

Don't let skiing and snowboarding injuries take you downhill

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Skiing and snowboarding are fun winter sports. As the popularity of these winter sports continue to rise, according to a review article published in the January 1, 2018, issue of the *Journal of the American Academy of Orthopaedic Surgeons*, the number of skier and snowboarder injuries also continues to rise.

"Skiing and snowboarding are associated with a large number of injuries, with specific patterns and anatomic areas affected," says Brett D. Owens, MD, lead review article author, an orthopaedic surgeon who specializes in sports medicine as well as complex shoulder and knee surgeries and who is a professor of orthopaedic surgery at the Warren Alpert Medical School of Brown University.

The U.S. Consumer Product Safety Commission (CPSC) estimates that more than 140,000 people were treated in hospitals, doctors' offices, and emergency rooms in 2015 for skiing and snowboarding-related injuries (88,210 and 61,668 injuries, respectively). According to the review article:

- Snowboarders were three times more likely than skiers to sustain [injury](#).
- In 1989, snowboarding injuries accounted for four percent of all snow sport-related injuries. By 1999, it made up to 56 percent of all snow sport-related injuries.

"While some injuries are unavoidable, many are caused by skiers and snowboarders exceeding their comfort zone in either speed or technical challenges on the mountain. It is critical to stay in control and be prepared to slow and stop to avoid contact with another person on the slope," says Dr. Owens.

The most common skiing and snowboarding injuries are to the spine, pelvis, shoulder, wrist, hands, knees, and foot and ankle. Skiers are more likely to experience lower extremity injuries, especially to their knees, "due to the rotational forces on the knee despite effective binding releases." Snowboarders are more likely to experience [upper extremity injuries](#) "due to falls onto their hands."

"Snow sport athletes can best prepare for their sport with a general preseason conditioning program as well as familiarity and maintenance of equipment," says Dr. Owens, who offers the following injury prevention tips:

- Be prepared for the season with well-conditioned muscles and a body that is adequately hydrated.
- Be knowledgeable about how to use your equipment appropriately, and ensure everything is in optimal working condition.
- Check that the ski bindings can release from your boots when appropriate, and that boots fit appropriately.
- Check that the edges of your skis and/or snowboard are flat and sharp for maximum performance to minimize injuries.
- Always wear a helmet.

- Avoid alcohol or drug use.
- Be sure you have the ability to slow down and stop on busy days when many other athletes also are on the mountain.
- Use extreme caution when weather conditions are not optimal.
- Always follow signs and ski patrol instructions. Never ski or snowboard "out-of-bounds."

More information: Brett D. Owens et al, Comprehensive Review of Skiing and Snowboarding Injuries, *Journal of the American Academy of Orthopaedic Surgeons* (2017). DOI: [10.5435/JAAOS-D-16-00832](https://doi.org/10.5435/JAAOS-D-16-00832)

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