Get Active. Stay Active.

*How can I prevent a knee injury while downhill skiing?*

- Jennifer
  Royal Oak

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Downhill skiing is a popular and exhilarating winter activity for Michigan sports enthusiasts. Unfortunately, risk of injury, particularly to the knee, is high in skiers. With the right training and equipment, you may slide by, injury-free.

The anterior cruciate ligament (ACL) connects the femur (thigh bone) to the tibia (shin bone), providing stability at the knee. It is prone to injury during skiing when one loses control. Since the ankle cannot move within the boot, rotational forces are often transmitted to the knee. Learning to fall properly is one of the best ways to safeguard against knee injuries.

When you begin to lose control on the slopes, perform a “controlled fall,” rather than attempting to recover. To do this, keep your knees slightly bent. Try to keep both skis on the ground, aiming in the same direction. Do not lean backwards; instead, keep your body weight over your feet. Pull your arms forward and close to your body. Then, lean sideways, not backward, and sit down on one hip. Wait until you stop sliding before trying to get up. It is a good idea to practice this technique so you are familiar with it.

Preseason training is also vital to injury prevention. Skiing requires repeated bursts of muscular strength. Since muscles are the joint’s first line of defense, an out-of-shape skier may be at greater risk for injury. Cardiovascular and strength training should be initiated at least 8 weeks before ski season. Important muscle groups to focus on are the thighs, hips, and abdominal obliques. Stretching is also important for helping muscles perform optimally.

Also important in injury prevention is the release setting on your bindings. This setting should be adjusted annually by a qualified technician at a ski shop. The tension required to release your skis during loss of control is determined by your weight, height, and skiing ability. It is important that your skis come off when they should to prevent injury.

Using common sense and the above tips should help keep you skiing safely all winter. See you on the slopes!

Please submit any questions you may have for our sports medicine experts by e-mailing cangelel@dmc.org. In the subject line, please write, “Get Active, Stay Active.” We will respond to all the questions we receive and select one each month to feature in our column.
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