



Knee Arthroscopy

Essential Information

For Patients Undergoing Knee Surgery.

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Arthroscopic Knee Surgery

You have decided to or are considering undergoing arthroscopic knee surgery. To help you understand what is involved in this type of knee surgery, we ask you to carefully read the enclosed information.

Arthroscopic surgery is a procedure which allows a surgeon to perform complex surgery inside the knee such as anterior cruciate ligament reconstruction or cartilage repairs, through a very small incision. It allows the surgeon to view the inside of the knee with a small video camera. Another instrument is passed through a 2nd small incision and the surgeon can work within the joint whilst viewing the surgery on a television monitor.

In the past this surgery was performed through a large incision that caused considerable pain with a prolonged recovery period and a large scar.

Most arthroscopic surgery is performed on a single day basis or an overnight hospital stay.

Your surgeon will have discussed with you the reasons for recommending a knee arthroscopy.

Some of the more common conditions for recommending this surgery are torn menisci (cartilages) or damage to the articular cartilage (lining of the bone). See brochure on “Arthroscopy for the Treatment of Cartilage Damage to the Knee”.

Sometimes the procedure is diagnostic, i.e. the surgeon examines the knee joint to find the cause of the patient’s symptoms.

Deciding to Undergo Knee Arthroscopy.

Before consenting to surgery you should be satisfied you understand the reason/s and nature of this procedure and that it is the appropriate treatment in your case. You should take your time to make the decision to proceed with surgery and, if you would feel more confident, seek a second opinion.

As this is elective surgery, it is very important for patients undergoing this operation to understand the reasons for the procedure and to have a major role in making the informed choice to proceed with surgery rather than non-surgical methods of management.

In most cases the decision to proceed with surgery is made because the advantages of surgery outweigh the potential disadvantages.

It is important you have a realistic expectation of your surgical outcome and you should discuss this fully with your surgeon.

We encourage our patients to be informed and invite your input so as to promote co-operation and a team approach in working together to restore your knee function to the best possible state.

Preparing For Your Operation

Once you have made the decision to proceed with a knee arthroscopy, it is important to understand that a major factor in achieving a rapid recovery from this surgery is to regain your quadriceps (thigh) strength as soon as possible following surgery.

It is beneficial to you if you practice thigh strengthening exercises **PRIOR** to your operation. The quadriceps muscles are found on the front of your thigh and are sometimes called **thigh** muscles. For instructions please see diagrams on the last page of this brochure.

Where reduced fitness and muscle weakness complicates surgical outcome, your surgeon may advise referral to a sports physician or physiotherapist, for a pre operative and/or post operative fitness programme.

Past history of skin infection/s:

If you have had any **history of infection** in your limbs, eg cellulitis or dermatitis, you must tell Dr Rowden before booking surgery, as this may increase your risk of developing post operative infection/s.

Your Hospital Admission - The Booking Process.

Dr Rowden: Surgery performed at St George Private Hospital.
1 South St. Kogarah. NSW 2217. Tel: 02 9598 5555. Fax: 02 9598 5000

Hospital stay for this procedure is Day Only.

Our secretary will complete the necessary admission papers at the time the operation is booked and send it to the hospital on your behalf.. You will be provided with a folder containing relevant information for your scheduled surgery.

Getting ready to go to hospital - pre operative preparation..

It is essential that you are particularly careful with your personal hygiene before admission to hospital. Many infections are endogenous (ie within the body).

It is recommended you shower, (including washing your hair) on **the day before surgery and the day of your admission**, using **TRICLOSAN**. This is an antibacterial soap that can be purchased from your Pharmacy without a prescription.

You should shower using a clean Chux or face washer, ensuring you wash your entire body and being careful not to miss awkward areas and crevices such as arm pits and groin.

Finger nails should be clean and devoid of nail polish or acrylic substances if possible.

You should **NOT** shave your knee.

Patients are advised not to take jewellery or valuables to the hospital.

Skin problems:

If you develop any **rash, abrasions, cuts, pimples** or **sores** on the leg you are having surgery upon, please notify our office immediately. This sometimes means the operation will have to be deferred until the area has healed.

