

HEAT-RELATED ILLNESS PREVENTION

A bright sun is the central focus, glowing in shades of yellow and orange against a clear blue sky. A small, dark silhouette of an airplane is visible in the lower right quadrant of the image, flying towards the right.

Objectives

At the end of this training you will:

- Know the types of heat-related illnesses,
- Know the causes of heat-related illnesses and conditions of high risk,
- Know how to prevent heat-related illnesses and
- Know what to do if you or a coworker is experiencing a heat-related illness.

The background of the slide is a close-up photograph of numerous water droplets of varying sizes on a dark, reflective surface. The droplets are densely packed, with some larger, more prominent ones in the foreground and smaller ones receding into the background. The lighting creates highlights on the top of each droplet, giving them a three-dimensional appearance. The overall color palette is dark, with shades of black, dark blue, and grey, punctuated by the white highlights on the water droplets.

Types and Causes of Heat-Related Illness

What causes heat-related illness?



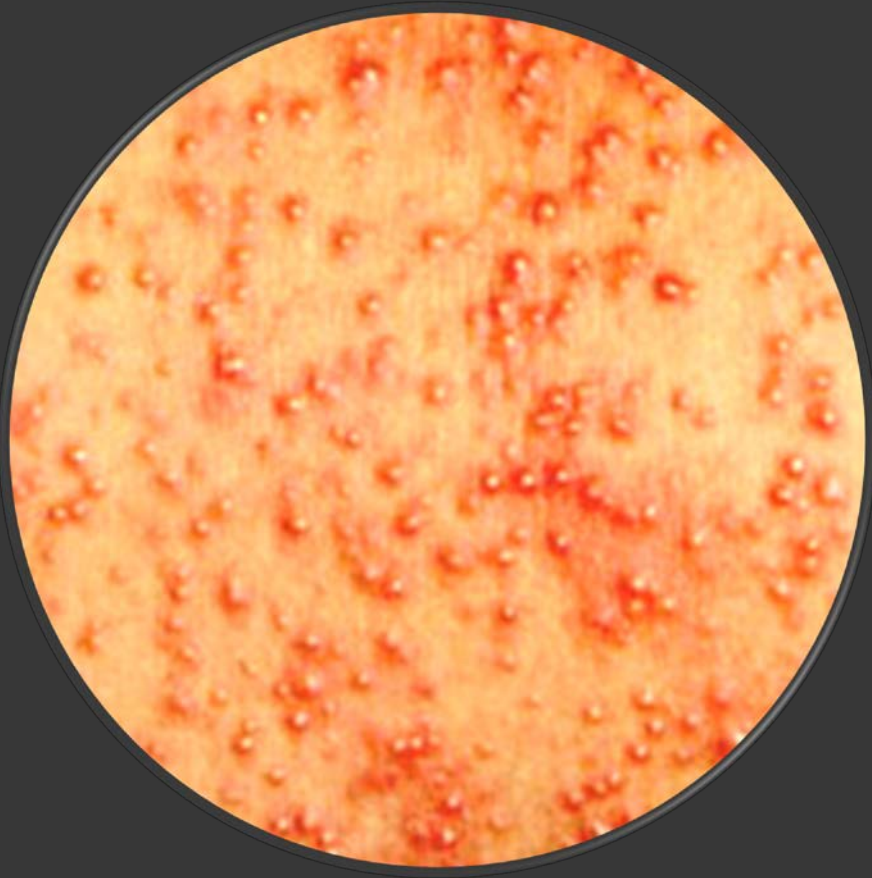
- ◎ Your body's natural cooling mechanisms are overwhelmed.
 - Blood flow is directed to the skin to help cool the body and deprives other parts (brain and other organs) of needed oxygen.
 - Water loss through sweat deprives body of water
- ◎ When your body cannot cool, heat-related illness can quickly become serious.

Types of Heat-Related Illnesses

- Heat rash
- Heat cramps
- Heat syncope
- Heat exhaustion
- Heat stroke

Heat Rash

- Also known as “prickly heat”
- Caused by excessive sweating during hot and humid conditions.



Heat Cramps

- Caused when workers sweat a lot during strenuous activity.
- Sweating depletes body's salt and moisture levels.
- Low salt levels in muscles cause cramps.

