



Curatorial Safety

Stay Cool in the Museum Each Summer

Whenever the temperature reaches the 90s and approaches 100°F, it's the perfect time to spend time indoors visiting (or working in) an air-conditioned museum or park visitor center. Unfortunately, not all National Park Service museums, visitor centers, and curatorial offices have air conditioning. Likewise, many historic structures also lack air conditioning.

In addition to interpretive programs, many curatorial and other resource management projects (especially archaeological field work, historic rehabilitations, cataloging projects, etc.) are scheduled for the summertime when the weather can be uncooperative from a human comfort standpoint. This can result in staff working outdoors in the heat and sun or indoors in an uncomfortably hot historic structure. Visitors can also be subjected to these unpleasant conditions when outside or while touring historic structures. Almost everyone knows of the health hazards associated with excessive heat, such as **dehydration, heat exhaustion, and heat stroke**, but it's always good to review these topics in order to help prevent them from occurring.

Dehydration

Excessive heat can lead to dehydration if you do not replace lost body fluids. The symptoms of dehydration include: thirst, less-frequent urination, dry skin, fatigue, light-headedness, dizziness, confusion, dry mouth and mucous membranes, and increased heart rate and breathing.¹

To Prevent Dehydration:

- Drink plenty of water.
- Consume more fluid than you're losing.
- Schedule outdoor activities in the morning when it's cooler.

Drink sports drinks to help maintain your balance of electrolytes.²

Heat Exhaustion

Heat exhaustion is a heat-related illness that can develop after several days of exposure to high temperatures and inadequate or unbalanced replacement of fluids. Those most prone to heat exhaustion are elderly people, those with high blood pressure, **and those working or exercising in a hot environment.**³

The symptoms of heat exhaustion include: dizziness or light-headedness; weakness; mood changes such as irritability, confusion, or the inability to think straight; upset stomach; vomiting; decreased or dark-colored urine; fainting or passing out; pale, clammy skin.⁴ **Heat exhaustion is serious. It can lead to heat stroke, a potentially life threatening condition.**

Heat Stroke

Heat stroke is the most serious heat-related illness. It occurs when the body becomes unable to control its temperature: the body's temperature rises rapidly, the sweating mechanism fails, and the body is unable to cool down. Body temperature may rise to 106°F or higher within 10 to 15 minutes. **Heat stroke can cause death or permanent disability if emergency treatment is not provided.**⁵

The symptoms of heat stroke include: dry, pale skin with no sweating; hot, red skin that looks like sunburn; mood changes such as irritability, confusion, or the inability to think straight; seizures or fits; unconsciousness with no response.⁶

Heat Exhaustion and Heat Stroke Prevention

To prevent heat exhaustion and heat stroke, the University of Maryland Medical System recommends that you:

- Drink plenty of fluids during outdoor activities, especially on hot days. Water and sports drinks are the drinks of choice; avoid tea, coffee, soda and alcohol as these can lead to dehydration.
- Wear lightweight, tightly woven, loose-fitting clothing in light colors.
- Schedule vigorous activity and sports for cooler times of the day.
- Protect yourself from the sun by wearing a hat, sunglasses and using an umbrella.
- Increase time spent outdoors gradually to get your body used to the heat.
- During outdoor activities, take frequent drink breaks and mist yourself with a spray bottle to avoid becoming overheated.
- Try to spend as much time indoors as possible on very hot and humid days.

Also, remember to take plenty of breaks to rest and relax in a cooler, shaded area. Don't overdo it!

First Aid for Heat Exhaustion and Heat Stroke⁷

- Call 911 for medical assistance.
- Move the victim to a cool shaded area. Lay the victim on his or her back. Move any nearby objects away from the person if symptoms include seizures or fits. If symptoms include nausea or upset stomach, lay the victim on his or her side.
- Loosen and remove any heavy clothing.
- Have the person drink cool water (about a cup every 15 minutes) if alert enough to drink something, unless sick to the stomach.
- Cool the person's body by fanning and spraying with a cool mist of water or wiping the victim with a wet cloth or covering him or her with a wet sheet.

- Place ice packs under the armpits and groin area.

Dehydration, heat exhaustion, and heat stroke are very serious conditions. Be sure to exercise caution and common sense whenever working outdoors in extreme heat or within uncomfortably warm buildings. Take numerous breaks in the shade or in an air-conditioned building, drink plenty of water, slow down, and don't over do it.

Additional Resources

For additional information concerning dehydration, heat exhaustion, and heat stroke, consult the following publications:

University of Maryland Medical System. "Dehydration and Heat Stroke." Available on the Web at: <http://www.umm.edu/non_trauma/dehyrat.htm>

U.S. Centers for Disease Control (CDC). "Frequently Asked Questions for Extreme Heat." Available on the Web at <<http://www.cdc.gov/nceh/hsb/extremeheat/FAQs.htm>>

U.S. Occupational Safety and Health Administration (OSHA). "The Heat Equation." OSHA Publication #3154, 2002. Available on the Web at: <<http://www.osha-slc.gov/Publications/osha3154.pdf>>

Notes

1. University of Maryland Medical System. "Dehydration and Heat Stroke."
2. Ibid.
3. U.S. Centers for Disease Control (CDC). "Frequently Asked Questions for Extreme Heat."
4. U.S. Occupational Safety and Health Administration (OSHA). "The Heat Equation." OSHA Publication #3154 (2002).
5. CDC, Op. cit.
6. OSHA, Op. cit.
7. Ibid.

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