X-rays and scans. Please ensure you take all relevant x-rays/scans to the hospital.

Smoking: You are advised to stop smoking for as long as possible before surgery.

Crutches:

Please ensure you take a pair of crutches to hospital on admission. You will usually need them for the first 1 – 2 weeks following surgery and can discard them once you can fully weight bear.

Medications:

Please take a list of your current medications and known allergies to the hospital on admission for the anaesthetist's records.

Hypertensive (blood pressure) and cardiac (heart) medications should be taken at the usual time with a small sip of water unless you have been advised otherwise by the anaesthetist or cardiac physician.

Aspirin and/or other anticoagulant and anti-inflammatory medications should have been ceased 10- 14 days before surgery as advised unless in special circumstances. Sometimes these medications can be called by generic names, eg. Cartia, Astrix , Iscover, Plavix etc, so it is important you are informed by your GP, the type of medication you are taking and for what purpose you are taking it.

You are also asked to cease fish oil and Glucosamine 7 days before surgery.

Take all your regular medications with you to the hospital. Most other regular medications can be deferred and taken after the surgery, unless advised otherwise by anaesthetist or cardiac physician.

Admission Time:

You will be admitted to the hospital the **day of your surgery**. You are asked to ring Hurstville Knee Clinic on **02 8568 6700** between 9.30am – 11.30am, the working day before your operation and you will be advised what time you are required to arrive at the hospital. You will also be given fasting instructions. (ie. You will be told when you must stop eating and drinking before your surgery).

The Anaesthetic and Surgery.

Your anaesthetist (ie the doctor that gives you the anaesthetic that puts you to sleep during the operation) will usually visit you in hospital before the procedure and you will have the opportunity to discuss the effects, possible complication, and any concerns you may have before proceeding with the procedure.

You should provide the anaesthetist with your list of medications, advise him of any known allergies and discuss any previous anaesthetic problems.

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You will be fully sedated throughout the procedure. You will be in the Operating Theatre for approximately 45 – 60 minutes.

You will be kept under observation for a few hours following surgery before being discharged. You may experience some soreness for which you will be kept comfortable with pain control medication.

NB: If you are concerned about the potential for complications or the advantages and disadvantages of a decision to proceed with surgery, from an anaesthetic view point, you may prefer to discuss your situation with the anaesthetist before admission to hospital.

Dr Rowden's regular anaesthetists are Dr Russell Hancock and Dr John Hamilton. Both anaesthetists are part of the St George Anaesthetic Group. (Contact details are on Page 9)

PLEASE NOTE: Although Dr Rowden has regular scheduled anaesthetist/s, occasionally situations may arise that result in another anaesthetist being used without notice.

Going Home After Surgery.

- You will be discharged with your knee bandaged. The hospital will provide you with clean dressings to take home and you will need to take the bandage off and put the clean dressing on the following day.
- **This must be kept dry** over the following week until the stitches are removed. If the dressing becomes wet you must replace it with a clean dressing or band-aids.
- It is important for you to commence thigh strengthening exercises immediately following surgery. You can commence these exercises in the Recovery Room. These exercises, if done regularly over the following 10 days, are usually sufficient until your post operative visit at which time your progress will be assessed, and if necessary, supervised physiotherapy may be recommended. Copies of your operation report can be made available to your physiotherapist and we would ask you to ensure our secretary has the relevant name and contact details.
- Please make sure you have procured the medication for pain control that has been prescribed for you when you leave hospital. Ensure you understand what to take and when to take it. Please make sure you have appropriate prescriptions and an adequate supply.
- As a precaution to minimize the risks of developing deep venous thrombosis (blood clots) it is recommended you take one tablet of low dose Aspirin once a day for four weeks following surgery. **Cartia** (i.e. Aspirin with a coating to protect the lining of your stomach) can be purchased without a prescription from your chemist. However this medication is not suitable for patients with a history of gastrointestinal problems and should be ceased immediately if you develop any gastrointestinal discomfort.

At Home Following Surgery: (Surgery telephone no: 02 8568 6700).

