Surrey Orthopaedic Clinic
www.surreyorthopaedicclinic.com

Knee Arthroscopy

Patient Information

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Knee Arthroscopy

WHAT IS IN YOUR KNEE?

Your knee consists of the following structures:

Cartilage

We refer to 2 common types of cartilage in the knee:

- The first type is the **MENISCUS** - two cartilage cushions ('menisci'), one on the inner side (medial meniscus) and one on the outer side of the knee (lateral meniscus) between the thigh bone (femur) and the shin bone (tibia). The menisci help the knee to function properly by bearing weight, absorbing shock, stabilising the joint and providing lubrication.

- The second type is **ARTICULAR CARTILAGE** which covers the surface bone ends of the femur, tibia and patella (knee cap) to reduce friction and aid load distribution in the knee joint.

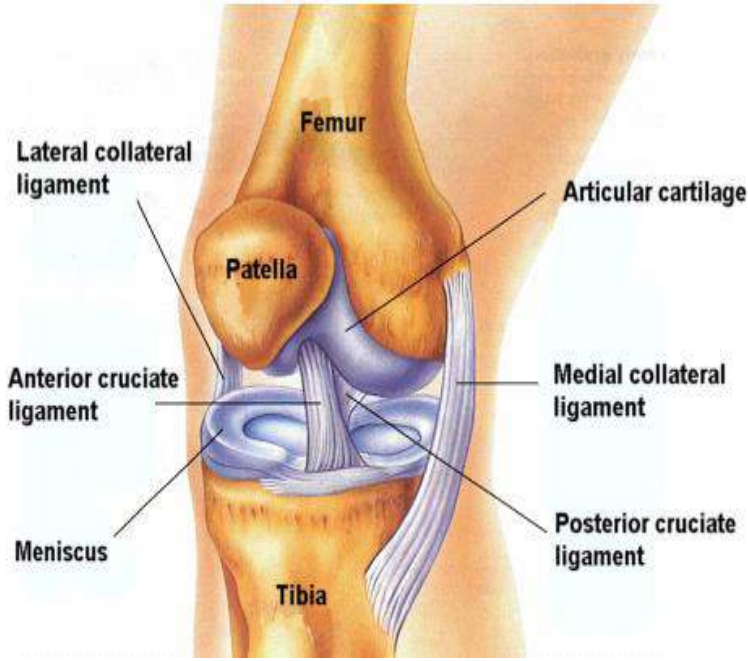
Ligaments

These hold the bones together, therefore stabilising the knee joint.

- The **Anterior Cruciate Ligament (ACL)** is one of the most commonly injured.

The ACL connects the femur to the tibia. It functions as a stabiliser of the knee joint and it resists forward movement of the tibia on the femur and also acts to prevent the tibia from excessive rotation when pivoting.

- The other major ligaments of the knee are the **Posterior Cruciate Ligament (PCL),** the **Medial Collateral Ligament (MCL)** and the **Lateral Collateral Ligament (LCL).**



COMMON FINDINGS DURING ARTHROSCOPY

The aim of arthroscopic surgery is to correct mechanical problems within your knee joint. The surgeon is able to confirm the nature of the injury and remove or repair the damaged part whilst causing minimal disruption to the knee joint.

Once the structures in your joint have become damaged failure to correct the damage may result in further deterioration of your knee.
In some cases surgery will not be able to reverse the damage which has already occurred. In the majority of cases your recovery will be dictated by the degree of damage and how well you can rehabilitate your knee.

1. TORN MENISCUS / CARTILAGE

A meniscal tear may be the result of a twist – a typical injury for someone like a netballer or footballer or from repeated squatting. These tears may cause pain, swelling and a catching or locking sensation.
If not corrected, a meniscal tear, like dirt in the ball bearings of a machine, can irritate the smooth joint surface and damage the articular cartilage. This can lead to more serious problems such as arthritis.
Early treatment can mean less damage to your joint. During meniscal surgery the surgeon may **REPAIR** or **REMOVE** the torn unstable piece of cartilage (meniscus) **(PARTIAL MENISCECTOMY)** leaving as much of a stable rim of meniscus behind as possible.

