

The Fall Report A Discussion of Health Issues



Ice Dangers

Part One of a Two part Series (Part Two will discuss Ice Formation and its Integrity) Winter is a Fun Time, but it's Dangerous Too.

Our long winter season began on 21 December. Outdoor enthusiasts look forward to many winter time sports including snowmobiling, skiing, snow-shoeing, hunting, and ice fishing. Yet, winter brings with it special hazards affecting our every-day activity and work as well as play. With some common-sense precautions, your winter may be not only a fun time but a safe time as well.

For any sports involving ice, some understanding of its formation and integrity will add a measure of safety for you.

Most substances contract as they cool. Water becomes most dense at 39°F, but as it continues to cool molecules of water move apart and at 32°F solidification of water occurs and ice is formed.

Primarily, two fundamental characteristics of ice create its danger to human beings:

- 1. Ice is slippery
- 2. Ice integrity (strength) is unpredictable.

Slippery component:

This quality of ice probably leads to the greatest incidence of serious injuries. Thin or thick, ice is slippery. On the road, "thin ice, "pure ice," black ice," and "glare ice" are all forms of ice that are sometimes invisible, adding dangers to driving. Failure to recognize underlying ice conditions while driving either in an auto or on a snowmobile may result in a lack of appreciation of safe stopping distances, resulting in less serious "fender-benders" or more severe, tragic consequences. Risk is increased with poor lighting conditions and/or less than optimal tire/track conditions.

Regarding walking on ice: Slipperiness is just another way of saying, "a loss of friction," the property of objects which makes them resistant to being moved across one another. The simple act of walking safely depends on friction to prevent a slip and fall. Danger increases as fundamental stability decreases, i.e. getting into or out of a vehicle where the weight of the body and momentum is on one foot, not two, or going up and down steps, ascending or descending a hill, etc.

Several things can be done to enhance your safety:

Most importantly, recognize the condition and balance risk vs. benefit. Don't drive if you don't have to. If you have to drive, drive more slowly, keeping more distance between you and other vehicles.



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Begin slowing down earlier as you approach intersections. Ensure that your tires are in good condition.

Don't walk on ice if you don't have to. If you do have to, wear adequate foot gear. Rubber is better than leather. Consider the use of ice creepers. Taking shorter steps and walking a bit "flatfooted" is favorable in centralizing your center of gravity and increases the surface area of your feet on the ice below.

If you use an assistive walking device (cane or walker) under normal, walking on ice is particularly dangerous. Grocery shopping or a non-urgent doctor's appointment can wait a day or two.

If you are elderly, have someone else sweep off the steps. Let professionals take care of snow on the roof.

Winter conditions, at best, are dangerous. Using good common sense can help you get through these dangerous months and allow you to welcome spring and summer in good health.