

Heat Stress Prevention for Students and Employees

Heat exhaustion and Heat Stroke (sometimes known as Sun Stroke) can be prevented by limiting activity in high heat and humidity conditions. The following Heat Index chart provides guidance on when outdoor activities should be curtailed, moved indoors, or canceled due to the risk of illness or death.

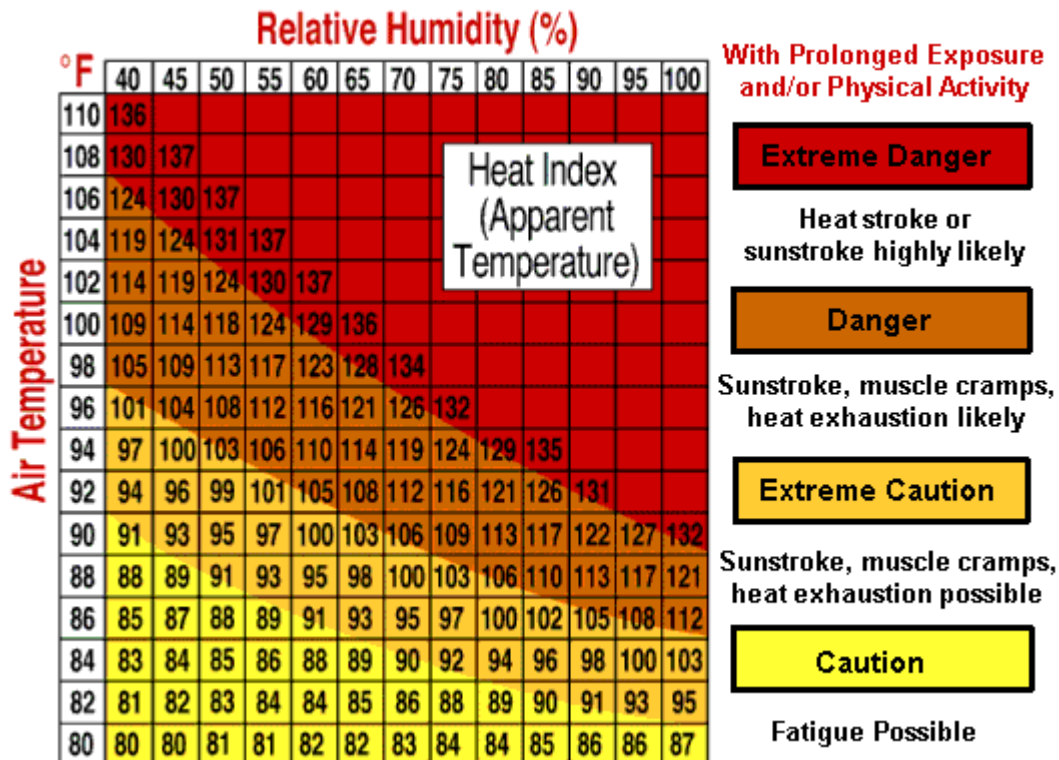


Chart source: National Oceanic and Atmospheric Administration (NOAA)

The temperature and relative humidity in Pinellas County can be accessed from any of the local broadcast news organizations, or can be found at the County Emergency Operations Center real-time weather station at:

<http://www.pinellascounty.org/weather/index.html>

Caution: Most long-term residents of Pinellas County will be acclimated to the “Caution” zone temperature/humidity range above. Fluids should be encouraged, and the “Heat Stress Prevention: General Tips” on the following pages should be followed.

Extreme Caution: Fluids, shaded breaks, and decreased activity are required when the temperature/humidity readings reach this level. Watch for signs/symptoms of heat exhaustion and heat stroke. Provide first aid as needed for symptoms listed on the “Emergency Actions for Heat Exhaustion and Heat Stroke” page of this document. Practices for athletic teams and bands should be

moved off high heat surfaces (cinders, sand, concrete, asphalt, etc.) to grassy areas.

Danger: Most people working in this temperature/humidity range for a prolonged period will experience heat exhaustion and some may have heat stroke. Activities in this range must be severely curtailed, and cooling stations or indoor breaks must be used regularly. Fluids should be taken at a rate of about one quart per person per hour. Practices for marching bands and athletic teams should be moved indoors or scheduled for a cooler part of the day. Physical Education classes should be restricted to shaded areas.

