

Additional considerations

- Some medications can make the skin highly susceptible to sunburn. Be aware of the sun's 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.
- If a disabled skier has no feeling in a limb, be aware that the lack of sensation can increase your risk of cold injury.

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.
- Be aware of hazards such as snow making or grooming machines, or natural hazards such as trees and rocks.
- Do not ski under the influence of alcohol. Alcohol can negatively affect skiing performance and contribute to hypothermia.
- Adequate rest, nutrition, hydration and energy replenishment (ie. regular snacks) will enhance performance and reduce the likelihood of injury.

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.
- Ensure all injured skiers receive appropriate first aid and treatment, and are fully rehabilitated before resuming skiing.



For further information contact

Victorian Snowsports Association
332 Banyule Road, Viewbank, Vic 3084
Ph: 03 9457 5672
Email: vsa.snowsports@optusnet.com.au
Website: www.vsa.com.au

Smartplay - Sports Medicine Australia (Victorian Branch)
Sports House, 375 Albert Road, Albert Park Vic 3206
Ph: 03 9674 8777
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Website: www.smartplay.com.au
Smartplay is supported by VicHealth, Sport and Recreation Victoria and Department of Human Services.

Victorian Injury Surveillance Unit
Accident Research Centre, Monash University,
Building 70, Wellington Road, Clayton, Vic 3800
Ph: 03 9905 1805
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Website: www.monash.edu.au/muarc/visu

Snowsafes
www.snowsafes.org.au

Disabled Wintersport Victoria
www.dwv.org.au

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Photos courtesy of the Mt Buller and Mt Stirling Management Board



Preventing Downhill Skiing Injuries



Facts and Safety Tips for Downhill Skiers

Photograph provided by Mt Buller and Mt Stirling Resort Management

Facts on Downhill Skiing injuries

The Exercise, Recreation and Sports Survey (ERASS) conducted in 2004 estimated that 277,200 Australians participated in snow and ice sports in the 12 months prior to the survey.

Downhill skiers represent 75% of participants in snow sports, with a broad range of age groups and skill levels among skiers. Downhill skiing is a physically demanding sport that requires strength, flexibility, endurance, fitness, good anticipation and reflexes. The skier, their equipment and the environment all play a role in both the occurrence and prevention of injury.

How many injuries?

- Injury rates, based on Victorian Ski Patrol reports, are estimated to be between 1.5 and 3.9 injuries per 1000 visitor days.
- Victorian hospital surveillance data indicates that there were a total of 384 hospital admissions for skiing injuries in ski seasons 2002 and 2003. The type of skiing was recorded in only about half of these admissions, of those reported 81% (n=158) were downhill skiers.
- 56% of injured downhill skiers were male, and age groups most commonly injured were 10-19 year olds (29%), 20-29 year olds (18%) and 30-39 year olds (20%).
- Evidence indicates that skiers with lower skill levels and less experience are more at risk of injury.

The causes and types of injuries

- The major cause of downhill skiing injury was falls (73%), followed by collisions with objects or persons (18%).
- The most common injuries to downhill skiers are fractures (61%), dislocations/sprains/strains (14%) and head injuries (7%).
- Almost one-third of injuries were to the knee and lower leg (32%).
- There were at least a further 143 skiing injury cases treated in the emergency departments of Victorian hospitals over the same two seasons, but downhill and cross country cases could not be separated.
- Emergency department presentations were mostly sprains and strains (43%) predominantly knee injuries

and less complex fractures (24%) mostly to the hand/finger and wrist.

- Inadequate release of bindings has been found to cause many lower limb injuries. Binding release performance may be influenced by the quality and conditions of the binding, inadequate adjustment and the condition of the ski boot sole.
- Falling on to the thumb and holding the ski pole in the hand during a fall contributes to many thumb injuries. New types of handle design may reduce this type of injury.

Safety tips for Downhill 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 skiing lessons, to learn proper use of equipment, improve skills and techniques, and learn skiers' etiquette.
- Assess the snow conditions and take them into consideration, along with your skill level, before skiing.



Photograph provided by Mt Buller and Mt Stirling Resort Management

Equipment: suitability and maintenance

- Seek professional advice when choosing or hiring equipment. Select equipment suited to your activity, skill level and physical characteristics. Ensure all rental equipment is properly fitted and adjusted.
- Keep equipment in good working order. Have skis serviced once a year.
- Ensure adjustment of ski bindings is undertaken by a professional. Properly adjusted ski bindings have the potential to prevent lower limb injuries. Ski bindings require cleaning, lubrication and re-setting.
- Ensure boots are fitted and comfortable, durable and waterproof, with thermal protection.
- Protective headgear may prevent head injuries and is recommended for children. Ensure helmets are in good condition, with perforations or ear holes to assist hearing.
- 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 temperature.
- Eyewear that gives ultra-violet protection and a sunscreen with a high SPF should be worn even on cloudy days and re-applied regularly.

Good technique and practices will help prevent injury

- SnowSafe provides safety recommendations and information on the Alpine Responsibility Code, which all skiers should be aware of and adhere to. Visit www.snowsafesafe.org.au for more information.
- Be aware of the grading of ski runs. Only ski on runs suited to your skill level.
- Do not ski too fast and out of control.
- 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.
- Do not ski in out-of-bounds areas and never ski alone.