



MSHA's Occupational Illness and Injury
Prevention Program
Health Tips
"Cold Stress"

**SAFETY
IS A
VALUE!**

Category : Cold Stress

Mine Type: All Mines



**Extended exposure to windy cold weather
can lead
to hypothermia and death.**



Hypothermia occurs when body temperature falls to a level where normal muscular and brain functions are impaired. There are three stages of hypothermia.

- **Impending hypothermia**
- **Mild hypothermia**
- **Severe hypothermia**

Impending hypothermia occurs when the body's core temperature drops to 95°F (35°C). The skin may become pale, numb and waxy. Muscles become tense. Fatigue and weakness begin to show.

The treatment for impending hypothermia includes removal from the cold, wet environment, providing external heat (fire, blankets) and providing hot drink (no alcohol, tea or coffee).

Mild hypothermia occurs when the body's core temperature drops to 93.2°F (34°C). Uncontrolled shivering begins. The individual is still alert, but movement becomes less coordinated and some pain and discomfort exists.

The treatment for mild hypothermia includes removal from the cold environment, keeping the head and neck covered to prevent further heat loss and providing warm, sweetened drink (no alcohol, tea or coffee) and high-energy food.

Severe hypothermia occurs when the body core temperature drops below 87.8°F (31°C). The skin becomes cold and may be bluish in color. The individual is weak, and uncoordinated. Speech is slurred, and the victim appears exhausted, denies problem and may resist help. Gradually there is a loss of consciousness with little or no breathing occurring. The individual may be rigid and appear dead.

The treatment for severe hypothermia includes immediate external warming. One method may be by placing the victim in a warmed sleeping bag with two other people. Keep the miner awake and apply mild heat to stop loss of heat, not to re-warm.

Check for pulse and breathing. If neither is present, begin CPR and mouth to mouth resuscitation. Continue until medical help arrives.

Never give up on a victim. Even though cold, stiff, and bluish with fixed pupils and no heart tones or signs of breathing, victims have been resuscitated and have recovered fully.

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Remember – Safety is a Value that you can LIVE with!