ORTHOSPORTS

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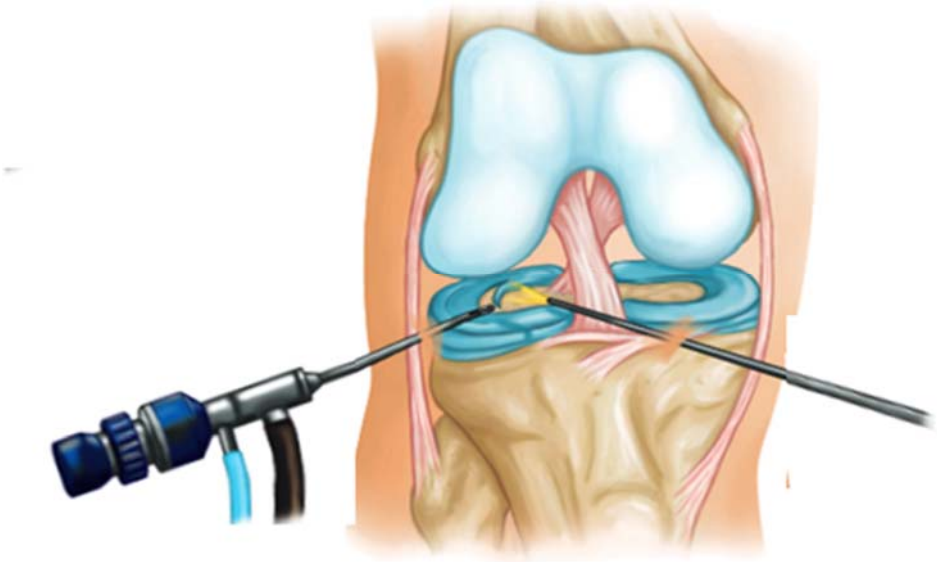
Knee Arthroscopy

What is knee arthroscopy?

Knee arthroscopy is a surgical technique where a small telescope is inserted into the knee joint. It is used to inspect the knee, diagnose and assess damage, and where possible, treat this damage. It allows us to address pathology of the meniscus and articular cartilage.



What problems can be addressed with an arthroscopy?

Damage to the internal structures of the knee can be addressed with an arthroscopy. These include the meniscus (2 shock absorbing cartilages in the knee joints) and articular cartilage (smooth cartilage lining of the joint surfaces).

Tears of the meniscus can be treated with debridement (trimming of torn, unstable edges) or repair (using stitches to re-join the torn ends) depending on the tear location, tear pattern and the quality

of the meniscal tissue. Sometimes for a meniscal repair, you may require an additional 3-4cm incision along the side of your knee.

Articular cartilage damage cannot be reversed with arthroscopy, but any loose cartilage flaps (which may get caught in the joint causing pain, catching or locking symptoms) can be trimmed and stabilised.

What does the procedure involve?

Surgery is performed in an operating theatre, under a general anaesthetic. It is usually performed as a day-case procedure, meaning you can go home the same day as surgery.

The operation is performed through 2 small "keyhole" incisions over the front of the knee. The telescope and surgical instruments are inserted through these incisions, allowing us to visualise the inside of the knee joint. At the end of the procedure, local anaesthetic is inserted into the wounds, to provide pain relief after the procedure. A dressing is applied to the wounds, and the knee will be wrapped in a bandage.

What does post-operative management involve?

Mobility: In general, most people will be able to walk immediately after a knee arthroscopy. You may require crutches for a few days for support and comfort. You should take things relatively easy for the first 2-3 days after surgery, to allow pain and swelling to settle. After 2 weeks, most people will be walking reasonably well. By 6 weeks, most people can get back to their normal pre-surgery activities. Please note, that if you have had a ***meniscal repair,*** you may be required to wear a knee brace and use crutches for a full 6 weeks.

Pain and swelling: You will be prescribed pain-killers to be taken as required for pain. Swelling is normal after an arthroscopy. Regularly icing the knee and use of a compression sleeve (eg tubigrip) can be helpful in the first 2 weeks to help reduce swelling.

Dressings: The bandage on your knee can be removed at home ~48 hours after surgery. Your wounds will be covered with a semi-waterproof dressing, and this should be kept intact and dry until your 2 week post-operative visit if possible. It is worthwhile keeping the wounds covered by plastic for showering. If the dressings get wet or soak through, they may be changed to a similar dressing. If there is persistent ooze or leakage from the wound, please contact me.

Rehabilitation: In the 6 weeks following surgery, you should aim to gradually increase your range of motion, muscle strength and mobility. Before you are discharged from hospital you will be given some exercises to commence after surgery. These should start relatively light for the first 2 weeks after surgery and then gradually increase in intensity. You may wish to have your physiotherapist supervise your rehabilitation. This should usually wait until 10-14 days post surgery.

Return to activities: In general, most people will be able to gradually return to their normal activities in the 2-6 weeks after surgery. This depends on the extent of damage found in the knee, the type of treatment undertaken during the arthroscopy, and the types of activities to which you wish to return.

Work: For people who do sedentary/desk work, allow 2-4 days before returning to work. For those in physical/manual work, allow 3-6 weeks.

Exercise: You may commence light training (eg prolonged walking, light weights/gym work) after ~3 weeks. For running and more vigorous exercise, allow 6 weeks. You can commence swimming at 2 weeks, once the wounds have fully healed.

