

When exposed to frigid temperatures, particularly for extended periods of time, a person will tire easily and exposed skin will cool rapidly. This is prime breeding ground for the dangerous effects of the cold – hypothermia and frostbite. Combine cold temperatures with wetness, including actual immersion, and trench foot becomes another potential serious ailment.

#### HARMFUL EFFECTS OF COLD

**Trench Foot** is caused by having feet immersed in cold water for long periods of time. It is similar to frostbite, but considered less severe. **Symptoms** include a tingling and/or itching or burning sensation, sometimes accompanied by blisters. **Treatment** consists of soaking feet in warm water followed by wrapping in dry cloth bandages and seeking medical attention.

**Frostbite** occurs when skin tissue actually freezes. Although this typically occurs at temperatures below 30°F, wind chill effects can cause frostbite at above-freezing temperatures. **Symptoms** include uncomfortable sensations of coldness, tingling, stinging or aching feeling of the exposed area followed by numbness and white appearance. Ears, fingers, toes, cheeks, and noses are prime targets of frostbite. **Treatment:** call for immediate medical assistance and treat for hypothermia first. Cover the affected area with dry clean cloth bandages and do not massage tissue because this may cause greater injury.

**General Hypothermia** occurs when body temperature falls to a level where normal muscular and cerebral functions are impaired. **Symptoms** begin with shivering, lethargy, and mild confusion as the core body temperature decreases to around 95°F. Severe symptoms occur when body temperature falls below 90°F and can include unconsciousness and full heart failure. **Treatment** involves warming the victim's body by removing wet clothing and adding layers of dry clothing and pre-warmed blankets. Seek medical assistance for persons suspected of being moderately or severely hypothermic.

#### PREVENTING COLD-RELATED DISORDERS

- An outer layer to break the wind
- A middle layer of wool or synthetic fabric
- An inner layer of cotton or synthetic weave to allow ventilation
- Use an on site source of heat (ie: radiant heaters or air jets)
- Shield work areas
- Provide a heated shelter for breaks
- Try to schedule work for the warmest part of the day
- Remain hydrated
- Establish a buddy system for working outdoors
- Educate workers about symptoms of cold-related stresses