F