

MAFES Dawg Tracks

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MISSISSIPPI STATE UNIVERSITY™
MS AGRICULTURAL AND
FORESTRY EXPERIMENT STATION

*Safety Tips:
Cold Weather Safety*

Well, it doesn't feel like we will have any winter now, but just "hold your horses." It will be here before we know it; then we will be wishing for this hot weather again. The definition of cold weather varies depending upon what section of the USA you live in. We think that we are in a "freezer" when the temperature is at freezing levels or a little below.

In the North and Northeast USA temperatures in the teens or even single digits occur fairly often. Those folks think we are having a heat wave when our temperature is in the 30 to 40 degree range. A cold environment forces the body to work harder to maintain its temperature.

Actually, when temperatures drop below normal and the wind speed picks up, heat leaves our bodies very quickly. Wind chill is the temperature your body feels when air temperature and wind speed are combined. As an example, when the air temperature is 40° F and the wind chill is 35 mph, the effect on the exposed skin is as if the air temperature was 28° F.

Cold stress occurs by driving down the skin temperature and eventually the internal body temperature (core temperature). This may lead to serious health problems and may cause tissue death and possibly death.

RISK FACTORS THAT CONTRIBUTE TO COLD STRESS-

- ✓ Wetness/dampness, dressing improperly, and exhaustion.
- ✓ Predisposing health conditions such as hypertension, hypothyroidism, and diabetes.
- ✓ Poor physical condition.

In a cold environment, most of the body's energy is used to keep the internal core temperature warm. Over time, the body will begin to shift the blood flow from the extremities (hands, feet, arms, and legs) and outer skin to the core (chest and abdomen). This shift allows the exposed skin and the extremities to cool rapidly and increase the risk of frostbite and hypothermia. Combine this scenario with exposure to a wet environment and trench foot may also be a problem.

COMMON COLD-INDUCED ILLNESSES/INJURIES-

Hypothermia happens most likely at very cold temperatures, but it can occur even at cool temperatures (above 40°) if a person becomes chilled from rain, sweat, or submersion in cold water.

SYMPTOMS OF HYPOTHERMIA-

Mild Symptoms-

- An exposed worker is alert.
- The victim may begin to shiver and stomp their feet in order to generate heat.

Moderate Symptoms-

- As body temperature continues to fall, symptoms will worsen and the shivering will stop.
- The victim may lose coordination and fumble with items in the hand and become disoriented.

He or she may be unable to walk or stand, pupils become dilated, pulse and breathing become slower, and loss of consciousness can occur. A person could die if they don't receive help immediately.

TREATMENT TIPS FOR HYPOTHERMIA VICTIMS-

- Call 911 immediately in an emergency or seek medical help ASAP.
- Move the victim to a warm, dry place.
- Remove their wet clothes and replace with dry ones, then cover their body from head to toe with blankets and a vapor barrier (large garbage bag; don't cover the head).
- If medical help is more than 32 minutes away:
 - ~ Give warm sweetened drinks (no alcohol), if alert, to help increase body temperature. Never try this with an unconscious person.
 - ~ Place warm bottles or hot packs under armpits, sides of chest, and groin. Call 911 for additional warming instructions.

If person is not breathing or has no pulse-

- Call 911 for emergency assistance.
- Do not give liquid to an unconscious victim.
- Check the victim for signs of breathing and a pulse. Check for 60 seconds.
- If, after 60 seconds, they aren't breathing and no pulse, start CPR for three minutes. Recheck for breathing for 60 seconds.
- If there is still no breathing or pulse – continue CPR.
- Only start CPR with directions by a 911 operator or an EMT.
- Reassess the victim's status periodically.

FROSTBITE-

This occurs to the body when the skin and underlying tissues freeze. The lower the temperature, the quicker the frostbite occurs. It typically affects the hands and feet. Amputation may occur in extreme cases.

Symptoms of Frostbite-

- Reddened skin develops gray/white patches.
- Numbness in the affected part- feels firm and hard.
- Blisters may appear in the affected part, in severe cases.

FROSTBITE TREATMENT-

- Follow the hypothermia recommendations.
- Do not rub the affected area- this action may cause more damage.
- Do not apply water or break the blisters.
- Loosely cover the area from contact.
- Do not try to warm the affected area. It is better to wait for the medical professionals to do this.
- If the person is awake, give them sweetened drinks - but no alcohol.

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Excerpts: <http://www.osha.gov>
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**SAFETY WINS THE GOLD
IF YOU PROTECT YOURSELF
FROM THE COLD!!
SAFETY IS ALWAYS IN SEASON**