

A photograph of a desert landscape with rolling sand dunes under a blue sky with light clouds. In the foreground, a bleached animal skull lies on the sand, casting a shadow. The text "Heat Stress & Heat Related Injuries" is overlaid in the center in a bold, dark blue font.

Heat Stress & Heat Related Injuries

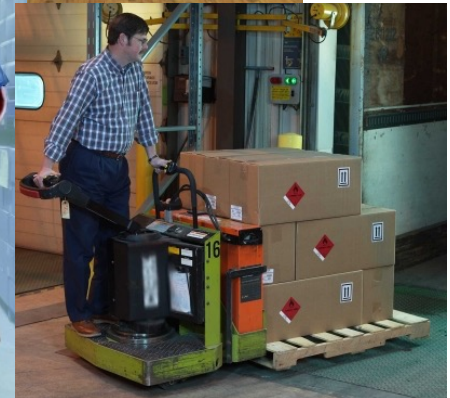


Hot Work Environments

- **Loading Trucks**



- **Heavy Lifting**



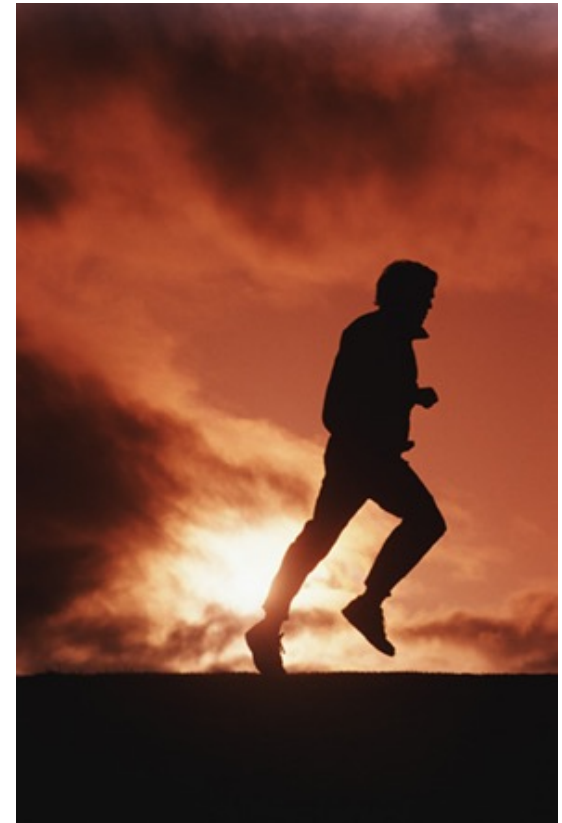
Outdoor Activities In Hot Weather

- **Yard Work**
- **Golfing**
- **Bike Riding**
- **Jogging/Walking**
- **Car Washing**



Risk Factors

- **Not everyone is affected equally**
 - age, weight, physical fitness
 - metabolism, medications, use of alcohol/drugs
- **Air temperature**



Risk Factors

- **Humidity**
- **Direct sun**
- **Radiant heat sources**
- **Clothing**



How Heat Causes Fatigue

- **Blood circulates to upper layers of skin**
- **Less blood is available to provide energy to active muscles, brain, internal organs**



How Heat Causes Fatigue

- **Performance, coordination, alertness all decline**
- **Gradually adjust to working in hot conditions**



Heat Rash

- **Results from body's natural cooling mechanisms**
- **Body heat is released through sweating**
- **If sweat ducts become plugged, a rash can develop**



