Physical Therapist's Guide to Meniscal Tear

The meniscal tear is a common injury. It can affect athletes who play individuals and team sports. It's also common in people who have jobs that require lots of squatting, such as plumbers or coal miners. Your physical therapist can help you manage the injury and, if surgery is required, can help you prepare for the procedure and recover your strength and movement afterward.

What is a Meniscal Tear?

The meniscus is a rubbery, C-shaped piece of cartilage that cushions your knee. Each of your knees has 2 menisci (plural of meniscus); one on the inner (medial) part of the knee, and the other on the outer (lateral) part. Together they act to absorb shock and stabilize the knee joint.

A meniscal tear typically is caused by twisting or turning quickly on a bent knee, often with the foot planted on the ground. Although meniscal tears are common in those who play contact sports, anyone at any age can tear a meniscus. When people talk about having torn cartilage in their knee, they usually are talking about a meniscal tear.

Signs and Symptoms

When you tear a meniscus, you might:

- Feel a sharp, intense pain in the knee area
- Feel a "pop" or a tearing sensation
- Have difficulty walking because of pain or a "catching" sensation
- Have difficult straightening the knee
- Experience swelling within the first 24 hours of injury

How Is It Diagnosed?

Your physical therapist will:

- Conduct a thorough evaluation that includes a detailed review of your injury, your symptoms, and your health history
- Perform special tests to measure the range of motion (amount of movement) in your knee and determine which specific movements and positions increase your symptoms
- Use a series of tests that apply pressure to the meniscus to determine whether it appears to be damaged

The results of these tests may indicate the need for further diagnostic tests—such as ultrasound or magnetic resonance imaging—or a referral to an orthopedic surgeon for consultation.
How Can a Physical Therapist Help?

Your doctor may diagnose a torn meniscus, but meniscal injuries can often be managed without surgery. A short course of treatment provided by a physical therapist can help determine whether your knee will recover without surgery. The physical therapist plays an important role by controlling pain and swelling and by restoring full strength and mobility to your knee.

To control pain and swelling, your physical therapist may use ice and compression and will likely instruct you in the use of these treatments at home. Swelling is an important "guide" during your rehabilitation and can indicate when you are doing too much. Let your physical therapist know if you have an increase in swelling so that your program or activity level can be modified.

Your physical therapist may use a treatment called neuromuscular electrical stimulation (NMES) to help improve your strength. Your therapist also will design special exercises to maintain your strength during recovery and help restore full movement to the knee. You will be given a home program of exercises that are specific to your condition.

As you recover, your therapist will advise you on ways to maintain your fitness and activity level and will help you decide when you are ready to return to full activity.

If You Need Surgery

Patients with more serious meniscal tears, or those that don’t respond to a course of physical therapy, may need surgery. Surgically removing the torn cartilage (a procedure called a menisectomy) usually is a simple procedure that requires a brief course of physical therapy treatment. Most people are able to return to their previous level of activity, including sports, in fewer than 2 months.

Meniscus Removal

Following a simple menisectomy, your rehabilitation will likely be similar to that for nonsurgical injuries. Your physical therapist might use ice and compression to control pain and swelling and will show you how to use these treatments at home. Your therapist's focus will be on helping you get back your strength and movement through special exercises performed in the clinic and at home. Generally, you will need to use crutches or a cane, but only until you can walk without pain or a limp.

Meniscus Repair

Sometimes the surgeon will decide that the torn meniscus can be repaired, instead of removed. Research studies show that if a meniscal repair is possible, the long-term outcome is better than removal because the repair can reduce the risk of arthritis later in life.

Rehabilitation following a meniscal repair is slower and more extensive than with removal because the repaired tissue must be protected while it is healing. The type of surgical technique performed, the extent of your injury, and the preferences of the surgeon often determine how quickly you will be able to put weight on the leg, stop using crutches, and return to your previous activities.

After a meniscal repair, your physical therapist will help you control pain and swelling, help restore your strength, and help you regain full motion to the knee as soon as it is safe to do so. You'll have a program of exercises to do at home, and this program will be advanced as you improve. A brace may be used to help protect the repaired meniscus during the recovery phase. These braces usually allow you to fully straighten the knee but will limit your ability to bend it all the way, in order to prevent stress to the repair.

Returning to Activity
Whether your torn meniscus recovered on its own or required surgery, your physical therapist will play an important role in helping you return to your previous activities. Your therapist will help you learn to walk without a limp and go up and down stairs with ease.

