

This preparedness guide explains the hot weather hazards we can get in Florida and suggests life-saving actions YOU can take to avoid getting caught in a dangerous heat-related situation.



### A National Problem

Though Florida is known as the Sunshine State, it could also qualify as the “Hot State.” Each summer, millions of residents and tourists enjoy the warm weather and sunny beaches, but most are unaware of just how hot it can get in Florida. Surrounded by the Atlantic Ocean and the Gulf of Mexico, the state is always influenced by tropical moisture, especially in the summer.

Heat kills by taxing the human body beyond its abilities. In a normal year, about 175 Americans succumb to the demands of summer heat. Among the large family of natural hazards in Florida, since 1995, 15 deaths and over 20 injuries have resulted from excessive heat. In the 40-year period from 1936 through 1975, nearly 20,000 people were killed in the United States by the effects of heat and solar radiation. And these are the direct casualties. It is estimated that many more deaths in Florida are advanced by heat wave weather, such as heart attacks and strokes.

For more information contact your local American Red Cross Chapter. Ask to enroll in a first aid course.  
[www.RedCross.org](http://www.RedCross.org)

# A Guide to Heat Safety

[www.FloridaDisaster.org](http://www.FloridaDisaster.org)





# It's Not the Heat, It's the Humidity

## How Heat Affects the Body

Human bodies dissipate heat by perspiring through the skin and sweat glands when blood is heated above 98.6 degrees. The heart begins to pump more blood, blood vessels dilate to accommodate the increased flow, and the bundles of tiny capillaries threading through the upper layers of skin are put into operation.

When you start to sweat, the blood in your body rushes to your skin to make it damp, thereby trying to cool you so your core temperature doesn't rise. However, there is only so much blood in your body and it is being pulled away from your vital organs and muscles (including your brain) while this is happening.

Over time, excessive sweating will cause a person's blood volume to drop, which is one reason why fluid replacement is so crucial. If dehydration progresses, the body's ability to regulate temperature will break down. The body temperature soars. The skin becomes dry to the touch and the brain overheats, causing delirium, loss of consciousness and, potentially, death.

## Too Much Heat

Heat disorders generally have to do with a reduction or collapse of the body's ability to shed heat by circulatory changes and sweating. When heat gain exceeds the level the body can remove, or when the body cannot compensate for fluids and salt lost through perspiration, the temperature of the body's inner core begins to rise and heat-related illness may develop.

## The Heat Index

When hot temperatures combine with high humidity, our bodies feel like it is hotter than it really is since the increased moisture in the air limits our body's ability to cool off through sweating. We call this perceived temperature the heat index.

The Heat Index is dependent on weather conditions. As an example, if the air temperature is 95°F (found on the left side of the table) and the RH is 55% (found at the top of the table), the Heat Index—or how hot it really feels—is 110°F.

**IMPORTANT: EXPOSURE TO FULL SUNSHINE CAN INCREASE HEAT INDEX VALUES BY UP TO 15°F.**

When the heat index reaches more than 105 degrees Fahrenheit, conditions become dangerous for the general population. A person can experience sunstroke, heat cramps, heat exhaustion and even heatstroke if exposed to these conditions for a long period of time.

## NOAA's National Weather Service Heat Index Program

The National Weather Service (NWS) will initiate alert procedures when heat waves or excessive heat/humidity episodes may occur.

Heat Advisories and Excessive Heat Warnings will be issued when the heat index becomes dangerous.

## Know These Heat Disorder Symptoms

HEAT DISORDER	SYMPTOMS	FIRST AID
<b>HEAT CRAMPS</b>	Painful spasms in muscles of legs and abdomen possible Heavy sweating.	Firm pressure on cramping muscles, or gentle massage to relieve spasm. Give sips of water.
<b>HEAT EXHAUSTION</b>	Heavy sweating, Weakness. Skin cold, pale and clammy. Pulse thready. Normal temperature possible. Fainting and vomiting.	Get victim out of sun and move inside. Lay down and loosen clothes. Apply cool, wet cloths. Give sips of water. If vomiting occurs, seek medical attention.
<b>HEAT STROKE (or sunstroke)</b>	High body temperature (106°F or higher). Hot dry skin. Rapid pulse. Possible unconsciousness.	Get emergency medical assistance or get the victim to a hospital immediately. Do not give fluids. Remove clothing. Reduce body temperature with cold sponging.

		Relative Humidity (%)																
		40	45	50	55	60	65	70	75	80	85	90	95	100				
Air Temperature °F	110	136															Heat Index (Apparent Temperature)	
	108	130	137															
	106	124	130	137														
	104	119	124	131	137													
	102	114	119	124	130	137												
	100	109	114	118	124	129	136											
	98	105	109	113	117	123	128	134										
	96	101	104	108	112	116	121	126	132									
	94	97	100	103	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

<b>Extreme Danger</b>
Heat stroke or sunstroke highly likely
<b>Danger</b>
Sunstroke, muscle cramps, and/or heat exhaustion likely
<b>Extreme Caution</b>
Sunstroke, muscle cramps, and/or heat exhaustion possible
<b>Caution</b>
Fatigue possible

## PLAY IT SAFE

### Hot Temperatures Tips

- ☀ Wear lightweight, light-colored clothing. Light colors will help reflect sunlight.
- ☀ Limit outdoor activities in the afternoon. The hottest part of the day is between 11 a.m. and 4 p.m.
- ☀ Stay in air-conditioned places to reduce your exposure to the heat.
- ☀ Drink plenty of water. Your body needs water to keep cool. Drink plenty of fluids even if you don't feel thirsty. Stay away from highly sugared drinks and alcoholic beverages.
- ☀ Check on the elderly, young children, and pets as they are especially sensitive to high heat.
- ☀ Apply sunscreen before exposure to the sun. Sunscreen should be at least SPF 15.
- ☀ Wear sunglasses, a hat or carry an umbrella to further protect yourself.