



Meniscal / Cartilage Tears

Inside your knee, there are two shock absorbing hoops that sit between the bones. These are made of a rubbery like substance called cartilage, and therefore these two hoops are often called "the cartilages". The medical term for "the cartilage" is meniscus, and I will often speak of the medial or lateral meniscus depending on which one of these hoops may have been torn. This cartilage hoop can become torn with a severe injury such as a fall or a sports injury, but can also become injured with something as simple as a deep squat or a twist through your knee. As you get older, like an old rubber band the cartilage begins to dry out a little bit and becomes a little bit more brittle. This makes it a little easier to break or tear. Once you have done this, it is unlikely to heal itself and will continue to cause you pain in your knee until you do something about it. Most people with a torn cartilage will complain of such things as pain, clicking and popping, catching in their knee, and swelling.

Now as I stated earlier cartilage is a rubber-like substance, and like rubber it comes in more than one form. One is the meniscus pad that you just read about, and again the main function of the meniscus cartilage is to cushion the joint, but it also provides some joint stability, and lubrication. The other type of cartilage is the "articular" form which covers the ends of the bones. This is a slick white coating which allows the bones to smoothly glide back and forth across each other. Some like to think of it like the Teflon coating of your knee. When you are young, this articular cartilage surface is perfectly smooth like a pearl. However, with time or injury, it can become cracked, pitted, and roughened. Occasionally pieces of it will actually flake off and then become loose bits floating around inside your knee. This wear and tear on your knee can also cause pain, swelling, popping and grinding. Your diagnosis is made by listening to your complaints, examining your knee, and by taking a look at your x-rays. The x-rays don't show the cartilage, but they will show how much wear and tear your knee has developed. The x-rays are also helpful in ruling out other problems as well. Putting all of this together, usually we'll have a pretty good idea just what is wrong with your knee.

What else could be wrong with your knee besides a torn cartilage? There are other problems which can mimic a torn cartilage very closely, and the most common is arthritis. The wear and tear on your knee will give you very similar symptoms, and it is also very possible to have both problems at once. Again x-rays can help sort this out.

Another study that can be helpful in diagnosing your problem is an MRI. An MRI is a study that uses magnetic fields to create images of the inside of your knee. This is a very expensive test, somewhere between \$1000-\$1500, and often this study is needed to help sort things out. If I am quite certain that you have a cartilage tear, then I typically don't get an MRI. There simply is no reason to get a study to tell me that you have something that I already know. If there is some uncertainty though, this study can be helpful.

Okay, so let's say you do have a cartilage tear. What are the treatment options? These really depend on how much trouble you are having, your age, your health, activity level and so forth. In general, cartilage tears will not heal by themselves, for the cartilage has a very poor blood supply, and therefore really doesn't have the ability to heal itself. Therefore, a person will continue to keep their symptoms, and the knee will continue to stay bothersome until something is done about it. Cartilage tears may calm down a bit with rest, crutches, and anti-inflammatory drugs. However, your symptoms will typically return after you go back to your normal activities. Often patients want to try this approach first, but usually return after they get tired of riding this roller coaster of their symptoms.

For most patients. their symptoms are severe enough that they wish to have something more definitive done. This involves an arthroscopy of your knee, a surgical procedure which allows me to take a look inside your knee, and then actually do something about your problem. This is done by making a few small incisions on your knee, and then placing a small camera about the size of a pencil inside your knee to take a look around. Once your tear is found, other small instruments can be inserted and used to take out the torn piece of cartilage. The damaged part is removed, leaving the remaining healthy part intact. If you have arthritis of your knee, this can also be evaluated during surgery, and some of the rough spots may be smoothed out a bit.

