

## ANTERIOR CRUCIATE LIGAMENT (ACL) INJURY

### What is an anterior cruciate ligament (ACL) injury?

A sprain is a joint injury that causes a stretch or a tear in a ligament. Ligaments are strong bands of tissue that connect one bone to another. The anterior cruciate ligament (ACL) is one of the major ligaments in the middle of the knee. It connects the thighbone (femur) to the shin bone (tibia). This ligament, along with the posterior cruciate ligament, helps keep the knee stable and protects the femur from sliding or turning on the tibia.

Sprains are graded I, II, or III depending on their severity:

- grade I sprain: pain with minimal damage to the ligaments
- grade II sprain: more ligament damage and mild looseness of the joint
- grade III sprain: the ligament is completely torn and the joint is very loose or unstable

### How does it occur?

The anterior cruciate ligament is frequently injured in forced twisting motions of the knee. It may also become injured when the knee is straightened further than it normally can straighten (hyperextended). It sometimes occurs when the thigh bone is forcefully pushed across the shin bone, such as with a sudden stop while you are running or a sudden transfer of weight while you are skiing.

### What are the symptoms?

There is usually a loud, painful pop when the joint is first injured. This is often followed by a lot of swelling of the knee within the first several hours after the injury. This swelling is called an effusion and is made up of blood in the knee joint. You may find it difficult to fully bend or straighten your knee.

If you have torn your anterior cruciate ligament in an injury that occurred months or years ago and you haven't had reconstructive surgery, you may have the feeling that the knee is giving way during twisting or pivoting movements.

### How is it diagnosed?

Your healthcare provider will examine your knee and may find that your knee has become loose. If you have swelling in the joint, he or she may decide to remove the blood in your knee with a needle and syringe. You may need X-rays to see if there is an

injury to the bones in your knee. An MRI (magnetic resonance imaging) scan may also be done and should clearly show the condition of your ACL (as well as that of other ligaments and cartilage).

### 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 healthcare provider (adults aged 65 years and older should not take non-steroidal anti-inflammatory medicine for more than 7 days without their healthcare provider's approval).
- Do the exercises recommended by your healthcare provider or physical therapist.

Your provider may 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

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