Be Prepared for Summer Heat With These Safety Tips!

June 30, 2018

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Heat is one of the leading weather-related killers in the United States, resulting in hundreds of fatalities each year and even more heat-related illnesses. It is important to understand the terminology we use and how to protect yourself and your family from the heat. What is a heat index and why is it important? What is the difference between a heat advisory and an excessive heat warning? What precautions should you take? All of these questions and more will be answered below.

The Heat Index (HI) is a measure of how hot it really feels when relative humidity (RH) is factored in with the actual air temperature. Generally speaking, it is the apparent temperature (how hot it feels). As a measure of excessive heat, the HI is used to determine the criteria for heat advisories and excessive heat warnings. Heat index values above 105°F correspond to a level that may cause increasingly severe heat disorders with continued exposure and/or physical activity. The National Weather Service Heat Index Chart is provided on page 2 to show which temperature and RH values correspond to a particular HI value.

A heat advisory is issued for HI values from 105 degrees to 109 degrees for more than 2 hours on any day; or for several consecutive days of 100 to 105 degrees, which might be starting to take a toll on local communities. An excessive heat warning is issued for HI of 110 degrees or more for 2 hours on any day. An excessive heat warning or advisory will be issued when an excessive heat event is expected in the next 36 hours. These products are issued when an

For more information on heat visit:

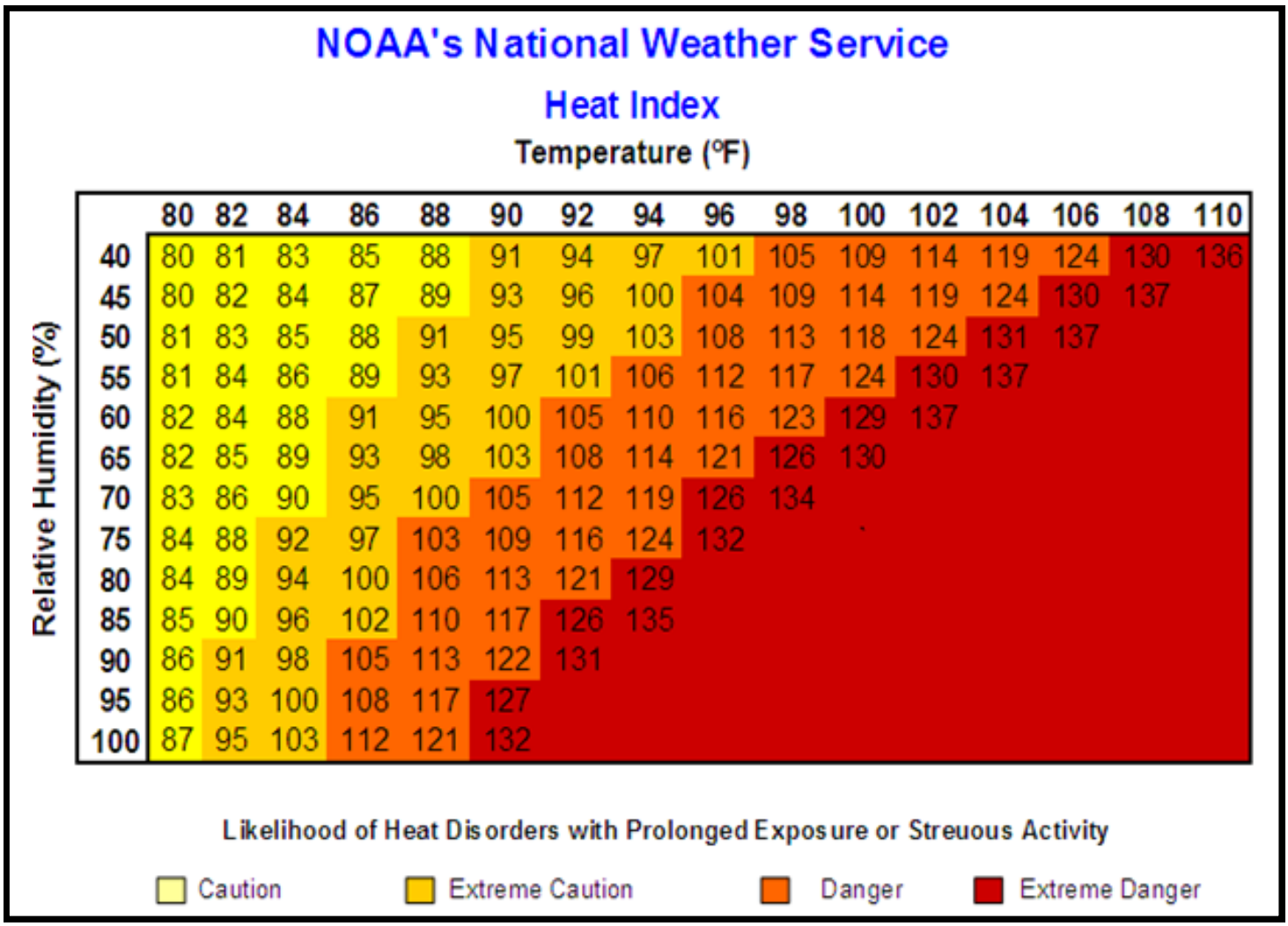
https://www.weather.gov/rah/heat

Local heat case studies:

August 2007

July 2010

WEATHER READY NATION



excessive heat event is occurring, is imminent, or has a very high probability of occurrence.

The relative humidity (RH), which is the % of moisture in the air, is important because when we get hot we start sweating, which cools the body through evaporation. This is why a "dry heat" feels more comfortable than high RH conditions; because evaporation occurs more readily. The downside is that the body is losing water more quickly than what is noticeable, which can quickly lead to dehydration. As a result, even though heat waves tend to combine both high temperature and high humidity, some of the worst have been catastrophically dry, like the heat wave in the desert Southwest in June 2017. On the other hand, high RH slows the evaporation, robbing the body of its ability to cool itself. During a heat wave characterized by very humid conditions, like the summer of 2016 in central NC, the heat feels far more oppressive because of the lower evaporation rate. In both cases, the body is losing water and if that water is not being replenished, sweating will eventually stop. When heat gain exceeds the level the body can remove, body temperature begins to rise and heat related illnesses and disorders may develop. This is the reason why both types of heat can result in heat-related problems, which is why it is important to educate yourself on what to do during periods of hot weather.

So, what should you do to protect yourself and/or your family from the heat? Studies have shown that the temperature inside a parked vehicle can rise rapidly to a dangerous level for children, adults, and pets. Leaving the windows slightly open does not significantly decrease the heating

rate. The effects can be more severe on children because their bodies warm at a faster rate than adults. Some vehicle child safety tips include checking for hot seating surfaces and equipment; Never leave your child unattended in a vehicle, even with the windows down; Teach children not to play in, on, or around cars; Always lock car doors and trunks, even at home; and always make sure all child passengers have left the car when you reach your destination. Don't overlook sleeping infants.

Here are a few other heat wave safety tips:

- **Slow down** - Strenuous activities should be reduced, eliminated, or rescheduled to the coolest time of the day. Individuals at risk should stay in the coolest available place, not necessarily indoors.
- **Dress for summer**- Lightweight light-colored clothing reflects heat and sunlight, and helps your body maintain normal temperatures.
- **Put less fuel on your inner fires** - Foods (like proteins) that increase metabolic heat production also increase water loss.
- **Drink plenty of water or other non-alcohol fluids** - Your body needs water to keep cool. Drink plenty of fluids even if you don't feel thirsty. If you have a medical condition that may be impacted by increased fluid consumption, you should consult a physician before increasing your fluid intake. Do not drink alcoholic beverages.
- **Spend more time in air-conditioned places** – If you cannot afford an air conditioner, spending some time each day (during hot weather) in an air conditioned environment affords some protection.
- **Don't get too much sun** - Sunburn makes the job of heat dissipation that much more difficult.
- **Protect your pets** - Pets can be as or even more susceptible to the heat.