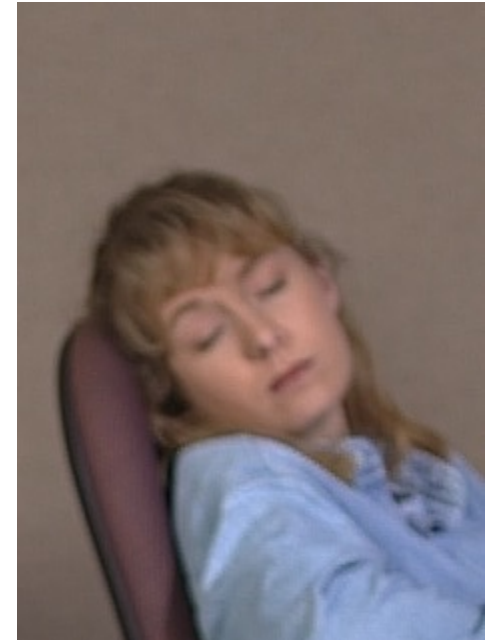
Heat Rash

- **Rash is very uncomfortable, can become infected**
- **Rest in a cool area**
- **Bathe and dry the skin ASAP**



Fainting

- **Fainting can be a reaction to the heat**
- **As blood is circulated to extremities, it can accumulate in the lower part of the body**



Fainting

- **Fainting can occur if the brain does not get enough blood**
- **Lie down in a cool area**

Muscle Cramps

- **Occur in tired muscles when worker sweats profusely and drinks large amounts of water**
- **Sweating removes salt from the body**
- **Drinking dilutes body fluids**



Muscle Cramps

- **Low salt levels can cause painful spasms**
- **Too much salt can also cause cramps**
- **Drink 5 to 7 ounces of water every 15 to 20 minutes**



Muscle Cramps

- **Thirst is not a reliable indicator of the need for water in a hot environment**
- **Avoid drinking beverages containing caffeine or alcohol**



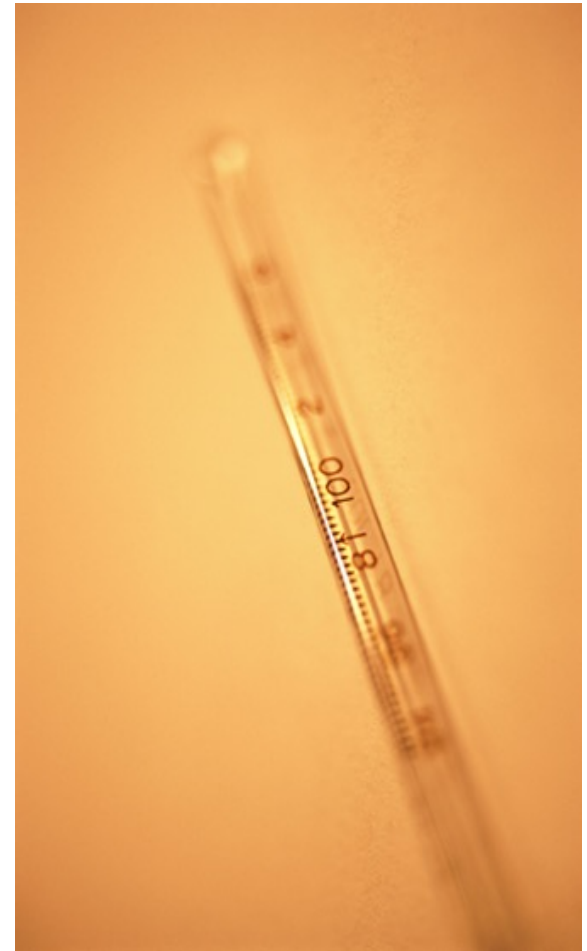
Heat Exhaustion

- **Results when a person has lost large amounts of fluid by sweating**
- **Symptoms resemble early heat stroke**
 - fatigued
 - giddy
 - nauseous
 - headache



Heat Exhaustion

- **Person sweats**
- **Skin is clammy and moist**
- **Body temperature remains at or near normal**