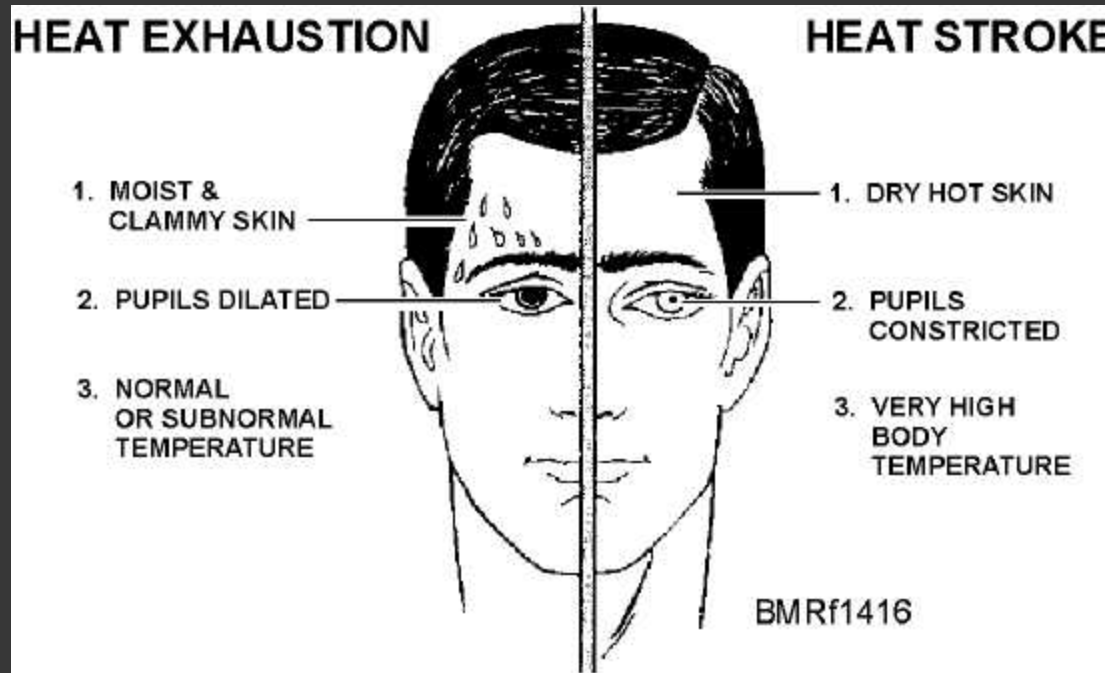


Heat Syncope

- Fainting or dizziness associated with prolonged standing or sudden rising from a sitting or lying position.
- Dehydration plays a role in this.



Heat Exhaustion and Heat Stroke



Heat Exhaustion

- Body's response to excessive water and salt loss.
- Hypertensive and elderly are at increased risk.
- Nausea, vomiting, dizziness, irritability and increased heart rate are symptoms.

Heat Stroke

- Most serious heat-related illness.
- Body can no longer control its temperature.
- Chills, confusion, fainting, seizures, red hot dry skin, high body temperature are symptoms
- It is a medical emergency.

Risk and Prevention of Heat-Related Illness



External Conditions of Increased Risk

- ⦿ Elevated temperature
- ⦿ High humidity
 - Sweat does not evaporate as easily reducing the effectiveness of one of the body's cooling mechanisms
- ⦿ Low air movement

Personal Factors that Increase Risk

- ⦿ Not drinking enough fluids
- ⦿ High blood pressure
- ⦿ Elderly
- ⦿ Required personal protective equipment
- ⦿ Very strenuous work



Preventing Heat-Related Illness



- ⦿ Drink plenty of water (at least 1 L per day, throughout the day).
- ⦿ Plan outside work earlier in the day during hot months if possible.
- ⦿ Rotate work tasks in hot temperatures.
- ⦿ Retreat to cooler areas for breaks and break more often if very hot.
- ⦿ Acclimatize workers to hot conditions (gradually increase time spent working when hot).
- ⦿ If it is hot indoors, provide ways to move air

A photograph of a brown and white bulldog lying in a large pile of crushed ice on a concrete floor. The dog is looking towards the camera with a somewhat somber expression. The ice is piled high around the dog, covering its body and head. The background is a plain concrete floor with some water stains.

Treating Heat-Related Illnesses

Most are Easy to Treat

- Heat rash: Keep the area dry
- Heat cramps: Hydrate, rest in a cool area, do not return to strenuous work for a couple of hours
- Heat syncope: Lie down or sit down in a cool area, elevate feet and drink fluids. Do not return to strenuous activity that day.

Others are More Serious

⦿ Heat exhaustion

- Sit or lie down in cool area
- Drink fluids
- Cool with cold compresses in heat dissipating areas of the body (head, arm pits and groin)
- Do not return to work that day
- Seek medical attention if symptoms do not improve in 30 minutes

Others are More Serious

⦿ Heat stroke

- Call 911
- Place worker in cool area
- Drink fluids if possible
- Cool with cold compresses in heat dissipating areas of the body (head, arm pits and groin)
- Wet worker with cool water
- Loosen clothing and remove outer clothing
- Stay with worker until help arrives



TIME FOR

REVIEW

Important Points

- ⦿ Recognize symptoms of heat-related illnesses in yourself and others.
- ⦿ Work responsibly in heat
 - Stay hydrated
 - Take breaks
 - Acclimatize
 - Rotate if necessary
- ⦿ Know how to treat others that may be suffering from heat-related illnesses.
- ⦿ Report any heat-related illness to your supervisor.

Questions?

