Heat-induced illness prevention

Extreme heat, humidity and ozone changes put young athletes at risk. Heat-induced illness include:

• Dehydration.
• Muscle cramping.
• Heat exhaustion.
• Heat stroke.

Help stop these by:

• Drinking fluids to replace those lost by sweating.
• Playing during the best weather conditions.

What are the signs and symptoms of heat-induced illnesses?

<table>
<thead>
<tr>
<th>Dehydration</th>
<th>Heat cramping</th>
<th>Heat exhaustion</th>
<th>Heat stroke</th>
</tr>
</thead>
<tbody>
<tr>
<td>occurs when fluid loss exceeds 1% of body weight.</td>
<td>or painful, involuntary muscle contractions can happen during or after exercise sessions.</td>
<td>forces athletes to stop exercising due to dehydration, heavy sweating, sodium loss or lack of energy.</td>
<td>is temperature about 104°F rectally. It can cause death. Seek medical attention immediately.</td>
</tr>
</tbody>
</table>

- Very thirsty
- Irritable
- Fatigue
- Weakness
- Dry lips
- Sunken eyes
- Nausea
- Headache
- Poor performance
- Muscle cramping
- Dark yellow urine or not urinating
- Dizziness or trouble paying attention

- Muscle spasms and knotting
- Muscle pain
- Excessive sweating
- Salty skin appearance
- Dehydration

- Decreased sweating
- Dizziness
- Fatigue
- Rapid heart rate
- Feeling cold or goose pimples

- Very high core body temperature
- Confusion
- Extreme fatigue
- Rapid, weak pulse
- Unconsciousness or sudden collapse
- Heat stroke is a medical emergency and can be deadly. Get medical help immediately.

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Why is the young athlete more at risk?

The younger and smaller athlete:
- Gets hot faster.
- Gets hotter than adults in warm and humid weather.
- Does not regulate body temperature by sweating as well as adults.
- Adjusts more slowly than adults in hot and humid weather.
- Does not feel thirsty during long exercise times.

Younger athletes:
- Are more likely to forget to rest and replace lost fluids.
- Will not report first signs of a heat-induced illness.

How can I prevent heat-induced illness?

Suggestions for the young athlete:
- Drink on a schedule, not when thirsty.
- Use personal water bottles to track fluid intake.
- Avoid sugary juices and carbonated drinks. They have more than 10% carbohydrate content. This pulls water out of the body.
- Avoid all caffeinated drinks. Caffeine pulls water from the body.

<table>
<thead>
<tr>
<th>Pre-game</th>
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<tbody>
<tr>
<td>1-2 hours before practice/game</td>
<td>4 to 8 oz. of water for under 12 years of age</td>
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<tr>
<td>10-15 minutes prior practice/game</td>
<td>8 to 16 oz. of water for over 13 years of age</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>During game</th>
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</thead>
<tbody>
<tr>
<td>Every 15 minutes</td>
<td>5 to 9 oz. of water for under 12 years of age</td>
</tr>
<tr>
<td></td>
<td>5 to 10 oz. of water for over 13 years of age</td>
</tr>
</tbody>
</table>
- If the temperature and/or humidity is high, hydrate every 10 minutes.
- If the young athlete is practicing or participating in a game for greater than one and a half hours, it is recommended to alternate with a sports drink that has 4-8% carbohydrate content to replace the electrolytes/glucose lost.

Post-game

Drink 16-24 oz. of water and/or sports drink for every pound lost. It is best to weigh the young athlete prior to and after each practice/game.

*Drinking schedules should match the athlete. The goal is to stop fluid losses that are more than than 1% of body weight.

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