HEALTH IMPACTS OF EXTREME HEAT
WHY IT’S DANGEROUS AND HOW TO STAY SAFE

Extreme heat—when temperatures are much hotter than average—can be dangerous for our health. Climate change is making extreme heat days more frequent and more intense.¹

Extreme heat can harm our health in a variety of ways.

Direct health harms from heat:

Heat-related illnesses: From heat cramps to heat stroke, heat-related illnesses can range from mild to life-threatening.

Inability to cool off at night: Our bodies need to cool off at night, and when they can’t, the heart works harder to regulate body temperature, which can cause excessive strain on organs.²

Air pollution: Higher temperatures can increase levels of harmful air pollution, making extreme heat especially dangerous for people with respiratory and heart problems.³

Mental health impacts: Extreme heat has been linked to higher rates of emergency room visits for mental health conditions including substance abuse, anxiety, and mood disorders.⁴

Increased violence: Rising temperatures are associated with an increase in violent crimes, including gender-based violence.⁵

Adverse birth outcomes: High heat is bad for pregnancy, and has been linked to preterm birth, low birthweight, pregnancy loss, and heat-related stress in newborn babies.⁶

Sleep disturbances: Higher nighttime temperatures can make it more difficult to sleep, and insufficient sleep can exacerbate a range of other health issues.⁷

Increased hospitalization and death: Heat waves have been linked to higher rates of hospitalization for cardiovascular, kidney, respiratory, and mental health disorders.⁸ Heat is the leading cause of weather-related deaths in the US.⁹

Indirect health impacts from heat:

Disrupted health services: Increased ambulance calls and hospitalizations during extreme heat can disrupt needed health care services.¹⁰

Medication safety issues: Many medicines need to be stored at moderate temperatures. Extreme temperatures can exceed safe medication storage guidelines, making medicines ineffective and possibly unsafe to use.¹¹

Disrupted infrastructure: Prolonged periods of extreme heat can create heavy demands for air conditioning, straining power grids and leading to power outages.¹²

Food safety issues: High temperatures and power outages increase the risk of food spoilage, which can lead to food-borne illness.¹³, ¹⁴
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Signs of heat-related illness

Knowing the signs of heat-related illness can be lifesaving. Here’s how to keep yourself and your loved ones safe.15

Heatstroke is a serious, life-threatening illness that requires immediate medical attention.16

Symptoms: Very high body temperature (103°F or higher); hot, red, dry, skin; fast, strong pulse; headache; or nausea.

What to do: Call 911 right away—heatstroke is a medical emergency. If you are aiding someone else, move the person to a cooler place. Help lower the person’s temperature with cool cloths or a cool bath. Do not give the person anything to drink.

Heat exhaustion is milder than heatstroke, but still a serious condition that requires timely care.17

Symptoms: Heavy sweating; cold, pale, and clammy skin; fast, weak pulse; nausea or vomiting; muscle cramps; tiredness or weakness; dizziness or blurred vision; headache; or fainting.

What to do: Move to a cooler place. Loosen or remove excess clothing. Put cool, wet cloths on your body or take a cool bath. Sip water. Get medical help right away if you are throwing up, or your symptoms get worse or last longer than one hour.

Heat cramps are painful muscle spasms that typically occur during intense physical activity in hot environments.18

Symptoms: Heavy sweating during intense exercise or muscle pain or spasms in the legs, arms, abdominal wall, and back.

What to do: Stop physical activity and move to a cooler place. Remove excess clothing. Drink water or a sports drink. Get urgent medical help if your cramps last longer than one hour, you’re on a low-sodium diet, or you have heart problems.

Who is vulnerable to the impacts of extreme heat?

Extreme heat can be dangerous for all of us, but some people are more vulnerable than others. Vulnerable groups include:

- Babies and children
- Pregnant people
- Older people
- People with underlying medical conditions, such as heart and respiratory disease
- People taking medication that makes them more sensitive to heat
- Athletes and outdoor enthusiasts
- Outdoor workers such as first responders and farm, landscaping, and construction workers
- Low-income communities who may have limited access to air-conditioned spaces and health care

Further resources

For more information about how to stay safe before, during, and after episodes of extreme heat, visit Ready.gov: www.ready.gov/heat

To learn more about how to advocate for climate policies that can help keep our families and communities safe when temperatures rise, visit Moms Clean Air Force: www.momscleanairforce.org

For links and sources, please visit: www.momscleanairforce.org/sources-extreme-heat

The mission of Moms Clean Air Force is to protect children from air pollution and climate change. We envision a safe, stable, and equitable future where all children breathe clean air. We fight for Justice in Every Breath, recognizing the importance of equitable solutions in addressing air pollution and climate change. www.momscleanairforce.org