



**National Oceanic and Atmospheric Administration
National Weather Service
Raleigh, North Carolina**

TALKING POINTS : EXCESSIVE HEAT

National Weather Service heat website: <http://www.nws.noaa.gov/om/heat/index.shtml>

NWS Raleigh heat website: <http://www.erh.noaa.gov/er/rah/heat/>

General information:

- In the last 10 years, excessive heat has been responsible for around 250 deaths per year, but this number is likely severely underestimated.
- Most heat-related injuries go unreported.
- In one highly publicized case from 2002, Minnesota Vikings player Korey Stringer collapsed during a morning practice on the second day of training camp, and died later that day of heat stroke.
- Symptoms of a serious heat illness include cramps, rapid pulse, heavy sweating, hot red skin, headache, dizziness, confusion, nausea, and vomiting.
- Treatment of a heat illness should include getting the victim out of the heat, giving the victim sips of cool water, placing cool wet cloths or ice packs on the victim's body (especially around the neck and under the arms), and seeking medical attention.
- Heat stroke occurs when the body's cooling system fails, and the body's core temperature rises rapidly. Heat stroke victims will cease sweating, and the body temperature will rise rapidly to over 105°F.
- Heat stroke requires immediate medical attention and cooling of the victim. Any delay can result in brain damage, organ failure, or death.
- The heat index is a measure of the combined effects of high temperatures and high humidity on the body.
- Once the heat index approaches 90°F, people doing any outdoor activities should exercise caution, and those without air conditioning should make sure rooms are well-ventilated or try to spend time in a cool place such as a mall or library.
- A heat index of 105°F or greater is very dangerous. People should greatly limit any time outdoors, and spend as much time as possible in well-ventilated rooms and air conditioning.
- Excessive heat effects are cumulative, and the threats grow with each successive day of hot weather.
- People who are not acclimatized to high temperatures and high humidities (their bodies are not adjusted to the environmental climate), such as those who are visiting or have recently moved to the area, are particularly susceptible to the adverse effects of hot weather.

- The National Weather Service issues 3-hourly heat index forecasts out to 72 hours, as well as 3-7 day heat index outlooks, all available on the websites above.

Children and teens:

- In hot weather, a child's body temperature can rise 3 to 5 times faster than an adult's, reaching a dangerous level in a very short time.
- In one study of children at a 4-day soccer camp, 59% of boys and 70% of girls were significantly dehydrated by the end of the camp.
- Teachers and caregivers may want to consider curtailing or canceling outdoor activities when the temperature or heat index reaches critical levels.
- In 1996-2000, over 130 children died from heat stroke in vehicles. One third of them had become trapped in a car while playing.
- Children should never be left alone in a vehicle, even with the windows rolled down, and they should not be allowed to play in or near a vehicle.

Athletes and outdoor workers:

- Athletes who exercise in excessive heat can suffer from what is called exertional heat stroke, wherein the body continues to sweat while the core temperature rises. Confusion, disorientation, and belligerence are frequent symptoms, and may be followed by collapse and loss of consciousness.
- During periods of hot weather, athletes should limit exercise between 10 am and 6 pm, and stay out of the sun as much as possible.
- In February 2003, Baltimore Orioles pitcher Steve Bechler died of multiple organ failure due to heat stroke, and a dietary supplement containing the drug ephedra was ruled to be a contributing factor.
- Certain medications and drugs, including ephedra, can exacerbate the negative effects of heat and impair the body's cooling mechanism. Also, diuretics can deplete body fluids and lead to dehydration.
- In 2001, excessive heat exposures lead to 24 worker deaths and 3,135 occupational injuries and illnesses involving days away from work.
- Avoid outside work between 10 am and 6 pm. When working outside, wear loose-fitting, lightweight, light-colored clothing.

Elderly:

- Many elderly people have an impaired ability to cool the body through perspiration.
- Some medications—such as psychotropics, drugs to treat Parkinson's disease, tranquilizers, and other drugs that interfere with body temperatures regulation—can inhibit perspiration and/or present a danger to those exposed to sunshine. This greatly increases the risk of developing a heat illness.
- Just a few hours a day in air conditioning during a hot spell can reduce the risk of developing a heat illness. The elderly, especially those with respiratory problems, should spend as much time as possible in an air conditioned place during hot weather.
- Always wear lightweight, light-colored clothing during hot weather. Friends and family should make sure the elderly are not overdressed.