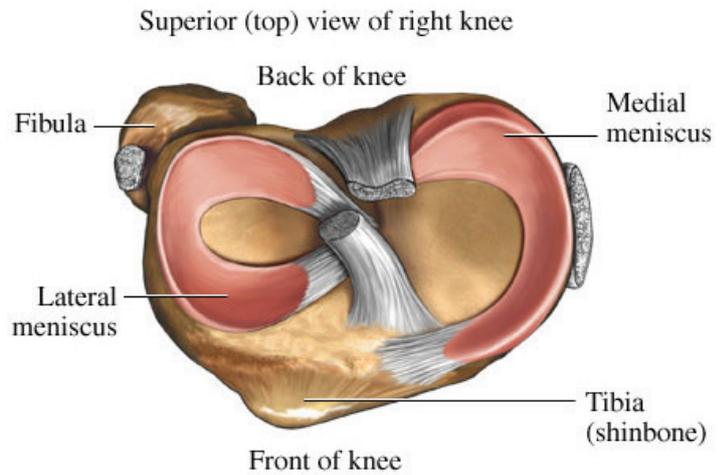


The meniscus is a commonly injured structure in the knee. The injury can occur in any age group. In younger people the meniscus is fairly tough and rubbery, and tears usually occur as a result of a fairly forceful twisting injury. In older people, the meniscus becomes weaker with age, and meniscal tears may occur as a result of a fairly minor injury.

The meniscus is a half moon shaped piece of cartilage that lies between the weight bearing joint surfaces of the thigh and the shin, and is attached to the lining of the knee joint. There are two menisci in a normal knee; the outside one is called the lateral meniscus and the inner one is called the medial meniscus.

The menisci play an important role as a shock absorber in the knee joint, protecting the cartilage that lies on the surface of the bones from impact. The cartilage surface is a tough, very slick material that allows the surfaces to slide against one another without damage to either surface. This ability of the meniscus to spread out the force on the joint surface as we walk is important because it protects the cartilage from excessive forces occurring in anyone area on the joint surface. Without the meniscus, the concentration of force into a small area on the cartilage can damage the surface, leading to degeneration over time. The menisci also cup the joint surfaces of the thigh and therefore provide some degree of stabilization to the knee.



SIGNS AND SYMPTOMS

The most common problem caused by a torn meniscus is pain. The pain may be felt along the joint line where the meniscus is located or may be more vague and involve the whole knee. Any twisting, squatting or impacting activities will pinch the meniscus tear or flap and cause pain. Often the pain may improve with rest after the initial injury, but as soon as aggressive activity is attempted the pain recurs.

Swelling of the joint may occur although meniscal tears by themselves usually don't cause a large, tensely swollen knee. Typically, slight swelling sets in the next day after the injury and is associated with stiffness and limping.

If the torn portion of the meniscus is large enough, **locking** may occur. Locking simply refers to the inability to completely straighten out the knee. Locking occurs when the fragment of torn meniscus gets caught in the hinge mechanism of the knee, and will not allow the leg to straighten completely. The torn fragment actually acts like a wedge to prevent the joint surfaces from moving.

Stiffness of the knee often occurs. This is usually because of fluid accumulating inside the knee joint. There are long-term effects of a torn meniscus as well. The constant rubbing of the torn meniscus on the cartilage may cause wear and tear on the surface, leading to degeneration of the joint.

TYPES OF MENISCAL TEARS

Traumatic tears result from a sudden load being applied to the meniscal tissue that is severe enough to cause the meniscal cartilage to fail and let go. These usually occur from a twisting injury or a blow to the side of the knee that causes the meniscus to be pushed against and compressed.

Degenerative tears are best thought of as a failure of the meniscus over time. With age the meniscus changes its structure and becomes less elastic and more friable. As a result the meniscus may fail with only minimal trauma (such as just getting down into a squat). Sometimes there are no memorable injuries or violent events that can be blamed as the cause of the tear. With such tear the signs and symptoms come more gradually.

RATIONALE FOR TREATMENT

The treatment of a meniscal tear largely depends on the patient's age, the type of tear (acute or degenerative), the size and location of the tear, the general status of the joint and also on the presence of associated knee injuries.

If the knee is locked and cannot be straightened out, surgery may be recommended as soon as reasonably possible to remove the torn portion that is caught in the joint. Once the meniscus is torn it will most likely not heal on its own. If there is a traumatic meniscal tear and with a flap that could potentially irritate the joint and damage the articular cartilage surgery is indicated to smoothen out the meniscus and the damaged articular cartilage. In young patients with a meniscal tear Mr. Vioreanu will try his best to repair the meniscus and preserve its protective role for the knee joint. This is done with an arthroscopic technique and involves 'stitching' the tear back to its native shape.

