

HEAT STRESS



If you crank your car up in the morning & take off without giving it a minute to warm up, it may not run well at first. Or, on the other hand, if your car starts running hot, it will soon have a decrease in performance and eventually quit if not given immediate attention. Our bodies mirror this. The body's core temperature is the temperature of the trunk/chest area. Normal core temperature is 98.6 degrees F. This is the temperature where our body is at its top performance.

During hot weather our body has mechanisms that help keep it at normal temperature. The one we are all aware of is sweating. As sweat evaporates, it draws heat with it. Another means for cooling, all the blood vessels near the surface of the skin widen, allowing more blood flow. This increase in blood flow is similar to a radiator, carrying hot blood to the body's surface to cool off. The respiration rate also rises, carrying hot breath out of the body and allowing cool air in.

When the above methods cannot cool off the body enough, the core temperature starts to change. This results in **HEAT EXHAUSTION; symptoms include headache, nausea, dizziness, weakness, thirst, and giddiness.** Heat exhaustion is not life threatening, **moving the person to a cooler location and providing water will bring relief.**

If a person does not heed heat exhaustion symptoms, the core temperature will continue rising. Symptoms will worsen to **confusion, convulsions, lack of sweating (usually) and hot, dry skin.** At this point the body's core temperature will be around 105.8 F, resulting in a **HEAT STROKE and life threatening situation.** The person needs immediate medical attention. First aid should include placing the person in a shady area and removing the outer clothing. Wet the skin and increase air movement to improve evaporative cooling. Fluids should be replaced as soon as possible.

Humans are, to a large extent, capable of adjusting to the heat. This adjustment to heat, under normal circumstances, usually takes about 5 to 7 days, during which time the body will undergo a series of changes that will make continued exposure to heat more endurable.

Heat disorders in general are more likely to occur among workers who have not been given time to adjust to working in the heat or among workers who have been away from hot environments. Likewise, workers who return to work after a leisurely vacation or extended illness may be affected by the heat in the work environment.

STOP IT BEFORE IT STARTS

- Wear light-colored, loose, breathable clothes.
- When feasible, the most stressful tasks should be performed during the cooler parts of the day (early morning or at night).
- Have a shaded area or vehicle with air conditioning close by for a frequent break area.
- Stay hydrated! In the course of a day's work in the heat, a worker may produce as much as 2 to 3 gallons of sweat.
- Avoid alcohol & caffeine.
- Talk to your doctor if you take certain medications (e.g., medications for blood pressure control, diuretics, or water pills), have heart problems, or are on a low sodium diet.

Sources: Incident Prevention & <http://medical.smis.doi.gov/HEAT.html>

For more info on this subject contact Leslie Woolington, MSU Safety Officer 662-325-5823