

MAFES Dawg Tracks

September 1, 2014



Prevent Cold
Stress Injuries



Cold Weather is coming in a few months! I hope and pray, as we all do, that we won't have a repeat of the winter of 2013/2014. Maybe a few weeks of 32 degree temperature won't be too bad, and this would kill the abrasive insects or get them deeper in the ground before spring.

There's always been the old adage in Mississippi that if you don't like the weather today, hang around and it'll change by tomorrow. This winter didn't hold true for this as it has stretched itself out.

Working in the extreme cold exposes us to the risk of cold stress. Extreme cold weather is very dangerous and can bring on health situations if we don't take care of ourselves. Even working on the inside of buildings is dangerous if the area isn't heated or is poorly insulated. A drop in temperatures and increases in wind speed causes the heat to leave your body, possibly leading to health problems.

There are several types of cold stress that can affect us, if we fail to take protective measures:

Hypothermia – Exposure to cold temperatures where the body loses heat faster that it can generate it.

- ✓ Prolonged exposure to the cold will eventually use up our body's stored energy.
- ✓ The result is hypothermia or abnormally low body temperature.
- ✓ Body temperatures that are too low affects your brain, making it unable to think clearly or move well.
- ✓ The real problem that makes hypothermia so dangerous is that you may not realize that it is happening and won't be able to do anything about it.

Symptoms- The symptoms can vary depending on how long you have been exposed. **Some early symptoms are:**

- ~Shivering
- ~Loss of Coordination
- ~Fatigue
- ~Confusion and disorientation

Late Symptoms-

- ~No shivering
- ~Slowed pulse and breathing
- ~Blue skin
- ~Loss of Consciousness
- ~Dilated pupils

First Aid- Workers should take the following steps to treat a fellow worker.

- Alert your manager and call for medical assistance.
- Move the victim to a warm room or shelter.
- Remove their wet clothing.
- Warm the center of their body first – chest, neck, head, and groin- using an electric blanket or use skin-to-skin contact under loose, dry layers of blankets, clothing, towels or sheets.
- If there is not pulse, start CPR.

Cold Water Immersion- Creates a specific condition known as immersion hypothermia.

- ✓ It develops much faster than standard hypothermia because water conducts heat away from the body 25 times faster than air.
- ✓ Some folks, in temperate climates, don't consider themselves at risk from hypothermia in water, but hypothermia can occur in any water below 70° F.
- ✓ Survival time can be lengthened by wearing proper clothing such as wool and synthetics, not cotton, wearing a personal flotation device (PFD), life vest, immersion suit or a dry suit. One also needs a means for signaling rescuers, (strobe light, flares, locator beacon, whistles or waterproof radio) and having a means to be rescued from the water.

Frostbite- An injury to the body caused by freezing.

- Causes a loss of feeling and color in affected areas.
- Most often affects the nose, ears, cheeks, chin, fingers or toes.

- Frostbite can permanently damage body tissues- in severe cases it can lead to amputation.
- In extreme cold temperatures- frostbite risk is increased with workers who have reduced blood circulation and with workers who don't dress properly.

Symptoms-

- ~Reduced blood flow to hands and feet (fingers or toes can freeze).
- ~Numbness
- ~Tingling or stinging
- ~Aching
- ~Bluish or pail, waxy skin

First Aid- Workers suffering from frostbite should:

- Get into a warm room as quick as possible.
- Unless absolutely necessary, don't walk on frostbitten feet or toes – increases the damage.
- Immerse the affected area in warm water, not hot water – the temperature should be comfortable to the touch for unaffected parts of the body.
- Warm the affected area using body heat. An example – warm fingers with the heat of your armpit.
- Do not rub or massage the frostbitten area – it might cause more damage.
- Do not use any device (electric or gas) for warming; the affected areas are numb and can readily burn.

Trench foot- Also known as immersion foot-an injury caused from extreme exposure to wet and cold conditions.

- Can occur at temperatures as high as 60° F, if the feet are constantly wet.
- Injury results because wet feet lose heat 25 times faster than dry feet.
- So, to prevent heat loss, the body constricts blood vessels to shut down circulation to the feet.
- Skin tissue begins to die because of the lack of oxygen and nutrients and the buildup of toxic products.

Symptoms-

- ~Reddening of the skin
- ~Leg cramps
- ~Tingling pain
- ~Bleeding under the skin
- ~Numbness
- ~Swelling
- ~Blisters or ulcers
- ~Gangrene (foot may turn purple, gray, or blue)

First Aid-

- ~Remove shoes/boots and wet socks
- ~Avoid walking on feet, as it may cause tissue damage.
- ~Dry their feet

Chilblains- Caused by repeated exposure of skin to temperatures just above freezing to as high as 60°F.

- Cold exposure causes damage to capillary beds (groups of small blood vessels) in the skin.
- The damage is permanent and the redness and itching will return with additional exposure.
- The redness typically occurs on cheeks, ears, fingers, and the toes.

Symptoms-

- ~Redness
- ~Possible blistering
- ~Inflammation-possible
- ~Itching
- ~Ulceration in severe cases.

First Aid-

- ~Avoid scratching
- ~Slowly warm skin
- ~ Use corticosteroid creams to relieve the itching and swelling
- ~Keep blisters and ulcers clean and covered.