

# Anterior Cruciate Ligament (ACL) Tear

The knee is a complex, mobile joint. It can bend and it can rotate slightly. The knee joins the upper and lower leg bones (femur and tibia). The ends of the bones are covered by smooth articular cartilage which helps the joint move easily. Soft tissues (muscles, tendons, and ligaments) make the knee stable and strong. Ligaments help control knee motion by connecting bones and supporting the knee joint. Tendons join muscles to bones. Two cushions of cartilage (meniscus) sit between the femur and tibia. The meniscus cushion the knee joint and helps the knee absorb shock during motion.

## Anterior Cruciate Ligament (ACL)

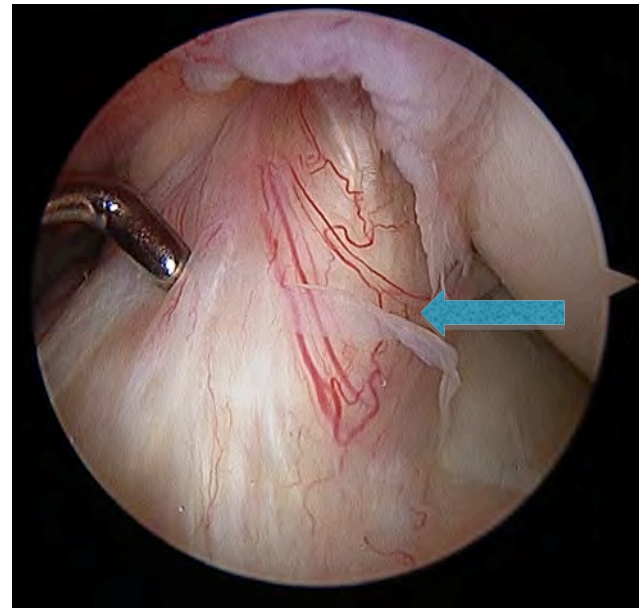
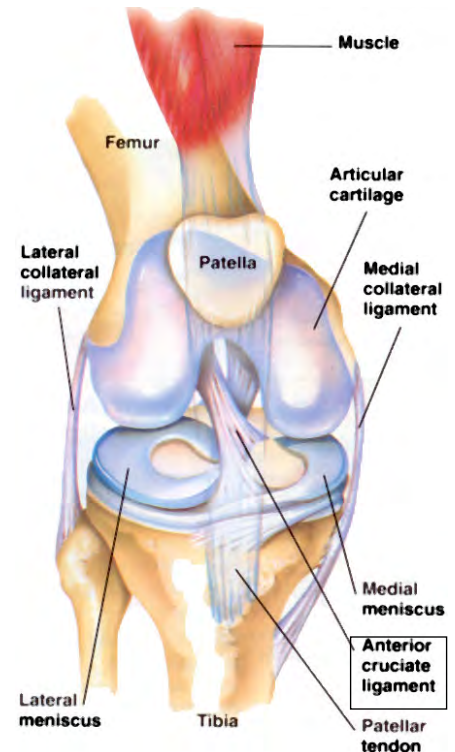
The Anterior Cruciate Ligament (ACL) is a primary knee stabilizer. It is the most commonly torn ligament in the knee. The ACL crosses from the back of the femur to the front of the tibia. An ACL injury usually occurs with a deceleration coupled with a cutting or pivoting movement. You might hear a pop, and your knee may give way. Pain and swelling usually result. Approximately 50% of ACL injuries occur in combination with a meniscus tear.

## Treatment Options:

Non-Surgical Treatment, including physical therapy and a knee brace, can be effective for inactive individuals. Arthroscopic surgery, with reconstruction of the ACL, is often necessary for active individuals.

## Arthroscopic Surgery

Arthroscopy allows a surgeon to see and work inside your knee joint through small incisions. A long, thin, lighted instrument called an arthroscope is used. During surgery, the arthroscope sends live video images from inside the joint to a monitor. Using these images, the doctor can diagnose and treat your knee problem. Because arthroscopy uses small incisions, recovery is often shorter and less painful than recovery after open surgery. To rebuild your ACL, a small incision is required in addition to arthroscopy.



