Hampshire Hospitals
NHS Foundation Trust

Department of Trauma & Orthopaedic Surgery

Having knee arthroscopy surgery

Information for patients, relatives and carers

Index

How does the knee normally work?	1
What can cause knee problems?	1
Why have I been referred for an arthroscopy?	2
What is an arthroscopy?	2
Are there any alternatives to arthroscopy?	4
What risks are associated with knee arthroscopy surgery?	4
What type of anaesthetic is used for knee arthroscopy surgery?	5
Is there anything I should do to prepare myself for surgery?	6
What happens before my operation?	7
What will happen on the day of surgery?	8
What happens immediately after my operation?	9
When can I go home?	9
How should I look after my knee at home?	10
Is there anything I need to watch out for at home?	11
When can I get back to normal?	11
Will I need to return to hospital?	11
Contact us	12

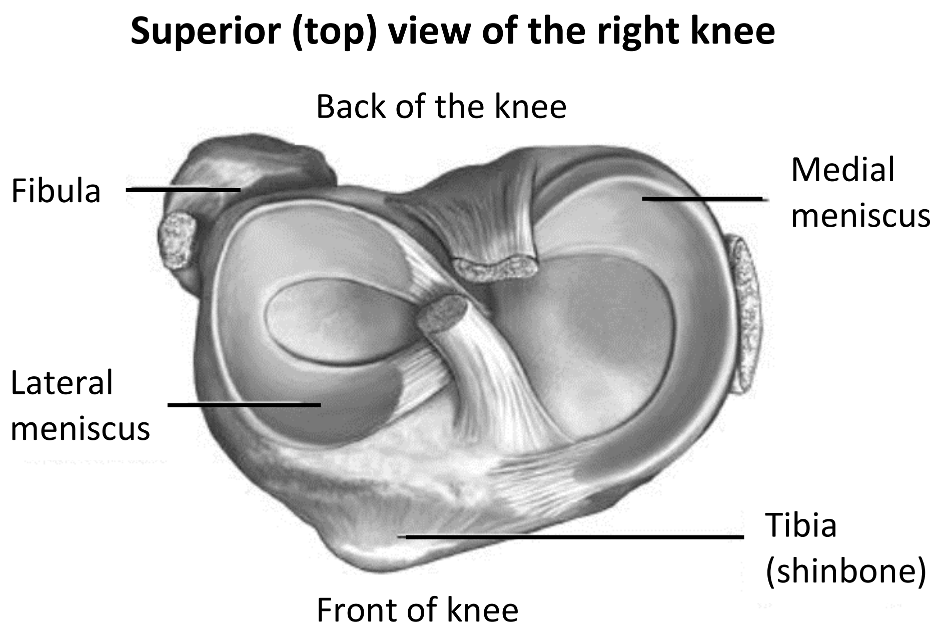
How does the knee normally work?

The knee is the largest joint in the body, and one of the most easily injured. It is made up of the lower end of the thigh bone (femur), the upper end of the shin bone (tibia), and the kneecap (patella), which slides in a groove on the end of the femur. Four bands of tissue – the anterior and posterior cruciate ligaments, and the medial and lateral collateral ligaments – connect the femur and tibia and provide joint stability. Strong thigh muscles give the knee strength and mobility.

The surfaces where the femur, tibia, and patella touch are covered with articular cartilage. This is a smooth substance that cushions the bones and enables them to glide freely. Semi-circular rings of tough fibrous cartilage tissue called the menisci act as shock absorbers and stabilizers.

The bones of the knee are surrounded by a thin, smooth tissue capsule lined by a thin synovial membrane, which releases a special fluid that lubricates the knee, reducing friction to nearly zero in a healthy knee.

Superior (top) view of the right knee



What can cause knee problems?

Normally, all parts of the knee work together in harmony. However, sports injuries, arthritis, or weakening of the tissues with age can cause wear and inflammation, resulting in pain and diminished knee function.