If you have a physically demanding job or lifestyle, your therapist can help you return to these activities and improve how you do them.

If you are an athlete, you may need a more extensive course of rehabilitation. Your therapist will help you fully restore your strength, endurance, flexibility, and coordination to help maximize your return to sports and prevent reinjury. Return to sports varies greatly from one person to the next and depends upon the extent of the injury, the specific surgical procedure, the preference of the surgeon, and the type of sport. Your therapist will consider these factors when progressing your rehabilitation program and will work closely with your surgeon to help decide when it is safe for you to return to sports and other activities.

Can this Injury or Condition be Prevented?

There is little research at this time to support exercise or other interventions such as bracing for prevention of meniscal injuries. But we do know that you can make choices to help improve your overall fitness and help keep your knees as strong and as healthy as possible:

- Regular exercise helps strengthen the muscles that support your knees.
- Staying physically active helps prepare your body for the demands of a sport or strenuous activity.
- Although accidents are difficult to prevent, avoiding twisting or turning quickly while your foot is planted may help prevent meniscal tears.

If you already have knee problems, your physical therapist can help you develop a fitness program that takes your knees into account. Some exercises are better than others for those with a history of knee pain. Many exercises can be modified to fit your specific needs. For example, when performing exercises that include squatting, it’s important to make sure that your knee stays directly over your foot and doesn’t twist or bend excessively.

Real Life Experiences

Beau plays on his college intramural lacrosse team. During a game, Beau twists his left knee when he slips on the artificial turf. He immediately hears a pop and feels pain in his knee joint. He limps for the next few minutes but is able to finish the game.

The next morning, Beau feels even more pain than the day before, and he has difficulty walking; he also notices some swelling on the inside of his knee. His roommate is in the physical therapy program at his university and suggests that he visit a physical therapist.

Based on the results of the examination, the physical therapist suspects a meniscal tear and recommends that Beau consult with an orthopedic surgeon, who orders magnetic resonance imaging (MRI). The surgeon confirms a diagnosis of a medial meniscal tear. After consultation with the surgeon, Beau chooses to have the tear “cleaned up,” with a small piece of the meniscus removed. This procedure is called a menisectomy.

After surgery, Beau’s physical therapist controls the swelling with ice and uses electrical stimulation to speed the recovery of the quadriceps muscle. After 1 week, Beau is able to walk without his crutch. The range of motion of his knee is still limited, so he has difficulty bending his knee fully or straightening his knee when walking. After 3 weeks, he returns to jogging and then running. At 4 weeks, he progresses to sports-related
rehabilitation activities, which include moving quickly from side to side and turning. He rejoins playing with his team after 6 weeks.

*This story was based on a real-life case. Your case may be different. Your physical therapist will tailor a treatment program to your specific case.*

**What Kind of Physical Therapist Do I Need?**

All physical therapists are prepared through education and experience to treat a variety of conditions or injuries. You may want to consider:

- A physical therapist who is experienced in treating people with orthopedic, or musculoskeletal, problems.
- A physical therapist who is a board-certified clinical specialist or who completed a residency or fellowship in orthopedic physical therapy has advanced knowledge, experience, and skills that may apply to your condition.

You can find physical therapists who have these and other credentials by using [Find a PT](http://www.APTA.org), the online tool built by the American Physical Therapy Association to help you search for physical therapists with specific clinical expertise in your geographic area.

General tips when you're looking for a physical therapist:

- Get recommendations from family and friends or from other health care providers.
- When you contact a physical therapy clinic for an appointment, ask about the physical therapist's experience in helping people with a meniscal tear.

During your first visit with the physical therapist, be prepared to describe your symptoms in as much detail as possible, and say what makes your symptoms worse.

**Further Reading**

The American Physical Therapy Association (APTA) believes that consumers should have access to information that could help them make health care decisions and also prepare them for their visit with their health care provider.

The following articles provide some of the best scientific evidence related to physical therapy treatment of meniscal injuries. The articles report recent research and give an overview of the standards of practice for treatment both in the United States and internationally. The article titles are listed by year and are linked either to a PubMed abstract of the article or to free access of the full article, so that you can read it or print out a copy to bring with you to your health care provider.


*PubMed is a free online resource developed by the National Center for Biotechnology Information (NCBI). PubMed contains millions of citations to biomedical literature, including citations in the National Library of Medicine’s MEDLINE database.*

**Acknowledgments: Christopher Bise, PT, MS, DPT**

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