Normal ACL

## ACL reconstruction surgery

The most common type of surgery for an ACL injury is reconstruction.

This involves replacing the ACL with a ligament or tendon from your knee (autograft) or from a donor (allograft). The two most common autografts may come from the patellar tendon or the hamstring tendon.

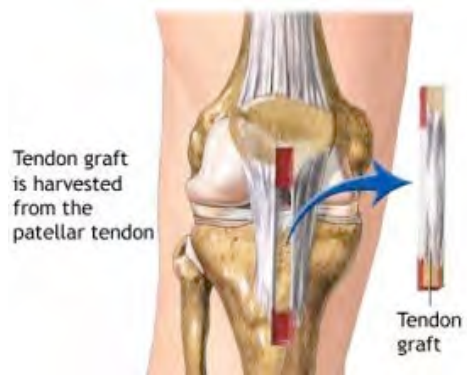
ACL Tear



ACL Reconstruction



## Patella Tendon Autograft Hamstring Tendon Autograft



## **Risks**

There are risks with any surgery. Risk and complications are rare, but include: infection, damage to nerves or blood vessels, blood clots, pulmonary embolism, medical complications, swelling, stiffness, continuing knee problems, and failure of the graft healing, graft re-rupture, donor site complications, etc.

## **Before Surgery**

You need to prepare ahead of time for knee surgery.

- Stop taking anti-inflammatory medication, including aspirin, before the surgery, if directed.
- Tell your doctor about any prescription or over-the-counter medications, herbs, or supplements that you take. Ask whether you should stop taking these before surgery.
- You will be called by a company to provide you an automated ice delivery system. This is usually not covered by your insurance. It is an excellent way to reduce pain and swelling, and is much more convenient than an ice pack. We highly recommend that you arrange for this icing method.
- Don't eat or drink anything after midnight the night before surgery. This includes water.
- Arrange for a friend or family member to give you a ride home.

## **After Surgery**

After your arthroscopic surgery, you will recover in the hospital or surgery center for a few hours. When you are able to go home, you will be instructed how to relieve any pain and how to care for your knee as it heals. To help with healing, a program of physical therapy (PT) will be prescribed.

## **In the Recovery Room**

After surgery you will be taken to a recovery area to rest. You will have a bandage to protect your incisions, and a brace to support your knee. Nurses will give you medications to help relieve the pain. Cool packs or a cooling unit may be used to reduce swelling and pain in your knee.

## **Going Home**

Before leaving the hospital or surgery center, be sure to know how to care for your knee at home. Ask any questions you may have. Also know who to contact if you have questions later. When you are ready to leave the hospital or surgery center, an adult family member or friend must drive you home.

## **Post-op Instructions**

- If provided, wear your brace as directed. The brace and crutches are sometimes required until your muscle strength allows you to walk safely without them.
- Pain medication will be prescribed; it will be available for pick up at the pharmacy listed on your surgical letter. Take the pain medication as directed. Do not wait for the pain to get bad before you take it.
- Ice your knee 3 times a day for 20 minutes at a time. Use the Game Ready machine (if given one) or a bag of ice or frozen peas. Put a thin cloth between your skin and the ice source.

- You should attend physical therapy 2 days post-op. Formal physical therapy continue for several months post-op.
- You are able to shower 2 days after surgery. Let the soap and water run over the incisions; do not scrub them. Dry the incisions with a clean towel or gauze pad. Cover the incisions with bandaids. Do not apply ointment, of any kind, to your incisions.
- Bruising and swelling of the knee, shin, and ankle are common. Bleeding from the bone and other soft tissues deep to the skin cause this. Bruising and swelling usually resolve in the first few weeks following surgery.
- **It is illegal to operate a motor vehicle while using narcotic pain medication or wearing a brace. Additionally, the speed with which you are able to switch from the gas to brake may be impaired for weeks.**
- If you have a brace, remove the brace several time a day to move your knee & ankle.
- Follow up one week after surgery to have your stitches removed and to discuss your surgical procedure.
- As discussed, the recovery for ACL reconstruction is about 6 months.

**You should contact your physician if you are having shortness of breath, redness around your incisions, discharge from your incisions, or a fever greater than 101.5°F**