

Ski smart, ski safe!

Downhill skiing is one of Canada's most popular sports, with our long winters and abundance of snow and mountains. There are over 200 million skiers world-wide and about 657 thousand Canadians participate in downhill skiing each year.

DOWNHILL SKIING INJURIES

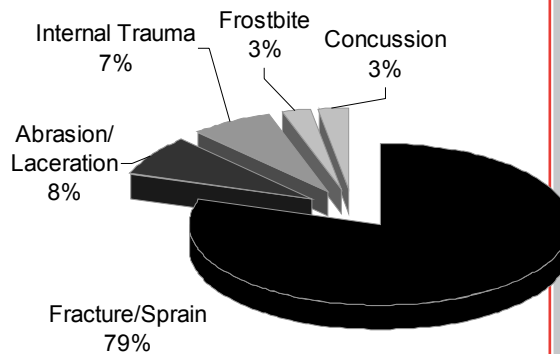
FACTS:

- Downhill skiing carries a high risk for injury.
- Among sports and recreational activities, skiing injuries rank 8th in terms of frequency of emergency room visits.
- Improvements in ski equipment have dramatically decreased the number of skiing injuries since the 1970's by 48%.

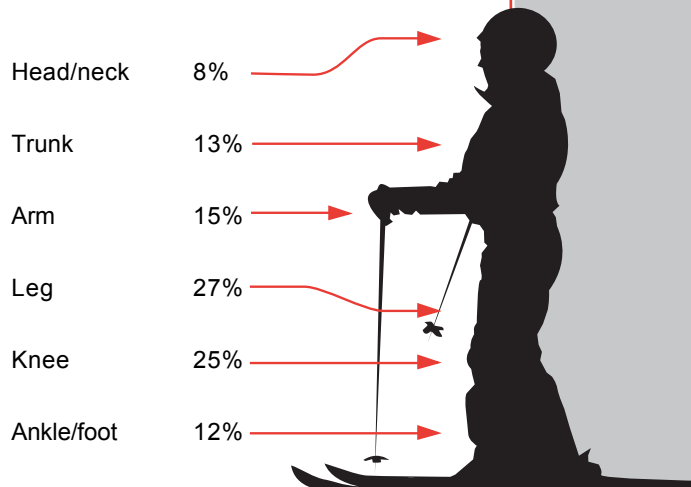
WHAT KIND OF INJURIES OCCUR?

- Head and neck injuries most often result from collisions with stationary objects or other skiers.
- Skiers under the age of 17 are twice as likely to suffer head and neck injuries.
- Fractures and sprains are the most common injuries,* with "skier's thumb" accounting for 8-10% of all ski injuries.

Downhill Skiing Injuries By Type



Downhill Skiing Injuries By Body Part



An out of control adult skier collided with a child. Both died.

A high-speed skier hit a five year-old girl waiting at a ski lift, causing severe injuries to both.

An eleven-year-old boy fell, slid into a post and subsequently died from his injuries.

Skiing too fast in icy conditions led to a skier losing control, falling, hitting a tree, and suffering fatal injuries.

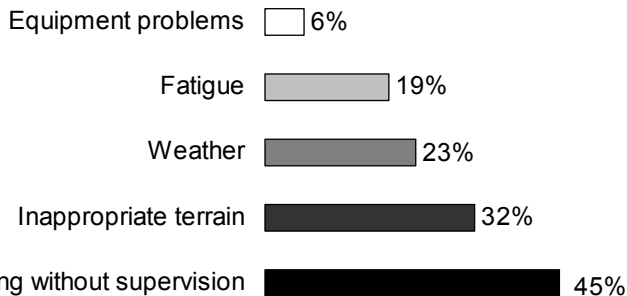
A collision between two skiers resulted in a 14-year-old girl breaking her left leg.



*Supported by extensive review of research on sports injury prevention strategies (BCIRPU, Plan-it Safe, 2000)

WHO GETS INJURED AND WHY?

- Skiing ability and experience are related to injury, with rates of injury among beginning skiers 2 to 9 times higher than among experienced skiers.
- 62% of injured skiers are between 15 and 26 years old.
- Injured skiers report that their injuries are most often the result of losing control, becoming airborne and landing in an uncontrolled manner. Ski injuries are also often due to collisions with stationary objects like the ski lift, blows to the body from ski poles, and high speed skiing.
- Other risk factors for downhill skiing injuries:

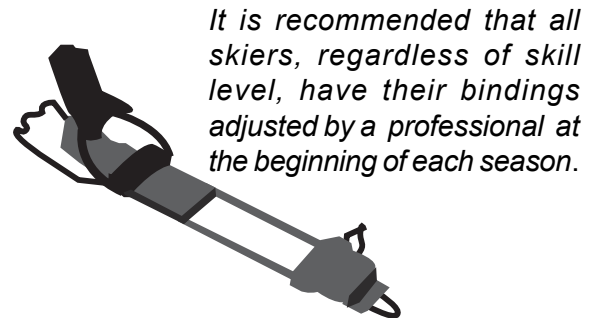


- Children and beginners are more prone to collisions, especially during the first four days of the new season.



What are the important issues for Downhill Skiing instructors?

Reviews of skiing injuries highlight the importance of addressing all safety issues, especially with beginners. With this in mind instructors should teach awareness of risky behavior and give advice on how to minimize injury risk.



