

When is Ice Safe?

Information from Vermont AgrAbility Project

The simple answer is never; no ice is safe ice. This is the message that the Coast Guard advocates. The reality is that people will be on the ice for a variety of recreations. We at Vermont AgrAbility would like to provide you with information to make you safer when venturing out on the ice.

Below are the published guidelines for ice thickness and strength. These are for clear, blue ice on lakes and ponds. There are other factors to take into account along with the Ice Thickness Guidelines:

Ice seldom freezes uniformly; ice may be a foot thick in one location and only an inch or two thick a few feet away.

The insulating effect of snow slows down the freezing process. The extra weight of the snow also reduces how much weight the ice sheet can support.

The movements of schools of fish can bring warm water up from the bottom of the lake, adversely affecting the safety of the ice. Many lakes and ponds have springs, inlets, outlets and other types of currents that may create dangerous thin spots.

Cattail stands and tree roots near the water's edge can weaken ice and slow the formation of ice. Avoid these areas when possible.

General Ice Thickness Guidelines

For new, clear ice only

4" or less – STAY OFF

4"-6" – Ice fishing, foot travel in single-file lines

6"-10" – Snowmobiles and ATV*

10" – 16" – Small cars and pickups*

16+" medium sized cars or mid-sized pick-up*

*It is best to avoid driving on the ice whenever possible.



So, after taking this information into account, you've made the decision to be on the ice; please learn and use this safety advice:

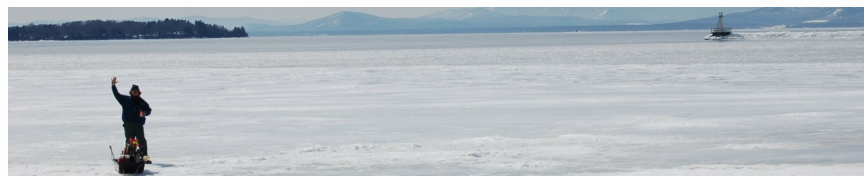
Alcohol and ice don't mix. Even "just a couple of beers" is enough to cause an error in judgment that could cost your life. Contrary to common belief, alcohol actually makes you colder instead of warming you up. Alcohol also slows your reaction time.

If you must drive a vehicle on the ice, be prepared to leave it in a hurry. Keep the windows down, unbuckle your seat belt; the best time to escape a vehicle is before it sinks, not after. If it is dark or snowing, be aware the decrease in vision increases the hazard of being on the ice.

If you are on a snowmobile, don't "over drive" your headlight. It can take a much longer distance to stop on ice than your headlight shines.

Use the buddy system. It's best to never venture on the ice alone. Walk single file, with a distance of several feet between you. Make sure someone on shore knows where you will be.

Life jackets aren't just for summer anymore. By wearing a personal flotation device (PFD) underneath a coat or coveralls, your buoyancy is increased, keeping your head and shoulders above water if you break through the ice. Cold water shocks the system and a loss of breath often occurs; with less air in the lungs, the body is less apt to float. The PFD's added buoyancy helps with escape.



University of Vermont, VT AgrAbility Project
655 Spear Street #105 Burlington, VT 05405-0107
802-656-5420 or 1-800-571-0668, Fax:802-656-5422

Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914, in cooperation with the United States Department of Agriculture. University of Vermont Extension, Burlington, Vermont. University of Vermont Extension, and U.S. Department of Agriculture, cooperating, offer education and employment to everyone without regard to race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or familial status.

Make and carry ice safety picks looped around your neck; they could save your life if you do break through the ice.

Get two 4" pieces of wooden doweling the size of a broom handle or a little larger. Whatever material you select, it should float in case you drop the claws while struggling.

Drive a stout nail into one end of each dowel. This should be a hardened 16-penny or larger concrete nail.

Use a file to sharpen the nail heads to a point.

Drill a hole into the dowels (in the end opposite the nail) and tie a length of strong cord through the hole so a pick is on each end "jump-rope" fashion. You may also drill a hole in the ends alongside the nails so the nail on the other pick can nest in the hole, keeping both points covered.

Or you can buy ice safety picks at a tackle shop.



Minnesota Department of Natural Resources, used with permission

Carry a 50-foot rope; keep a lifeline handy for you and your buddy. By attaching a block of wood to one end, the rope can be thrown out and floated to a person that is struggling in the water.

Carry a portable radio while you're out on the ice, you can keep up with any changing weather patterns.

Each of you should have a cell phone handy in case 9-1-1 needs to be contacted.

Have a set of warm clothes on shore in your car to change into to prevent hypothermia.

What if you fall in? First, try not to panic, which will be easier if you are familiar with these survival steps.

Don't remove your winter clothing. Heavy clothes won't drag you down, but instead can trap air to provide warmth and some buoyancy.

Turn toward the direction you came. That is probably the strongest ice.

Place your hands and arms on the unbroken surface. This is where the ice rescue picks will provide traction to pull yourself up onto the ice.

Kick your feet and dig in your ice rescue claws to work your way back onto the solid ice surface. If your clothes have trapped a lot of water, you may have to lift yourself partially out of the water on your elbows to let the water drain before starting forward.

Lie flat on the ice once you are out and roll away from the hole to keep your weight spread out. This will help prevent you from breaking through again.

Get to a warm, dry, sheltered area and re-warm yourself immediately. In moderate to severe cases of cold water hypothermia, you must seek medical attention. Cold blood trapped in your extremities can come rushing back to your heart after you begin to re-warm; the shock of the chilled blood can cause a heart attack.

What if someone else falls in? First, call 9-1-1 for help. Resist the urge to run up to the edge of the hole to help. This would most likely result in two persons in the water needing rescue. Heroics by well-meaning but untrained rescuers sometimes results in two deaths.

Preach. Shout to the victim to encourage them to fight to survive and reassure them that help is on the way.

Reach. If you can safely reach the victim from shore, extend an object such as a rope, ladder, or jumper cables to the victim. If the person starts to pull you in, release your grip and start over.

Throw. Toss one end of a rope or something that will float to the victim. Have them tie the rope around themselves before they are too weakened by the cold to grasp it.

By preparing properly, keeping your head, knowing these safety tips and respecting the ice, tragedy can be prevented and you can enjoy your winter in the outdoors.