

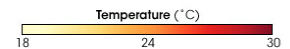
HEAT WAVE

Heat waves, caused by stagnant weather conditions, are sustained periods of extreme hot temperatures that are often accompanied by high humidity. Heat waves are more deadly than any other weather-related hazard, causing an average of about 1500 heat related each year. They can also have devastating economic effects in the form of lost agricultural productivity. To make matters worse, heat waves are often accompanied by drought conditions which limit supplies of water, food, and electricity at the very times when these resources are most needed to mitigate effects of the extreme heat.

To reduce the impacts of heat waves, the Congressional Hazards Caucus Alliance encourages all citizens to understand the dangers posed by heat waves and to prepare themselves to respond properly to such threats. This fact sheet was developed using information from federal and state disaster preparedness and response agencies, including those resources referenced on the back.



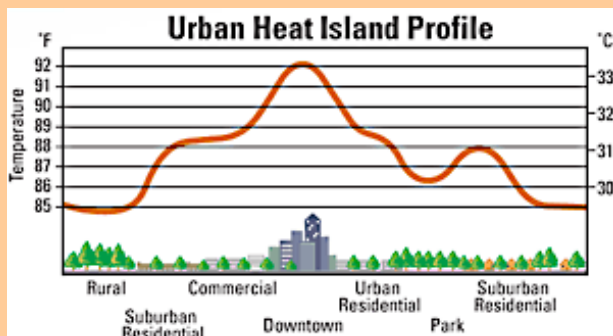
An aerial photo (far left) and a heat map (left) of Atlanta shows urban areas experiencing



Source: Landsat-7 Satellite, NASA

Heat Wave Facts

- ◆ Urban populations are at higher risk during heat waves. Large volumes of heat are stored by abundant asphalt and concrete during the day and released at night, maintaining elevated temperatures around the clock. This phenomenon is called a “heat island.” City pollution, trapped and concentrated by stagnant weather conditions, can compound health effects of extreme heat. During the 1995 heat wave, the city of Chicago suffered over 700 fatalities.
- ◆ An estimated 50,000 people died in Europe as the result of the August 2003 heat wave.
- ◆ Window awnings can reduce the heat that enters a home by up to 80 percent, protecting inhabitants from extreme weather conditions during a heat wave.
- ◆ The July 1995 heat wave is estimated to have cost the U.S. cattle industry \$28 million in animal deaths and reduced livestock performance.
- ◆ Someone with sunburned skin is more susceptible to heat-related illnesses.
- ◆ Men are at higher risk for heat-related illnesses because they tend to sweat more and therefore become dehydrated more easily.
- ◆ Being in direct sunlight raises the heat index, or how hot it actually feels, by up to 15°F.
- ◆ The elderly are at higher risk for health problems during heat waves. This is especially true for those who live alone and/or have a fixed income which may limit access to adequate air conditioning.



Source: EPA

What You Can Do To Reduce Your Risk

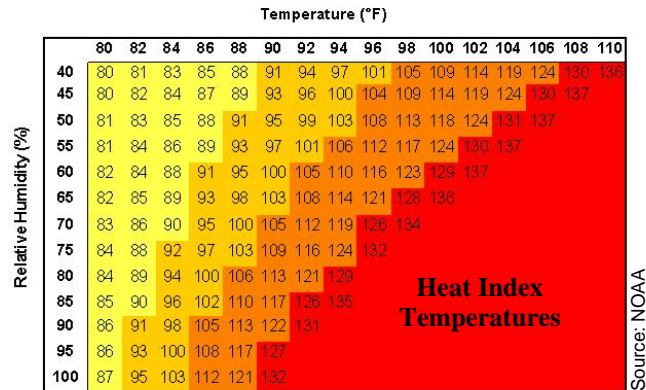
- ◆ Learn to recognize the symptoms of heat-induced illness:

Heat Cramps – Painful spasms, usually in leg and abdominal muscles. Heavy sweating.

Heat Exhaustion – Heavy sweating. Weak pulse. Possible elevated body temperature, dizziness, fainting, nausea, exhaustion, and/or headaches. Seek medical attention if vomiting occurs.

Heat Stroke – High body temperature (105+). Hot, red, dry skin. Rapid, weak pulse and rapid shallow breathing. Absence of sweating. Possible unconsciousness. Seek immediate medical attention. Delay can be fatal.

- ◆ Understand heat index temperatures. Under normal circumstances, the human body produces sweat which cools the body as it evaporates. High relative humidity reduces evaporation, hindering the body's ability to cool itself and making high temperatures feel even hotter. Heat index temperatures take the humidity into account. See chart at right.



Likelihood of Heat Disorders with Prolonged Exposure or Strenuous Activity
 ■ Caution ■ Extreme Caution ■ Danger ■ Extreme Danger

- ◆ Prepare your home. Install an air conditioner and make sure the building is well insulated. Cover windows with drapes, shades, storm windows, and/or awnings. Temporary window reflectors such as aluminum foil-covered cardboard can be installed between windows and drapes to reflect heat back outside.
- ◆ Learn methods to stay cool and healthy during a heat wave. Suggestions include drinking sufficient water, staying indoors, visiting air-conditioned public buildings during the hottest parts of the day, and dressing in loose-fitting, lightweight, and light-colored clothes that cover as much skin as possible. It is recommended that strenuous physical activity, salty foods, and alcoholic beverages be avoided. In the event that strenuous physical activity cannot be avoided, use a buddy system and take frequent breaks.
- ◆ Learn more from the EPA "Excessive Heat Events Handbook" at: www.epa.gov/hiri/about/heatguidebook.html

Heat Wave Information Resources

- ◆ National Weather Service: www.nws.noaa.gov/om/brochures/heat_wave.shtml
- ◆ Federal Emergency Management Agency: www.fema.gov/hazard/heat
- ◆ American Red Cross Disaster Services : www.redcross.org/
- ◆ National Drought Mitigation Center: www.drought.unl.edu/
- ◆ U.S. Environmental Protection Agency: www.epa.gov/hiri/

The **Congressional Hazards Caucus** is co-chaired by Senators Mary Landrieu (LA), Ben Nelson (NE), and Lisa Murkowski (AK) and Representatives Dennis Moore (KS), Jo Bonner (AL) and Zoe Lofgren (CA). The Caucus helps individuals, businesses, and communities better prepare for and mitigate the costs of disasters. The Caucus seeks to foster dialogue on steps that government and citizens can take to lessen the severity of these disasters. To learn more about the Caucus, visit: www.hazardscaucus.org.