

# Anterior Cruciate Ligament (ACL) Injury

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## KEY POINTS

- An ACL injury is stretching or tearing of the strong band of tissue in your knee that connects your thighbone to your shinbone and supports the knee joint.
  - Change or stop doing the activities that cause pain until the injury heals.
  - An ACL injury can be treated with removal of fluid, bandages, braces, crutches, ice, and sometimes with medicines or surgery.
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## What is an anterior cruciate ligament (ACL) injury?

An anterior cruciate ligament (ACL) injury is an injury to one of the ligaments in your knee. Ligaments are strong bands of tissue that connect one bone to another to form the joints. The ACL connects your thighbone to your shinbone. The ACL, along with other ligaments, keeps your knee and leg bones in place when you walk or run. When a ligament is injured, it can be stretched, partially torn, or completely torn. Complete tears, called ruptures, make the knee joint very loose and unstable.

A ligament injury is also called a sprain.

## What is the cause?

An ACL injury can be caused by a sudden activity that twists or tears a ligament such as:

- A forced twisting motion of your knee such as a fall or getting hit during football, basketball, or soccer
- Straightening your knee further than it can normally be straightened (hyperextension) such as when you land from a jump.
- Forcefully pushing your thighbone across your shinbone, as might happen when you suddenly stop while you are running or if you suddenly transfer your weight when you are skiing

## What are the symptoms?

Symptoms may include:

- A loud, painful pop at the time of the injury
- Swelling of your knee
- Trouble bending or straightening your knee
- Pain when you stand or put any weight on your injured knee
- Pain around your knee
- Feeling as if your knee is loose or unstable

If you tore your ACL months or years ago and you haven't had it repaired with surgery, you may have the feeling that your knee is weak and giving way when you twist, turn, or jump.

## **How is it diagnosed?**

Your healthcare provider will ask about your symptoms, activities, and medical history and examine you. You may have X-rays or other scans. For example, you may have an MRI, which uses a strong magnetic field and radio waves to show detailed pictures of your knee joint.

## **How is it treated?**

You will need to change or stop doing the activities that cause pain until the ligament has healed.

If you have swelling in your joint, your healthcare provider may need to remove fluid from your knee with a needle and syringe. You may be prescribed medicine to help reduce swelling.

Your provider may wrap an elastic bandage around your knee to keep the swelling from getting worse. You may need to keep your knee in a knee immobilizer and use crutches to protect your knee while you heal.

For complete tears, you and your healthcare provider will decide if you should have intense rehabilitation therapy or if you should have surgery followed by rehab. The ligament must be surgically reconstructed by taking ligaments or tendons from another part of your leg and connecting them to the thighbone and shinbone.

If you have a completely torn anterior cruciate ligament and it is not repaired with surgery, the effects will be life-long. Your knee may feel loose and like it will give way when you are running and making quick turns. Rehabilitation exercises and a special brace will help improve these symptoms. If you can do normal activities without pain and are willing to give up activities that put extra stress on your knee, you may not need surgery.

You may consider having reconstructive ACL surgery if:

- Your knee is unstable and gives out during routine or athletic activity.
- You are a competitive athlete and your knee could be unstable and give out during your sport (for example, basketball, football, or soccer).
- You are not willing to give up sports that involve pivoting and cutting such as soccer and basketball.
- You want to prevent further injury to your knee. An unstable knee may lead to more injuries and arthritis.

## **How can I take care of myself?**

To keep swelling down and help relieve pain for the first few days after the injury:

- Put an ice pack, gel pack, or package of frozen vegetables wrapped in a cloth on the injured area every 3 to 4 hours for up to 20 minutes at a time.

- Keep your knee up on a pillow when you sit or lie down.
- Take nonprescription pain medicine such as acetaminophen, ibuprofen, or naproxen. Read the label and take as directed. Unless recommended by your healthcare provider, you should not take these medicines for more than 10 days.
  - Nonsteroidal anti-inflammatory medicines (NSAIDs), such as ibuprofen, naproxen, and aspirin, may cause stomach bleeding and other problems. These risks increase with age.
  - Acetaminophen may cause liver damage or other problems. Unless recommended by your provider, don't take more than 3000 milligrams (mg) in 24 hours. To make sure you don't take too much, check other medicines you take to see if they also contain acetaminophen. Ask your provider if you need to avoid drinking alcohol while taking this medicine.