If a repair is required during surgery you may need to wear a brace post-operatively. Your physiotherapist will instruct you about this if necessary.

2. ARTICULAR CARTILAGE DAMAGE

- **Chondroplasty:**

A procedure which smoothes over loose damaged articular cartilage flaps from the surface of the bone. If the damaged articular cartilage is severe (all the way down to bone) any bare bone can be drilled or pinned to allow bleeding and thus allow new cartilage type material to fill in any defects left.

This technique is called **MICROFRACTURE.** Post-operatively you will need to wear a brace and may be partial or non-weight bearing as instructed by your surgeon. Your physiotherapist will fit your brace and teach you how to walk correctly with crutches. Follow-up clinical examination and MRI scans are sometimes required to assess any new cartilage.

- **Removal Of Loose Bodies**:

Torn flaps of articular cartilage can become detached and calcify with time leading to loose bodies within the knee. They can also be formed by some conditions causing inflammation of the lining of the knee (the synovium). Loose bodies can cause jamming or locking of the knee. Sometimes extra portals or key-holes are required to help remove these.

3. RUPTURED (TORN) ANTERIOR CRUICATE LIGAMENT (ACL)

ACL tears are common injuries in footballers and other athletes where turning and pivoting are important parts of the game.

The diagnosis of an ACL tear can be based on history and knee joint examination. Patients may hear a pop as the ACL ruptures. The knee is very painful and swollen early on. The pain subsides over several days in isolated ACL injuries.

When the ACL is torn, the knee has a tendency to slip, buckle or give way leading to **knee instability**. **Patients may lose confidence in their knee.** Some will have instability during simple daily activities like climbing steps and turning suddenly.

ACL injured knees have an increased incidence of both articular cartilage injury and meniscal tears over time. Injury to either type of cartilage may be the reason for ongoing pain and in theory may be associated with the development of osteoarthritis. Surgery may improve the pain and may prevent further long term damage to the knee.

The treatment of an ACL injury is individualised based on many factors including severity of instability, activity level, and associated injuries.

Treatment approach ranges from simple strengthening exercises, arthroscopic surgery to address any cartilage damage or reconstruction of the ACL to provide stability.

4. ARTHRITIS

Osteoarthritis or degenerative joint disease is the most common type of arthritis often due to 'wear and tear.' The knee joint becomes inflamed causing pain, swelling, stiffness, instability and often deformity. The smooth articular cartilage surface which covers the bone wears out or is damaged and becomes irregular, fissured and may fall off revealing the underlying bone.

If this happens the underlying bones can rub together, producing the pain typical of arthritis. Severe arthritis can interfere with activities of daily living and limits lifestyle. **If osteoarthritis is causing your problem, an arthroscopy will not benefit you as surgery will not be able to reverse the damage which has already occurred.** In this case a knee replacement may be offered following discussion with your surgeon at a later date.

THE ARTHROSCOPY PROCEDURE: KEY-HOLE SURGERY
What is involved in having arthroscopic surgery?

In most cases arthroscopic surgery is performed as a day case under general anaesthetic. Arthroscopy is used to look inside the knee joint with a small camera. The knee joint is filled with fluid to allow the camera to be moved through the joint causing minimal disruption to the knee joint. The camera is inserted through a small 'key-hole' incision, less than 1 cm long, near the knee cap. One or two further small 'key-hole' incisions are made to insert the small instruments to carry out any surgical procedure. The surgeon is able to confirm the nature of the injury and remove or repair the damaged part.

Complications

These are rare but include infection, deep vein thrombosis (DVT - a blood clot in the leg) and extremely rarely death. Other complications include numbness around the scars, bleeding, residual pain and stiffness. Arthroscopic surgery is generally used to correct mechanical problems within the knee. If osteoarthritis is causing your problem, an arthroscopy **will not** be of benefit as surgery will not be able to reverse the damage which has already occurred.

AFTER ARTHROSCOPY

In most cases your recovery will be dictated by the degree of damage and how well you can rehabilitate your knee. Every injury is different and your recovery may be different from other people.

