

Differences between skiing and snowboarding injuries

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By Courtney Humphries

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Q. Do skiing and snowboarding lead to different injuries?

A. Dr. Thomas Gill, chief of the sports medicine service at Massachusetts General Hospital, says that when he sees people who have hurt themselves skiing or snowboarding, “the biggest difference in injuries is based on sheer physics.” With skiing, the most common injury is to the knees. Gill explains that by strapping a long plank to each foot and wearing stiff boots that keep the ankles fixed, “all that force gets transmitted up to the knee” when the ski rotates or twists. As ski boots and bindings have become more rigid, the knees have become the major point of rotation, which puts tremendous torque on them.

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With snowboarding, the feet are strapped to a single plank in parallel, so the knees experience less torque. Although snowboarding tends to attract a younger crowd, the sport can actually be a safer alternative for adults worried about damaging their joints. The downside, Gill says, is that snowboarders are more likely to hurt their arms or fracture wrists when they reach out to break a fall, or injure their spines when they fall backward. Wearing wrist guards is a good preventive measure.

A recent study in the *Journal of Trauma* found that while both skiers and snowboarders had high percentages of head injuries, skiers tended to hurt their lower extremities more, while snowboarders had more injuries to the abdomen and internal organs. Some differences may relate to the demographics and culture of the sports: Gill says that snowboarders have more abdominal injuries from hitting trees or other people on the slopes, because they tend to be younger, take more risks, and go for bigger moves than skiers do.

The best way to prevent injuries is to take lessons, which include tips on falling safely, and practicing within your skill level. Gill adds that unless you’re an expert skier, there’s no need to keep bindings incredibly tight; bindings that fail to release can cause major injuries to novices. And for both sports, you can help prevent head injuries by wearing a helmet.