

BEAT THE HEAT

HEAT-RELATED ILLNESSES AWARENESS

Heat-related illnesses are common, costly, and dangerous. They can affect anyone at any given time. By taking proper precautions, heat-related illnesses and deaths can be prevented.

The [National Weather Service](#) states that the heat index is a measure of how hot it “really” feels when relative humidity is factored into the actual air temperature. The [Heat Index Chart](#) represents a quantifiable method to find the heat index temperature using both temperature (degrees Fahrenheit) and relative humidity (%).

NWS Heat Index		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

Caution
 Extreme Caution
 Danger
 Extreme Danger

For example, if the temperature is 92 degrees Fahrenheit and the relative humidity is 80%, the heat index (how hot it “really” feels) is 121 degrees Fahrenheit.

The National Weather Service also provides a separate [Heat Index Chart](#) devised for areas with high heat but low relative humidity. Exposure to full sunshine can effect the head index values, potentially increasing the values up to 15 degrees Fahrenheit higher as compared.

Heat Index, National Weather Service, www.weather.gov/safety/heat-index.





Whether playing sports, working on the job, or working at home, two primary sources of heat impact people.

ENVIRONMENT

Certain regions and climates will experience higher heat index temperatures, such as in the deserts of western and southwestern United States or the humid Midwestern and Eastern regions of the United States. Individuals who perform physical labor outdoors are more prone to experience heat-related illnesses than an individual who performs majority of work at the office in air conditioning.

INTERNAL HEAT

Internal heat refers to heat generated as a result of physical labor. Individuals who perform physically demanding tasks, such as heavy lifting, generate more body heat while performing jobs tasks as opposed to working at a computer.

HOW TO PREVENT HEAT-RELATED ILLNESSES

- Stay hydrated by drinking water every 15 to 30 minutes, even if you are not thirsty.
- Wear light-colored clothing and a hat to keep the sun off your head and face.
- Take rest breaks in the shade or air conditioning.
- Know your physical limits, and keep watch over fellow co-workers. Work in groups or pairs.
- Avoid large meals, caffeine, or alcohol before performing work.
- Do more physically demanding tasks in the morning or late afternoon (cooler times of day).
- If new to job or climate, acclimate yourself to the heat for the first few days.
- Learn the signs of heat-related illnesses and what to do in the event of an emergency.

WHAT TO DO IN AN EMERGENCY

HEAT RASH

Occurs when sweat ducts that lead to the skin becomes blocked or swell, resulting in discomfort via dry, red, and itchy skin; sweat is unable to evaporate from the skin

- » Move the individual to a cool, shady area (when possible).
- » Try to keep the affected area as dry as possible.
- » If possible, have the individual perform work or activities in a cooler, less humid environment.

HEAT CRAMPS

Occurs in muscles during or after physical exercise when the body loses water, salt, and minerals from sweating

- » Have the affected individual drink water or cool beverages.
- » Move the individual to a cool, shady location.
- » Wait several hours before letting the affected individual return to physically demanding job task.

HEAT EXHAUSTION

Occurs as a result of the body overheating from losing excess fluids from sweating and physical exertion

- » Move the individual to a cool, shady location, and have the individual sit or lay down.
- » Give the individual water, Gatorade, or Pedialyte to drink; encourage frequent sips.
- » Cool the individual's head, face, and neck with cold wet towels or cloths.
- » Take the individual to a clinic or emergency room for further medical evaluation/treatment if symptoms worsen or do not improve within one hour.

HEAT STROKE

Occurs when the body cannot regulate its temperature and the core body temperature rises to 104 degrees Fahrenheit or above; sweating stops, and the body is unable to release excess heat

- » Call 911 immediately, then notify a supervisor (if applicable).
- » Move the individual to a cool, shady location.
- » Loosen or remove as much of the individual's clothing as possible.
- » Place cold, wet towels, cloths, or ice over the individual's body.
- » Fan the individual to speed up cooling down process.
- » Place the individual on his or her side if the individual feels nauseas.
- » Provide liquids to the individual as soon as possible; encourage frequent sips. (Do not allow the individual to gulp, as this may induce nausea and/or vomiting.)



As Director of Risk Control for Beecher Carlson, Joey Freeman leads the consultation and coordination of resources to assist customers with managing and reducing their risks before losses occur, regulatory compliance, and other risk reduction strategies. He can be reached via email at jfreeman@beechercarlson.com.