



## Preventing Heat Stress-Tool Box Talk 2

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Summer is here, and people who do roofing work, road repair, construction, landscaping, or other physically demanding jobs are probably exposed to hot and humid conditions! Being uncomfortable is not the major problem when working in high temperatures. Varying degrees of heat stress may also be suffered, increasing the potential for accidents.

The human body maintains a fairly constant internal temperature. When we become overheated, several reactions take place. First, the body rids itself of excess heat by increasing circulation in blood vessels close to the surface of your skin. This is why your face and hands turn red when you begin to overheat. Your brain may also signal your sweat glands to work harder. As the sweat evaporates, it cools the skin and removes large quantities of heat from your body.

Problems begin when outside temperatures are near your body temperature (98 degrees F.). If the air temperature around you is warmer than your skin, blood that has been brought to the body surface cannot lose its heat. Also, if the humidity is high, your body will continue to sweat liquids containing electrolytes, but will not easily evaporate. Therefore, you can't rid yourself of the excess heat that is building up. With so much blood being sent to the outer surface of your body, less is available for active muscles, your brain, and other internal organs. The following reactions take place:

- Your strength declines;
- Fatigue occurs sooner than it would otherwise;
- Alertness and mental capacity may also be affected.
- Workers who must perform delicate or detailed work may find they are less accurate.

Others may find they have less ability to understand and retain information. The problem is, you may not realize this is happening.

Heat stress may also produce *heat cramps* (the internal organs are not getting enough electrolytes due to profuse sweating). It may bring on *heat exhaustion* (caused by insufficient water intake and not being able to evaporate the sweat). Or, you may suffer *heat stroke*, which is when your body shuts down in an attempt to keep its internal organs from burning up. Without emergency treatment, the heat stroke victim lapses into shock, then a coma and death may follow.

To control heat stress, remember these tips:

1. Use ventilation or local cooling fans to increase air movement over your body and promote skin evaporation.
2. Take frequent rest breaks between strenuous work activities.
3. Wear protective clothing, such as loose cotton or heat reflective clothes.
4. Drink plenty of liquids to replenish your fluid loss.
5. Avoid alcohol and caffeine, which also cause an expansion of blood vessels and may bring on flushing, dizziness or fainting.

**Keep Cool! Your brain-and perhaps your life-depends upon it!**

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