Why have I been referred for an arthroscopy?

Arthroscopy can be used to diagnose and/or treat knee problems, such as:

- Torn meniscal cartilage
- Loose fragments of bone or cartilage
- Damaged joint (articular) surfaces
- Inflammation of the synovial membrane
- Abnormal alignment or instability of the kneecap
- Treat torn ligaments including the anterior and posterior cruciate ligaments,

By providing a clear picture of the knee, arthroscopy can also help the surgeon decide whether other types of surgery would help you. For example, a total or partial knee replacement, an osteotomy where the leg is straightened, or an operation to repair damaged cartilage.

Most arthroscopies are done on people aged between 20 and 60, but patients younger than 10 and older than 80 have also benefited from this procedure.

What is an arthroscopy?

It is a type of keyhole surgery that uses a pencil-sized instrument called an arthroscope, or scope, to examine the inside of your knee. The scope is inserted via small incisions (cuts) in your knee. It has a light and a camera in the tip which sends live pictures to a screen. This enables the orthopaedic surgeon to see the inside of your knee and find out what is causing your problem.

During the operation, the surgeon can also pass surgical instruments through additional small incisions in your knee to remove or repair damaged tissues. Your surgeon or staff in the pre-assessment clinic will discuss the following procedures with you.

Debridement/chondroplasty

Often the lining of the knee joint (the articular cartridge) can become frayed, thinned and/or develop loose flaps. This is known as degenerative joint disease, or DJD, and is usually the start of osteoarthritis. Smoothing these surfaces will often improve symptoms, although this may only be temporary. There are usually no specific physiotherapy exercises required after this procedure.

Micro-fracture/drilling

Sometimes isolated full thickness areas of articular cartilage are damaged within the knee, exposing the bone underneath. If it is left alone, it will get wider and deeper, and lead to osteoarthritis. Similar to when dealing with a pothole, the best thing to do is fill it in.

Micro-fracture is a technique where the area is prepared, before small holes are knocked into the exposed bone to allow the bone to bleed and release bone marrow. Within the bone marrow are stem cells, which will turn into the same, or similar, cells in that area. These will hopefully become scar cartilage and patch the area over.

It is not as strong or durable as normal cartilage, but it is better than nothing. Good results can protect the area for more than eight to 10 years. It is worth doing in isolated relatively small lesions (areas of damage) where the rest of the knee is normal.

The technique has two large drawbacks:

1. It does not work for everyone - the results tend to be better in younger patients. At best, it may work well in 60-85% of patients, giving good pain relief to 80% of them. In about 15% it does not seem to make any difference, and in 5% of patients the pain is worse.
2. It takes time to feel the benefit of the procedure. Depending on where in the knee the damage is, for the first four to six weeks afterwards you may need to use crutches and be unable to put full weight on your knee, be unable to drive and/or need to wear a splint to keep your knee straight. Your knee will feel uncomfortable for the first 10 days or so, then be uncomfortable again for a further 10 days after you stop using crutches or your splint is removed. The discomfort then tends to improve rapidly over the next three to four months if the procedure was successful, with slower improvement for five to six months after that. Any levels of discomfort remaining nine months after surgery tend to be the end result.

Meniscal repair

The semi-circular cartilage, or meniscus, within the knee can become damaged and torn due to wear and tear, or an injury such as when playing sports. Symptoms usually include sensations of locking, catching, giving way and/or the knee feeling unstable. It is often associated with the whole knee swelling up.

The meniscus only gets a blood supply to the outer ¼ to ⅓ of the cartilage. Unfortunately, it is usually the inner ⅔ to ¾ part of the meniscus that is damaged, which is thinner and has a poorer blood supply, making it difficult to repair. In this case, we will smooth over the surface of the torn section, which is usually not more than 15% of the meniscus. We make every effort to save as much of the meniscus as possible as it acts as a shock absorber and weight distributor of the knee. Without it, the knee is more likely to develop osteoarthritis. There are usually no specific physiotherapy exercises required after this procedure.

