

# A Bird's Eye View on Safety

## Heat, Humidity and You: Preventing Heat Injuries

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### Is the heat making you sick?

The heat index is the temperature the body feels when humidity is taken into account. The chart shows the heat index that corresponds to the actual air temperature and relative humidity.

	Relative humidity					
	90%	80%	70%	60%	50%	40%
80°	85°	84°	82°	81°	80°	79°
85°	101°	96°	92°	90°	86°	84°
90°	121°	113°	105°	99°	94°	90°
95°		133°	122°	113°	105°	98°
100°			142°	129°	118°	109°
105°				148°	133°	121°
110°						135°

Heat index	Possible heat disorders:
80°F - 90°F	Fatigue possible with prolonged exposure and physical activity
90°F - 105°F	Sunstroke, heat cramps and heat exhaustion possible
105°F - 130°F	Sunstroke, heat cramps and heat exhaustion likely, heat stroke possible
130° or greater	Heat stroke highly likely with continued exposure

Source: National Weather Service

Staff graphic

The National Weather Service has developed a ~~Heat Index~~ Heat Index to assist in determining the relative temperature and what effects relative temperature may have on the body. The chart above was taken from the California Governor's Office of Emergency Services website.

I grew up in south Florida, known for its warm, tropical waters, coral sand beaches, and ocean side resort communities. One of the characteristics of Florida that makes it a

destination spot for northerners seeking relief from the harsh, cold temperatures of the northeast and Midwest winters is the sun and the warm temperatures it brings.

As a child growing up in a hot, humid tropical climate, I learned early on how to identify potentially deadly climatic conditions. Heat injuries are life threatening. Hot, humid conditions work against the body's natural cooling efforts by preventing the evaporation of perspiration from the skin; the higher the heat and higher the humidity, the more dangerous the conditions. These conditions are not only found in Florida but also occur in California. At this time of year, with children returning to school, we frequently think of summer as having come to an end but the reality is the warm weather continues to be with us and will probably remain with us for the next couple of months.

As a disclaimer, I want to emphasize I am not a physician, nurse or other medical practitioner but have been trained in emergency first aid by the American Red Cross and the US Army, having considerable experience and training in dealing with heat injuries. During my first encampment as a CAP cadet in the swampland of the Florida Everglades, we experienced extremely high temperatures and high humidity. A number of cadets and staff were victims of heat related injuries, requiring a number of us who had recently completed Red Cross first aid training to assist the medical staff with the increasing number of heat casualties. At one point we had over a dozen cadets and staff members in the encampment infirmary, a number of the injured requiring submersion in ice baths and intravenous fluids. The Encampment Medical Officer immediately requested emergency medical assistance from the local Emergency Medical Services and US Air Force medical facilities at Homestead AFB.

I have also served as a US Army infantry officer. The US Armed Forces takes the risk of heat injuries very seriously. All the branches provide their officers and noncommissioned officers with training in the identification and emergency treatment of heat injuries. To illustrate the potential severity of heat injuries and how seriously the military treats these kinds of injuries, there is a protocol in the Army to immediately helicopter evacuate any heat casualty to the nearest full service hospital. This includes the individual being attended to by an Army Field Medic who in most cases begins treatment with intravenous fluids and is in contact with the hospital while en route.

Heat injuries are also cumulative. An individual subjected to a heat injury at one point in their life will be even more susceptible to such injury in the future. This means the body's ability to deal with future heat injuries may be significantly impaired, resulting in an even more catastrophic potential for death with subsequent heat injury. Therefore, should you suspect a heat injury or recognize the early signs of a heat injury you must take immediate first aid measures and seek emergency medical assistance. The victim's life may well be in your hands.

As CAP leaders, it is our responsibility to look after the welfare of our fellow volunteers and ensure they are properly supervised and cared for. This includes being vigilant for climatic conditions that may threaten to cause life threatening heat injuries. We should never place our members in a position where they may be at risk of or fall prey to heat injuries.

And rememberõ Safety is No Accident!