



**WEBER
FARMS**
Cold Weather Safety
Friday, November 5th, 2021

Dress appropriate for cold weather:

- Wear layers of loose-fitting, lightweight, warm clothing
- Wear a hat. Try to stay dry and out of the wind.
- Mittens, snug at the wrist are better than gloves at extreme cold temps.

Pay attention to wind chill! Frostbite can occur within 5 minutes in extreme cases!

Most common cold induced illnesses/injuries:

- Hypothermia
- Frostbite
- Trench Foot

Hypothermia:

Body heat is lost faster than it can be replaced. Usually at very cold temperatures but it can happen above 40 F, when somebody is chilled from water as well.

Solutions: move the person to a warm and dry area, remove wet clothes, give warm drinks.

Frostbite:

Frostbite is an injury to the body that is caused by freezing of the skin and underlying tissues. Amputation may be required in severe cases. Reddened skin develops gray/white patches. Numbness of the affected part, feels firm.

Solutions:

Get to a warm, dry area. Do not rub the affected area to warm it could cause more damage. Do not break blisters, loosely cover and protect the area from contact. Do not place in warm water. A lot of times need to get professional medical attention.

Trench Foot:

Trench Foot is caused by prolonged exposure to wet and cold temperatures. It can occur at temperatures as high as 60 F. Redness of the skin, swelling, numbness, and blisters.

Solutions:

Remove the shoes, or boots and wet socks. Dry the feet. May need to seek professional medical attention.



National Weather Service Wind Chill Chart



Temperature (°F)

Wind (mph)	Calm	40	35	30	25	20	15	10	5	0	-5	-10	-15	-20	-25	-30	-35	-40	-45
5	36	31	25	19	13	7	1	-5	-11	-16	-22	-28	-34	-40	-46	-52	-57	-63	-69
10	34	27	21	15	9	3	-4	-10	-16	-22	-28	-35	-41	-47	-53	-59	-66	-72	-78
15	32	25	19	13	6	0	-7	-13	-19	-26	-32	-39	-45	-51	-58	-64	-71	-77	-83
20	30	24	17	11	4	-2	-9	-15	-22	-29	-35	-42	-48	-55	-61	-68	-74	-81	-87
25	29	23	16	9	3	-4	-11	-17	-24	-31	-37	-44	-51	-58	-64	-71	-78	-84	-90
30	28	22	15	8	1	-5	-12	-19	-26	-33	-39	-46	-53	-60	-67	-73	-80	-87	-93
35	28	21	14	7	0	-7	-14	-21	-27	-34	-41	-48	-55	-62	-69	-76	-82	-89	-95
40	27	20	13	6	-1	-8	-15	-22	-29	-36	-43	-50	-57	-64	-71	-78	-84	-91	-97
45	26	19	12	5	-2	-9	-16	-23	-30	-37	-44	-51	-58	-65	-72	-79	-86	-93	-99
50	26	19	12	4	-3	-10	-17	-24	-31	-38	-45	-52	-60	-67	-74	-81	-88	-95	-101
55	25	18	11	4	-3	-11	-18	-25	-32	-39	-46	-54	-61	-68	-75	-82	-89	-97	-103
60	25	17	10	3	-4	-11	-19	-26	-33	-40	-48	-55	-62	-69	-76	-84	-91	-98	-105

Frostbite Times

■ 30 minutes ■ 10 minutes ■ 5 minutes

Credit: National Weather Service

What are the risk factors that contribute to cold stress?

Some of the risk factors that contribute to cold stress are:

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

How does the body react to cold conditions?

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 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 increases the risk of frostbite and hypothermia. Combine this scenario with exposure to a wet environment, and trench foot may also be a problem.



Fast Facts



Protecting Yourself from Cold Stress

Workers who are exposed to extreme cold or work in cold environments may be at risk of cold stress. Extremely cold or wet weather is a dangerous situation that can cause occupational illness and injuries such as hypothermia, frostbite, trench foot, and chilblains.

Hypothermia

A condition in which the body uses up its stored energy and can no longer produce heat. Often occurs after prolonged exposure to cold temperature.

Early symptoms

- Shivering
- Fatigue
- Loss of coordination
- Confusion and disorientation

Late symptoms

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

First Aid

- Request immediate medical assistance.
- Move the victim into a warm room or shelter.
- Remove wet clothing.

- REMOVE 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, or towels.
- If conscious, warm beverages may help increase the body temperature. Do not give alcohol.
- Once temperature has increased keep them dry and wrapped in a warm blanket, including the head and neck.
- If no pulse, begin CPR.

Frostbite

An injury to the body that is caused by freezing, which most often affects the nose, ears, cheeks, chin, fingers, or toes.

Symptoms

- Reduced blood flow to hands and feet
- Numbness
- Aching
- Tingling or stinging
- Bluish or pale, waxy skin

First Aid

- Get into a warm room as soon as possible.
- Unless necessary, do not walk on frostbitten feet or toes.
- Immerse the affected area in warm (not hot) water, or warm the affected area using body heat. Do not use a heating pad, fireplace, or radiator for warming.
- Do not massage the frostbitten area; doing so may cause more damage.

Additional Cold Stress Resources

[Cold Stress](#). National Institute for Occupational Safety and Health (NIOSH).

OSHA Rules

The Occupational Safety and Health Act (OSH Act) requires employers to comply with hazard-specific safety and health standards. In addition, pursuant to Section 5(a)(1) of the OSH Act, employers must provide their employees with a workplace free from recognized hazards likely to cause death or serious physical harm. Emergency Preparedness Guides do not and cannot enlarge or diminish an employer's obligations under the OSH Act.