

HELMET USE IN SNOW SPORTS



AOSSM SPORTS TIPS

Outdoor winter sports and activities are popular in the United States and around the world. Many involve speed and the adrenaline rush that goes along with it. Unfortunately, the faster you go, the higher your risk of injury. Head injury is common in the higher speed winter sports, including skiing, snowboarding and snowmobiling. There is mounting evidence that head injury is increasingly common among sledders as well, especially in young children.

Skiers and snowboarders often move at speeds much higher than the average bicyclist, yet more people wear helmets while biking.

SKIING AND SNOWBOARDING

Many studies have been published reporting the incidence of injuries while skiing and snowboarding. Collisions resulting in serious head injury are the leading cause of death. Most collisions are with fixed objects (such as trees) or with other people on the hill. Collisions with other people are often more serious than with fixed objects. Data suggest that head and brain injuries in skiing are increasing.

One study found the risk of death in skiers and snowboarders was twice as high for males as females and nearly three times as high for skiers/boarders 35 years of age or younger compared to those over 35 years old. In a study of helmet use in young skiers and snowboarders, researchers found a 43 percent decrease in head, neck and face injuries in people who wore a helmet compared to those who did not.

SNOWMOBILING

The snowmobile was originally developed as a means of transporting people and supplies in remote northern regions. Today snowmobiling is very popular, with more than two million people of all ages snowmobiling in North America alone. Modern snowmobiles with engines over 1200 cc can attain speeds well over 100 miles per hour; however, as the speed increases so does the risk. Many states allow children as young as eight years old to operate snowmobiles and most have no helmet laws. Many states have no speed limit and use the term “reasonable and prudent” as their guideline.

Blunt trauma is the main cause of death related to snowmobile use. Even though many snowmobile riders wear a helmet, head injury is the leading cause of death from blunt trauma. In the majority of snowmobile deaths, head and neck injury is the predominant cause of death. Poor judgment, high speeds, and alcohol are often involved in injuries. Speed limits, helmet laws, and age restrictions may improve the safety of this activity.

SLEDDING AND TOBOGGANING

Sledding and tobogganing are enjoyable winter recreational activities that, too, have their share of injuries, especially among young children. The highest numbers of injuries occur in children 5–14 years old and the injuries are most often caused by falls or collisions. Sledding and tobogganing are mainly

enjoyed by very young children which may explain the higher rate of injury. Older sledders (those 20 years of age and older) who are injured often have poorer outcomes from their injuries than younger sledders. Older sledders who sustain injuries also tend to require hospitalization more frequently than persons injured in other types of sports and recreational activities.

The American Academy of Orthopaedic Surgeons has recommended the use of helmets to improve sledding safety, among other guidelines. Riders should always sit on sleds and toboggans facing forward and upright, and always should go downhill feet first.

USE YOUR HEAD—WEAR A HELMET

Owners and operators of snow sports resorts have not yet mandated helmet use for skiers and snowboarders. Instead, they take the position that the decision to wear a helmet should be a matter of individual choice. Participants — especially parents — should educate themselves about the benefits and limitations of available helmets and make the choice that is right for them (and their families). The “Lids on Kids” helmet education campaign sponsored by the skiing and snowboarding industry is an excellent source of helmet information. (See www.lidsonkids.org)

CONCLUSION

Perhaps the best advice for skiers and snowboarders is this: *“If you are going to wear a helmet, ski and ride as if you aren’t wearing one. Don’t alter your behavior, take more risks or ski or ride faster because you’re outfitted in a helmet. Make sure that you remain in control and ski and ride responsibly.”*

It makes sense to wear a helmet while participating in alpine and winter activities. The new designs are light and warm. Wear a helmet and encourage your family and friends to do the same the next time they participate in the “speed” winter activities.

Expert Consultant:
John D. Campbell, MD

Sports Tips are brought to you by the American Orthopaedic Society for Sports Medicine. They provide general information only and are not a substitute for your own good judgement or consultation with a physician. To order multiple copies of this fact sheet or learn more about other orthopaedic sports medicine topics, please visit **www.sportsmed.org**.

A world leader in sports medicine education, research, communication and fellowship.



Copyright © 2008. American Orthopaedic Society for Sports Medicine. All rights reserved. Multiple copy reproduction prohibited.