On some occasions, it may be possible to repair your cartilage tear. I cannot tell you if this will be possible until I take a look inside your knee. However, the older you are, and the longer you have had your problem, the less likely it is that your tear will be repairable. If it is, stitches or small absorbable pins will be used to hold the tear together until it is able to heal. The main difference for you if your cartilage is repaired will be the time that you are required to be on crutches and limited from activity. If the torn piece is taken out, you are usually off crutches in a few days, and your rehab will progress fairly rapidly. If your tear is repaired, you will be on crutches approximately 6 weeks, and may be limited from sports activity for 3 months or more.

Regardless of what exactly is done inside your knee, this is an outpatient procedure and you will go home on the same day as your surgery. Usually you can bend your knee as much as you can tolerate, and put as much weight on your knee as you can bear. You can get your knee wet in the shower after 48 hours. After surgery, patients with a desk type duty usually can go back to work in a few days. Patients with more labor-like jobs typically will typically be out of work somewhere between three and six weeks. It also usually takes about 4-6 weeks to get back to sports activities.

Your choice of anesthesia during surgery will be discussed with you the morning of your scheduled case. If you have any particular concerns, you can discuss this with your anesthesiologist at your hospital pre-operative appointment.

So what happens after I remove the torn piece of cartilage? Well usually it gets rid of your symptoms, most specifically your pain, and improves your function. You may keep some swelling in your knee for a few months after surgery, but this tends to go down with time. The grinding sensation that you have in your knee that is caused by arthritis you will keep. I can smooth things out a little, but your knee will likely still grind some. Long term, the results of a tear of the cartilage are for the development of earlier arthritis or wear and tear. Remember its main function is to cushion the joint, and once it is torn it loses this function. That is why if I can repair it, it may be better long term. Once repaired of course, you could tear it again later.

Now let's talk about the things that no one wants to think about...**the possible complications**. There is a small risk of **infection**. If this occurs, you may require IV antibiotics, and possibly more surgery to clean the infection out of your knee. Infection can lead to prolonged stiffness and pain. Again this is unusual to happen. Another possible problem is the development of a **blood clot** within your leg. This would require readmission to the hospital to put you on a blood thinner. If for some reason this blood clot broke loose, it could travel into your lung and could become life threatening. The best way to avoid this complication is to get you up and moving soon after your surgery. Other complications such as **nerve and artery injury** have been reported, and are more common with attempts to repair the torn portion. Some patients have reported continued **tenderness and hypersensitivity** or **numbness** around their surgical incisions, but typically this will resolve with time. **Bleeding** is usually minimal, and I have never had to give anyone blood with this type of surgery. Bleeding inside the knee, called hemarthrosis, is possible and if this occurs, your knee would need to be drained of the blood. This usually stops the bleeding, but if it doesn't, your knee may need to be re-scoped to find the source of the bleeding. It is also possible that despite the arthroscopy and treatment, that you have **continued pain**. This may especially be true if it turns out that you have severe arthritis with exposed bony surfaces.

You will meet your anesthesiologist the morning of your surgery and discuss your choice of anesthesia at that time. If you have any particular concerns, you can discuss this with your anesthesiologist at your hospital pre-operative appointment.

After Surgery

You can shower the next day after your scope, but keep your knee bandaged to keep the incisions dry. Two days after your surgery, you again can shower and get your incisions wet, but don't let the water beat on your incisions. You will have physical therapy after your surgery, and this usually starts two days after your surgery. You will call and make this appointment after we have given you your prescription. Don't wait until therapy though to get your own rehab started. You can bend your knee as much as possible, and can put full weight on it unless I tell you differently.

You will go home with an icing machine which flows cold water around your knee to help keep your pain and swelling down. Most people wear this pretty faithfully during the first couple of days, even sleeping in it. You can take it off though on the hour during the day to work on bending your knee. After a few days, most get tired of being hooked up to it, and use it less often. How often you use it after the first few days is really up to you.

You will be scheduled to return to see me about a week after your surgery, at which time the few small stitches will be taken out. You should have been to therapy a few times by the time you first come back to see me.

After surgery, the hope is that you have a better functioning knee. I hope this clears things up for you about your knee and what I think can be done about it. If you have any questions, please don't hesitate to ask me.

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