

ARTHROSCOPIC KNEE SURGERY

What is Arthroscopy?

Arthroscopy involves the inspection of the inside of the knee joint with a small telescope and camera. The image is projected onto a television monitor via a fibreoptic cable. This modern technique allows the surgeon to fully inspect all of the interior structures of the knee joint without needing open surgery.

Despite the fact that the incisions are quite small, a large amount of surgery can be performed within the knee.

Arthroscopic surgery is usually performed on a 'day only' basis or with an overnight hospital stay.

INDICATIONS

- 1) **Meniscal injury** is the most common reason to need an arthroscopy. The meniscus (sometimes known as 'knee cartilage') acts as a shock absorber in the knee. The torn part of the meniscus can be a source of pain and further damage to the joint. The larger the fragment of meniscus removed the greater the chance of developing arthritis of the knee in the long term. Occasionally in younger patients the meniscus can be repaired. This might require a larger cut if it cannot be done from within the joint. The recovery time is also longer (up to 6 months for complete recovery) and a splint or crutches may be required. The meniscus serves a useful function and we preserve as much of it as possible.
- 2) **Articular cartilage** is the smooth lining of the joint which covers the bone. This allows the joint to run smoothly without friction or pain. If the surface becomes rough or irregular it can cause pain and swelling in the knee. This is the earliest form of arthritis. Arthroscopy can help slow the progress of this, but is less reliable at relieving the pain than with meniscal tears. An arthroscopy cannot cure arthritis and hence recovery may be less than complete.
- 3) **Loose bodies** are loose pieces of cartilage or bone. There are numerous causes for this and they can be removed at arthroscopy. The knee will almost always feel better but may have ongoing problems because of where the loose piece came from.
- 4) **Diagnosis** of ligament tears, injury to bone or cartilage (lining of the joint). Arthroscopy is also useful to assess the inside of the knee to determine the suitability for other surgical procedures such as osteotomy.
- 5) **Patella (knee cap) pain** is usually treated by physiotherapy first as it is a difficult disorder to treat surgically. Occasionally if there are loose fragments of cartilage these can be treated with an arthroscopy.
- 6) **Arthritis** can occasionally be helped by arthroscopy, especially if there are mechanical symptoms (i.e. locking, clicking). This is a 'spring cleaning' of the knee that is likely to eventually require a knee replacement.
- 7) **Cruciate ligament reconstruction.**

Complications:

Complications following arthroscopic surgery to the knee are not common but can and do occur. The complication rate for arthroscopic surgery has been shown to be between 1.5 and 2% of cases. The most common complication is bleeding into the joint (haemarthrosis). Infection is uncommon and has been shown to complicate around 1 in 500 arthroscopic procedures. Damage to nerves and vessels is extremely rare but can occur.

Results:

The results from arthroscopic surgery depend on the arthroscopic findings and the underlying condition. In cases of a torn meniscus with no other damage to the joint, the results are usually excellent (There may be a long term tendency towards arthritis since one of the shock absorbers of the joint has been damaged).

Patients who are found to have damage to the articular cartilage (which lines the joint), are likely to continue to experience symptoms. This is due to the underlying nature of the condition and may be intermittent. Patients who have osteoarthritis are unlikely to gain full relief of symptoms following arthroscopic surgery. Arthroscopic surgery in the presence of osteoarthritis can help if the meniscus is torn or there is loose cartilage in the joint but does not affect the underlying condition, which is likely to gradually progress. Occasionally arthroscopic surgery in the presence of osteoarthritis can make symptoms worse for a period of months. Results in these cases are occasionally disappointing with worsening of symptoms but can provide excellent relief for some patients

Preparing for your Operation:

1. Exercise:

It is useful to do some quadriceps exercises prior to your operation. These exercises are designed to maintain muscle strength of the quadriceps group (which are your front thigh muscles). It is very important to also continue these exercises post-operatively.

Exercise up to the point of mild discomfort is reasonable and is unlikely to cause any damage inside the knee.

2. Medical History and Medications:

We ask that you complete a health questionnaire at the time of your consultation and prior to your operation. We require information about your past and present illnesses, previous operations, current medications and any known allergies. It is important that you inform me of any change in your medications or health status.

