

### **Heat Injury Prevention**

\*\*\* WE ARE THE ARMY'S HOME \*\*\*

DP



# **HEAT STRESS**

# **Types of Heat-related Illness**









### Contributing Factors (Environmental)

- Temperature
- Humidity
- Radiant Heat
- Air Velocity

Temperature is not the only indicator!!







# Contributing Factors (Personal)

- Age
- Weight
- Fitness



 Acclimatization – increased tolerance to heat that comes from working in a hot environment for a period of 1-2 weeks.



# **Types of Heat Disorders**

- Heat Rash
- Heat Cramps
- Heat Exhaustion
- Heat Stroke







### **Heat Rash**

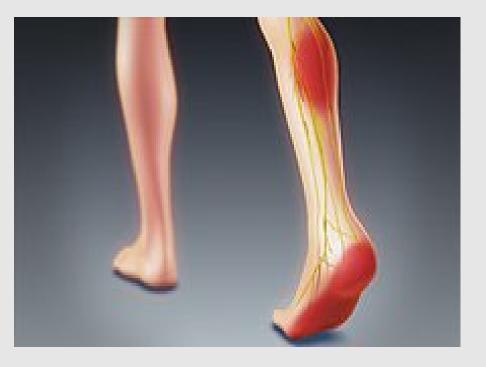
- Also known as "Prickly Heat."
- Occurs when sweat cannot freely evaporate from the skin and sweat ducts become plugged. This inflammation can cause a red rash.
- Can be prevented by wearing clothes that allow sweat to evaporate as well as bathing regularly and drying the skin.







### **Heat Cramps**

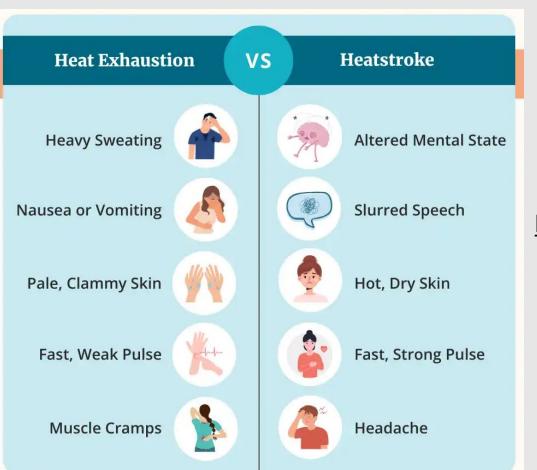


- Painful cramps in arms, legs or abdomen
- Occur in individuals who sweat profusely then drink large quantities of water, but do not adequately replace the body's salt loss.
- To prevent, ensure that salts are replaced during and after heavy sweating.





### **Heat Exhaustion & Heat Stroke**



#### Heat Exhaustion

- Mild form of shock caused when the circulatory system begins to fail because of the body's inadequate effort to give off excessive heat.
- Although not an immediate threat to life, if not properly treated, could evolve into heat stroke.

#### Heat Stroke

- Severe and sometimes fatal condition resulting from the failure of the body to regulate its core temperature.
- The body's normal cooling mechanisms stop functioning, <u>sweating stops</u>.
- True medical emergency requiring immediate medical attention.





#### Heat Exhaustion – Symptoms

- Skin is clammy and moist
- Extreme weakness or fatigue
- Nausea
- Headache
- Complexion pale or flushed
- Body temperature normal or slightly elevated

#### Heat Exhaustion – Treatment

- Do not leave the person alone.
- Move to a cool place to rest.
- Drink water or electrolyte fluids.
- Treat for shock, if necessary.
- If unconscious, fails to recover rapidly, has other injuries, or has a history of medical problems, seek medical attention.

#### Heat Stroke – Symptoms

- Stop Sweating
- Rapid Pulse
- Mental Confusion
- Loss of Consciousness
- Convulsions
- Body Temperature > 105
- Hot, dry skin
- Can die unless treated promptly

#### Heat Stroke – Treatment

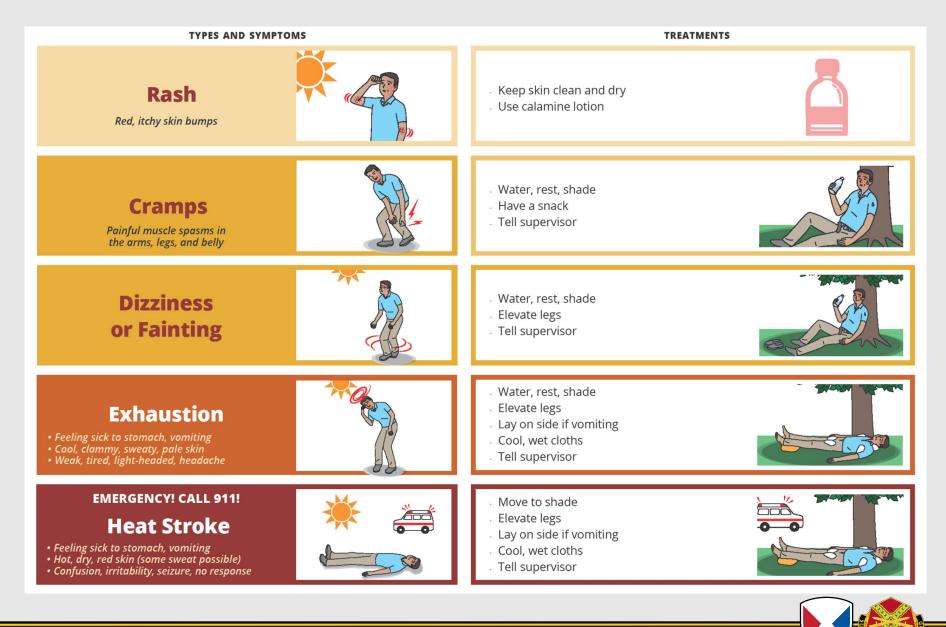
- Call 911
- Remove victim to a cool area
- Soak clothing with cool water and fan vigorously to increase cooling
- Monitor vital signs

### Symptoms & Treatment





### **Treatment of Common Heat Illnesses**





# Sun Exposure

### <u>Sunburn</u>

- Excessive exposure to harmful solar radiation
- Tan or Dark Skin still needs protection
- Protection
  - SPF 15 or higher
  - Long sleeves
  - Hat with wide brim
  - Sunglasses
- Even on Cloudy or Hazy days
- Medication or cosmetics may increase risk







# **Prevention Methods**

- Acclimatization
- Work in pairs
- Drink plenty of cool water or electrolyte replacement fluids even if not thirsty. (One small cup every 15-20 minutes)
- Be able to recognize early signs & symptoms of heat-induced illness and take appropriate action to prevent serious heat disorders.
- Schedule most strenuous work during the coolest times of the day.





# **Prevention Methods**

- Spend as little time as possible in direct sunlight.
- Take frequent breaks in cool, shaded areas.
- Wear light, loose fitting, clothing.
- Avoid caffeine, which can make the body lose water.
- Rotate workers in and out of hot areas if possible.







### **Questions?**



