

Safety On and Around the Ice

The Canadian Red Cross wants to remind you to be safe on and around ice. Fluctuating temperatures can make ice unstable and you should be vigilant and keep your eyes open to spot unsafe conditions before venturing on it. Many different activities can lead to drowning or cold water-related deaths in Canada, including snowmobiling (55% of such deaths); walking, hiking, fishing, hunting and skating (34%); and use of other vehicles on ice, like ATVs, construction vehicles, and regular vehicles used for ice fishing (11).

Tips:

1. Unless you're absolutely sure that ice is thick enough—stay off!

- The colour of the ice indicates its strength and quality. Blue ice is the strongest, while grey ice is unsafe.
- Avoid ice that has recently frozen, thawed, and then frozen again.
- Ice thickness should be a minimum of:
 - 15 cm for skating, walking or skiing in small groups
 - 20 cm for larger groups, such as skating parties
 - 25 cm for snowmobiles or ATVs

2. How to check ice thickness:

- If possible go with another person to measure the ice's thickness.
- Always wear an appropriate floatation device in case you fall through the ice.
- While one person drills a hole, the other should stay a safe distance away.
- Measure the thickness of the ice along the inside of the hole.
- The ice thickness must be measured every few metres, as it will vary in different sections of the ice surface. This will ensure that the whole area is safe for travel.
- Carry a pole, axe or long branch to support yourself on the edges of the ice in case you fall through, or to use as a reaching assist.
- Always carry a throwing or reaching device.
- The ice should be checked regularly.

3. Learn to identify conditions that lead to unsafe ice

- Snow cover can insulate the ice and keep it from freezing completely.
- Vehicles traveling on ice may cause shock waves in the water below the ice. This can weaken the ice.
- Use caution near pressure ridges in the ice.
- When ice goes through a freeze-thaw-freeze cycle it becomes weak and unsafe until it freezes solid again.
- Mist rising can be a sign of open water.
- Watch out for protruding objects or air holes that can indicate weak ice.
- The ice may be thinner near dark objects which are at the edge of the ice or that protrude.

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4. **Always check with local authorities before heading out and avoid going out on ice at night. Tell someone where you're going, and when you'll be back.**

5. **If you fall through the ice in to water:**

By yourself:

- If you're able to get out of the water immediately, do it!
- Call for help.
- Resist the immediate urge to climb back out where you fell in. The ice is weak in this area.
- Use the air trapped in your clothing to get into a floating position on your stomach.
- Once your breathing has calmed down, reach forward on to the broken ice without pushing down. Kick your legs to push your torso on to the ice.
- When you are back on the ice, crawl on your stomach or roll away from the open area with your arms and legs spread out as far as possible to evenly distribute your body weight.
- Don't stand up! Look for shore and make sure you are going in the right direction, usually the direction you came from.
- If you can't lift yourself out, lift your body out of the water as far as you can, and don't move. Your wet clothes will freeze to the ice, helping you to remain above water and allowing you to be rescued if you should lose consciousness.

With a buddy:

- Rescuing another person from ice can be dangerous. The safest way to perform a rescue is from the shore.
- Call for help. Consider whether you can quickly get help from trained professionals (police, fire fighters or ambulance) or bystanders.
- If you can reach the person with a pole or branch from shore, lie down and extend the pole to the person.
- If you go on to ice, wear a PFD and carry a long pole or branch to test the ice in front of you.
- When near the break, lie down to distribute your weight and slowly crawl toward the hole.
- Remaining low, extend or throw your emergency rescue device (pole, rope, line or branch) to the person.
- Tell the victim to kick while you pull them out.
- Move the person to a safe position on shore or where you are sure the ice is thick, and begin treating them for hypothermia.

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6. **Do not over exert yourself or work outside for extended periods of time. Watch for signs of frostbite and hypothermia.**
 - a. **Frostbite:** a medical condition in which localized damage is caused to skin or other tissues because of extreme cold.
 - b. **Hypothermia:** a core, or internal, body temperature of less than 35°C, characterized by uncontrolled shivering, slurred speech, apathy, slow breathing, clumsiness, and drowsiness. It is caused by exposure to cold or cold stress in either air or water for extended periods of time. If someone is suffering from hypothermia, call 911 immediately. Someone suffering from hypothermia should be treated gently. Find shelter, remove any wet clothing and warm the body up slowly.

7. **Take a Red Cross first aid class to learn the signs, symptoms and treatment of cold-related illnesses.**
 - If someone is suffering from a cold-related illness, remove them from the elements, provide first aid treatment and seek medical assistance immediately.