Parades and athletic competitions that must be completed in this heat index range must be supported by the following:

- Designated persons must provide fluids to all participants at a rate of one quart per person per hour.
- Responsible persons must be available to regularly assess all participants for signs & symptoms of heat exhaustion and heat stroke. (See listing "Emergency Actions for Heat Exhaustion and Heat Stroke")

Employees required to work outdoors in this heat/humidity range must be provided with fluids at a rate of one quart per person per hour. Employees should work in a "buddy" system to be able to check on one another regularly.

Extreme Danger: Heat exhaustion is probable and heat stroke is likely in this extreme heat index range. Outdoor practices, athletic events, parade participation and most other outdoor activities should be cancelled. Outdoor physical education classes should be kept indoors.

Employees should limit outdoor exposure in this heat/humidity range. Breaks for cooling must be provided every hour, along with hydration of at least one quart per hour. Supervisors should attempt to reschedule outdoor labor projects to cooler times of morning or evening if possible. No worker should be left unattended performing heavy labor in this heat index range.

Heat Stress Prevention: General Tips

Drink more fluids, regardless of your activity level. Don't wait until you're thirsty to drink. *Warning:* If your doctor generally limits the amount of fluid you drink or has you on water pills, ask him how much you should drink while the weather is hot.

Don't drink liquids that contain caffeine or large amounts of sugar – these actually cause you to lose more body fluid. Also, avoid very cold drinks, because they can cause stomach cramps.

Visit indoor air-conditioned places whenever possible for a break from the heat and humidity. Even a short time spent in air conditioning can help your body stay cooler when you go back into the heat.

Electric fans may provide comfort, but when the temperature is in the high 90s, fans will not prevent heat-related illness.

Wear lightweight, light-colored, loose-fitting clothing.

NEVER leave anyone in a closed, parked vehicle.

Although any one at any time can suffer from heat-related illness, some people are at greater risk than others. Check regularly on persons with diabetes, high blood pressure, seizure disorders, and heart disease.

Cut down on heavy labor. If you must expend large amounts of energy while working, drink two to four glasses of cool fluids each hour. A sports beverage can replace the salt and minerals you lose in sweat. *Warning:* If you are on a low-salt diet, talk with your doctor before drinking a sports beverage. Remember the warning in the first "tip" (above), too.

Try to rest often in shady areas.

Protect yourself from the sun by wearing a wide-brimmed hat (also keeps you cooler) and sunglasses and by putting on sunscreen of SPF 15 or higher (the most effective products say "broad spectrum" or "UVA/UVB protection" on their labels).

Emergency Actions for Heat Exhaustion and Heat Stroke

HEAT EXHAUSTION

A response to heat characterized by weakness, fatigue, and collapse due to inadequate intake of water to compensate for loss of fluids through sweating.

Signs and Symptoms

- Normal body temperature
- **Profuse perspiration**
- Pale, clammy skin
- Weakness, tiredness
- Rapid respirations
- Headache, dizziness, possible fainting
- High-pitched, raspy voice
- Cramps, nausea, possible vomiting

Emergency Actions

1. Move the person out of the heat to a cooler place, use fans or air conditioning if available.
2. Loosen clothing and make the person comfortable, reclining if possible.
3. Sponge face, neck, and other exposed skin surfaces with cool water.
4. Give water as the person can tolerate it, and only if fully conscious.
5. Notify parent/guardian if the victim is a student, or the victim's supervisor if an employee.
6. If refusing water, vomiting, complaining of chest pain, or any changes in level of consciousness, **Call 911**.

HEAT STROKE

A response to heat characterized by extremely high body temperature and sweat mechanism shutdown. This is an **Immediate Life-Threatening Emergency**.

Sign and Symptoms

- Hot, red, dry skin
- Very high body temperature
- Small pupils
- **No Sweating**
- May be unconscious
- Rapid pulse
- Shallow breathing

Emergency Actions

1. **Call 911**
2. Cool the victim off immediately by any means available: fanning, shade, cool liquids, removing clothing, adding ice packs to the neck, armpits and groin.
3. Provide respiratory and circulatory support if needed (Rescue Breathing, CPR.)