

Extreme Heat: Effects on Children and Pregnant Women

Heat-related illnesses are common, yet preventable on hot days. Children and pregnant women need to take extra precautions to avoid overheating on days of extreme heat. Dehydration, heat stroke, and other heat illnesses may affect a child or pregnant woman more severely than the average adult.

Why are children more susceptible to extreme heat?

- Physical characteristics – Children have a smaller body mass to surface area ratio than adults, making them more vulnerable to heat-related morbidity and mortality. Children are more likely to become dehydrated than adults because they can lose more fluid quickly.
- Behaviors – Children play outside more than adults, and they may be at greater risk of heat stroke and exhaustion because they may lack the judgment to limit exertion during hot weather and to rehydrate themselves after long periods of time in the heat. There are also regular reports of infants dying when left in unattended vehicles, which suggests a low awareness of the dangers of heat events.

How do I know if my child is dehydrated?

- Decreased physical activity
- Lack of tears when crying
- Dry mouth
- Irritability and fussiness

What should I do if my child has become dehydrated?

- Have the child or infant drink fluid replacement products
- Allow for rehydration to take a few hours, over which children should stay in a cool, shaded area and sip fluids periodically
- Call your doctor if symptoms do not improve or if they worsen

How do I know if my child has suffered a heat stroke?

Heat stroke, a condition in which the body becomes overheated in a relatively short span of time, can be life-threatening and requires immediate medical attention.

- Skin is flushed, red and dry
- Little or no sweating
- Deep breathing
- Dizziness, headache, and/or fatigue
- Less urine is produced, of a dark yellowish color
- Loss of consciousness

What should I do if my child has suffered a heat stroke?

- Immediately remove child from heat and place in a cool environment
- Place child in bath of cool water and massage skin to increase circulation (do not use water colder than 60°F – may restrict blood vessels)
- Take child to hospital or doctor as soon as possible

How can children be protected from the effects of extreme heat?

- Hydration – Make sure children are drinking plenty of fluids while playing outside, especially if they are participating in sports or rigorous physical activity. Fluids should be drunk before, during and after periods of time in extreme heat.
- Staying indoors – Ideally, children should avoid spending time outdoors during periods of extreme heat. Playing outside in the morning or evenings can protect children from dehydration or heat exhaustion. Never leave a child in a parked car, even if the windows are open.
- Light clothing – Children should be dressed in light, loose-fitting clothes on extremely hot days. Breathable fabrics such as cotton are ideal because sweat can evaporate and cool down the child's body.

How do I care for my infant during hot weather?

- Check your baby's diaper for concentrated urine, which can be a sign of dehydration.
- If your infant is sweating, he or she is too warm. Remove him or her from the sun immediately and find a place for the baby to cool down.
- Avoid using a fan on or near your baby; it dehydrates them faster.
- A hat traps an infant's body heat and should only be worn in the sun to avoid sunburn.
- Never leave an infant in a parked car, even if the windows are open.

Why are pregnant women especially at risk during periods of extreme heat?

An increase in the core body temperature of a pregnant woman may affect the fetus, especially during the first trimester.

How can pregnant women protect themselves from the effects of extreme heat?

- Wear light loose fitting clothing
- Stay hydrated by drinking six to eight glasses of water a day
- Avoid caffeine, salt, and alcohol
- Balance fluids by drinking beverages with sodium and other electrolytes
- Limit midday excursions when temperatures are at their highest
- Call doctor or go to emergency room if woman feels dizzy, short of breath, or lightheaded

Where can I find more information about extreme heat?

- Extreme Heat Page: Stay Healthy During a Heat Event (see www.epa.gov/naturalevents/extremeheat.html#recover)
- Climate Change and the Health of Children: Heat (see <http://yosemite.epa.gov/ochp/ochpweb.nsf/content/climate.htm#7>)

For an online version of this fact sheet, please visit:
<http://yosemite.epa.gov/ochp/ochpweb.nsf/content/heat.htm>.