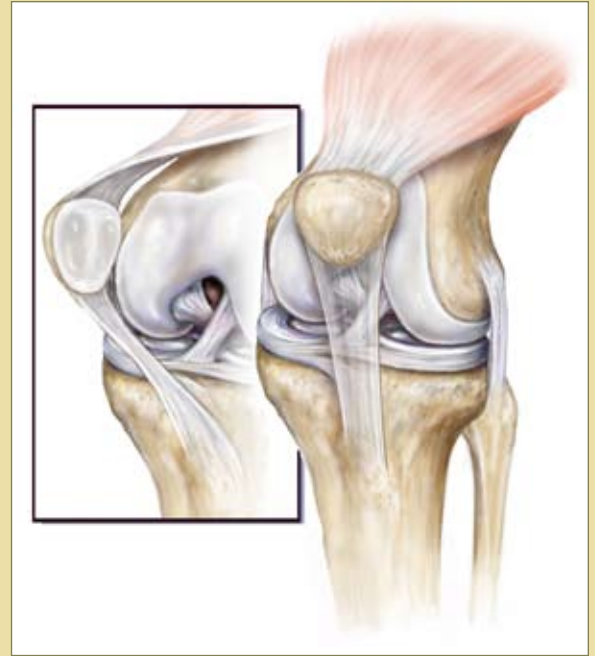


# ACL Reconstruction



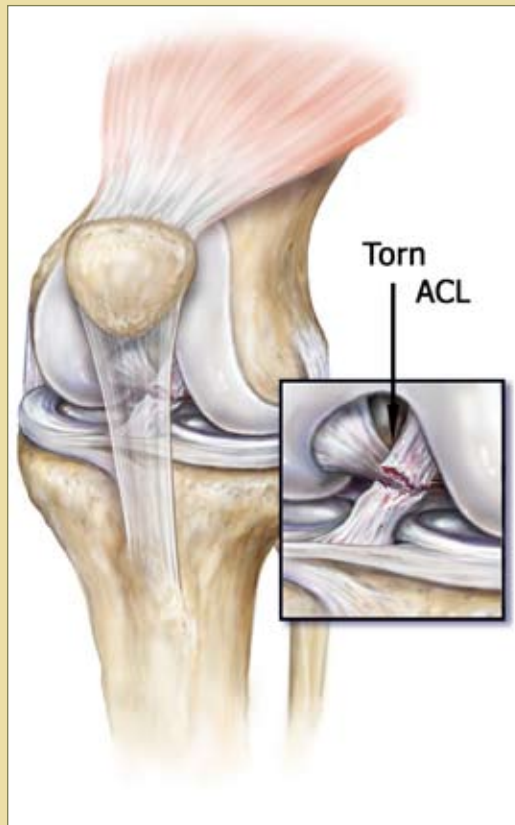
## Anatomy

Perhaps the most important ligament in the knee is the Anterior Cruciate Ligament (ACL). The ACL is no bigger than your little finger and runs from the front of the tibia (shin bone) to the back of the femur (thigh bone). It provides stability to the knee when twisting or turning and prevents the tibia from moving forward relative to the femur. This ligament is crucial to activities that require quick cutting and pivoting.



**Normal Knee**

There are three degrees of ACL sprains. In a first-degree sprain, the ligament fibers are stretched but not torn. In a second-degree sprain, some of the fibers are torn but others remain intact. In a third-degree sprain all of the ligament fibers are torn, resulting in an ACL deficient and inherently unstable knee.



**Third Degree ACL Sprain**

## Mechanism of Injury

There are two common ways that the ACL is injured. In the first situation, the individual may be running and quickly cut or pivot. This results in excessive stress and subsequent sprain of the ligament. The second scenario involves someone or something falling onto the knee while it is fixed in place. This excessive amount of force results in a strain on the ligament.

## CLINIC LOCATIONS

Columbia Heights  
Eagan  
Forest Lake  
Downtown St. Paul - Gallery  
Downtown St. Paul - Ritchie  
Hastings  
Maplewood  
Vadnais Heights  
Woodbury - Allina  
Woodwinds Health Campus

## CONTACT INFORMATION

Main Line  
(651) 842-5200

Appointment Line  
(651) 842-5201

[www.summitortho.com](http://www.summitortho.com)



**SUMMIT  
ORTHOPEDICS**

*Experience the highest level of care.*

## Symptoms

In either mechanism of injury, patients often hear or feel a “snap” or “pop” in their knee. The knee immediately begins to swell, becomes painful and patients often have difficulty walking without assistance. As time passes, the initial pain and inflammation subside and patients may complain of persistent knee instability. This is especially apparent when they try to run or pivot on the knee.

