

Comfort and Safety



article revised September 2012

Oklahoma's extreme weather can have a dramatic impact on a person's health. When temperatures rise to intense highs, or fall to dramatic lows, reduce your risks by taking the appropriate precautions.

Heat wave

Severe heat may cause illness or even death. Overheating can result in discomfort and heat cramps, heat exhaustion, or, most severely, heat stroke - which can be fatal.

Hot weather is not just an inconvenience, and it needs to be approached sensibly.

Big chill

Exposure to cold can cause injury or serious illness such as frostbite, hypothermia or death.

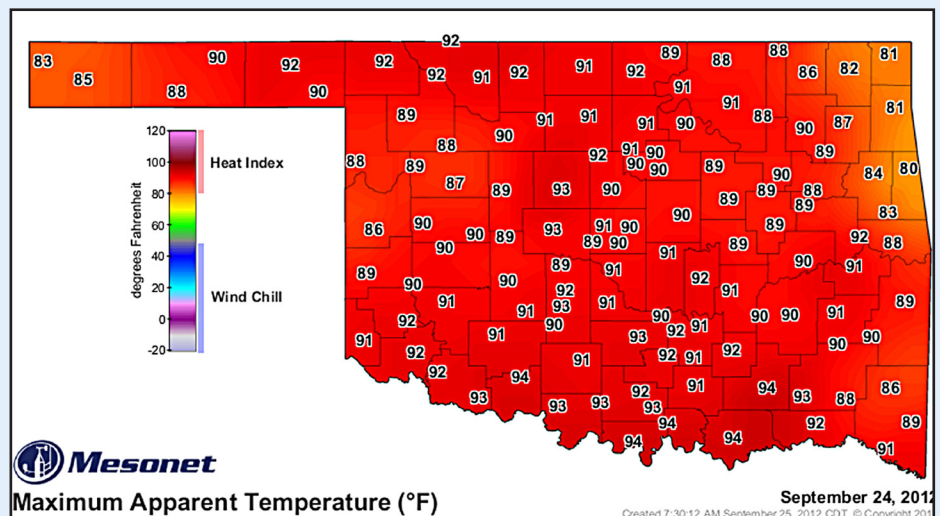
The likelihood of injury depends on factors such as physical activity, clothing, working and living conditions, and a person's age and health.

Battling heat

- Dress appropriately
- Keep your body hydrated
- Find shelter from the sun
- Avoid over-exertion
- See back for the heat index chart

Combatting cold

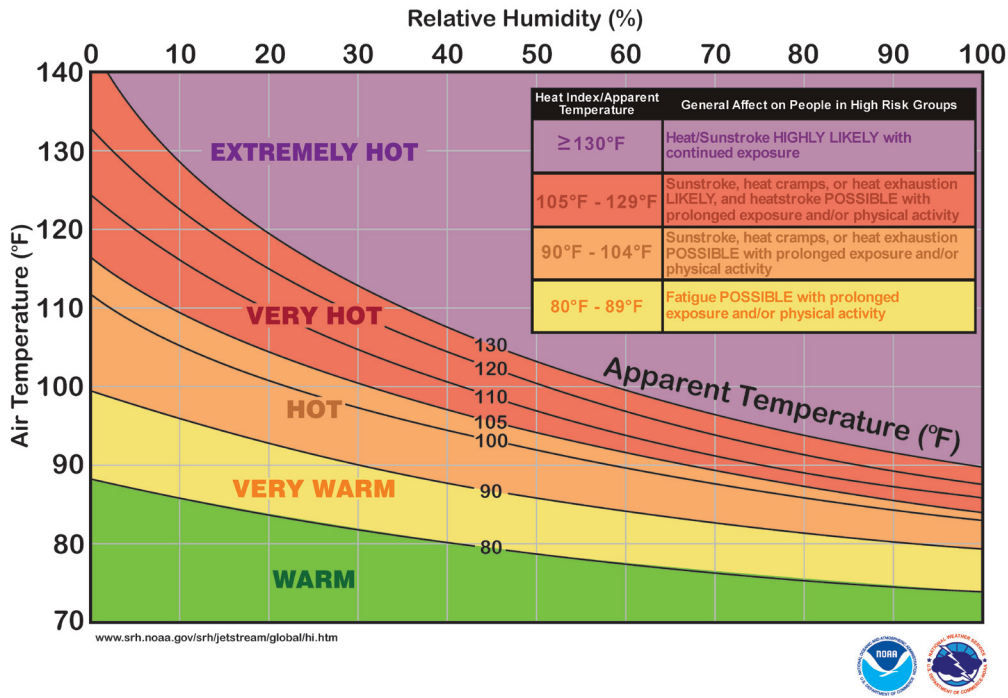
- Dress appropriately
- Wear a hat and gloves
- Wear waterproof boots
- Take off wet clothes
- See back for the wind chill chart



