

O-0004

PREVENT AND TREAT COLD WEATHER INJURIES

CONDITIONS

You are part of a ground team on a mission during on a cold day. Members of your team begin to exhibit symptoms of cold-related injuries.

OJECTIVES

Take steps to prevent cold weather injuries and recognize and treat those that do occur

TRAINING AND EVALUATION

Training Outline

1. You are part of a ground team on a mission during on a cold day. Members of your team begin to exhibit symptoms of cold-related injuries. In order to continue your mission, you must treat these injuries and prevent them from happening again.
2. Cold injuries are a result of unstopped cooling of body parts of the whole body. To prevent cold weather injuries, it is essential to remain warm and dry. If the skin is wet, it will lose heat twenty times faster than if it is dry. People who have had cold weather injuries in the past are more likely to have them again.
3. To avoid cold weather injuries.
 - a. Cover all extremities by using gloves, wool socks and a knit hat or hood over your ears.
 - b. Use the layer principle -- several loose layers of clothing keep a person warmer than one bulky item of clothing. The multiple layers trap warm air pockets, which help maintain a uniform body temperature. As you exert yourself and begin heating up, remove layers as needed. Put them back on as you cool down. Layers can include underwear, socks, thermal underwear, sweater or sweatshirt, uniform, field jacket liner, field jacket, knit hat, glove liners and gloves.
 - c. Choose clothing that will trap air pockets yet allow moisture to pass through. Wool, polypropylene and Gore-Tex are good fabric choices that remain warm when wet. Rubber or vinyl coats are extremely bad, as they hold the body's moisture in.
 - d. Avoid getting wet, especially your feet. Stay out of streams and muddy places.
 - e. Avoid overexertion that could cause you to sweat.
 - f. Identify all personnel in your team who have a history of cold weather injuries, and watch them carefully.
 - g. Change clothing when it is dirty or wet, especially socks.
 - h. Use the buddy system -- assign each person a partner. Each pair watches each other for signs of cold weather injuries.

4. The main cold weather injuries of concern to ground teams are frostbite and hypothermia.

a. Frostbite occurs in the body extremities (fingers, toes, feet, hands, tip of nose and ears) when the body part is exposed to intensely cold air or liquid. Freezing of the affected area begins and ice crystals begin forming in the skin. In severe cases, the body tissue dies and gangrene sets in, leading to the loss of the body part. Frostbite usually takes time to develop, but most people are unaware that it has begun. Frostbite occurs in two stages that have different treatments:

1) Early Stage of Frostbite:

a) Symptoms:

- (1) Skin turns from red to white and waxy.
- (2) Numbness in the affected area

b) Treatment: Warm the affected area using body heat. Hands and feet can be placed in another team member's armpit for warmth. Patient will probably sense tingling or burning in the affected area as it is re-warmed. **DO NOT MASSAGE A FROSTBITTEN BODY PART.**

2) Later Stage of Frostbite (if early stage is not treated)

a) Symptoms: Skin turns mottled or blotchy, yellow, and finally greyish-blue

b) Treatment:

- (1) Transport the patient to medical care immediately.
- (2) If transport is not immediately available, immerse the affected area in warm (not hot) water until circulation and re-warming occur. Do not let the affected part touch the sides of the container the body part is immersed in. **DO NOT MASSAGE A FROSTBITTEN BODY PART.**

b. Hypothermia is the systemic cooling of the entire body. The body's core temperature falls below average and starts affecting the body's circulatory system. Like frostbite, hypothermia has two stages that require different treatments:

1) Early Stage of Hypothermia:

a) Symptoms:

- (1) Uncontrollable shivering.
- (2) Numbness.

b) Treatment:

- (1) Keep the patient warm and dry.
- (2) Remove wet clothing.

(3) Warm the central body before the extremities, to keep blood from flowing away from the major organs. If available, place hot packs on the neck, in the armpits, and in the groin.

2) Later Stage of Hypothermia (if early stage is not treated)

a) Symptoms:

- (1) Drowsiness, inability to perform simple actions.
- (2) Slow pulse and breathing rate.
- (3) Failing eyesight and a “glassy stare.”
- (4) Finally, unconsciousness

b) Treatment:

- (1) All treatment steps for early hypothermia
- (2) Handle the patient gently, and place in a head-down position.
- (3) Transport the patient to medical care immediately.

Additional Information

More detailed information on this topic is available in Chapter 2 of the Ground Team Member & Leader Reference Text.

Evaluation Preparation

Setup: None

Brief Student: Ask the student to answer the questions listed below, one at a time.

Evaluation

<u>Performance measures</u>	<u>Results</u>	
1. Describes three ways to help prevent cold injuries	P	F
2. Explains the layer principle	P	F
2. Describes two signs of early frostbite	P	F
3. Describes the treatment for early frostbite	P	F
4. Describes the sign of late frostbite	P	F
5. Describes two treatment steps for late frostbite	P	F
6. Explains that you never massage a frostbitten body part	P	F
7. Describes two signs of early hypothermia	P	F
8. Describes three treatment steps for early hypothermia	P	F
9. Describes two signs of late hypothermia	P	F
10. Describes three treatment steps for late hypothermia	P	F

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.