Occasionally, the meniscus may be repairable. This is a more complicated operation and can usually be done via keyhole surgery. Restrictions on what you can do afterwards may last for weeks or months. Your surgeon will be able to advise you further. The success of repair on its own is between 50 and 80%. If the repair fails, then this will usually require another operation to smooth off the torn segment.

Removal of loose bodies

Pieces of cartilage and/or bone can break off and float around the knee, causing the knee to lock and/or give way, or to feel as if there is something moving within the joint. These can usually be removed via keyhole surgery. There are usually no specific physiotherapy exercises required after this procedure.

EUA (examination under anaesthetic)

EUA is usually done just before your knee arthroscopy once you are asleep under a general anaesthetic. It allows your surgeon to physically examine the knee when you are completely relaxed. Very occasionally, EUA identifies problems that were not found before, as knee examination in the outpatient clinic may be limited due to pain and swelling.

Are there any alternatives to arthroscopy?

There are several ways of investigating knee problems. However, arthroscopy is the only one that gives a direct view of the inside of knee and at the same time enables some conditions to be treated.

What risks are associated with knee arthroscopy surgery?

As with any anaesthetic and operation, there are risks associated with this type of surgery. We will discuss risks specific to you at your pre-assessment clinic appointment a few weeks before surgery.

Risks associated with knee arthroscopy surgery include:

- Wound infection.
- Numbness and pain around the surgical site. When creating the portals (openings in the skin) through which to pass the equipment used in keyhole surgery, it is possible to damage one of the small nerves supplying the skin, causing numbness to that area. This usually recovers, but even if it persists, it rarely causes any problems. The portals themselves can be painful after surgery, but usually settle on their own without any long-term problems.
- Bleeding. The portals made to pass the equipment into the knee are very small (about 1cm long), so significant bleeding is extremely rare. The portal wounds do not usually need stitches. Bleeding can occur very occasionally into the knee joint instead, sometimes needing to be washed out in an additional procedure. Your risk of bleeding during and after surgery is increased if you are on blood-thinning medications such as aspirin. To reduce this risk, we may ask you to stop taking them for up to 10 days before your operation.
- Failure to improve. In some cases, arthroscopy fails to relieve some or all of your symptoms.

Additional risks

Deep vein thrombosis (DVT) and pulmonary embolus (PE)

The risk of having a DVT (blood clot in the veins of the leg) or PE (blood clot in the lungs) is increased in certain circumstances. We will assess the risk specific to you before surgery. It is very important that you tell us if you have ever had a DVT or PE previously, or if any family member has ever had one.

We always try to reduce the risk of DVT and PE, initially by using special pumps for your feet or calves (which also help to reduce post-operative swelling in the leg) and encouraging you to start walking around as soon as possible after surgery. We may also give you blood-thinning injections or tablets. We will discuss this with you and tailor it to your individual needs.

Wound and chest infections

To help prevent infection, we will take swabs from your skin and nose to check for MRSA/MSSA bacteria and make sure that there are no cuts, wounds, or infections on your skin before your operation. We will give you prophylactic (preventive) antibiotics to reduce the risk of infection during surgery.

We will also encourage you to mobilise (move around) as soon as possible after your operation.

What type of anaesthesia is used for knee arthroscopy surgery?

Knee arthroscopy is normally done while you sleep under a general anaesthetic. Local nerve blocks (anaesthetic to numb specific areas) and/or regional (spinal) anaesthesia (where your legs and lower body are numbed) may also be used during the operation so that you will be in less pain when you wake up. You will meet the anaesthetist just before the operation, who will discuss your options, and help to advise you.

