

Introduction

The menisci are cartilage structures in the knee joint that act as shock absorbers between the bones. The menisci can be injured during twisting motions used for sports. Some tears in certain parts of the meniscus may heal on their own, but in many cases surgery is necessary. Arthroscopic surgery is the most common method of treating meniscus tears. Because the joint is not fully opened, recovery is faster and has fewer complications than with older open surgery methods.

Anatomy

The knee joint is composed of three bones. The thigh bone (femur) sits on top of the larger leg bone (tibia). The kneecap (patella) glides in a groove on the end of the thigh bone. The menisci are two C-shaped cartilage discs that are located on the end of the tibia.

The outer edges of the menisci have a blood supply, so injuries to this area may heal. The inner part of the menisci does not have a good blood supply, and tears in this area cannot heal on their own. The menisci help to support your body weight and act as shock absorbers when you walk or run. They also allow your knee bones to glide easily during motion.

Causes

The menisci can tear during strong twisting motions of the knee, especially when the foot remains firmly planted on the ground and the knee is bent. Pivoting, cutting, changing directions quickly, or slowing down quickly during sports, such as football, tennis, or soccer, can cause a meniscus tear. Older adults can experience a meniscus tear with a lower-energy injury as the result of weakened cartilage and knee degeneration.

Symptoms

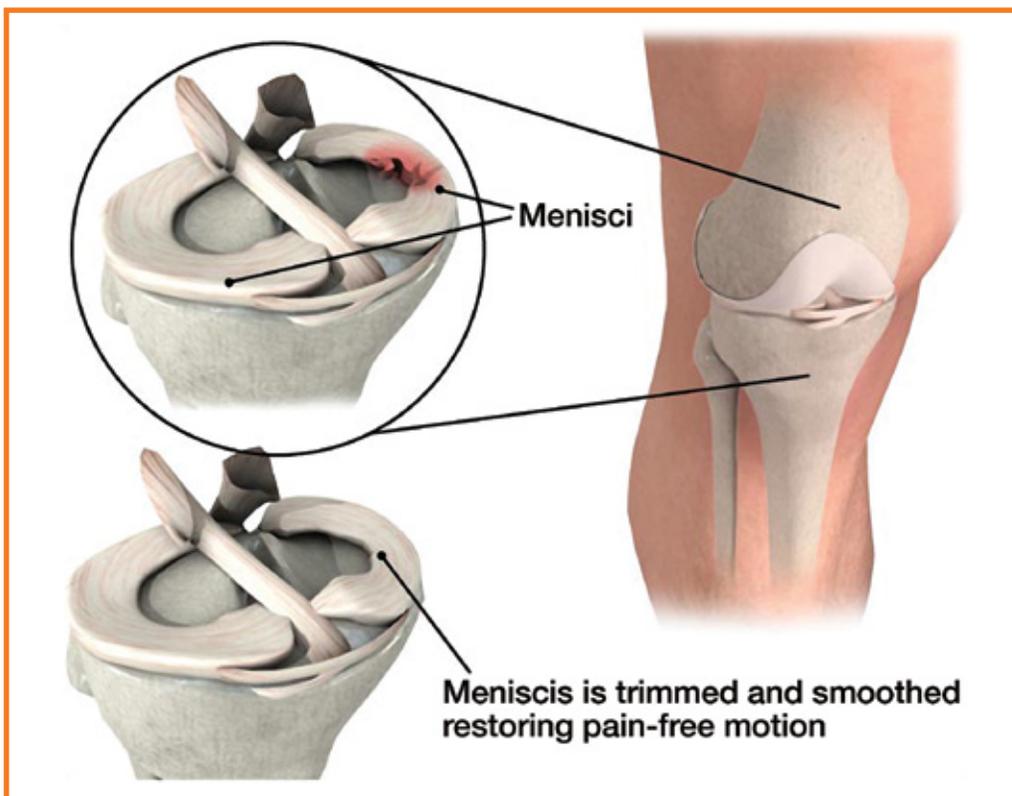
You may hear a popping noise when the meniscus tears. Swelling, pain, and tightness may increase over several days. You may not be able to straighten your knee, and it may buckle, catch, or lock in position. It may be difficult for you to put weight on your leg or walk.

Diagnosis

You should contact your doctor if you suspect you have torn your meniscus. Your doctor will review your medical history, the circumstances leading to your injury, and conduct a physical exam. Physical examination will help your doctor look for tears or other causes of your pain. Your doctor will evaluate excess fluid and swelling around your knee joint. An X-ray may be used to see the condition of your bones. A magnetic resonance imaging (MRI) scan may be used to create a picture of your menisci and inner knee structures to help your doctor diagnose your injury.

Treatment

Minor tears on the outer sections of the meniscus may be able to heal on their own if there is a good blood supply. Ice packs, rest, and medications can help relieve pain and swelling. Physical therapy can help strengthen the muscles that move the knee joint.



Surgery

Surgery may be recommended for larger tears on the outer section of the meniscus or for tears in the inner areas. Most meniscus repairs are performed as outpatient surgeries. You can be anesthetized for surgery so you are not alert or receive a nerve block to numb your knee and leg area. Arthroscopic surgery is favored because it is less invasive and is associated with less pain, swelling, infection, and bleeding and has a faster recovery time than open surgery.

An arthroscope is a very small surgical instrument. It consists of a narrow tube that contains a lens and a lighting system that allows a surgeon to see inside of the joint. Narrow surgical instruments are inserted through small incisions. With an arthroscope, only small incisions, about ¼" to ½" in length, are needed, and the joint does not need to be fully opened.

After making the small incisions, the surgeon will fill the joint space with a sterile saline (salt-water) solution. The fluid expands the joint and allows your surgeon to have a better view of your knee. Next, the arthroscope is inserted. It may be repositioned to view the joint from various angles. Your surgeon may make additional small incisions and use other slender surgical instruments to trim torn meniscus pieces. A surgical shaver is used to smooth the remaining meniscus.

Recovery

After surgery, you will be instructed to elevate your leg and apply ice to your joint to help reduce pain and swelling. You may wear a cast or knee brace for a short period of time. You will need to use crutches, a walker, or a cane to help you stand and walk, at first. Your surgeon may initially restrict the amount of weight that you can put on your foot but will gradually increase it as you heal. Physical therapy will help you gain strength and movement in your knee.

The recovery time is different for everyone. It depends on the extent of your condition and the type of surgery that you had. Full recovery can take several weeks or months.

Prevention

Your doctor may set restrictions on your activities depending on the nature of your injury. Return to intense physical activity should only be done with the clearance of your doctor.

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