

FOR
MAINTAINING
A SAFE
WORKPLACE

# Preventing Heat Illness

Heat illness refer to medical conditions that occur when heat builds-up inside the body beyond its ideal 98.6 degree Fahrenheit temperature - give or take a few degrees. There are several ways in which your body may react to excessive heat. Because of the health risks, you should learn to recognize the symptoms of heat illness.

**HEAT RASH** is a skin irritation caused by excessive sweating during hot, humid weather.

**HEAT CRAMPS** affect people who sweat a lot during strenuous work activity. The sweating depletes the body's salt and fluids. The low salt level in the muscles causes painful cramps.

**HEAT SYNCOPE** (Fainting) is caused by a lack of adequate blood supply to the brain usually as the result of dehydration and lack of acclimatization to work in warm/humid weather.

**HEAT EXHAUSTION** is caused by a loss of fluids from sweating or lack of drinking fluids. Symptoms include, but are not limited to: sweating, weakness/fatigue, nausea/vomiting, dizziness/headache, fast or weak pulse, fast or slow breathing, etc.

**HEAT STROKE** is a life-threatening emergency that occurs when the body over-heats to a point where its temperature control system actually shuts down, and heat builds up internally. The signs of impending heat stroke are bizarre behavior, convulsions, unconsciousness and usually cessation of perspiration. Should these symptoms occur, seek medical assistance immediately.

Early HEAT ILLNESS signs and symptoms may not always follow a progressive pattern from a mild condition such as heat rash up to serious and life threatening condition like heat stroke. A serious or fatal medical condition may already exist before the signs and symptoms of HEAT ILLNESS are recognizable to co-workers or supervisors.

ALWAYS SEEK MEDICAL ASSISTANCE WHENEVER HEAT ILLNESS SYMPTOMS OCCUR.

### **Heat Stress Succeptibility Factors**

Your body heat generally dissipates directly through the skin into the outside environment. A large percentage of that heat loss is through the evaporation of perspiration.

In hot weather, when the air temperature approaches your body's skin temperature, or in humid weather when evaporation becomes more difficult, your body's cooling system is forced to work harder in order to keep your core temperature within safe limits. In addition to humidity and heat, there are other *ENVIRONMENTAL* and *PERSONAL* risk factors that increase your succeptibility to heat illness. They include, but are not limited to:

## ENVIRONMENTAL CONDITIONS

- PHYSICAL ACTIVITY
- RADIANT HEAT FROM THE SUN OR OTHER SOURCE
- PERSONAL PROTECTIVE EQUIPMENT WORN
- LACK OF AIR MOVEMENT

#### PERSONAL CONDITIONS

- PREVIOUS HEAT ILLNESS
- LACK OF SUFFICIENT WATER CONSUMPTION
- EXCESSIVE PERSONAL WEIGHT
- POOR LEVEL OF FITNESS
- LACK OF ACCLIMATIZATION
- POOR MEDICAL CONDITION
- USE OF PRESCRIPTION AND OVER THE COUNTER MEDICATIONS AND OTHER DRUGS
- CONSUMPTION OF ALCOHOL, CAFFEINE, CARBONATED DRINKS, SPORTS DRINKS
- ADVANCED AGE

Knowing as much as you can about your **Personal Risk Factors** will help you to understand the risk of heat illness. Check with your health care provider for additional guidance.

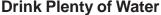
Don't forget to USE SUNSCREEN when working outdoors!

#### **Acclimatize Yourself**

During the first few days of hot weather, you'll feel as if you're working harder and getting less accomplished. Your efforts may leave you feeling dizzy or faint. While there is a scientific explanation for these symptoms, you only need to know that your body will undergo several changes when first exposed to hot and humid conditions. The adaptation process normally takes about two weeks. During that time, perspiration increases by up to 30 percent. *DRINK PLENTY OF WATER*.

#### Cool in the Shade

Whenever possible look for a balance between the heat load produced internally by your body and external sources such as sunlight. Cool you body whenever possible in the shade.



You can quickly dehydrate no matter how well you have acclimatized to the heat. The average person loses between 1 and 2 quarts of fluid an hour in perspiration during heavy exertion in hot weather. The only way to replace the loss (and help your body continue to cool itself) is to drink water.

Frequently drink small quantities of water throughout your entire work shift. A minimum of 3 - 4 glasses of water per hour - equal to 1 quart per hour.

DON'T WAIT UNTIL YOU ARE THIRSTY TO DRINK WATER. BEING THIRSTY IS NOT A GOOD SIGNAL FOR YOUR NEED FOR HYDRATION. DON'T FORGET TO DRINK WATER BOTH BEFORE AND AFTER WORK.

# KNOW YOUR LIMITS

Take it easy. It takes several days to adapt to unusually hot weather.

Always **DRINK PLENTY OF WATER** when working in hot or humid weather. Avoid substituting soft drinks and coffee for water.

Whenever possible, wear hats and loose cotton fabrics to help you stay cool.

**Eat light meals.** Hot, heavy meals add heat to your body, so eat lightly.

Get Medical Assistance when heat illness symptoms occur.