Often middle-aged patients present with an MRI report describing a meniscal tear. In most cases this is a degenerative meniscal tear and is associated with early knee osteoarthritis. The question of whether surgery is more effective than a standardised non-operative regimen in patients with symptomatic meniscal tear and concomitant knee OA remains unanswered. In a small proportion of such patients arthroscopic meniscectomy can precipitate the degenerative process and exacerbate the patients symptoms. This is called 'post-meniscectomy syndrome'. To ensure patient's satisfaction with his treatment, Mr. Vioreanu will discuss initial treatment with non-operative therapy in middle-aged individuals with symptomatic meniscal tear and concomitant OA. Surgery is recommended in patients who failed to improve with initial non-operative treatment.

SURGERY

Meniscal surgery is done using the arthroscope. Small incisions are made in the knee to allow the insertion of a small TV camera into the joint. Through another small incision, special instruments are used to remove the torn portion of meniscus while the arthroscope is used to see what is happening.

In some cases the meniscus tear can be repaired. Sutures are then placed into the torn meniscus until the tear is repaired. Repair of the meniscus is not possible in all cases. Young people with relatively recent meniscal tears are the most likely candidates for repair. Degenerative type tears in older people are not usually repairable and part of the meniscus is removed and 'smoothened' with surgery.

POTENTIAL COMPLICATIONS RELATED TO SURGERY

As with all operations if at any stage anything seems amiss it is better to call up for advice rather than wait and worry. A fever, or redness or swelling around the line of the wound, an unexplained increase in pain should all be brought to the attention of the Surgeon.

WHAT IS INVOLVED FOR YOU AS THE PATIENT

You will need to book your surgery at Sports Surgery Clinic. You will receive a package of information from us containing your admission, consent and questionnaire forms, which need to be completed and sent to Sports Surgery Clinic.

You should inform your Surgeon and Anaesthetist of any medical conditions or previous medical treatment as this may affect your operation. ***It is extremely important that there are no cuts, scratches, pimples or ulcers on your lower limb as this greatly increases the risk of infection. Your surgery will be postponed until the skin lesions have healed. You should not to shave or wax your legs for one week prior to surgery.***

After the operation you will be required to stay in hospital for the day. Overnight stay may be required due to the affects of the anaesthetic or an inability to manage crutches.

- Pneumonia: Patients with a viral respiratory tract infection (common cold or flu) should inform the Surgeon as soon as possible and will have their surgery postponed until their chest is clear. Patients with a history of asthma should bring their inhalers to hospital.
- Deep vein thrombosis and pulmonary embolus: Although this complication is rare following arthroscopic surgery, a combination of knee injury, prolonged transport and immobilisation of the limb, smoking and the oral contraceptive pill or hormonal replacement therapy all multiply to increase the risk. Any past history of thrombosis should be brought to the attention of the Surgeon prior to your operation. The oral contraceptive pill, hormonal replacement therapy and smoking should cease one week prior to surgery to minimise the risks.
- Excessive bleeding resulting in a haematoma is known to occur with patients taking aspirin or nonsteroidal anti-inflammatory drugs - such as Voltaren, Mobic, Naprosyn or Indocid. They should be stopped at least one week prior to surgery.
- Infection. Surgery is carried out under strict germ free condition. Antibiotics are administered intravenously at the time of your surgery. Any allergy to known antibiotics should be brought to the attention of your Surgeon or Anaesthetist. Despite these measures there is a less than 1 in 500 chance of developing an infection within the joint.

QUESTIONS COMMONLY ASKED

Q. Anaesthetic?

A. General anaesthetic

Q. Duration of operation?

A. Approximately 30-60 minutes.

Q. Is this procedure day only?

A. Yes, unless advised otherwise by Mr. Vioreanu.

Q. Do I need crutches?

A. Yes. You will need to bring these with you on the day of your surgery and they can be organised through your own physiotherapist or through your local chemist. You should discard the crutches a few days after surgery when walking comfortably.

Q. When do I see a physiotherapist after the surgery?

A. Physiotherapy is commenced immediately. Your physiotherapist will supervise strengthening and walking.

Q. What medications should I cease prior to the surgery?

A. Any blood thinning medication should be stopped.

Q. Driving a car?

A. Driving an automatic car is possible as soon as pain allows after left knee surgery. Should the right knee be involved driving is permitted when you are able to walk without crutches and off medication.

Q. How long does it take for the swelling to go away?

A. After 2-4 weeks most of the swelling should be gone.

Q. How long do I need off work?

A. Sedentary and office workers may return to work approximately 2-5 days following surgery.

Q. When can I travel?

A. You can travel domestically after 3 days and internationally after 2 weeks.

Q. When can I play sport?

A. This will vary depending on your surgical outcome. Please discuss it with Mr. Vioreanu.

Q. When do I need to see Mr. Vioreanu after the surgery?

A. You will see Mr. Vioreanu 2-4 weeks after surgery.