

## Education

### Knee Sprain

#### What is a knee sprain?

A knee sprain is a joint injury that causes a stretch or tear in one or more of the knee ligaments. A sprain can be mild, moderate, or severe depending on the amount of damage to the ligament.

Ligaments are strong bands of tissue that connect one bone to another. The knee joint is held together by the cruciate and collateral ligaments. These ligaments connect the thighbone (femur) in the upper leg to the bones in the lower leg. The anterior and posterior cruciate ligaments cross each other inside the knee joint and keep the thighbone from sliding or rotating over the tibia (one of the 2 main bones in the lower leg). The medial and lateral collateral ligaments are on either side of the knee and keep the knee from moving side to side.

#### How does it occur?

A knee sprain most often occurs while playing sports, but can occur during falling or twisting accidents. Collateral ligaments are usually injured when hit by a force on the side opposite the ligament. The cruciate ligaments can be injured by sudden twisting movements or from being hit directly.

#### What are the symptoms?

There is usually pain and a popping sound at the time of the injury. The knee may immediately start to swell or the swelling may be gradual.

#### How is it diagnosed?

Your provider will examine the knee by moving it in different ways. It may be necessary to have an MRI or an x-ray taken.

#### How is it treated?

Treatment includes the following:

- Put an ice pack on your knee for 20 to 30 minutes every 3 to 4 hours for 2 or 3 days or until the pain goes away.
- Keep your knee elevated whenever possible by placing a pillow underneath it until the swelling goes away.
- Take an anti-inflammatory medicine or other drugs prescribed by your health care provider.

After the knee pain goes away, you will probably need to do exercises given to you by your health care provider or physical therapist for many weeks.

Your provider may also recommend that you:

- Wrap an elastic bandage around your knee to keep the swelling from getting worse.
- Use a knee immobilizer initially to protect the knee.
- Use crutches.

Usually surgery is not needed. If you have a complete ligament tear or if several ligaments are injured at one time, surgery may be necessary.

#### How long will it take to get better?

If you start participating in sports or other activities before you have completely recovered, you may worsen your injury, which could lead to permanent damage. Everyone recovers from injury at a different rate. Follow your health care provider's instructions and advice. In general, the longer you have symptoms before you start treatment, the longer it will take to get better.

If you've had surgery, wait to return to sports or other activities until your provider has told you that you can safely return.

How can I prevent a knee sprain?

Unfortunately, most knee sprains occur during accidents that are not preventable. However, you may be able to avoid these injuries by having strong thigh and hamstring muscles and maintaining a good leg stretching routine. In activities such as skiing, make sure your ski bindings are set correctly by a trained professional so that your skis will release when you fall.

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