

Risk Management & Safety for the Security Industry

Heat Stress

Heat stress may not only be an exposure for those working in environments such as outdoor events, construction sites, etc., but also in indoor manufacturing environments such as mills, foundries, security booths and other locations.



There are four environmental factors that can cause heat stress in a work area:

1. Temperature
2. Radiant heat from the sun or a furnace
3. Humidity
4. Air velocity

When employees work in hot conditions, employers must take special precaution in order to prevent heat illness. Heat illness can progress to heat stroke and be fatal, especially when emergency treatment is delayed. An effective approach to heat illness is vital to protecting the lives of employees.

The level of heat stress a person encounters depends on personal risk factors. Personal risk factors, such as age, weight, level of fitness, medical condition, use of medications and alcohol, and acclimatization affect how well the body deals with excess heat. Heat stress occurs when body muscles are being used for physical labor and less blood is available to flow to the skin and release the heat.

There are some basic elements to minimize the exposures to heat-related illnesses and injuries, including educating employees regarding heat-related exposures.

Water

Employees who are working in the heat need to drink 3-4 glasses of cool water per hour, including at the start of the shift, in order to replace the water lost in sweat. This should be done frequently in small quantities.

Thirst is an unreliable indicator of dehydration. Employees often need ongoing encouragement to consume adequate fluids and to take adequate breaks.

Shade

The direct heat of the sun can add as much as 15 degrees to the heat index. (Heat Index is a number in degrees Fahrenheit that tells how hot it really feels with the heat and humidity.)

If possible, work should be performed in the shade. If not, where possible employers should provide a shaded area for breaks and when employees need relief from the sun. Wide brimmed hats can also decrease the impact of direct heat. Dress for the heat. If possible, wear lightweight, light-colored clothing. Light colors will reflect away some of the sun's energy.

**Rest
Breaks**

Rest breaks are important to reduce internal heat load and provide time for cooling. Heat illness occurs due to a combination of environmental and internal heat that cannot be adequately dissipated. Breaks should be taken in cooler, shaded areas. Rest breaks also provide an opportunity to drink water.

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