

Impact on the Body

Heat disorders generally refer to the interruption or inability of the body 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 core begins to rise. As a result, heat-related illness can develop.

Ranging in severity, heat disorders share at least one common feature: the individual has overexposed or over-exercised for his age and physical condition in the existing thermal environment.



Elderly persons, small children, individuals on certain medications or drugs (especially tranquilizers and anti-cholinergics), and persons with weight and alcohol problems are particularly susceptible to heat reactions.

Studies indicate that, other things being equal, the severity of heat disorders tend to increase with age. For example, in the same environment, heat cramps in someone who is 20 could be more like heat exhaustion for someone 40, or a heat stroke for someone 60.

Heat Disorder	Symptoms	First Aid*
Sunburn	Redness and pain. In severe cases swelling of the skin, blisters, fever, headaches.	Ointments for mild cases if blisters appear and do not break. If breaking occurs, apply dry sterile dressing. Serious, extensive cases should be seen by a physician.
Heat Cramps	Painful spasms usually in muscles of legs and abdomen possible. Heavy sweating.	Firm pressure on cramping muscles, or gentle massage to relieve spasm. Give sips of water. If nausea occurs, discontinue use.
Heat Exhaustion	Heavy sweating, weakness, skin cold, pale and clammy. Pulse thread. Normal temperature possible. Fainting and vomiting.	Get victim out of sun. Lay down and loosen clothing. Apply cool, wet cloths. Fan or move victim to air conditioned room. Sips of water. If nausea occurs, discontinue fluids. If vomiting continues, seek immediate medical attention.
Heat Stroke (or sunstroke)	High body temperature (106°F or higher). Hot dry skin. Rapid and strong pulse. Possible unconsciousness.	Heat stroke is a severe medical emergency. Seek emergency medical assistance immediately. Delay can be fatal. Move the victim to a cooler environment. Reduce body temperature with cold bath or sponging. Use extreme caution. If temperature rises again, repeat process. Do not give fluids.

* For more information contact your local American Red Cross Chapter.

Georgia HEAT

a major summertime killer



National Weather Service
Peachtree City, GA



A National Problem

Extreme heat taxes the human body beyond its abilities, and in an average year, 170 Americans succumb to the demands of summer heat. The heat wave of 1980 claimed at least 1,250 lives. From 1986-2000, more than 2100 people perished as a direct result of heat. Southeast summers can be especially draining due to the combination of high humidity and high temperatures.



Heat Index

Heat Index (HI), sometimes referred to as *apparent temperature*, is a measure of how hot it feels when relative humidity is factored in with the actual air temperature.

NWS Alerts

The National Weather Service in Peachtree City will issue a **Heat Advisory** when the HI is expected to be 105°F or higher for two consecutive days *and* the low temperature is expected to be ≥75°F. An **Extreme Heat Warning** is issued for this same criteria, but when the HI is expected to be 110°F or higher.

City Heat

The stagnant atmospheric conditions resulting from a heat wave trap pollutants in urban areas and add the stresses of severe pollution to the already dangerous stresses of hot weather, creating a health problem of undiscovered dimensions.

Hot Weather Safety Tips

- **Slow Down**
Strenuous activities should be reduced, eliminated or rescheduled.
- **Drink plenty of Water**
Drink plenty of fluids, even if you don't feel thirsty. Do not drink alcoholic beverages.
- **Dress for Summer**
Lightweight, light-colored clothing reflects heat and sunlight and helps your body maintain normal temperatures.
- **Spend Time in Cool Places**
Air conditioning drastically reduces danger from heat. If you do not have air conditioning, seek a cooler environment. Consider running errands to air conditioned locations during the heat of the day.
- **Avoid Heavy Meals**
Foods (like proteins) that increase metabolic heat production also increase water loss.
- **Avoid too much Sun**
Sunburn makes the job of heat dissipation that much more difficult for the body.

		Temperature (°F)															
		80	82	84	86	88	90	92	94	96	98	100	102	104	106	108	110
Relative Humidity (%)	40	80	81	83	85	88	91	94	97	101	105	109	114	119	124	130	136
	45	80	82	84	87	89	93	96	100	104	109	114	119	124	130	137	
	50	81	83	85	88	91	95	99	103	108	113	118	124	131	137		
	55	81	84	86	89	93	97	101	106	112	117	124	130	137			
	60	82	84	88	91	95	100	105	110	116	123	129	137				
	65	82	85	89	93	98	103	108	114	121	128	136					
	70	83	86	90	95	100	105	112	119	126	134						
	75	84	88	92	97	103	109	116	124	132							
	80	84	89	94	100	106	113	121	129								
	85	85	90	96	102	110	117	126	135								
	90	86	91	98	105	113	122	131									
95	86	93	100	108	117	127											
100	87	95	103	112	121	132											

Likelihood of Heat Disorders with Prolonged Exposure or Strenuous Activity

- **Extreme Danger** ≥125°F Heat stroke or sunstroke highly likely
- **Danger** 105-125°F Sunstroke, muscle cramps and/or heat exhaustion likely
- **Extreme Caution** 90-105°F Sunstroke, muscle cramps and/or heat exhaustion possible
- **Caution** 80-90°F Fatigue possible