Risks associated with having a general anaesthesia

- Risk of urinary retention (difficulties emptying your bladder), especially in men. You may need a catheter (a tube inserted into your bladder to drain your urine) for a short time.
- Potential damage to teeth or crowns and/or a sore throat due to the tube the anaesthetist places in your throat to keep you asleep during the operation.
- Risk of nausea (feeling sick) and vomiting (being sick).
- You may need oxygen for a short time to support your breathing after surgery.
- When you regain consciousness (wake up) in the recovery room, you may be in pain.

Is there anything I should do to prepare myself for surgery?

While you are waiting for your arthroscopy, there are a few things you can do that may help you to recover more quickly from surgery.

Exercise

The physical condition of your knee at the time of surgery is critical to your recovery.

We may ask you to attend for physiotherapy before your operation to strengthen the muscles around your knee and aim to achieve full range of movement.

General health

Keeping yourself as fit and healthy as possible before your operation will help with your recovery afterwards. If you develop any new health problems or any other pre-existing medical conditions get worse, please see your GP so that they can be treated before your operation.

If you are a smoker, we strongly recommend that you stop smoking or at least cut down before your operation. This is because you are more likely to get a chest infection if you smoke, and the nicotine can affect wound and bone healing. For help with quitting smoking, contact Smokefree Hampshire on 0800 772 3649 or visit their website at www.smokefreehampshire.co.uk

If you drink alcohol, please do not drink more than 14 units a week, as this can also affect wound healing.

If you are overweight, losing weight will be of benefit before and after your operation, as it will reduce the load (weight) taken through your knee. It will also mean that the surgeon can make a smaller incision (cut) for your operation, and you will have a smaller scar. Larger legs are more likely to have wound problems and have a higher risk of infection. Your GP may be able to refer you to a supervised weight loss programme (such as WW or Slimming World) or provide medication that helps with losing weight. Some patients may benefit from considering weight-loss surgery.

Pain relief

If your knee is painful and you are not taking anything for it, or the medication you are taking is not working, talk to your GP as they may be able to prescribe something to help relieve this.

Foot care

It is very important that you look after your feet, as minor wounds, sores, or infections may result in your operation being cancelled. If you visit a chiropodist, please make sure that you tell them you are going to have surgery. If you have any concerns about your feet, please make an appointment with your GP.

Skin care

If you have any cuts, abrasions (grazes), rashes, or other skin conditions, please see your GP as these may also delay your operation if left untreated.

What happens before my operation?

Pre-assessment clinic

A few weeks before your operation, staff from the pre-assessment clinic will contact you and ask you to complete a questionnaire. This is to check you are medically fit for the operation and the anaesthetic. If needed, they will arrange routine tests such as blood, urine, ECG (heart trace) and x-rays.

They will also take skin swabs to test for MRSA (methicillin resistant staphylococcus aureus) and MSSA (methicillin sensitive staphylococcus aureus). These are both normally harmless bacteria that can sometimes cause wound infections. To help minimise the risk of wound infection, they will give you special soap to wash with. This will get rid of any MSSA before your operation. If you test positive for MRSA, we will admit you to a side room during your hospital day, to prevent spread to the other patients on the ward.

The pre-assessment team will give you instructions on when to stop eating and drinking before your operation, and whether you need to stop taking any medication.

They will ask you to sign a consent form for the surgery to confirm that you understand the risks, benefits, and alternatives to the proposed treatment. This is also an opportunity to ask any remaining questions that you may have.

All arrangements for your discharge home after surgery **must** be made before you come into hospital. You will be able to return home the same days as your operation unless you are planned for an overnight stay as discussed with your consultant. If you think there may be a problem making these arrangements, please tell us as we can help.

What to bring with you on the day of surgery

- ✓ Any regular medication you take, in its original boxes or containers if possible.
- ✓ Appropriate footwear (trainers or well-fitting shoes that can easily be put on using a shoehorn, **not** mules, sandals, or flip flops).
- ✓ Nightwear, underwear, toiletries, and a change of clothes if we have advised you will need to stay overnight.
- ✓ Mobile phone/tablet and charger(s).
- ✓ Something to read.

