Treating seasonal knee injuries

Brad Miller is a professional snowboarder. He designed and has helped to build and maintain the snowboard park at Stevens Pass. He was all set to qualify for the USA Snowboard Association Nationals for 2003, when he injured his knee.

"Last March, in deep powder, I dropped into a 45-degree aspect, sank into a pocket, and hit a buried alder branch,"

Brad recalls. "I thought I broke my femur— oh, the noise it made. I actually tore the anterior cruciate ligament (ACL), the medial cruciate ligament (MCL), and the posterior cruciate ligament (PCL).



Dr. John Green

Dr. John R. Green, III (Trey), UW associate professor of orthopaedics and sports medicine, who was a volunteer on the ski patrol at Stevens Pass that day, saw Brad's knee and could tell right away that he had sustained a bad injury.

"We see a lot of folks with knee injuries from skiing and snowboarding," says Dr. Green. "Injuries like meniscal tears, ACL tears, and occasionally, bigger knee injuries with multiple ligament tears."

It took Brad's knee a few months for the swelling to subside and for some physical therapy to begin before it was ready for surgery. "We see better results if we wait for surgery," says Dr. Green. "Operating right away creates more stiffness. Patients have an easier and shorter rehab if the knee gets some motion back and the swelling is reduced."

The Orthopaedics and Sports Medicine Department at UW Medical Center, consisting of the Bone & Joint Center, the Eastside Specialty Center, and the UW Sports Medicine Clinic, now performs outpatient surgeries at UW Medical Center's new Surgery Pavilion, outfitted with the latest in surgical technology.

"For ACL surgeries, one of the techniques



Brad Miller, a professional snowboarder, was all set to qualify for the USA Snowboard Association Nationals for 2003, when he injured his knee. "I thought I broke my femur—oh, the noise it made. I actually tore the anterior cruciate ligament (ACL), the medial cruciate ligament (MCL), and the posterior cruciate ligament(PCL)."

we use is a quadriceps tendon graft, which is a newer procedure not used by many surgeons," says Dr. Green. "The graft is strong, big, and with minimal morbidity to the donor site."

Ligament repairs are actually reconstructions using another piece of tissue. A tendon can be harvested from the patient or obtained from a cadaveric donor. This tendon is secured into holes drilled in the bone to recreate the native ligament. Absorbable or metal screws secure the tissue in place to allow early knee motion while the tendon graft heals into the bone tunnels.

"Rehabilitation time is relatively long with ligament surgery," says Dr. Green, "But we try to get patients back to regular activities in six months."

Brad received three allografts for his ligament tears from a cadaveric tissue transplant. "For a knee injured so

severely," Dr. Green says, "and in three places, I didn't want to take anything more from his knee."

"What little pain I had went away really fast," Brad says. "I'm pain-free now, except when bending during rehab, but I have to go through that. I can finally ride my exercise bicycle, but only at a backward spin."

Brad missed boarding this season, but will be coaching snowboarding this summer at Windells Snowboard Camp atop a glacier on Mt. Hood.

"It'll probably be a while before I try jumps again," Brad says. "I'll wait it out until it's really healed. I'm hungry to compete and get back into it, but I'm willing to wait."

For more information about knee surgeries at UW Medical Center, please call the UW Sports Medicine Clinic at 206-543-1552. www.orthop.washington.edu/sports_medicine