

# Cold Weather Safety

Avoiding Cold Weather Injuries

# Factors Contributing to Cold Weather Injuries

- Four factors:
  - Cold air temperatures
  - High velocity air movement
  - Dampness of the air
  - Contact with cold water or surfaces

# The Effects of Cold on the Body

- The cold will:
  - Force body to work harder to maintain it's temperature
  - Cold air, water, and snow all draw heat from the body

# Wind Chill

- Wind chill is:
  - Combination of air temperature and wind speed
  - Capable of bringing hypothermia in the 50's, with rain and wind

# The Body's Reaction to Cold Conditions

- In a cold environment:
  - The body's energy is used to keep internal temperature
  - Blood flow will shift from extremities and outer skin to the core
  - Increases risk of frostbite and hypothermia, and even trench foot

# Most Common Cold Induced Problems

- Common cold induced problems:
  - Hypothermia
  - Frostbite
  - Trench foot

# Hypothermia

- Hypothermia:
  - Means “low heat”
  - Potentially serious health condition
  - Occurs when body heat is lost faster than it can be replaced
  - When core temperature drops below 98.6° F to around 95° F the symptoms begin

# Treatment for Hypothermia

- For mild cases:
  - Move to warm area and stay active
  - Remove and replace wet clothes
  - Cover the head
  - Drink a warm sugary drink
- For severe cases:
  - Do the same as mild
  - Contact emergency personnel
  - Cover all extremities



# Frostbite

- Frostbite facts:
  - Occurs when skin freezes and loses water
  - Amputation may be required in serious cases
  - Wind chill can allow it to occur in above freezing temperatures
  - Affected body part will be cold, tingling, stinging or aching
  - Skin turns red, then purple, then white

# Treatment for Frostbite

- When treating frostbite:
  - Do not rub the area
  - Wrap the area in a soft cloth
  - Move the person to a warm area
  - Contact emergency personnel
  - Do not leave the person alone

# Trench Foot

- Cause and symptoms:
  - Caused by having feet immersed in cold water for long periods of time
  - Symptoms include tingling, itching, burning, or blisters

# Treatment for Trench Foot

- When treating trench foot:
  - Soak feet in warm water
  - Wrap with dry cloth bandages
  - Drink warm sugary drink

# Preventative Measures

- Measures to take to prevent cold weather injuries:
  - Plan for work in cold weather
  - Wear appropriate clothing
  - Avoid alcohol, certain medications, and smoking to minimize risk
  - Drink plenty of liquids
  - Work in pairs (buddy system)
  - Take frequent breaks
  - Consume warm, high calorie food

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## Questions?