

Heat and Health Info Sheet: Know the Signs of Heat Illnesses

What is Extreme Heat?

Extreme heat is characterized by temperatures and humidity higher than average for a specific timeframe, typically two to three days. Extreme heat varies according to geographical location and season. For instance, temperatures and humidity above 95 degrees Fahrenheit during summer in Washington, D.C., qualify as extreme heat, whereas the threshold for extreme heat in Florida during summertime is above 105 degrees Fahrenheit.

What are the Consequences of Extreme Heat?

Extreme heat can be very dangerous. It impairs the body's natural ability to regulate its internal temperature, leading to heat-related illnesses such as heat exhaustion, heat cramps, heat stroke, dehydration, or hyperthermia, which can cause severe damage to vital organs or even death.

Who are most in danger of extreme heat?

- Children
- Elderly people
- Pregnant women
- People who work outdoors
- People living in urban heat islands

What is a Urban Heat Island?

The urban heat island effect occurs when human-made surfaces, such as buildings and asphalt, absorb and emit heat, making the surrounding air temperature hotter. Because of the urban heat island effect, urban areas tend to be hotter than neighboring suburban or rural areas. Compared with rural and suburban areas, urban areas can be between 1.8 to 5.4 degrees Fahrenheit warmer during the day and up to 22 degrees Fahrenheit warmer at night.

Signs of Heat-Related Illnesses and How to Respond

- Stay in an air-conditioned location OR find places in the community where you can go to get cool
- Drink lots of water. DO NOT wait until you are thirsty. It is important to stay hydrated to stave off heat-related illnesses
- Wear loose-fitting, lightly colored clothing
- Avoid unnecessary strenuous activity outdoors
- Avoid unnecessary exposure to sunlight
- Check on friends, family members, or neighbors who live alone, especially the elderly



Signs of Heat Cramps

- Muscle pains or spasms in the stomach, arms, or legs

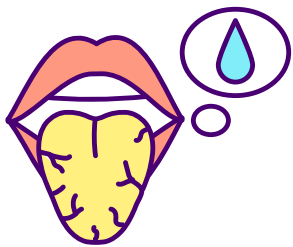
Actions: Stop physical activity. Go to a cool location. Take sips of cool water or a sports drink. DO NOT continue physical activity until the cramps go away. Call a medical provider for further assistance, especially if symptoms worsen or last longer than an hour.



Signs of Heat Exhaustion

- Heavy sweating
- Paleness
- Muscle cramps
- Dizziness
- Headache
- Fainting
- Nausea and/or vomiting
- Tiredness or weakness
- Fast or weak pulse

Actions: Go to a cool location. Cool down by removing any excess clothing or taking a cool bath. Take sips of cool water or sports drinks. Call a medical provider for further assistance, especially if symptoms worsen or last longer than an hour.



Signs of Dehydration

- Feeling thirsty
- Dizzy or lightheaded
- Dry mouth
- Tiredness
- Having dark colored, strong-smelling urine
- Passing urine less often than usual

Actions: Drink plenty of cool water, natural fruit juices, or sports drinks. Drink slowly and frequently. Call a medical provider for further assistance if symptoms worsen or last longer than an hour.



Signs of Heat Stroke

- Extremely high body temperature
- Hot and dry skin with no sweat
- Rapid pulse
- Dizziness or confusion
- Losing consciousness
- Headache
- Nausea

Actions: Call 9-1-1 immediately. Use whatever methods are available to cool down until medical help arrives. DO NOT give the person anything to drink.

For more information on extreme heat, visit, www.cdc.gov/extremeheat

Endnotes

1. Earthdata. "Urban Heat Island." Accessed May 11, 2023. <https://www.earthdata.nasa.gov/topics/human-dimensions/public-health/environmental-health-factors/urban-heat-island>.
2. United States Environmental Protection Agency. "Climate Change and Extreme Heat: What You Can Do to Prepare," October 2016, 14.
3. Hsu, Angel, Glenn Sheriff, Tirthankar Chakraborty, and Diego Manya. "Disproportionate Exposure to Urban Heat Island Intensity across Major US Cities." *Nature Communications* 12, no. 1 (May 25, 2021): 1–11. <https://doi.org/10.1038/s41467-021-22799-5>.
4. United States Government. "Extreme Heat." Last Updated June 2023. <https://www.ready.gov/heat#illness>