

# HEAT STRESS

## WATCH FOR THE SIGNS

**Sun exposure at work is a significant risk factor for heat stress.**

Heat stress is preventable. Learn the signs and symptoms of heat stress to know when to ask for help.

Know how your workplace deals with heat stress and report all concerns to your supervisor!



### MEDIUM RISK

**HEAT RASH  
HEAT CRAMPS**

### HIGH RISK

**FAINTING  
HEAT EXHAUSTION  
HEAT STROKE**

### HEAT RASH

#### CAUSES

Hot humid environments, plugged sweat glands.

#### SYMPTOMS

Red bumpy rash with severe itching.

#### TREATMENT

Change into dry clothes and avoid hot environments. Rinse skin with cool water.

### HEAT CRAMPS

#### CAUSES

Heavy sweating drains a person's body of fluid and salt, which cannot be replaced just by drinking water. This results in a salt imbalance in the body from a failure to replace salt lost from heavy sweating.

#### SYMPTOMS

Painful cramps in most used muscles (arms, legs, or stomach). This can occur suddenly at work or later at home. Heat cramps are serious because they can be a warning of other more dangerous heat-related illnesses.

#### TREATMENT

Move to a cool area. Loosen clothing. Gently massage and stretch cramping muscles. Drink cool salted water (1 ½ to 2 ½ ml salt in 1 L water) or an electrolyte-replacement beverage. If cramps are severe or don't go away after salt and fluid replacement, seek medical aid. Salt tablets are not recommended.

## FAINTING

### CAUSES

Fluid loss, inadequate water intake and standing still.

### SYMPTOMS

Sudden fainting after at least two hours of work, cool moist skin, weak pulse.

### TREATMENT

**GET MEDICAL ATTENTION**  
Assess the need for CPR. Move to a cool area. Loosen clothing. Have the person lie down. If the person is conscious, offer sips of cool water. Fainting may also be due to other illnesses.

## HEAT EXHAUSTION

### CAUSES

Fluid loss and inadequate salt and water intake causes the body's cooling system to start to break down.

### SYMPTOMS

Heavy sweating, cool moist skin, body temperature above 38°C, weak pulse, normal or low blood pressure, tired and weak and has nausea and vomiting, very thirsty, panting or breathing rapidly, vision may be blurred.

### TREATMENT

**GET MEDICAL ATTENTION**  
This condition can lead to heat stroke, which can kill. Move the person to a cool shaded area. Loosen or remove excess clothing. Provide cool water to drink. Fan and spray with cool water. Do not leave the person alone.

## HEAT STROKE

### CAUSES

Classic heat stroke: occurs in older adults and in persons with chronic illnesses exposed to excessive heat. When the body has used up its water and salt reserves, it stops sweating causing a rise in body temperature.

Exertional heat stroke: generally occurs in young persons, who engage in strenuous physical activity for a long period of time in a hot environment. The body's cooling mechanism cannot get rid of the excessive heat.

Heat stroke may develop suddenly or may follow from heat exhaustion.

### SYMPTOMS

High body temperature (over 40°C) and any of the following: weak, confused, upset, or acting strangely; hot, dry, red skin (classic heat stroke); profusely sweating (exertional heat stroke); fast pulse; or headache or dizziness. In later stages, a person may pass out and have convulsions.

### TREATMENT

**CALL AN AMBULANCE**  
This condition can kill a person quickly. Remove excess clothing. Fan and spray the person with cool water. Offer sips of water if the person is conscious.

**SUN SAFETY**  
  
**AT WORK**

Adapted from © Queen's Printer for Ontario, 2015 and Occupational Health and Safety Council of Ontario, Heat Stress Awareness Guide, 2009.

Visit [sunsafetyatwork.ca](http://sunsafetyatwork.ca) for more information.

Production of this resource has been made possible through financial support from Health Canada through the Canadian Partnership Against Cancer.

Image provided by the Queensland Department of Health.