What to leave at home

- Valuables such as jewellery and watches (except wedding rings, which can be taped into place).
- Contact lenses (please wear glasses instead).
- Large amounts of cash.

Please **do not** wear make-up on the day of surgery and remove all nail polish from your fingers and toes.

What will happen on the day of surgery?

We will admit you to the ward on the day of your operation.

Nursing assessment

A nurse will welcome you to the ward, check your details and complete a nursing assessment. They will record your temperature, pulse, respiration rate, oxygen saturation levels and blood pressure. If the anaesthetist has prescribed any pre-medication for you, the nurse will administer it. Please do ask any questions you may have.

We will give you a pair of foot or calf pumps. These are inflatable devices which help with your circulation, reduce leg swelling and help to prevent deep vein thrombosis.

Anaesthesia

The anaesthetist will visit and examine you to make sure you are fit for surgery. They will discuss with you the type of anaesthesia that will be used, the methods of pain control available, and prescribe any medication to be taken before your operation.

Surgical team

Your consultant (or a member of their team) will mark the appropriate leg for surgery and ask you to confirm your consent to have the operation.

Therapy

A therapist will discuss what to expect from rehabilitation after surgery and answer any questions you may have. Depending on the type of arthroscopy you are having, they may give you a pair of elbow crutches adjusted to your requirements and show you how to use them.

Going to theatre

We will ask you to put on a theatre gown. Theatre staff will collect you from the ward and take you to theatre for your anaesthetic before the operation begins.

What happens immediately after my operation?

You will wake up in or be taken to the recovery area. Your wound will be covered with a dressing and the inflatable foot/calf pumps will be on your feet/lower legs. You may have an oxygen mask on your face and be connected to an intravenous drip to prevent dehydration. If you have had other knee procedures done at the same time as your arthroscopy, such as a meniscal repair, you may also have been fitted with a brace.

If you have had regional (spinal) anaesthesia, your leg will feel weak and numb due to the local anaesthetic (known as nerve blocks) that the anaesthetist injected before your operation. This can take a few hours to wear off. You will remain in the recovery area until your condition is stable, and your pain is well controlled.

If you have had a general anaesthetic, and we have used nerve blocks or spinal anaesthesia for additional pain relief, your leg(s) will feel weak and numb. You will remain in the recovery area until your condition is stable, and your pain is well controlled.

Back on the ward

Nursing staff will regularly check your temperature, pulse, respiration rate, oxygen saturation level and blood pressure (known as 'obs' or observations). They will also monitor your pain control and give you pain relief as needed. We will encourage you to start drinking fluids straight away and to gradually start eating again.

Therapy

Your therapist will help you to stand and walk as soon as possible after surgery. Although this may be painful to start with, moving around will speed up healing and aid your recovery. It will also improve circulation and reduce swelling.

Exercises

It is important that you do the exercises in the separate booklet we have given you three to four times a day, starting on the same day as your surgery. Your physiotherapist will refer you to your local physiotherapy department if required.

When can I go home?

You will be ready for discharge when the nurses, doctors, and therapy team (physios and therapists) have checked that you are ready and safe to go home. **Most people are able to go home on the same day as their operation.**

Before leaving the hospital, you should:

- ✓ Be walking safely with crutches, and have practiced going up and down stairs
- ✓ Understand your home exercise programme and what you should avoid doing for the next week.

On discharge from the ward, the nursing staff will give you:

- ✓ Medication as appropriate
- ✓ A copy of your discharge letter
- ✓ A fit note (sick certificate) for your employer if required
- ✓ Instructions about follow-up care for your wound, removal of stitches, and any further appointments, such as for physiotherapy.

How should I look after my knee at home?

Ice therapy

Using ice packs for 10 to 15 minutes every one or two hours will help to manage your pain. To prevent ice burns, first wrap the ice pack in a clean towel before applying it to your knee.

