

Winter Sports Safety

Division East Safety

Exercising in Winter

**PREVENTING
COLD WEATHER
INJURIES**

Introduction

Winter weather warrants special precautions for anyone who exercises outdoors. Cold exposure can make outdoor activity dangerous or at least uncomfortable for unprepared athletes. It is important to be aware of the early warning signs and symptoms of cold exposure.

Shivering

Usually the first sign of dangerous cold exposure, as the body is trying to generate it's own heat through uncontrolled muscle contraction. This should be your first warning to seek shelter.

Frostbite and Hypothermia

The two most dangerous conditions that can result from cold weather exposure are frostbite and hypothermia.

- **Frostbite is the freezing of superficial tissues of the face, ears, fingers and toes.**
- **Hypothermia is a more severe response to cold exposure that is defined as a significant drop in body core temperature.**

FROSTBITE SYMPTOMS INCLUDE:

- **Pain**
- **Burning**
- **Numbness**
- **Tingling**
- **Skin turns hard and white**
- **Skin starts to peel or get blisters**
- **Skin starts to itch**
- **Skin gets firm, shiny, and grayish-yellow**

FROSTBITE TREATMENT

To help a frostbite victim, get the person to a warm, dry place and remove constrictive clothing. Raise affected areas and apply warm, moist compresses to these areas. Do not rub frostbitten areas or apply direct heat.

Hypothermia Symptoms Include:

- Shivering
- Cold sensation, goose bumps, confusion, numbness
- Intense shivering, lack of coordination, sluggishness
- Violent shivering, difficulty speaking, mental confusion, stumbling, depression
- Muscle stiffness, slurred speech and trouble seeing
- Unconsciousness

Hypothermia Treatment

At the first sign of hypothermia take the person to a dry, warm place or warm the victim with blankets, extra dry clothing or your own body heat.

Dress for Success

Layer your Clothing

Several thin layers are warmer than one heavy layer. Layers are also easier to add or remove and thus, better regulate your core temperature. The goal is to keep the body warm and minimize sweating and avoid shivering.

Keep your Feet Dry

Use a fabric that will wick perspiration away from the skin. Polypropylene, wool or other fabrics that wick moisture away from the skin and retain insulating properties keep the body warm when wet.

Dress for Success

Cover your Head

Your head should be covered while exercising in the cold, because heat loss from the Head and neck may be as much as 50 percent of the total heat being lost by your body.

Cover your Mouth

To warm the air before you breathe it, use a scarf or mask. Do this especially if breathing cold air causes angina (chest pain) or you are prone to upper respiratory problems.

Stay Dry

Wet, damp clothing, whether from perspiration or precipitation, significantly increases body-heat loss

Stay Hydrated

- Dehydration affects your body's ability to regulate body heat and increases the risk of frostbite. Fluids, especially water, are as important in cold weather as in the heat. Avoid consuming alcohol or beverages containing caffeine, because these items are dehydrating.

Snow Mobile Safety

Potential Danger

Always be alert of potential danger. Your helmet and engine noise can impair your hearing. Visibility is also reduced in conditions of snowfall, blowing snow and night driving. Never assume what another snowmobiler will do. Do all that you can to ensure your safety and that of other riders. Expect the unexpected!

Watch out for:

- Thin ice and open water
- Grooming equipment
- Oncoming snowmobiles
- Unforeseen obstacles beneath snow
- Unexpected corners, intersections and stops
- Road and railway crossings
- Logging/Forestry operations
- Snow banks and drifting snow
- Trees and branches on the trail
- Bridges and approaches
- Wildlife and domestic animals
- Other trail users (skiers, hikers)
- Fences, gullies, and rocks

Ride Safe

Don't Drink and Ride

1. Alcohol is also involved in over 70% of snowmobile fatalities.
2. Alcohol increases your susceptibility to cold and hypothermia. Snowmobilers often have access to remote locations miles away from help. If a situation should occur where help is needed, your chances of survival and treatment of injury can be greatly affected.

Night Riding

1. Avoid driving at night and in bad weather. A single strand of barbed wire is hard to see. A disproportionate number of snowmobiling incidents, including nine out of ten fatalities, occur after dark.
2. Always wear outer clothing with reflective trim on the arms, back and helmet. Never ride alone at night. Always dress in your full snowmobiling outfit even if your intended destination is just next door.
3. Be certain that all lights are operational and keep in mind that hand signals become increasingly more difficult to see as darkness sets in.

ICE Riding

Ice Riding

1. Drowning is one of the leading causes of snowmobile fatalities. Wherever possible, avoid riding on frozen lakes and rivers because ice conditions are never guaranteed.
2. If you must cross ice, ask first, then stay on packed or marked trail. Don't stop until you reach shore.
3. If you hit slush, don't let off the throttle. If you are following someone who hits slush, veer off to make your own path.
4. If you must travel over lakes and rivers then consider using a buoyant snowmobile suit which will assist you to reach the closest ice surface. Also consider carrying a set of picks which will help you grip the edge of the ice more easily. As a rule of thumb, "if you don't know, don't go."

If you break through the ice, don't panic. Follow these self rescue tips.

1. Kick vigorously into a horizontal position and swim to the nearest ice edge.
2. Place hands/arms on unbroken ice while kicking to propel your body onto the ice, like a seal.
3. Once clear, stay flat and roll away to stronger ice.
4. Stand, keep moving and find shelter.

Snow Board Safety Tips

Snow Boarding and Ski Safety Tips

- Get in shape. Don't try to ski yourself into shape. You'll enjoy skiing more if you're physically fit.
- Obtain proper equipment. Be sure to have your ski or snowboard bindings adjusted correctly at a local ski shop. You can rent good ski or snowboarding equipment at resorts.
- Take a lesson. Like anything, you'll improve the most when you receive some guidance. The best way to become a good skier or snowboarder is to take a lesson from a qualified instructor.
- Drink plenty of water. Be careful not to become dehydrated.
- Curb alcohol consumption. Skiing and snowboarding do not mix well with alcohol or drugs.
- Dress in layers. Layering allows you to accommodate your body's constantly changing temperature. For example, dress in polypropylene underwear (top and bottoms) which feels good next to the skin, dries quickly, absorbs sweat and keeps you warm. Wear a turtleneck, sweater and jacket.

Snow Board and SKI Safety Tips

- Be prepared. Mother Nature has a mind of her own. Bring a headband or hat with you to the slopes, 60 percent of heat-loss is through the head. Wear gloves or mittens (mittens are usually better for those susceptible to cold hands).
- Wear sun protection. The sun reflects off the snow and is stronger than you think, even on cloudy days!
- Always wear eye protection. Have sunglasses and goggles with you. Skiing and snowboarding are a lot more fun when you can see.
- When buying skiwear, look for fabric that is water and wind-resistant. Look for wind flaps to shield zippers, snug cuffs at wrists and ankles, collars that can be snuggled up to the chin and drawstrings that can be adjusted for comfort and keep wind out. Be sure to buy quality clothing products.
- Know your limits. Learn to ski and snowboard smoothly--and in control. Stop before you become fatigued and, most of all have fun!

Summary

- The first line of defense against cold exposure is dressing appropriately for conditions.
- Other factors that can negatively affect your ability to handle cold temperatures can include inadequate nutrition, dehydration, alcohol consumption, certain medications and health conditions such as diabetes and heart disease, which can significantly decrease a person's ability to exercise outdoors in the cold.