TED Stockings

Leave the TED stockings on over the bulky bandage for 48 hours. The bulky bandage can then be removed at home leaving the small dressings underneath. Reapply the TED stockings over these small dressings. The TED stockings will stay on for 2 weeks in total (including overnight) and may be removed for washing your leg and for up to 1 hour per day. These help minimise swelling and prevent DVT following surgery.

Dressings

You will be advised to check your wounds and change the small dressings at home after 5-7 days in order to keep your wound clean. Keep your wounds dry for seven days and look out for any signs of infection (ie. redness, heat, weeping). If you think your wound is infected, contact your GP surgery or attend your local walk-in centre. In general, no stitches need to be removed as your surgeon uses clear absorbable sutures and steristrips (paper stitches). On discharge, the nursing staff will discuss any changes to this with you.

Painkillers

You will be prescribed simple painkillers which you should take as required, although it may be beneficial to take them regularly for the first few days to aid your recovery.

Rehabilitation

After surgery, you should care for your knee by resting, elevating and icing your knee and completing your exercises regularly. You will not routinely be given crutches as you should be able to walk normally after the operation however they will be provided if deemed necessary. You should pace your return to walking over the first week and should expect to be completely back to normal within 2-3 weeks.

Braces

You may require a post-operative brace to be fitted to your knee if you have had a meniscal repair or microfracture surgery. The brace is only to be worn when you are walking and should be removed when at rest so that you are able to exercise your leg regularly and maintain full knee extension.

Ice and Elevation

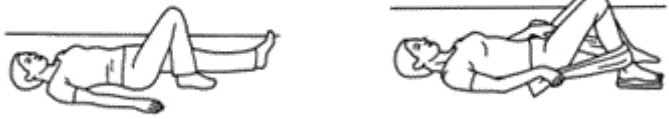
To reduce pain and swelling, elevate and apply ice to your knee at regular intervals throughout the day for at least two days post operatively. Apply ice on your knee for 20 minutes at a time (ensure you wrap the bag of ice in a damp towel to protect your skin). Leave at least 20 minutes between icing sessions. Continue daily until the swelling subsides. When resting with your leg elevated ensure your leg is **straight** and not in a bent position. If you want to rest the leg on a pillow, make sure it is placed **under the heel** and calf, this ensures the knee is straight.

Exercises

Start as soon as possible. Increase repetitions as able. Repeat 4 times a day. Move your knee through as much range as possible within the limits of your dressings, swelling and pain. If you are in severe pain, reduce the number of repetitions for each exercise and try repeating little and often.

The aim of these exercises is to regain full range of movement and improve your strength. It is particularly important to regain full knee straightening as this will aid a normal walking pattern and reduce limp.

1) Lying or sitting. Bend and straighten your knee by sliding your foot up and down. If you find this difficult use a towel to assist the movement within your pain limits.



2) Lying or sitting with legs straight. Bend your ankles and push your knee down firmly against the bed. Hold 5 seconds – relax.

3) Lying on your back. Place a rolled towel/blanket under your knee. Pull your foot and toes up, tightening your thigh muscle and straightening the knee to allow your heel to rise up from the bed (keep knee on the roll throughout).

Hold for 5 secs - relax.

4) Lying or sitting. Straighten your knee fully and lift your leg straight up off the bed about 20cm. Hold for 5 seconds - relax.

5) Sitting on a chair, bend your operated knee back as far as possible. Place your non-operated leg over your operated leg to assist it further. Hold for 5 seconds - relax.

6) Sit on a chair with your operated leg straight and resting on a stool/chair. Allow your leg to straighten with gravity assisting the movement. Tighten your thigh muscle to further straighten your knee. Hold for 5 seconds - relax.

FURTHER INFORMATION:

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Contact:

After surgery care:

Contact the relevant ward:

BMI Runnymede: 01932 877800

Nuffield Hospital Woking: 01483 227800

BMI Princess Margaret: 01753 743434

BMI Chiltern: 01494 890890

Spire Thames Valley: 01753 662241

Appointments:

Surrey Orthopaedic Clinic

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Emergency Out of Hours Consultant: 020313034050