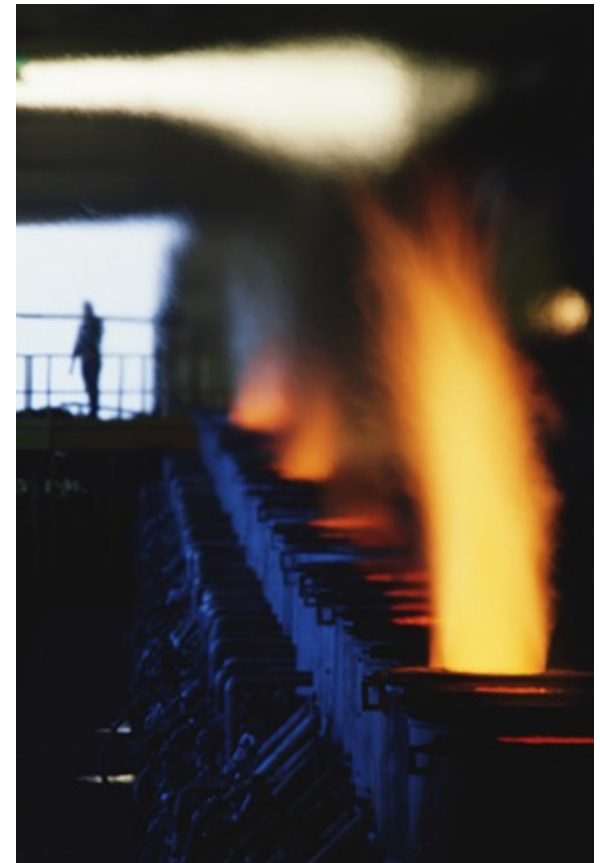
Heat Exhaustion

- **Victim may vomit/lose consciousness in extreme cases**
- **Move victim to cool place and give plenty of liquids**



Heat Stroke

- **Life-threatening condition**
- **Occurs when body's temperature regulatory system fails**
- **Sweating becomes inadequate to remove excess heat**



Heat Stroke

- **Skin is hot and dry**
- **Body temperature is 105 degrees F or higher**
- **Victim is mentally confused or delirious**



Heat Stroke

- **Victim may have convulsions or become unconscious**
- **Get immediate medical attention**
- **Move victim to cool area**



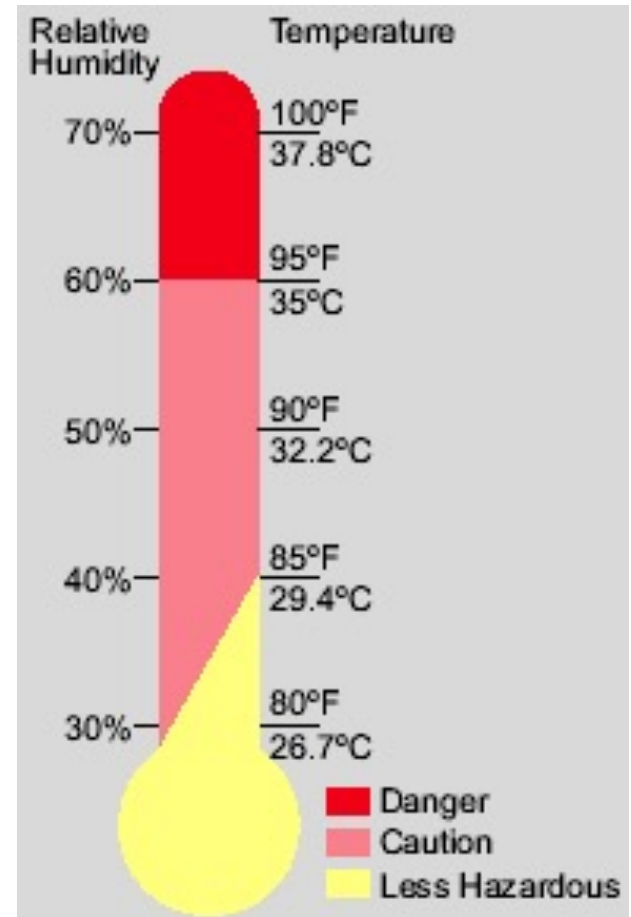
Heat Stroke

- **Soak clothing in water**
- **Fan the body**
- **Never leave unattended**



Measuring/Evaluating Heat Exposures

- Heat index system
- Health and safety agency testing



Controlling Heat Stress

- **Take intermittent rest periods with water breaks**
- **Use relief workers**
- **Pace the work**
- **Cooling Scarf**