This heat index maps illustrates how hot humans actually feel. To view the heat index map, go to www.mesonet.org. Click on Weather, select Air Temperature, and then Wind Chill/Heat Index Map. For help, call (405) 325-2541.

Heat Index

The 'Heat Index' is a measure of how the hot weather "feels" to the body. This table uses relative humidity and air temperature to produce the "apparent temperature" or the temperature the body "feels". These values are for shady locations only. 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 as the wind adds heat to the body.



Heat Index

The heat index chart measures how hot it feels outside to the body. Using relative humidity and air temperature, the chart produces the apparent temperature. Follow the temperature line until it intersects the relative humidity line. Then read the Heat Index on the curved line. These values are for shady locations, and exposure to full sun can add 15 degrees to the Apparent Temperature.

Wind Chill

The wind chill chart measures how cold it feels outside to the body. According to the National Weather Service, windchill is based on the rate of heat loss from exposed skin caused by wind and cold. As the wind increases, it draws heat from the body, driving down skin temperature and eventually internal body temperature. Follow the wind speed across until it intersects with the temperature to find the wind chill value.



Wind Chill Chart



Wind (mph)	Temperature (°F)																		
	Calm	40	35	30	25	20	15	10	5	0	-5	-10	-15	-20	-25	-30	-35	-40	-45
5	36	31	25	19	13	7	1	-5	-11	-16	-22	-28	-34	-40	-46	-52	-57	-63	-63
10	34	27	21	15	9	3	-4	-10	-16	-22	-28	-35	-41	-47	-53	-59	-66	-72	-72
15	32	25	19	13	6	0	-7	-13	-19	-26	-32	-39	-45	-51	-58	-64	-71	-77	-77
20	30	24	17	11	4	-2	-9	-15	-22	-29	-35	-42	-48	-55	-61	-68	-74	-81	-81
25	29	23	16	9	3	-4	-11	-17	-24	-31	-37	-44	-51	-58	-64	-71	-78	-84	-84
30	28	22	15	8	1	-5	-12	-19	-26	-33	-39	-46	-53	-60	-67	-73	-80	-87	-87
35	28	21	14	7	0	-7	-14	-21	-27	-34	-41	-48	-55	-62	-69	-76	-82	-89	-89
40	27	20	13	6	-1	-8	-15	-22	-29	-36	-43	-50	-57	-64	-71	-78	-84	-91	-91
45	26	19	12	5	-2	-9	-16	-23	-30	-37	-44	-51	-58	-65	-72	-79	-86	-93	-93
50	26	19	12	4	-3	-10	-17	-24	-31	-38	-45	-52	-60	-67	-74	-81	-88	-95	-95
55	25	18	11	4	-3	-11	-18	-25	-32	-39	-46	-54	-61	-68	-75	-82	-89	-97	-97
60	25	17	10	3	-4	-11	-19	-26	-33	-40	-48	-55	-62	-69	-76	-84	-91	-98	-98

Frostbite Times: 30 minutes (light blue), 10 minutes (medium blue), 5 minutes (dark blue)

Wind Chill (°F) = 35.74 + 0.6215T - 35.75(V^{0.16}) + 0.4275T(V^{0.16})
 Where, T= Air Temperature (°F) V= Wind Speed (mph) Effective 11/01/01

Our Story

The Oklahoma Mesonet is a world-class network of environmental monitoring stations. The network was designed and implemented by scientists at the University of Oklahoma (OU) and at Oklahoma State University (OSU).

The Oklahoma Mesonet consists of 120 automated stations covering Oklahoma. There is at least one Mesonet station in each of Oklahoma's 77 counties.

At each site, the environment is measured by a set of instruments located on or near a 10-meter-tall tower. The measurements are packaged into "observations" every 5 minutes, then the observations are transmitted to a central facility every 5 minutes, 24 hours per day year-round.

For help with this or other Mesonet products, please call 405-325-3231, or email us at operator@mesonet.org.



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