



Safety Matters

Environmental Health & Safety

No. 08

Heat Stress & Summer Safety



We've all been spoiled with the cooler temperatures so far this year, but it looks like the summer is finally heating up. Now is a good time to review what we may have forgotten about staying safe and healthy in hot temperatures. For example, do you know what the Heat Index is and how to use this information to keep yourself and others from overheating while outdoors?

The Heat Index calculation is based on how a combination of a certain temperature and relative humidity would affect an "average" healthy person who weighs 147 pounds, is 5' 7" tall, Caucasian, wearing long pants and a short-sleeved shirt, walking 3 mph in the shade in a 6 mph breeze on a day with a temperature of 98.6 degrees, and is not dripping with sweat. If any of these factors change, i.e., more clothing, more exertion, more weight, the heat index will change for that individual.

Briefly, use caution if the Index is above 80 and extreme caution if it's above 90. A Heat Index above 105 is dangerous and if it's above 130 it is extremely dangerous. Local TV weather forecasters usually mention the Heat Index in their broadcasts.

For the recent period of July 12-18, the average high temperature was 90 degrees with an average relative humidity of 80%. The heat index for the person described above would be 113, which could easily lead to muscle cramps, heat exhaustion, or heat stroke. It would be even higher if that person was out in the sun or doing anything more strenuous than walking. (For more information on the heat index, go to <http://www.ehs.okstate.edu/heatindx.htm>.)

Keep this in mind if you or your department will be hosting any outdoor events on campus this summer. Participants may be of any age or physical condition. Make sure they have the opportunity to drink plenty of water and have ready access to good shade. Keep ice on hand and monitor their behavior for any signs of heat stress. If you are providing them with something to eat, choose a menu with light, cool, easy-to-digest foods such as fruit or salad.