

Appendix A: Heat index

Heat Index

The Heat Index, sometimes referred to as the apparent temperature, is a measure of how hot it feels when relative humidity is factored with the air temperature. Certain ranges of temperatures in the heat index can cause harmful health effects.

To find the apparent temperature (i.e., how hot it feels) for a given temperature and relative humidity, review the Heat Index chart below. As an example, if the air temperature is 94°F and the relative humidity is 65%, the temperature feels like it is 114°F.

NOAA's National Weather Service

Heat Index

Temperature (°F)

	80	82	84	86	88	90	92	94	96	98	100	102	104	106	118	110
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
- External Danger

IMPORTANT: Since heat index values were devised for shady, light wind conditions, EXPOSURE TO FULL SUNSHINE CAN INCREASE HEAT INDEX VALUES BY UP TO 15°F. Also, STRONG WINDS, PARTICULARLY WITH VERY HOT, DRY AIR, CAN BE EXTREMELY HAZARDOUS. Image and information from National Oceanic and Atmospheric Administration's National Weather Service: Heat: A Major Killer. Last updated March 23, 2012. Retrieved on April 16, 2012 at: <http://www.nws.noaa.gov/os/heat/index.shtml>

The apparent temperatures in the Heat Index have been classified according to level of danger to human health. Below is a table that shows heat disorders that are related to specific apparent temperatures. (Sunstroke is defined as heatstroke brought about by excessive exposure to the sun.)

Table of heat disorders from exposure to specific apparent temperatures

Danger Category	Possible Heat disorders for people in high risk groups	Heat Index/ Apparent Temperatures
Caution	Fatigue POSSIBLE with prolonged exposure and/or physical activity	80-90°F
Extreme Caution	Sunstroke, heat cramps, or heat exhaustion POSSIBLE with prolonged exposure and/or physical activity	90-105°F
Danger	Sunstroke, heat cramps, or heat exhaustion LIKELY , and heatstroke POSSIBLE with prolonged exposure and/or physical activity	105-130°F
Extreme Danger	Heat/sunstroke HIGHLY LIKELY with continued exposure	>130°F

Modified from: <http://www.crh.noaa.gov/dmx/?n=preparessummerindex>