



## Ice Safety

### Common myths about cold water immersion

*Hypothermia will occur within minutes of being immersed in cold water.*

**False.** The human body is quite resilient. The average adult does not experience a cooling of the core temperature for up to half an hour after submersion. As long as you can keep your head out of the water you can potentially survive up to two hours.

*People become hypothermic and then drown.*

**False.** General rule of thumb is you have 10 minutes of meaningful movement. After 10 minutes your muscles begin to fail as blood leaves them to keep your core warm. Use the ten minutes to escape or get into a position that will allow your head to remain above the water. Drowning occurs due to muscle failure - NOT hypothermia.

*People can go into cardiac arrest from being submerged in cold water.*

**True.** Healthy people have a stronger chance for survival. People that have underlying medical conditions, especially heart conditions are more at risk due to the sudden shock to the system. All people that have been submersed in cold water need to be medically assessed and passively rewarmed.

### What to do if a companion falls through thin ice?

- Keep calm and call 911.
- Don't run up to the hole. You may break through and then there will be two victims.
- Use some item on shore to throw or extend to the victim to pull them out of the water such as jumper cables or skis.
- Get medical assistance for the victim. People subjected to cold water may seem fine after being rescued but can suffer a potentially fatal condition called "after drop." That may occur when cold blood that is pooled in the body's extremities starts to circulate again as the victim starts to rewarm.

## What if you fall in?

- Try not to panic. Remain calm and look towards the shore.
- Place your hands and arms on the unbroken surface of the ice (here's where ice picks (awls) come in handy.)
- Work forward on the ice by kicking your feet, This will assist in keeping your body horizontal and help you "swim" out of the hole in the ice.
- If the ice breaks, maintain your position and slide forward again. If this does not work keep trying.
- Once you are lying on the ice, don't stand. Instead, roll away from the hole.
- Crawl back to your tracks making sure that the hole is kept at a safe distance behind you. That spreads out your weight until you are on solid ice.
- Follow your footsteps back to the shore. This sounds much easier than it is to do. The best advice is don't put yourself into needless danger by venturing out too soon or too late in the season.

## Ice Factors

Many factors affect ice thickness including: type of water, location, the time of year and other environmental factors such as:

- Water depth and size of body of water.
- Currents, tides and other moving water.
- Chemicals including salt.
- Fluctuations in water levels.
- Logs, rocks and docks absorbing heat from the sun.
- Changing air temperature.
- Shock waves from vehicles traveling on the ice.

## Ice Color

- The color of ice may be an indication of its strength.
- Clear blue ice is strongest.
- White opaque or snow ice is half as strong as blue ice. Opaque ice is formed by wet snow freezing on the ice.
- Grey ice is unsafe. The grayness indicates the presence of water.

## Did you know ice thickness should be:

- 15 cm (6 inches) for walking or skating alone
- 20 cm (9 inches) for skating parties or games
- 25 cm (11 inches) for snowmobiles.
- Check with local authorities before heading out. Avoid going out on ice at night.