Walking

Unless your surgeon has advised you not to, you will be able to put as much weight on your knee as is comfortable.

Your physiotherapist may give you crutches to support your knee initially and will advise when you can stop using crutches. This is usually one to two weeks after surgery when you are in less pain, and you can walk comfortably without a limp.

It is important to keep mobile (move around) after your surgery, as this will minimise the risk of post-operative complications.

Swelling

It is **normal** to have some swelling around the knee after surgery. However, excessive swelling can slow down your recovery. You can help reduce swelling by doing the following:

- × **Do not rest with your knee bent for long periods**, as this will prevent it from fully straightening, which is essential for rehabilitation.
- ✓ **Elevate** (raise) **your leg** above heart level. Ideally, lay flat in bed with your leg on two or three pillows. Avoid placing a pillow directly under your knee, as this can make it harder to fully straighten your leg.
- ✓ **Do your exercises** daily as prescribed. This will help to reduce your swelling.
- ✓ **Gently massage** your knee, moving up towards your hip. This can help to shift fluid and reduce swelling.

Is there anything I need to watch out for at home?

Contact the orthopaedic elective ward you were on if you have any problems with your wound, or if you have increased pain and swelling in your calf. Evenings and weekends, please contact your GP or call 111 for advice if you are worried.

When can I get back to normal?

Driving

As you will have had a general anaesthetic, you should not drive for at least 48 hours after your operation. Unless we have advised you otherwise, you can then start driving, but a lot of people do not feel comfortable or safe to drive for five to 10 days.

Some surgical procedures will mean you are unable to drive for several weeks. We will discuss this with you before and/or after your arthroscopy.

It is important that you advise your insurance company that you have had surgery to ensure that you would be covered in the event of a claim.

Returning to work

This will depend upon the physical requirements of your job. If you are unsure, please discuss with your consultant.

If you have a sedentary (sitting down) or office job, then you may be able to return to work between one and two weeks after surgery.

If you do heavy manual work, you may need to take four to six weeks off.

Returning to sport

You can start swimming when the surgical wounds have healed over.

Running, playing sports, and other impact activities can be started only when recommended by your physiotherapist.

Will I need to return to the hospital?

Your physiotherapist will discuss this with you before you leave.

Contact us

If you have any questions, problems or need advice once you are at home, please do not hesitate to contact us

Basingstoke and North Hampshire Hospital

- Orthopaedic Ward (D5):
  Switchboard: 01256 473202, then ask for the Elective Orthopaedic Ward

- Orthopaedic Therapy Services (occupational therapy and physiotherapy)
  Telephone: 01256 313205

- Physiotherapy Outpatient Department
  Telephone: 01256 314707

- Email: oefujointreplacementclinic@hhft.nhs.uk

Royal Hampshire County Hospital

- Elective Orthopaedic Ward
  Switchboard: 01962 863535, then ask for the Elective Orthopaedic Ward

- Orthopaedic Therapy Services (occupational therapy and physiotherapy)
  Telephone: 01962 825670

- Physiotherapy Outpatient Department
  Telephone: 01962 824818

- Email: oefujointreplacementclinic@hhft.nhs.uk

Alton Community Hospital

- Physiotherapy Outpatients
  Telephone: 02382 310383

- Email: Therapy.ServicesAlton@hhft.nhs.uk

Your feedback is important to us

Comments, concerns, compliments, and complaints

If you have any comments, concerns, compliments, or complaints about your care, please let us know as soon as possible. Please speak to the nurse in charge, ward sister or matron so that we can help to resolve your concerns quickly.

PALS and complaints

You can contact the PALS and complaints team by telephone on 01256 486766 or via email at PALSandcomplaints@hhft.nhs.uk

This booklet is available in other formats, including large print and Easy Read, from the PALS team.

www.hampshirehospitals.nhs.uk

Department of Trauma and Orthopaedic Surgery, HHFT
August 2024
Review August 2026
SS/ 326/ 2024
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