

# MENISCAL (CARTILAGE) TEARS

Your knee consists of meniscal cartilage and articular cartilage. Both are important and have multiple functions, most of which are weight bearing and/or load transmission, joint stability, cushioning and knee lubrication.

Articular cartilage is the slick white substance that covers the ends of the bones and joints and is abnormal or worn in patients with arthritis.

There are two meniscal cartilages in your knee. They are C-shaped structures in between the bones. The cartilage on the inside of your knee is called the medial meniscus and the one on the outside is called the lateral meniscus.

The most common form of injury is a twist or deep squat. This is often a painful episode accompanied by one or more of the following symptoms – pain, clicking, popping, catching, locking, buckling, giving way and/or swelling. Locking occurs when the torn part of the cartilage gets caught between the bones and cannot get out. Some patients however, can tear a cartilage and have no specific recollection of when or how they did it. In general, the cartilage is tougher and harder to tear in young people and a history of significant trauma is more often the case in this age group.

The diagnosis of a meniscal or cartilage tear is usually made after examination and discussion with your physician. Plain x-rays will not make a diagnosis of a torn cartilage as they only show bone, and menisci have no bone in them. An x-ray however is helpful in making the diagnosis of arthritis. An MRI (magnetic resonance imaging) scan images the meniscus. Unfortunately it is quite costly but has an accuracy of approximately 85% - 90%. As this is purely a diagnostic test it will not improve your knee function.

## WHAT ARE YOUR TREATMENT OPTIONS?

These will vary, depending on how much trouble you are having, your age, health and activity level. In general, cartilage tears will not heal by themselves. They may become less symptomatic with the use of crutches, rest, gentle physiotherapy or exercise, trying to maintain good muscle tone and sometimes taking anti-inflammatory medications. However the symptoms frequently recur with resumption of normal activity.

If your symptoms are severe enough to warrant further treatment the best way to establish a diagnosis with certainty is to arthroscope the knee.

After surgery, the hope is that your knee or other joints will be improved and significantly so. Even under the best circumstances, you should expect at least some residual symptoms such as occasional clicks, hopefully non-painful pops, slight swelling, weather change pain and the like.

Arthroscopic surgery cannot restore a knee or other joint to complete normality.

## ARTHROSCOPY – REMOVAL OF CARTILAGE

An arthroscope is a small telescope inserted into the knee through small puncture wounds (usually 3 or 4). Once the arthroscope is in the knee, the cartilage tear can be found. Most cartilage tears are not repairable. In that case small instruments are also inserted and the torn part of the cartilage is removed and the unaffected portion of the cartilage is left.

With this procedure most patients can go home on the same day.

Crutches can be organised upon discharge if required.



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Patients that work for themselves, have a sedentary or office type job can go to work and are able to drive in the next day or two. Labouring jobs and most athletic activities require approximately a three to six week recovery period, depending on several variable factors, such as age, desire and motivation.

#### ARTHROSCOPY – REPAIR OF CARTILAGE

Some cartilage tears may be considered repairable. Stitches are used to repair the torn part of the cartilage, under arthroscopic control, through a short incision on the back or side of the knee. This is a slightly longer surgical procedure. A brace with a hinge, that allows some movement, is used for a total of six weeks. Crutches are needed for about six weeks and can be organised upon discharge if required.

With this procedure most patients can go home on the same day.

If the cartilage is repaired the time for recovery is longer and may be as long as 8 – 10 weeks for more active jobs and activities.

In general, the younger the patient, the stronger I feel about trying to repair a torn cartilage. If you are in your forties, the likelihood of meniscal repair is small (probably less than 5%) therefore removal of the damaged cartilage is much more common. The specifics of your case will be discussed with you.

#### COMPLICATIONS

Do not take any medication containing aspirin for at least ten days prior to the surgery. Aspirin or medications containing aspirin diminish the ability of blood to clot and can result in excessive bleeding and swelling in the knee after an arthroscopic procedure.

The most common problem is swelling. If this occurs, it will prolong your recovery, but ultimately will resolve and not be a long term problem.

Infection can occur. This is serious and will require readmission to the hospital, prolonged intravenous antibiotic treatment and one or more arthroscopies to clean out the knee.

Residual stiffness and loss of motion can occur.

Blood clots in the leg (or phlebitis) can occur and may require admission to hospital for specific treatment with blood thinners. If the blood clot that forms in the leg or the pelvic veins becomes loose and goes to the lung, it can be life threatening. The likelihood of infection or blood clot is less than 1%.

Other complications can occur if the cartilage is repaired. These are also rare. Since needles are being pushed through the cartilage and out the sides and back of the knee, punctured nerves and blood vessels can occur. In the case of a damaged nerve, numbness and/or hypersensitivity of the skin and partial paralysis of some of the muscles below the knee can occur. Blood vessel damage, in the worst scenario, could result in the loss of a limb.

The consequences of partial removal of a torn cartilage are not completely known. The most common long term problem is the development of arthritis on the side from which the cartilage was removed. This typically occurs many years later. It is my opinion that it is less common when only a portion of the cartilage has to be removed as opposed to having to remove all of the cartilage. Leaving the torn cartilage in however, is not usually a viable option because, in addition to continuing and usually disabling pain, the chance of joint surface damage or arthritis may be increased. The presence of arthritis or the development of it later will cause continued or developing pain with swelling in the knee.

This is the reason that, if it is feasible, a repair should be carried out when the conditions are favourable. What you can expect from having a partial removal should be a knee that functions better and removes most of your symptoms. A repair that is successful, without complication and does not re-tear, should be nearly normal.