

Heat Illness Prevention and Response

Overview

This section identifies the symptoms of the various types of heat illness, discusses best practices in regards to preventing heat illness, and presents the first aid measures required to deal with an employee suffering from heat illness.

Understanding Heat Illness

To understand how to prevent or treat heat illness, it is important to recognize the various types and symptoms of heat illness.

Heat Stroke

Heat Stroke is the most serious health problem for workers in hot environments. It is caused by the failure of the body's internal mechanism to regulate its core temperature. Sweating stops and the body can no longer rid itself of excess heat. Signs of Heat Stroke include:

- ▶ Mental confusion, delirium, loss of consciousness, convulsions, or coma.
- ▶ Body temperature of 106° F or higher.
- ▶ Hot dry skin which may be red, mottled, or bluish.

Victims of heat stroke will die unless treated promptly.

Heat Exhaustion

Heat Exhaustion results from a loss of fluid through sweating when a worker has failed to drink enough fluids, take in enough salt, or both. The worker with heat exhaustion still sweats but experiences the following symptoms:

- ▶ Extreme weakness or fatigue
- ▶ Giddiness
- ▶ Nausea
- ▶ Headache
- ▶ Clammy and moist skin
- ▶ Pale or flushed complexion
- ▶ Normal or slightly higher body temperature

Heat Cramps

Heat Cramps are painful muscle spasms, caused when a worker drinks large quantities of water but fails to replace their body's salt loss. Tired muscles—those used for performing the work—are usually the ones most susceptible to cramps.

Fainting (Heat Syncope)

Fainting may be a problem for the worker not acclimated to a hot environment who may simply be standing still in the heat. The skin appears pale and sweaty but is generally moist and cool. The pulse may be weakened, and the heart rate is usually rapid. Body temperature is normal.

Heat Rash

Heat Rash, also known as prickly heat, may occur in hot and humid environments where sweat is not easily removed from the surface of the skin by evaporation. When extensive or complicated by infection, heat rash can be so uncomfortable that it inhibits sleep and impedes a worker's performance or even results in temporary or permanent disability.

Preventing Heat Illness

Four basic steps can prevent heat illness.

1. Provide heat illness prevention training to all employees, including supervisors.
2. Provide enough fresh, potable water so that each employee can drink at least one (1) quart per hour and encourage them to do so.
3. Provide access to shade for at least five (5) minutes of rest when an employee believes he or she needs a preventative recovery period. They should not wait until they feel sick to do so.
4. Develop and implement written procedures for complying with the heat illness prevention standard.

In addition, there are other steps that can be taken to ensure employees are protected from heat illness.

- ▶ Check the weather forecast at www.weather.com in conjunction with the daily Air Quality Reports provided by the Safety/Risk Management Office and review the Heat Index (see Figure 1 on page 2-7). The Heat Index indicates when combinations of heat and humidity can be dangerous for employees. Realize that direct sun can add as much as 15 degrees to the heat index.
- ▶ Remind employees at least weekly about heat illness between May and October as well as during any other months when we experience higher than normal temperatures. Even if they have received training, regular reminders will help them remember to take the steps necessary to eliminate heat illness.