It is recommended that all skiers, regardless of skill level, have their bindings adjusted by a professional at the beginning of each season.

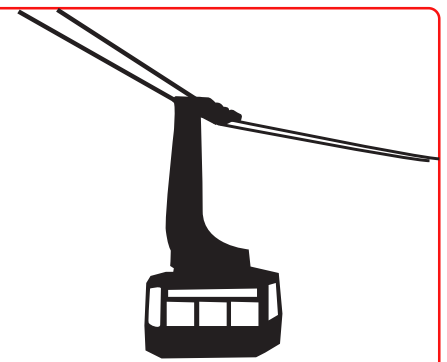
EQUIPMENT:

- Wear warm clothing, including ski gloves and a warm waterproof ski jacket.
- Have bindings adjusted by a professional at the beginning of each ski season.*
- Learn how to 'self-test' bindings. Performing a routine test of binding release at the start of each day lowers the risk for injury.*
- Front buckle boots are recommended as rear-entry boots put a skier at greater risk of injury.
- As head and neck injuries among younger skiers are twice those of the general population, ski hill management should require all children to wear a helmet specifically designed for skiing.

TECHNIQUE:

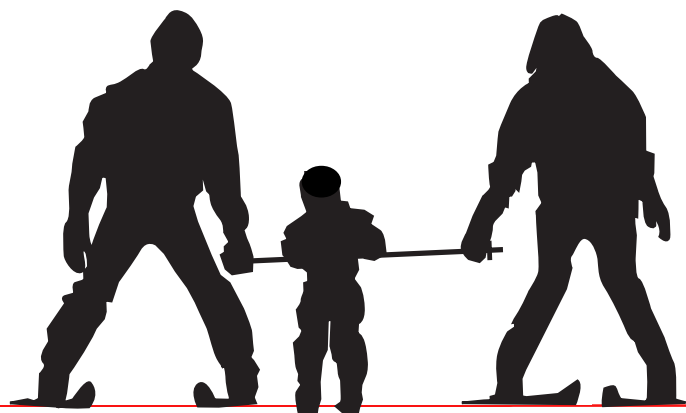
- Prevention should target excessive speed and the maintenance of control at all times.
- Adjust speed and movement to ability, prevailing weather, varying terrain and snow conditions. Slower speeds make for less severe injuries.
- To prevent “skier’s thumb”, beginners should learn to discard their poles during falls.
- A few lessons every year will help improve skills and safety for even the more advanced skiers.
- Skiing with friends and staying within sight of each other is always safer.
- Take note of all signs, markers and warnings. As with other sports, there are rules in skiing that need to be followed. When approaching another skier from behind, the skier must check his route so as not to endanger the skier in front. The skier in front always has the right of way.
- It is important to move to the side of the run as quickly as possible when stopping or after a fall.
- Performance enhancing and recreational drug use greatly increase the risk of injury. Though drinking may not be restricted on the ski slope, skiing is a high-speed sport that requires full attention.
- Skiing near the edge of the trail should be discouraged.
- Ski patrols should watch out for people going too fast or on inappropriate terrain.

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PARENTS

- Ski lessons should be recommended by ski hill management and school boards supporting ski trips, particularly for beginners.*
- Enroll your children in lessons and restrict them to beginner ski hills until a reasonable amount of skiing experience has been accumulated.
- Enforce the recommendation of compulsory helmet use by all young recreational skiers.
- Children often use inferior equipment, or equipment passed down to them that does not fit or is ill-adjusted. Make sure that the equipment suits your child’s size and level. Helmets should be replaced frequently, especially for growing children.
- Children and beginners should always be well supervised, and ski on appropriate terrain.
- Be aware of your child’s actual skill level, being especially careful not to overestimate it.



FITNESS

- Participating in a year-round conditioning program improves strength, flexibility and endurance. It is recommended that a skier's general level of fitness be augmented with ten minutes of exercise, morning and evening, for six weeks minimum before the first day on the slope.
- Thoroughly warm-up and stretch before skiing and following breaks.
- 62% of all injuries occur right before lunch and in the afternoon, when fatigue may affect both performance and judgement. Make sure breaks are taken when any fatigue is felt.
- Beware of altitude sickness. High altitudes can lead to headaches, irritability, sleeplessness and upset stomachs.



Downhill skiing is one of Canada's most popular sport but it carries a high risk for injury. By following **injury prevention tips**, downhill skiing can be safer and more fun for everyone!

For further information on how you can prevent injuries, contact your local health unit or the BC Injury Research & Prevention Unit.

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B.C. *Injury* Research
A N D • P R E V E N T I O N • U N I T

The British Columbia Injury Research and Prevention Unit (BCIRPU) is committed to meeting the challenge of making BC a safe place to live and work by coordinating efforts that will prevent or reduce injuries, their consequences, and costs.

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DID YOU KNOW:

While training for a high-speed alpine competition, a 17 year-old boy fell, slid off the course and collided with a tree. Severe injuries resulted, including permanent blindness .

A 15-year-old girl died when she fell off a chair lift. She had chosen not to use the safety bar.

It is estimated that if helmets were used, 11 skiing and snow-boarding-related deaths would be prevented annually in the U.S.

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