

Arkansas Department of Health ❖ Center for Health Protection
❖ Injury Prevention and Control Branch ❖ Beat the Heat Survival Kit 2010

Heat Wave Facts

A **Heat Wave** is a period of unusually hot weather often combined with high humidity.

Heat Index is the temperature or degrees Fahrenheit (F) indicating how hot it feels when relative humidity is added to the actual air temperature. Exposure to full sun can increase the heat index by 15 degrees

The National Weather Service (NWS) Heat Index

		Temperature (°F)															
		80	82	84	86	88	90	92	94	96	98	100	102	104	106	108	110
Relative Humidity (%)	40	80	81	83	85	88	91	94	97	101	105	109	114	119	124	130	136
	45	80	82	84	87	89	93	96	100	104	109	114	119	124	130	137	
	50	81	83	85	88	91	95	99	103	108	113	118	124	131	137		
	55	81	84	86	89	93	97	101	106	112	117	124	130	137			
	60	82	84	88	91	95	100	105	110	116	123	129	137				
	65	82	85	89	93	98	103	108	114	121	128	136					
	70	83	86	90	95	100	105	112	119	126	134						
	75	84	88	92	97	103	109	116	124	132							
	80	84	89	94	100	106	113	121	129								
	85	85	90	96	102	110	117	126	135								
	90	86	91	98	105	113	122	131									
	95	86	93	100	108	117	127										
100	87	95	103	112	121	132											

Likelihood of Heat Disorders with Prolonged Exposure or Strenuous Activity

Caution
 Extreme Caution
 Danger
 Extreme Danger

To find the Heat Index, look at the Heat Index Chart. As an example, if the air temperature is 95°F (found on the top of the table) and the Relative Humidity is 55% (found at the left side of the table), the Heat Index-or how hot it really feels-is 110°F. This is at the intersection of the 95° row and the 55% column.

Summary of National Weather Service's (NWS) Alert Procedures

The NWS will initiate alert procedures when the Heat Index is expected to exceed 105°- 110°F (depending on local climate) for at least two consecutive days. The procedures are:

1. Include Heat Index values in zone and city forecasts.
2. Issue Special Weather Statements and/or Public Information Statements presenting a detailed discussion of:
 - Extent of the hazard including HI values
 - Who is most at risk
 - Safety rules for reducing the risk.
3. Assist state/local health officials in preparing Civil Emergency Messages in severe heat waves. Meteorological information from Special Weather Statements will be included as well as more detailed medical information, advice, and names and telephone numbers of health officials.
4. Release to the media and over NOAA's own Weather Radio all of the above information.

Possible heat disorders for people in higher risk groups:

Heat Index of 130° OR Higher: Heatstroke/sunstroke highly likely with continued exposure.

Heat Index of 105° - 130°: Sunstroke, heat cramps or heat exhaustion likely, and heatstroke possible with prolonged exposure and/or physical activity.

Heat Index of 90° - 105°: Sunstroke, heat cramps and heat exhaustion possible with prolonged exposure and/or physical activity.

Heat Index of 80° - 90°: Fatigue possible with prolonged exposure and/or physical activity.

Heat Cramps is a condition that is marked by sudden development of cramps in skeletal muscles and that result from prolonged work or exercise in high temperatures accompanied by profuse perspiration (sweat) with loss of sodium chloride (salt) from the body. Cramps are often the very first sign that the body is having trouble with the heat.

When heat cramps occur:

- Get to a cooler place
- Rest in a comfortable position
- Lightly stretch muscles
- Drink water every 15 minutes

Heat Exhaustion is a condition marked by weakness, nausea, dizziness, and profuse sweating that results from physical exertion in a hot environment. Blood flow to skin increases, while blood flow to vital organs decreases. Heat exhaustion can cause a form of mild shock. If not treated, the condition will get worse, the body temperature will keep rising, and heat stroke may occur.

Signs of Heat Exhaustion

- Cool, moist, pale or flushed skin
- Heavy sweating

- Headache, nausea, or vomiting
- Dizziness
- Exhaustion
- Body temperature may be normal but most likely will be rising

When heat exhaustion occurs:

- Get the person to a cooler place
- Remove or loosen tight clothing and apply cool wet cloths
- If conscious give cool water to drink every 15 minutes
- Rest in a comfortable position and watch carefully for changes in condition

Heatstroke (also called Sunstroke) is a life threatening condition marked especially by cessation of sweating, extremely high body temperature, and collapse that result from prolonged exposure to high temperature. A heat stroke victim's temperature control system stops working and cannot produce sweat to cool the body. Brain damage and death will result if the body temperature continues to rise and the body is not cooled quickly. **If you suspect Heatstroke call 911 or your local emergency number immediately and move the person to a cooler place– help is needed fast!**

Signs of Heatstroke:

- Hot, red skin
- Changes in consciousness
- Rapid, weak pulse
- Rapid, shallow breathing
- Body temperature as high as 105
- If the person was sweating from heavy work or exercise, skin may be wet; otherwise it will feel dry.

How to protect your health during extreme heat:

- NEVER leave children, pets, or others alone in closed vehicles - Within minutes, the temperature inside a car can reach over 140 degrees F, which can kill.
- Slow down, and avoid strenuous activity. Even the healthiest people may be overpowered if they perform strenuous work outside during the heat of the day.
- Avoid too much sunshine, and postpone outdoor activities and games
- Drink plenty of fluids even if you do not feel thirsty
- Avoid alcohol and caffeine, which promote water loss
- Avoid extreme temperature changes, such as a taking a cool shower immediately after coming inside from hot temperatures
- If your home does not have air conditioning, go to a public building every day for several hours

- If you have to work outside, take frequent breaks, rest in the shade, and drink plenty of water.
- Dress for the weather: Wear loose-fitting, lightweight, lightly-colored clothing - Lightweight, lightly-colored clothing reflects heat and helps maintain normal body temperature
- If you must be outside, cover as much skin as possible to avoid sunburn
- Protect your neck, face and head with a wide-brimmed hat

Plan for extreme heat by developing a survival plan

- Contact your local emergency management office, National Weather Service office, or the American Red Cross for assistance in developing your plan.
- Share and discuss your extreme heat survival plan with your family.
- The Arkansas Department of Health will issue heat alerts when temperatures reach (what?) Stay tuned to local radio and television and stay informed.
- If your home is not air-conditioned, make alternate plans ahead of time in case of a heat wave. Choose other places you may go to get relief from the heat during the hottest part of the day such as schools, libraries, theaters or other community facilities
- Plan to change your daily activities to avoid strenuous work during the hottest part of the day.
- Some medications and medical conditions reduce ones ability to tolerate heat. Discuss these concerns with your doctor.
- Plan to check on family, friends, and neighbors who do not have air conditioning or who spend much of their time home alone.
- Plan to wear lightweight, lightly colored clothing. Dark clothing absorbs heat.
- Get Training - take a first aid course to learn what to do during heat emergencies and other emergencies
- Log-on to the National Weather Service's web site for more information.
<http://www.nws.noaa.gov/>