

Heat Stress



Education

INFORMATION FOR PATIENTS AND FAMILIES

What is heat stress?

Heat stress is the body's reaction to heat, humidity and physical activity. It can occur when heat becomes trapped in your child's body.

There are three types of heat stress: heat cramps, heat exhaustion and heat stroke.

1. **Heat cramps** are muscle spasms that result from a salt imbalance caused by intense exercise and heavy sweating.
2. **Heat exhaustion** is an illness from too much exposure to heat and physical activity.
3. **Heat stroke** can be a life-threatening emergency. The trapped heat can cause injury to the muscles, kidneys, liver, heart and brain. It may sometimes even cause death.

When is heat stress more likely to occur?

Heat stress is more likely to occur with:

- High humidity
- Children starting first days of sports or band practice in the summer
- Athletes who spend most of the summertime indoors in air conditioning and then workout outdoors on hot, humid days
- Overweight children
- Heavily clothed or padded athletes
- Artificial turf surfaces, which are much hotter than natural surfaces
- Children with pre-existing or chronic health conditions

Why are children at risk?

- Children sweat less than adults do. Sweating is one of the body's main ways to get rid of heat.
- Children do not know when to rest, especially when they are having fun or playing sports. This makes it easy for them to become over-heated.
- Children may not be as thirsty as adults, so they drink less and can become dehydrated (dried out) more easily.

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In case of an urgent concern or emergency, call 911 or go to the nearest emergency room right away.

This is general information and is not specific medical advice for your child. Always consult your child's doctor or other healthcare provider if you have any questions or concerns about the care or health of your child. A Children's Healthcare of Atlanta pediatric advice nurse is available 24 hours a day at 404.250.kids.

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CHILDREN'S HEALTHCARE OF ATLANTA www.choa.org | 404.250.kids

What are the possible symptoms of heat stress?

	Symptoms (signs)	Treatment - Your child's doctor will talk with you about specific care for your child. In general you should:
Heat Cramps	<ul style="list-style-type: none"> • Mild fever (under 101°F) • Painful leg cramps • Flushed face • Nausea • Weakness 	<ul style="list-style-type: none"> • Stop activity and have child rest • Slowly stretch the cramped muscle and gently massage • Give lots of cool, clear fluids such as water, juice, Kool-Aid® or sports drinks • Move child to air conditioned or fanned area • Undress or wet down child's clothing
Heat Exhaustion	<ul style="list-style-type: none"> • Lethargy (does not smile or show interest in play, very tired, inactive) • Headache • Fever, up to 102°F • Heavy sweating • Thirst • Cool, pale, clammy skin • Nausea, vomiting, diarrhea • Anxiety 	<ul style="list-style-type: none"> • Stop activity and have child rest • Move child to air conditioned or fanned area • Give lots of cool, clear fluids such as water, juice, Kool-Aid® or sports drinks • Give child cool bath if possible or or wet down child's clothing • Call your child's doctor
Heat Stroke	<ul style="list-style-type: none"> • Fever, sometimes above 105°F • Confusion, agitation, hysteria • No sweating • Possible coma & death 	<ul style="list-style-type: none"> • Call 911 • Stop activity and have child rest • Move child to air conditioned or fanned area • If alert, give lots of cool, clear fluids such as water, juice, Kool-Aid® or sports drinks • Give child cool bath if possible or wet down child's clothing

What can I do to help prevent heat stress?

- Give your child plenty of cool, clear fluids such as water, juice, Kool-Aid® or sports drinks. Give at least four ounces every 15 minutes during activity in the heat and sun – even if your child is not thirsty.
- Limit strenuous activity during the peak heat hours from 10 a.m. to 4 p.m. Make sure he rests in the shade or indoors often.
- Have your child increase his activity level and exposure to heat a little bit at a time.
- Watch for the early signs of heat stress and start cooling your child **right away**.

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Heat Stress continued

- Use sun hats or umbrellas for shade.
- Sprinkle with a hose or water bottle often.
- Have your child wear light colored, lightweight clothing
- Do not **EVER** leave your child in a hot car – even for a few minutes.
- If your child has a chronic illness or is taking medicine regularly, check with his doctor for other instructions.
- Do not use salt tablets.

When should I call the doctor?

Call your child's doctor if:

- Muscle cramps are not better with treatment
- You see any signs of heat exhaustion

If your child shows any sign of heat stroke, call 911 right away.