



COUNTY OF KENOSHA

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HEAT, AMERICA'S #1 WEATHER RELATED KILLER

Kenosha County Executive Jim Kreuser has proclaimed June 11, 2009, as Wisconsin Heat Awareness Day. "This is a good time to review how heat and humidity affects you," stated Kreuser. "Heat is America's #1 Weather related killer and knowing what you can do to stay cool can save your life."

Per the National Weather Service (NWS), between 1982 and 2008, Kenosha County experienced 17 Heat Wave events, representing 61 Heat Wave Days that resulted in 7 deaths," stated Ben Schliesman, Director, Kenosha County Emergency Management. "People who are most vulnerable to heat-related illness and death are the elderly, infants, young children, people who are overweight and those who work outside."

The most common heat-related illnesses are heat exhaustion and heat stroke.

Heat exhaustion should be treated by cooling the body temperature with liquids and a cool shower. Medical attention should be sought if you notice an increased heart rate and/or blood pressure. Symptoms of heat exhaustion include:

Heavy sweating, muscle cramps, tiredness, weakness, dizziness, and nausea.

Heat stroke can cause death or permanent disability if emergency treatment is not provided. If you notice any signs of heat stroke seek medical attention immediately while you begin cooling down the affected person. Symptoms of heat stroke include:

- Extremely high body temperature (above 103°F) and a rapid strong pulse;
- Red-hot, dry skin; and,
- Throbbing headache, dizziness, confusion, and nausea.

You can prevent heat-related illnesses by taking the following precautions during the hot humid summer months:

- Slow down and reduce outdoor activities. If possible do your activities in the early morning or evening and do not participate in strenuous outdoor activity.
- Drink plenty of water and stay away from alcoholic, carbonated or caffeine-type drinks.

- Stay out of the direct rays of the sun as this can add 15 degrees to the apparent temperature, better known as the heat index.
- Take a cool bath or shower and you will cool your body down 25 times faster than sitting in an air-conditioned room.
- Wear lightweight and light colored clothing limited to one layer of absorbent fabric to facilitate the evaporation of sweat. If clothes become wet they should be changed.
- Use a good sunscreen and wear a wide-brim hat; sunburn reduces the skin's ability to provide cooling.
- Indoors keep shades drawn and blinds closed; keep lights on low or turned off.
- Eat frequent small meals and avoid high protein foods, which increase metabolic heat.
- Spend time in an air-conditioned room; just two hours per day in air-conditioning can significantly reduce the risk of heat-related illness.
- If you don't have air-conditioning, spend time in air-conditioned places such as libraries, shopping malls or visit friends or relatives that have air-conditioning.
- Spend time in your basement; turn fans on.

People will often say, "We're having a heat wave," but what is a heat wave and what does it really mean? A heat wave usually consists of both high temperatures and high relative humidity. The combination makes it difficult for the human body to dissipate heat through the skin and sweat glands. To inform the public as to the criticality of heat, the National Weather Service uses the "Heat Index" as a measurement of the combined effects of high temperatures and high relative humidity. "The Heat Index equates to a "Feels Like Temperature," said Schliesman. "If it's 90 degrees with a relative humidity of 65%, the Heat Index, "Feels Like" temperature is 103 degrees. The greater the Heat Index, the greater possibility of heat-related illness."

With regard to heat-related weather, the National Weather Service issues the following Watches and Warnings:

Heat Advisory: A Heat Advisory is issued by the NWS, 6-24 hours in advance of any 24-hour period in which the daytime heat indices is => 100 degrees Fahrenheit and/or the air temperature => 95 degrees.

Excessive Heat Watch: An Excessive Heat Watch is issued by the NWS, 24-48 hours in advance of when Excessive Heat Warning conditions are expected.

Excessive Heat Warning: An Excessive Heat Warning is issued by the NWS, 6-24 hours in advance of any 48-hour period in which daytime heat indices are => 105 degrees Fahrenheit and a minimum night time heat indices => 75 degrees Fahrenheit.

"To keep apprised of up to the minute weather information regarding heat waves, severe storms, floods, etc, all households, schools, and businesses should purchase a NOAA All Hazard Weather Radio with either S.A.M.E. Technology or with a frequency of 162.450 (frequency assigned to Kenosha/Racine Counties)," said Schliesman. With a weather radio, you'll have peace of mind and you will always have an idea as to what weather is coming your way."

See below for National Weather Service's Heat Index Table or "Feels Like Temperature."

Heat Index Table													
Relative Humidity (%)													
Temp °F	40	45	50	55	60	65	70	75	80	85	90	95	100
110	136												
108	130	137											
106	124	130	137						Apparent Temperature Click for U.S. Map				
104	119	124	131	137									
102	114	119	124	130	137								
100	109	114	119	124	129	136							
98	105	109	113	117	123	128	134						
96	101	104	108	112	116	121	126	132					
94	97	100	102	106	110	114	119	124	129	135			
92	94	96	99	101	105	108	112	116	121	126	131		
90	91	93	95	97	100	103	106	109	113	117	122	127	132
88	88	89	91	93	95	98	100	103	106	110	113	117	121
86	85	87	88	89	91	93	95	97	100	102	105	108	112
84	83	84	85	86	88	89	90	92	94	96	98	100	103
82	81	82	83	84	84	85	86	88	89	90	91	93	95
80	80	80	81	81	82	82	83	84	84	85	86	86	87
With Prolonged Exposure and/or Physical Activity:		Extreme Danger: Heat Stroke or Sunstroke likely				Danger: Sunstroke, muscle cramps, and/or heat exhaustion likely							
		Extreme Caution: Sunstroke, muscle cramps, and/or heat exhaustion possible				Caution: Fatigue possible							
$HI = -42.379 + 2.04901523T + 10.14333127R - 0.22475541TR - 6.83783 \times 10^{-3}T^2 - 5.481717 \times 10^{-2}R^2 + 1.22874 \times 10^{-3}T^2R + 8.5282 \times 10^{-4}TR^2 - 1.99 \times 10^{-6}T^2R^2$													
Where: T = ambient dry bulb temperature R = relative humidity													