

- Be aware of, and adhere to, skiers' courtesy and safety codes.
- Do not ski off formal ski trails and ski in groups of three or more. If one person is injured, one person can stay with the victim while the other goes for help.
- Know the symptoms of and remedies for frostbite and hypothermia. Check the other members of your group for symptoms at regular intervals.

Additional considerations

- Some medications can make the skin highly susceptible to sunburn. Be aware of the suns damaging effects, even on cloudy days, and wear a high SPF sunscreen, or in some cases zinc cream or a mask.
- Carry a list of all medications that you are on at all times in case of an emergency where medical first aid may be required.

Other safety tips

- Always inform someone of where you intend to ski, how long you will be gone for and the time you expect to return.
- Children should only ski with a responsible adult.
- Take rest periods and eat and drink at regular intervals to maintain energy and hydration levels.
- Do not ski under the influence of alcohol. Alcohol can negatively affect skiing performance and can contribute to hypothermia.

If an injury occurs

- If you are injured, or come across an injured skier, send someone to alert the ski patrol. If available, one person should stay with the injured skier until help arrives.
- Ensure all injured skiers receive appropriate first aid and treatment, and are fully rehabilitated before they resume skiing.



For further information contact

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 Website: www.vsa.com.au

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 Website: www.smartplay.com.au
 Smartplay is supported by VicHealth, Sport and Recreation Victoria and Department of Human Services.

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 Website: www.monash.edu.au/muarc/visu

Snowsafes
www.snowsafes.org.au

Disabled Wintersport Victoria
www.dwv.org.au

References

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Photos courtesy of the Mt Buller and Mt Stirling Management Board



Preventing Cross-Country Skiing Injuries



Facts and Safety Tips for Cross-Country Skiers

Photograph provided by Mt Buller and Mt Stirling Resort Management

Facts on Cross-Country Skiing injuries

Cross-country skiing is a popular sport for participants of any age and skill level, with individuals and families getting involved. The Exercise, Recreation and Sport Survey (ERASS) conducted in 2004 estimated that 277,200 Australians participated in snow and ice sports in the previous 12 months. Cross-country skiers account for approximately 20% of all participants in snow sports.

Cross-country skiing is a physically demanding sport that requires a high level of fitness and skill. The sport places many demands on the technical and physical ability of the skier and, as a result, injuries can and do occur.

How many injuries?

- Research indicates that injuries are less common in cross-country skiing than in downhill skiing. In a 1985 Australian study, the cross-country skiing injury rate was found to be 0.5 per 1,000 skier days whereas the injury rate for downhill skiing was 3.5 per 1,000 skier days.
- Victorian hospital surveillance data indicates there were a total of 384 hospital admissions for skiing injuries in ski seasons 2002 and 2003. The type of skiing was reported for about half of these admissions. Of those reported, only 9 cases of cross-country skiing were recorded.
- Cross-country skiing injuries tend to occur at particular times of the day, mostly in the late morning or late afternoon indicating fatigue is a factor in injury.

The causes and types of injuries

- Sprains, fractures and bruising are the most common types of cross-country skiing injuries. Overuse and cold injuries (e.g., hypothermia and frostbite) also occur.
- Knees are the most common body part injured accounting for around one-quarter of cross-country skiing injuries. Other commonly injured body parts include the forearm/wrist/hand and ankle.
- Injuries to the thumb are also common. Falling on to the thumb and holding the ski pole in the hand during a fall contribute to many thumb injuries.

- The repetitive nature of the cross-country skiing technique can also cause overuse injuries.
- Risk factors for injury include poor condition of ski tracks, downhill segments of the terrain, unsuitable equipment, poor balance and inadequate mastery of skiing technique.

Safety tips for Cross-Country Skiing

Good preparation is important

- Undertake pre-season conditioning and training to build up your fitness, strength and flexibility.
- Warm up and stretch before the day's skiing. Don't ski to warm up. Cool down for about 10-15 minutes after a skiing session and include low-intensity exercise such as walking and stretching.
- Novice skiers should undertake cross-country skiing lessons, to learn proper use of equipment and improve skills.
- Assess the snow conditions and take them into consideration, along with your skill level, before setting out. Know your limitations and choose trails and distances that are within your own and all members of your group's ability levels.



Photograph provided by Mt Buller and Mt Stirling Resort Management

Equipment: suitability and maintenance

- Seek professional advice when choosing or hiring equipment. Select equipment to suit your cross-country skiing activity, skill level and physical characteristics.
- Choose boots relevant to your cross-country activity, for example touring, racing or skating. Boots should fit well, be durable and waterproof, and provide thermal protection.
- Keep equipment in good working order. Have skis serviced once a year.
- Waxing of skis, tread pattern on non-waxing skis, snow conditions and tracks are important factors in reducing slipping and falling injury.
- Wear appropriate clothing including thermal underwear, waterproof jacket and trousers, warm socks (preferably thermal), waterproof gloves, a warm hat or balaclava and a scarf. Layer clothing so you can remove one layer at a time to control your body temperature.
- If ski touring wear a backpack containing spare clothing, food and drink, compass, maps, waterproof matches or a cigarette lighter, candles or torch, a lightweight emergency blanket, emergency repair equipment, a waxing kit, a first aid kit and a whistle.
- Eyewear that gives ultra-violet protection and a sunscreen with a high SPF should be worn, even on cloudy days. Re-apply sunscreen regularly.

Good technique and practices will help prevent injury

- Read and practise the safety recommendations in the SnowSafe booklet available from the SnowSafe website www.snowsafesafe.org.au. This is particularly important for those intending to ski tour.
- Keep an eye out for hazards such as deep tracks, ruts, iciness and sharp bends.
- Hold your poles correctly. Put the strap on your wrist and then hold the ski pole so that the strap is included in your grip.