



## **Ice Dangers**

### **Part Two of a Two part Series**

### **Some simple precautions can prevent ice-related fatalities**

On January 8th, The Fall Report discussed the varying characteristics of ice. This report will deal with the integrity of ice (strength and weakness) and the intricacies of its formation.

As previously reported, water is most dense at 39°F, but as the temperature falls, water molecules move apart and under ideal conditions, ice forms at 32°F. The key, though, is “ideal conditions.”

Many factors influence the formation of ice and are reflected in its physical characteristics. New ice is usually stronger than old ice. Ice formation is erratic as it depends on variable weather conditions, the presence of flowing water (currents) as, on Lake Superior, near the Hot Pond, Tern Island, the Breakwall, and shipping channels. In these areas, thickness and strength of ice may vary dramatically within only a few yards. Flowing water, as in rivers, creeks, and springs in inland lakes create similar hazards.

Snow cover affects ice formation as it insulates the ice, thereby affecting freezing and, in addition, adds, by its weight, an additional detrimental factor to solid ice formation.

Some people have advised that “ice is never safe – don’t go on it!” But we know that’s not going to happen. Ice fishermen know that fish activity is highest with new ice. For those people who venture onto the ice, there are many recommendations that will add to a safe and fun experience.

- If you are going out “early” on new ice, don’t go alone. Use a spud to estimate ice integrity, carry safety ropes and hand-held ice picks.
- Know your geography. Are there particular danger areas: structures, currents, hot water effluent (Hot Pond) or springs.
- Don’t get lost! Be aware of changing weather conditions (blowing snow or a blizzard). Be aware that a traditional compass may not be accurate while on a running snowmobile and consider using a GPS unit.
- Avoid traveling under poor lighting conditions.
- Keep general ice thickness guidelines in mind:

2” or less	– STAY OFF
4”	– Ice travel by foot
5”	– Snowmobile or ATV
8-12”	– Car or small pick up
12-15”	– Medium truck



# *The Fall Report*

A Discussion of Health Issues



Fall General Surgery, LLC

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**What do you do however, if despite following these precautions, you fall through the ice into the underlying frigid water?**

1. Don't try to remove clothing or boots
2. Turn to the direction from which you came
3. Approach the ice and use your ice picks to pull yourself back on to the ice – it may be easier to do so on your back, allowing your lower body to float toward the surface
4. When on the ice, move away from the hole, lying flat, to spread out your weight
5. Get back to a warm, dry, sheltered area
6. Seek medical attention, even if you feel “OK”

**If in a vehicle:**

1. Travel with a window open
2. Do not use a safety belt
3. Do not wear a life preserver - falling through into the water would then float you to the top of the submerged vehicle and hamper your attempts to escape

**As this report was written, the Ashland Daily Press reported a snowmobile fatality in Chippewa County, a result of falling through thin ice. The Press also reported the expertise of the Ashland Fire Department, trained in ice rescue. It is our hope and theirs that their services may not be needed.**