It is not uncommon to damage other structures in the knee with the initial ACL injury. This includes disruption of other ligaments, tendons and/or cartilage of the knee. These other injuries can result in more pain, increased swelling and complicate the diagnosis and treatment.

## Diagnosis

In order to determine the cause of your symptoms and the extent of the injury, your doctor will ask you questions and perform a physical examination. X-rays are helpful in viewing the bony anatomy of the knee and can confirm or eliminate a diagnosis. After your doctor has conducted the examination, they may recommend that you undergo more diagnostic tests such as an MRI (magnetic resonance imaging) scan. An MRI allows your physician to clearly see the muscles, tendons, and ligaments of the knee. This information helps your Orthopedic Surgeon formulate a treatment plan tailored to your needs.

Symptoms for an ACL injury are diverse in presentation and severity. The symptoms above should only be thought of as a generalization of the symptoms associated with this injury.

## Treatment

The decision to proceed with surgical versus non-surgical treatment is determined by the patient’s overall health and physical activity. There is a consensus among orthopedic surgeons that in a physically active patient a torn ACL requires surgical reconstruction. Without an ACL the knee is inherently unstable and the patient risks further injury when participating in activities.

Immediately after injury, the treatment plan is focused around reducing the patient’s pain and swelling while increasing knee strength. Physical therapy can be very useful in this regard and your physician may wish that you see a physical therapist prior to surgery. If this is the case, surgery can be scheduled once the pain and inflammation are under control.

### Important Definitions

**Sprain:** Describes damage to any ligament within the body.

**Strain:** Describes an injury to a tendon.

**Ligaments:** Connect bone to bone.

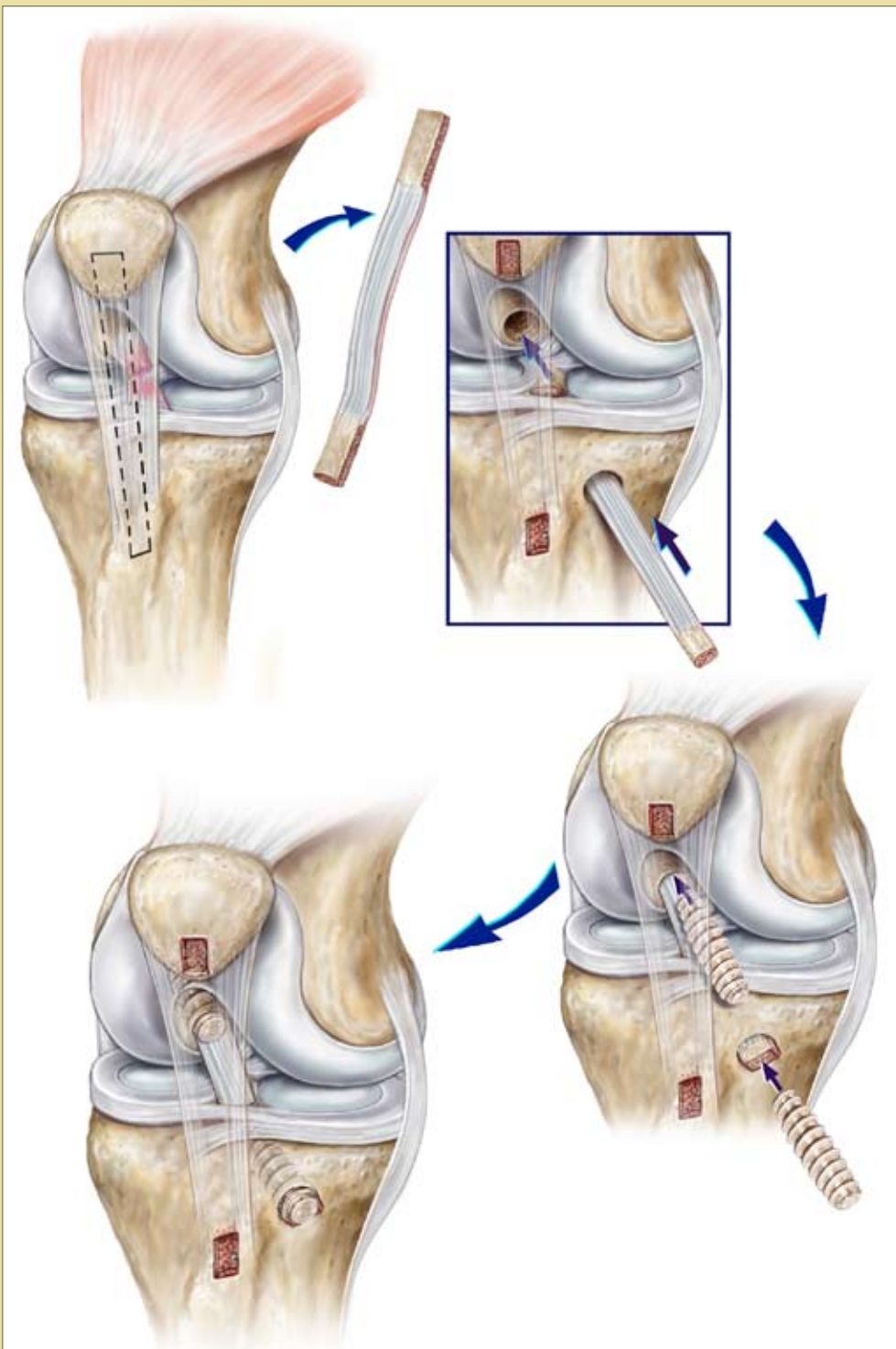
**Tendons:** Connect muscle to bone.



