Preventing Heat-Related Illness

Under normal circumstances, the body has ways of keeping itself cool: letting heat escape through the skin, and by evaporating perspiration. If the body does not cool properly or does not cool enough, the person exposed to too much heat may suffer a heat-related illness; these occur most often when the temperature is above 90°F and the humidity is above 80%. Anyone can be susceptible to heat-related illness, although the very young and very old are at a greater risk. Heat-related illnesses can become serious or even deadly if unrecognized and untreated.

Loss prevention for heat-related illnesses begins with dressing properly. Often resorts require uniforms of some type, particularly for summer programs such as golf, mountain biking, catering, weddings, and other social events. The person who determines a company’s dress needs to be mindful of a uniform that looks good and is functional for the potentially hot environment. Consider a uniform made of lightweight and light-colored natural materials such as cotton or linen. Light colors reflect away some of the sun’s energy and the natural fibers of cotton and linen breathe and allow body heat to escape through the fabric. A light-colored hat with a brim should be worn, especially in areas where no outdoor canopy or shade is available, to keep the sun out of the eyes and also to protect the head and face against UV rays. Instruct all employees to drink lots of water even if they don’t feel thirsty. It is advisable to avoid drinks with caffeine or alcohol as both have the ability to increase dehydration. Providing cool water or juice can make employees feel better and help them with job performance on very hot, sunny days.

Avoid large meals when the temperature is more than 90°F. Eating smaller meals more often puts much less stress on body systems. Eating more carbohydrates and less protein is also advisable as protein increases the internal metabolic heat rate. Schedule breaks more often when the temperature is more than 90°F and limit strenuous activity. If you need to perform such activity as part of a day’s work, it’s best to schedule it for the coolest part of the day — usually in the morning.

Department managers need to provide constant loss control by overseeing work performed in a hot environment and mandating breaks in a cool location at regular intervals. Another important function of the department manager is to watch for signs of heat-related illness in employees, and if spotted, have the employee stop his/her activity immediately, move him/her to a cooler place to take rest, offer cool liquids to drink, and contact EMS, if necessary.
The three most common heat-related illnesses are heat cramps, heat exhaustion, and heat stroke:

- **Heat cramps** are muscular pains or spasms due to heavy exertion combined with dehydration. Cramps usually develop in the abdomen or legs and are generally thought to be the result of a loss of water and salt through heavy sweating.

- **Heat exhaustion** typically occurs from physical exertion in a warm, humid environment where body fluids are lost through heavy sweating. The loss of body fluids causes blood flow to decrease in vital organs, resulting in a type of shock. A person can experience heat exhaustion when sweat does not evaporate as it should; for example, due to improper clothing or extreme humidity. When the natural cooling system of sweating is not effective, the body continues to build heat. The most common signs of heat exhaustion are cool, moist, pale, flushed or red skin; heavy sweating; headache; nausea or vomiting; dizziness, and overall physical exhaustion. During heat exhaustion, the body temperature is very near normal.

- **Heat stroke** is sometimes called sunstroke and this is a true life-threatening emergency. During heat stroke, one’s temperature control system of sweating to cool the body stops working altogether. The body temperature can rise so high (up to 105°F) that it may result in brain damage and death if the body is not cooled quickly. Signs of heat stroke include hot, red, dry skin; changes in consciousness; rapid, weak pulse; and rapid, shallow breathing.

All department managers and first-aid providers should be on the lookout for signs of heat-related illnesses in both employees and guests, and develop an emergency plan to address these potentially life-threatening situations. OSHA has developed a reference card that can be posted or distributed to help educate workers of the dangers and precautions of heat stress. A copy is provided on the following page.

**OSHA tips to protect yourself from heat stress:**

When the body is unable to cool itself by sweating, several heat-induced illnesses, such as heat stress or heat exhaustion, and the more severe heat stroke can occur, and can result in death.

**Factors leading to heat stress**

- High temperature and humidity; direct sun or heat; limited air movement; physical exertion; poor physical condition; some medicines; and inadequate tolerance for hot workplaces.

**Symptoms of heat exhaustion**

- Headaches, dizziness, lightheadedness, or fainting.
- Weakness and moist skin.
- Mood changes, such as irritability or confusion.
- Upset stomach or vomiting.

**Symptoms of heat stroke**

- Dry, hot skin with no sweating.
- Mental confusion or losing consciousness.
- Seizures or convulsions.

**Preventing Heat Stress**

- Know the signs and symptoms of heat-related illnesses; monitor yourself and coworkers.
- Block out direct sun or other heat sources.
- Use cooling fans or air-conditioning; rest regularly.
- Drink a lot of water; about one cup every 15 minutes.
- Wear lightweight, light colored, loose-fitting clothes.
- Avoid alcohol, caffeinated drinks, or heavy meals.

**What to Do for Heat-Related Illness**

- Call 911 (or local emergency number) at once.

**While waiting for help to arrive:**

- Move the worker to a cool, shaded area.
- Loosen or remove heavy clothing.
- Provide cool drinking water.
- Fan and mist the person with water.

For more information regarding this topic, contact your Safehold Special Risk sales executive.