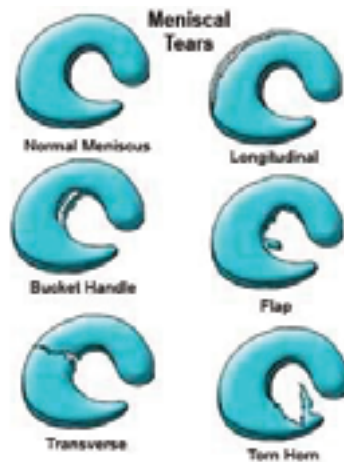
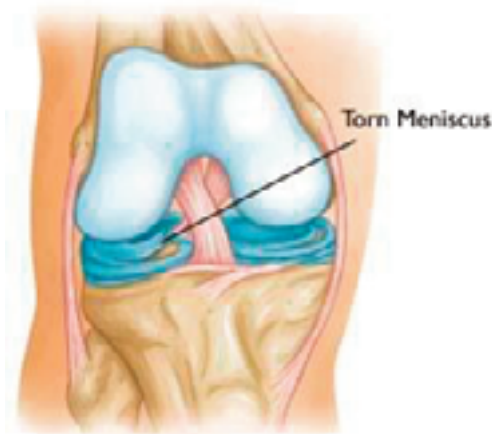


# Meniscus Tear



Your knee is the largest joint in your body and one of the most complex. Because you use it so much, it is vulnerable to injury. Because it is made up of so many parts, many different things can go wrong.

Meniscal tears are among the most common knee injuries. Athletes, particularly those who play contact sports, are at risk for meniscal tears. However, anyone at any age can tear a meniscus. When people talk about torn cartilage in the knee, they are usually referring to a torn meniscus.

## Anatomy

Two wedge-shaped pieces of cartilage (meniscus) act as "shock absorbers" between your thighbone (femur) and shinbone (tibia). They are tough and rubbery to help cushion the joint.

## Description

Common tears include longitudinal, parrot-beak, flap, bucket handle, and mixed/complex. Sports-related meniscal tears often occur along with other knee injuries, such as anterior cruciate ligament tears.

## Cause

Sudden meniscal tears often happen during physical activity. An individual may squat and twist the knee, causing a tear. Direct contact, like a tackle, is sometimes involved.

Older people are more likely to have degenerative meniscal tears. Cartilage weakens and wears thin over time. Aged, worn tissue is more prone to tears. An awkward twist when getting up from a chair may be enough to cause a tear, if the menisci have weakened with age.

## Symptoms

You might feel a "pop" when you tear a meniscus. Most people can still walk on their injured knee. Many athletes keep playing with a tear. Over 2 to 3 days, your knee will gradually become more stiff and swollen.

The most common symptoms of meniscal tear are:

- Pain
- Stiffness and swelling
- Catching or locking of your knee
- The sensation of your knee "giving way"
- You are not able to move your knee through its full range of motion

Without treatment, a piece of meniscus may come loose and drift into the joint. This can cause your knee to slip, pop or lock.

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## Physical Examination and Patient History

After discussing your symptoms and medical history, your doctor will examine your knee. He will check for tenderness at the joint line where the meniscus sits. This often signals a tear.

One of the main tests for meniscal tears is the McMurray test. If you have a meniscal tear, this test will typically cause pain and clicking.

## Imaging Tests

**X-rays:** Although X-rays do not show meniscal tears, they may show other causes of knee pain, such as osteoarthritis.

**Magnetic resonance imaging (MRI):** This study can create better images of the soft tissues of your knee joint including the meniscus. Often, if the history and exam are classic for a torn meniscus, this test may not be necessary. Additionally, there are times when a torn meniscus shown on an MRI ordered by your primary physician do not correlate with exam findings by your orthopaedic surgeon. This is why it is critical to correlate exam findings with the MRI.

## Treatment

How your orthopaedic surgeon treats your tear will depend on the type of tear you have, its size and location, and your symptoms, exam and activity level.

The outside one-third of the meniscus has a rich blood supply. A tear in this "red" zone may heal on its own, or can be repaired with surgery.

In contrast, the inner two-thirds of the meniscus lacks a blood supply. Without nutrients from blood, tears in this "white" zone cannot heal. These complex tears are often in thin, worn cartilage. Because the pieces cannot grow back together, tears in this zone are usually surgically trimmed away.

## Nonsurgical Treatment

If your tear is small and on the outer edge of the meniscus, it may not require surgical intervention. As long as your symptoms do not persist and your knee is stable, nonsurgical treatment may be all you need. Additionally, if your symptoms and exam do not correlate with MRI findings, surgery may not be indicated.

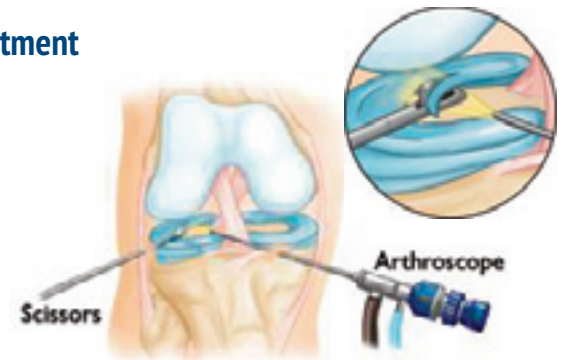
**RICE:** The RICE protocol is effective for most sports-related injuries. RICE stands for Rest, Ice, Compression, and Elevation.

- **Rest:** Take a break from the activity that caused the injury. Your doctor may recommend that you use crutches to avoid putting weight on your leg.
- **Ice:** Use cold packs for 20 minutes at a time, several times a day. Do not apply ice directly to the skin.
- **Compression:** To prevent additional swelling and blood loss, wear an elastic compression bandage.
- **Elevation:** To reduce swelling put your leg up higher than your heart.

**Non-steroidal anti-inflammatory medicines:** Drugs like aspirin and ibuprofen reduce pain and swelling.

## Surgical Treatment

If your symptoms persist with nonsurgical treatment, your doctor may suggest arthroscopic surgery.



**Procedure:** Knee arthroscopy is one of the most commonly performed surgical procedures. A small camera is inserted through a 1/2-inch incision. This provides a clear view of the inside of the knee. Your orthopaedic surgeon inserts miniature surgical instruments through other small incisions to trim or repair the tear.

## Rehabilitation

Once the initial healing is complete, your doctor will prescribe rehabilitation exercises. Regular exercise to restore your knee mobility and strength is necessary. You will start with exercises to improve your range of motion. Strengthening exercises will gradually be added to your rehabilitation plan.

For the most part, rehabilitation can be carried out at home, although your doctor may recommend formal physical therapy based on your individual outcome.

## Recovery

Meniscal tears are extremely common knee injuries. With proper diagnosis, treatment, and rehabilitation, patients often return to their preinjury abilities.

*Adapted from American Academy of Orthopaedic Surgeons. For more information, see [orthoinfo.aaos.org](http://orthoinfo.aaos.org)*

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