**SUMMIT  
ORTHOPEDICS**

*Experience the highest level of care.*

## ACL Reconstruction with Patellar Tendon Autograft



ACL reconstruction is performed arthroscopically to ensure proper graft placement and minimize the risk of complications. The old torn ligament is removed and replaced with a new graft harvested from one of several sources. An autograft is when the new ligament is harvested directly from the patient's own patellar or hamstring tendon. An allograft is harvested from an outside source, most commonly a cadaver. The selection of the graft source depends on the patient and what the surgeon feels will give the most successful outcome.

NOTES:



**SUMMIT  
ORTHOPEDICS**

*Experience the highest level of care.*



## Recovery

After surgery you can expect to be in a brace for up to a month. Approximately one week after surgery, you will see your physician and begin physical therapy. The goal of these sessions is to decrease the post-operative pain and swelling while increasing your strength and range of motion. As your knee starts to feel better and the graft begins to strengthen, your physician and physical therapist will clear you for increased activity. Additionally, a brace may be prescribed for you to wear during athletic activities.

Your doctor may prescribe the Game Ready cold therapy unit for you to use post-operatively. The Game Ready is a microprocessor-controlled device that combines the benefits of cold and compression therapy. These treatments have been repeatedly proven in scientific literature to be effective at reducing post-operative pain and swelling. Summit Orthopedics believes that the Game Ready's unique control unit, ergonomic wraps and temperature control system will provide you with the best possible outcome in the days following your surgery. If you have further questions regarding this treatment or would like to schedule an appointment to pick one up, please contact Summit Bracing and Orthotics at **(651) 767-1748**.

## Risks

As with any surgery, ACL reconstruction has risks. These include, but are not limited to, swelling and stiffness, blood clots, bleeding, infection and/or continuing knee problems. By following your physician's instructions and remaining in good communication, these risks can be minimized.

## Long-Term Outlook

In order to obtain the best possible outcome, it is important that you follow the guidelines set by your doctor and physical therapist. Patients who have an ACL reconstruction typically return to full physical activity in six to nine months.

For additional educational materials regarding ACL reconstruction please visit our website, **[www.summitortho.com](http://www.summitortho.com)** and click on the "Patient Education" quick link at the bottom of the page.



**SUMMIT  
ORTHOPEDICS**

*Experience the highest level of care.*

**Don't know where to go for physical therapy? Don't worry; your doctor's patient coordinator will help you find a therapist close to where you live or work.**