

Slope safety

New technology helps you protect your head for snow sports

by JANE LANGILLE



People who wear safety helmets while skiing and snowboarding have a significantly lower risk of severe head injuries than people who don't wear helmets, according to a recent review by researchers at the Johns Hopkins University School of Medicine. Today, about 70 percent of skiers and snowboarders wear helmets, a big increase over just 25 percent 15 years ago.

Head injuries in snow sports

Head injuries associated with skiing and snowboarding, among other sports, include bleeding between the skull and the brain (subdural hematoma), skull fractures and concussion—a head injury from a hit to the head or the body that causes the brain to move rapidly back and forth against the skull.

The signs and symptoms of concussion vary from person to person. They may include memory issues, confusion, awkward movements, mood and personality changes, headache, nausea and vomiting, balance issues or “not feeling right.” The injured person may lose consciousness. Some symptoms may show up hours or even days later.

“Concussion is a diffuse injury that affects networks within the whole brain,” says Costco member Dr. Amaal J. Starling, an assistant professor of neurology at the Mayo Clinic College of Medicine in Scottsdale, Arizona. “Each patient has individual symptoms and needs to be evaluated and treated with a personalized treatment plan.”

The latest technology

Recognizing that helmets could be improved, neurosurgeon Hans von Holst and

biomechanical engineer Peter Halldin created the Multi-directional Impact Protection System (MIPS), a low-friction layer between the comfort padding and the hard outer shell of the helmet. It's usually yellow, but may be another color, and carries the MIPS logo.

When gentle bumps occur—without a helmet—your scalp slides a little to dampen the rotational movement that would otherwise transfer to your brain. But that's not enough protection to deflect bigger forces such as from hitting trees, rocks, park obstacles, other people or icy slopes.

MIPS mimics the built-in response. “MIPS allows the head to slide 10 to 15 millimeters in all directions, reducing the rotational motion transferred to the brain, redirecting and reducing the energy and force away from brain tissue,” says Johan Thiel, CEO of MIPS Protection in Stockholm. MIPS has been extensively crash-tested in the lab to ensure it provides added protection for angled hits, the most common direction of impact to the head.

If you're planning to shred some slopes this winter, protect your noggin. Always wear a safety helmet, and always ski and ride in control. ■

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COSTCO CONNECTION

This winter, look for Bern helmets (Item #2000513) with MIPS at select warehouses and Spy helmets (various item numbers) with MIPS online at Costco.com.

Heads up

While no helmet is injury-proof, a good helmet can help protect you and your loved ones from more

serious head injuries. To learn more about concussion and brain injury basics, search “heads up” at cdc.gov. Helmet Fact Sheets, at

cdc.gov/headsup/helmets, have helpful tips for shopping, sizing and caring for helmets for many sports.—JL