



Public Sector Safety Talks: **APERMA**

Heat Illness Prevention

Heat illnesses are preventable but if left unchecked can lead to death. At times, workers may be required to work in hot environments for long periods. When the human body is unable to maintain a normal temperature, heat-related illnesses can occur and may result in serious health problems. Below is information to public entities on measures it should take to prevent heat-related illnesses.

FOUR HEAT ILLNESSES

Heat Cramps. Athletes are familiar with this syndrome caused by salt depletion. It is easily treated with rest and electrolyte-balanced fluids such as sports drinks or drink plain water and eat salty chips or nuts. Avoid salt tablets due to the risks of overdosing. Heat cramps are muscle pains or spasms – usually in the abdomen, arms, or legs – that may occur in association with strenuous activity. People who sweat a lot during strenuous activity are prone to heat cramps. This sweating depletes the body's salt and moisture.

Heat Syncope. Fainting (syncope) episode happens when blood pools in the legs, often after standing too long. It is temporary; being horizontal usually prompts a return to consciousness. The biggest risk is an injury from falling. To help blood return to the heart, elevate the person's legs, and cool the body with wet compresses and fanning. Turn the unconscious person on his or her side to prevent choking. One exception is if the person has been working hard; then consider the fainting due to heat stroke and call 911. Check the ABCs (airway, breathing and circulation) and cool him or her down immediately. Anyone who faints should be medically evaluated before returning to routine activity.

Heat Exhaustion. This condition is serious and is caused by severe dehydration. Symptoms can include fatigue, dizziness, nausea and vomiting, plus early neurological signs such as headache, impaired judgment and anxiety. Exhaustion causes profuse sweating and cool, clammy skin. The body's response to loss of water and salt from heavy sweating. Signs include headache, nausea, dizziness, weakness, irritability, thirst, and heavy sweating. Move the person out of the heat, provide fluids as tolerated, strip off extra clothing, and cool them by wetting clothing and fanning. Have them medically evaluated.

Heat Stroke. The most serious form of heat-related illness, happens when the body becomes unable to regulate its core temperature. This is a medical emergency. Sweating stops and the body can no longer rid itself of excess heat. Signs include confusion, loss of consciousness, and seizures. It can look like exhaustion except the body temperature is 104 degrees F or higher, and the brain is seriously affected. Neurological effects can include confusion, irrational or aggressive behavior, incoherent speech, collapse, convulsion, and coma. When the body's heat-coping mechanisms have failed, sweating stops and the skin becomes red, dry and hot to the touch. Call 911 and quickly lower the body temperature.

PREVENT HEAT ILLNESS WITH THREE STEPS – HYDRATE – ASSESS – ACCLIMATE

1. Hydrate – Drink ½ Liter Every ½ Hour.

Hydration is the most important step to combating heat stress. In extreme heat and humidity workers should use the half-half rule: drink ½ liter every ½ hour. Workers should not wait until they feel thirsty to drink; if they are thirsty they may already have lost 2% of their body's water. The onset of heat exhaustion can begin after losing 3% of the body's water and heat stroke occurs once 8% is lost.

2. Assess

The relative danger of the CONDITIONS and your PERSONAL risk factors. Conditions: Be aware that high heat, high humidity, low air circulation all create a more dangerous working environment. Any time more than one of these variables is present, the danger is compounded. In these conditions, workers need to take breaks in the shade and wear light, breathable clothing and hats. ■ Personal Risks: Assess your own personal risk that makes you more susceptible to heat illnesses, such as poor conditioning, acute dehydrating illnesses, chronic diseases, recreational drugs, diets and certain beverages, and some medications.

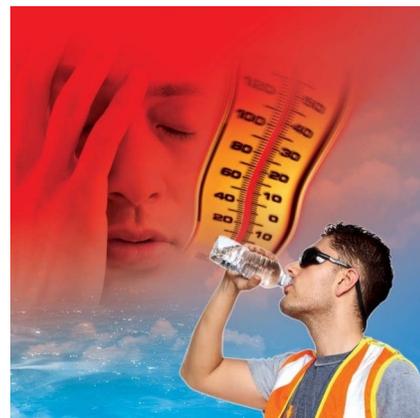
3. Acclimate

If an employee is new to a job or is returning after time away; ease them back into full time work over the course of 5 days. Starting at half time or 50% effort and increasing to full time work load by 10% each day can greatly reduce the employee's susceptibility to heat stress.

For additional resources on Heat Illness Awareness and Prevention click on the following links:

[OSHA Heat Illness Prevention](#)

[NIOSH online](#)



Any questions or concerns about the above material, please feel free to contact Jim Bergemann or Kathi Williams at 800-274-2788

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