Please take a list of your current medications and known allergies to the hospital on the day of admission and provide this to the anaesthetist, who will see you pre-operatively. Anti-inflammatory medication such as Aspirin, Orudis, Feldene, Voltaren and Naprosyn should be ceased 10 days prior to surgery as they can cause bleeding. Celebrex and Vioxx may be continued until the day before the procedure.

You are advised to stop smoking for as long as possible prior to surgery.

The Operation:

You will be admitted to hospital on the day of your operation.

You will need to phone the hospital on the working day prior to your operation to be advised of the admission time to hospital. You will also be given fasting instructions (i.e. you will be told when you must stop eating and drinking before your surgery).

The anaesthetist will see you before your operation. You will need to discuss with the anaesthetist your medical history, current medications and any previous anaesthetic problems. Please feel free to discuss with the anaesthetist the type of anaesthetic that will be used (usually a general anaesthetic) and its possible side effects and complications.

The operation is usually performed under general anaesthesia (ie you are asleep). At the end of the procedure the knee is injected with long acting local anaesthetic to keep pain to a minimum.

After Surgery:

I will visit you in the ward before discharge. I will discuss the operative findings with you.

The physiotherapist will also visit you in the ward after surgery. You will be shown some exercises to do. If crutches are required they will be supplied by the hospital physiotherapist.

You may exercise at home up to the point of mild discomfort. This is unlikely to cause any damage to your knee. Avoid deep squats, kneeling and spending too much time on your feet in the first few days after surgery. It is important to keep the leg elevated as much as possible in the days following surgery.

You may remove the bandage from the leg 3 days after the surgery. Place the waterproof dressings over the incisions and leave them intact until the first post-operative visit. It is normal for some blood to collect under the dressings. It is also normal for the knee to develop some bruising after surgery.

You will be provided with pain killer to take home with you.

If you are taking regular anti-inflammatory medications, you may resume these after surgery.

Driving:

It is not permitted to drive a motor vehicle for 24 hours after having a general anaesthetic. You will therefore need to arrange other transport home from the hospital. It is best to go home with a relative or a friend. You can resume driving only when your knee is comfortable and you have no restrictions in operating your vehicle.

It is recommended that you do not travel long distances by car or plane for at least two and preferably six weeks following surgery as prolonged travel can increase the risk of forming blood clots in the leg.

Post-operative Appointment:

I will need to see you in the office about 10 days after surgery.

Return to work:

You may return to work as your knee function improves well enough for you to do your particular job. This does not mean that all discomfort must have resolved, as there will be some tenderness around the incision sites. It is normal for there to be some discomfort in the knee for several weeks after arthroscopic surgery. I will provide you with a medical certificate at your first post-operative visit if required.

Early recovery:

Recovery from this operation involves reducing the swelling, strengthening the muscles and reducing pain.

1. **Reduce pain:**

Excessive pain in the knee following arthroscopic surgery is usually due to overactivity or spending too much time on your feet before the thigh muscles have been adequately strengthened. Excessive swelling can also cause pain in the knee.

It is normal for the knee to be sore and swollen following arthroscopy. Activity should be increased gradually. You should avoid prolonged walking or standing for the first few days. You should avoid squatting or kneeling or attempting to bend your knee beyond 90 degrees if the knee is painful or swollen.

2. Reduce swelling:
Keep the leg elevated as much as possible after the operation. Apply an ice pack to the knee for 30 minutes at a time to reduce swelling and pain. Anti-inflammatory medications can also be helpful in reducing swelling. Initially the ice packs should be placed on the bandages and then when the dressing has been reduced ensure that you place a cloth between your skin and the ice pack to prevent an ice burn.

3. Quadriceps strengthening exercises:
Strengthening your quadriceps is important in restoring function to the knee. The physiotherapist at the hospital will have shown you how to do these exercises. You should continue them on a regular basis for several weeks after the operation.

Summary:

Arthroscopy of the knee is a safe and effective procedure. The results of arthroscopic surgery are usually better than open forms of surgery.

If after reading this handout you have any questions, especially about the potential complications, please ring the office, leave a message for me and I will call you back to answer your questions.

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