HEAT STRESS

Keeping Your Cool in Hot Weather

When the body is unable to cool itself by sweating, several heat-induced illnesses such as heat stress or heat exhaustion and the more severe heat stroke can occur. Although older adults and very young children are most susceptible to heat-related injury and illnesses, anyone of any age can suffer the effects of hyperthermia, or overheating of your body. To keep cool during excessive heat, you need to know how to prevent heat emergencies — and how to identify signs that you've had too much.

What’s Today’s Heat Index? When outdoors in hot weather, both air temperature and humidity affect how hot you feel. The "heat index" is a single value that takes both temperature and humidity into account. (Weather reports call it the "feels like" temperature.) The higher the heat index, the hotter the weather feels. At high heat index levels, sweat does not readily evaporate and cool the skin. The heat index is a better measure than air temperature alone for estimating the risk of heat-related illness from environmental heat sources.

Signs and symptoms of heat-related illness. Muscle cramping might be the first sign of heat-related illness, and may lead to heat exhaustion or stroke. If you see any signs of severe heat stress, you may be dealing with a life-threatening emergency. Have someone call for immediate medical assistance while you begin cooling the affected person.

Here is how you can recognize heat exhaustion and heat stroke and what to do:

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<th>Illness</th>
<th>Symptoms</th>
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| Heat Stroke (sun stroke) THIS IS AN EMERGENCY - ACT FAST! | ● Hot, dry, red skin  
● Rapid pulse  
● No sweating  
● High body temperature ≥ 105°F  
● Loss of alertness  
● Confusion  
● Unconsciousness or coma  
● Rapid and shallow breathing | ● Call 911 immediately.  
● Cool the person quickly: bring to a cool place and use a cool bath or sponges, fans and AC, OR wrap ice packs in the cloth and place on neck, wrists, ankles and armpits, OR remove clothing and wrap the person in cool, wet sheets. |
| Heat exhaustion       | ● Fatigue  
● Heavy sweating  
● Fainting  
● Vomiting  
● Cold, pale, clammy skin  
● Dizziness  
● Headache  
● Nausea  
● Weakness | ● Heat exhaustion can quickly lead to heat stroke, so if symptoms worsen or don’t improve get medical help.  
● Move the person to a cool place.  
● Loosen clothes and apply cool, wet cloths to the neck, face and arms.  
● Have the person sip water slowly. Provide a half a glass of water every 15 minutes up to about 1 quart. Stop giving water if vomiting occurs. |
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<td>Heat cramps</td>
<td>• Muscle cramps in the abdominal area&lt;br&gt;• Heavy sweating&lt;br&gt;• Mild Nausea</td>
<td>• Move the person to a cool place.&lt;br&gt;• Apply firm pressure to the cramping muscle.&lt;br&gt;• Gently stretch the cramped muscle and hold it for 20 seconds followed by gentle massage.&lt;br&gt;• Have the person drink some cool water.&lt;br&gt;• Monitor for more serious symptoms.</td>
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<td>Heat rash</td>
<td>• Skin irritation that looks like a red cluster of pimples or small blisters</td>
<td>• Move the person to a cool place.&lt;br&gt;• Keep the affected area dry.&lt;br&gt;• Have the person use talcum powder to increase comfort.</td>
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If you have elderly relatives or neighbors, you can help them protect themselves from heat-related stress:

- Visit older adults at risk at least twice a day and watch them for signs of heat exhaustion or heat stroke.
- Encourage them to increase their fluid intake by drinking cool, nonalcoholic beverages regardless of their activity level.
  Warning: If their doctor generally limits the amount of fluid they drink or they are on water pills, they will need to ask their doctor how much they should drink while the weather is hot.
- Take them to air-conditioned locations if they have transportation problems.

Supervisors and Managers: Departments with employees or students who normally work outdoors or in unconditioned indoor environments need to address heat stress in their planning. Supervisors and instructors who oversee outdoor activities should review safety precautions and warning signs. Monitor the weather and curtail outdoor activities when the heat index is high.

Help and Advice: For further assistance, please contact Yale Environmental Health and Safety (EHS) at 203-785-3550. EHS can also suggest appropriate controls to reduce your risk of heat-related illness.

There's an App To Beat the Heat. The U.S. Department of Labor (DOL) and Occupational Safety and Health Administration (OSHA) have developed a tool for your mobile phone. The "Heat Safety Tool" can be downloaded to your Blackberry, Android or iPhone now. Visit: [http://www.osha.gov/SLTC/heatillness/heat_index/heat_app.html](http://www.osha.gov/SLTC/heatillness/heat_index/heat_app.html) for complete information.