Driving: Driving depends on which leg is operated on, and whether you drive a manual or automatic car. Most people should be able to drive after a few days, once you are over the anaesthetic and are no longer taking strong pain-killers.

What are the major risks and complications from knee arthroscopy?

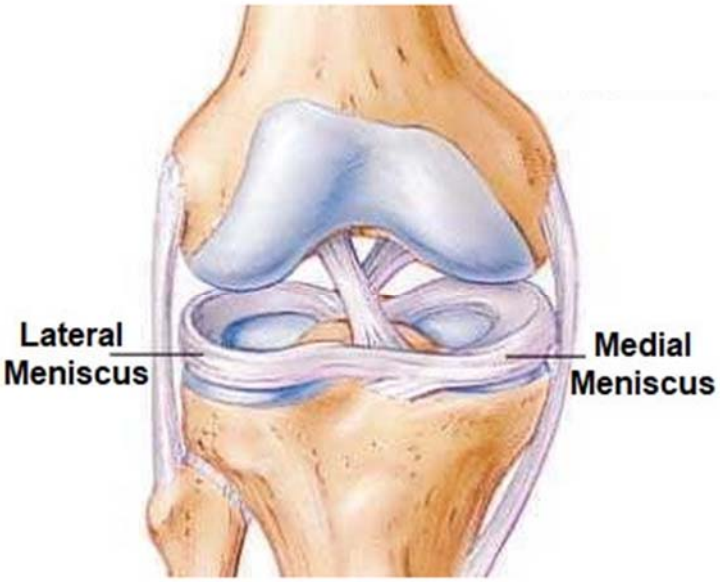
General risks of surgery include: anaesthetic risks, infection (<1%), blood clots (~1%).

Specific risks for knee arthroscopy include: pain, knee stiffness, nerve/artery injury, re-tear of the meniscus, incomplete healing of the meniscus, persistent knee symptoms.

Meniscus Repair

What is the meniscus?

The meniscus is a shock-absorbing fibrocartilage of the knee that sits on the surface of tibia (shin bone). Each knee has 2 menisci – one on the medial (inner) side and one on the lateral (outer) side. The meniscus functions to distribute forces through the knee and helps to stabilise the knee. The meniscus can tear with an acute injury to the knee, or from chronic wear and tear.



What symptoms to meniscus tears cause?

Some patients with meniscus tears (particularly chronic tears) may have no symptoms at all. Some tears can cause pain, particularly if they cause a piece of meniscus to displace and become entrapped alongside the bone. Meniscus tears can also cause catching, locking and giving way of the knee.

Some patterns of meniscus tear (especially large radial tears or root tears) can stop the meniscus from performing its normal shock-absorbing function. This can lead to increased forces going through the articular cartilage surfaces of the knee, and may accelerate the development of osteoarthritis of the knee.

What are the treatment options for a meniscus tear?

Many meniscus tears (especially chronic tears) can initially be treated without surgery. This involves ~ 3 months of anti-inflammatory medication, physiotherapy to strengthen the muscles around the knee, and avoidance of aggravating activities.

Where this fails to relieve symptoms, or for more acute meniscus tears, surgery can be performed. Surgery is performed via a knee arthroscopy (see knee arthroscopy patient handout) and may involve either meniscus debridement (trimming of torn, unstable edges) or repair (using stitches to re-join the torn ends).

What influences the decision to debride or repair a meniscus tear?

The decision to debride or repair a meniscus tear depends on the tear location, tear pattern and the quality of the meniscal tissue. As an important internal structure of the knee, it is preferable to retain as much meniscal tissue as possible. Therefore, a meniscus repair is preferable to a debridement where possible. Unfortunately, the healing capacity of the meniscus is limited, and therefore only some specific locations and pattern of tear are amenable to repair. Often it is only possible to make this assessment at the time of surgery.

How is the meniscus repaired?

If the meniscus is judged to be repairable during knee arthroscopy, various repair techniques may be used. The precise repair technique depends on the pattern and location of the tear, but essentially involves stitching the torn parts of the meniscus together with sutures. This can sometimes require an additional 3-4cm wound on the side of the knee. Where the root (bony attachment) of the meniscus is torn, repair requires the meniscus to be anchored through a bone tunnel in the tibia.

How is recovery different for a meniscus repair?

Recovery and rehabilitation is usually slower for a meniscus repair, compared to a simple knee arthroscopy/meniscal debridement. Placing excessive weight through the knee and excessive movement of the knee can place strain on the repair, and thus reduce the likelihood of the meniscus healing.

Therefore, your weight-bearing and knee range of motion may be limited in the first 6 weeks after surgery. For most patients, you will be required to use crutches for 2 weeks after surgery, before gradually increasing your weight-bearing up to 6 weeks after surgery. You will require a knee brace for 2-6 weeks after surgery. Return to full sporting activities is ~3 months after surgery. I will give you more precise, individualised instructions when you are discharged from hospital after surgery.

What are the risks of meniscus repair?

The risks of meniscus repair include all the same risks as a knee arthroscopy. Some risks are slightly higher however, including the risk of nerve/artery injury, infection and blood clots. You will require blood-thinning medication in the post-operative period to reduce the risk of developing blood clots while you are using crutches.

Another risk of meniscal repair is that the meniscus does not completely heal. This is usually indicated by persistence of symptoms 3-6 months after surgery. If the meniscus fails to heal, you may require an additional knee arthroscopy to go back in and debride the tear.