Follow your healthcare provider's instructions, including any exercises they recommend. Ask your provider:

- How and when you will get your test results
- How long it will take to recover
- If there are activities you should avoid and when you can return to normal activities
- How to take care of yourself at home
- What symptoms or problems you should watch for and what to do if you have them

Make sure you know when you should come back for a checkup. Keep all appointments for provider visits or tests.

## **How can I help prevent an ACL injury?**

Warm-up exercises and stretching before activities can help prevent injuries. For example, do exercises that build strong thigh and hamstring muscles and stretch your leg muscles.

Follow safety rules and use any protective equipment recommended for your work or sport. For example, if you ski, make sure your ski bindings are set correctly by a trained professional so that your skis will release if you fall.

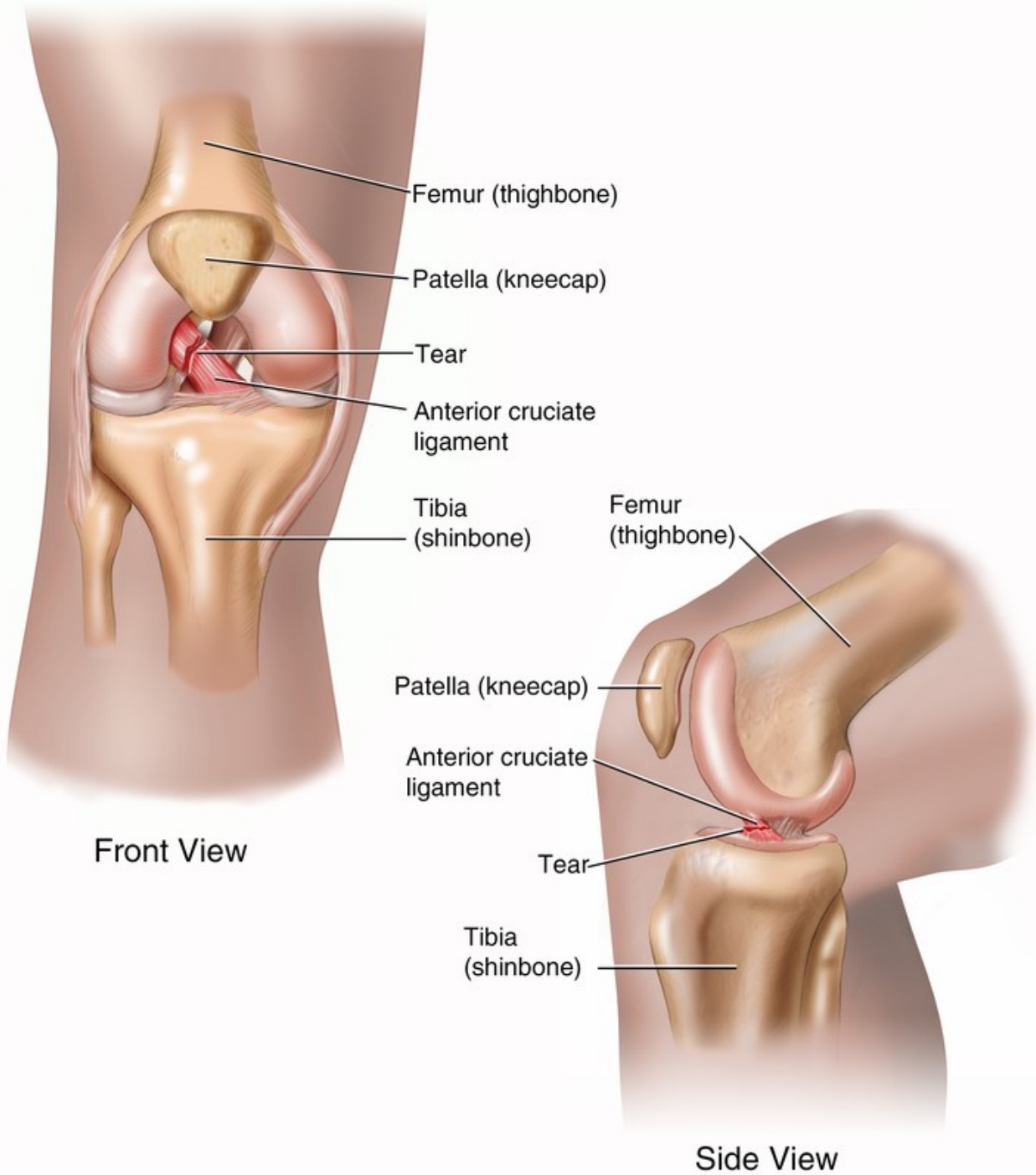
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