- Owing to Theatre schedules it is often difficult for your surgeon to see you before you go home. Dr Rowden will endeavour to ring you some time the following day to check your progress, and discuss with you the arthroscopic findings.
- An appointment to see Dr Rowden about 8 days after surgery, has usually been made for you when your operation was booked.

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- This is usually noted on the inside of your Knee Folder. However if you do not have an appointment, please make one when you call the office the day following surgery for your arthroscopic results.
- You cannot drive a vehicle for 24 hours following an anaesthetic. Research has shown there is a delayed response time in breaking for 1-4 weeks following arthroscopic knee surgery. You must only drive when you have regained full knee function.
- It is recommended you do not travel long distances by car or plane for two weeks following surgery owing to increased risk of developing DVT's (Blood clots). If circumstances demand you must travel, speak with Dr Rowden about precautions that can be taken to minimise this risk.
- You may return to normal duties 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 puncture site tenderness and discomfort whilst squatting and kneeling will take some weeks to settle.

CAUTIONS.

- If you experience swelling and excessive pain and/or calf pain which does not respond to ice, elevation and rest you should contact our office during business hours.
- If you require assistance outside of office hours, please contact St George Private Hospital on 02 9598 5555 and speak with the Sister in Charge of the Orthopaedic Ward, or go to your GP or nearest public hospital.

How To Improve Your Recovery Process:

Remember if pain, swelling and thigh weakness persists for more than a few days your recovery will be considerably prolonged.

Reduce pain.

It is normal for the knee to be sore and swollen for a few days following arthroscopy. Activities should be increased gradually. You should avoid prolonged walking or standing for the first few days. You should avoid trying to bend your leg beyond 90 degrees as this will cause pain and swelling. Most uncontrolled pain is due to excessive swelling.

Within 24 hours pain should be easily controlled with Panadol. Excessive pain can be due to spending too much time on your feet before the thigh muscles have been adequately strengthened. Minimise weight bearing activities for 4-5 days following surgery.

Reduce swelling.

Initially elevation, regular quadriceps contractions, ice packs for 20 minutes every two hours and anti-inflammatory medication (optional) should diminish swelling rapidly.

When applying ice packs, ensure you place a wet cloth between your skin and the ice pack to prevent ice burn.

If swelling or fluid in your knee persists it is likely you are spending too much time on your feet.

However if swelling does not gradually decrease after the first few days despite these measures, contact our office.

Thigh Strengthening Exercises.

The thigh strengthening exercises you practiced before your operation should now have been put into action and continued for four weeks following surgery or until your muscle strength has returned to normal.

Long Term Knee Care.

Significant knee trauma including damage to the menisci can increase your risk of developing knee osteoarthritis in the long term.

To minimise this risk we recommended long term knee care which should include maintaining good muscle strength, weight control, wearing well cushioned shoes and minimizing where possible, engaging in activities that place frequent stresses on the weight bearing surfaces of the knee/s.

Your Hurstville Knee Clinic Folder.

You will have been given a folder when your operation is booked containing information on the hospital, pre operative instructions and a copy of this brochure. Please keep all relevant information regarding your knee surgery, in the folder.

A questionnaire will be included which you are to complete once you have read and understood this brochure. Please return to our office in the envelope provided. Please feel comfortable in contacting our office if you require further information regarding your operation.

A copy of your operation report and photographs of the inside of your knee can be obtained from our office and kept in the folder. This can then be kept as a record of you knee surgery for future reference.

Expected Operation Fees for Knee Arthroscopy

When you surgery is booked you will be given an estimation of expected fees for the surgery and a questionnaire ensuring you understand the nature of the procedure, limitations and possible complications. Copies are placed in your folder, and one copy is to be signed and returned to our office in an envelope provided, before surgery.

There are 3 main costs for people undergoing surgery in a private hospital.

- 1) **Hospital.** You are asked to ring St George Hospital, quoting your health fund details and item number of surgery. The hospital can then advise whether you will have any out of pocket expenses.
- 2) **Anaesthetist.** You may ring the St George Anaesthetics on (02) 9588 1616 quoting the item number and date of surgery and you will be advised of the fee and method of payment.
- 3) **Surgeon and his assistant.** You will be advised of the surgeon and his assistant's fees when you book the surgery. Usually there is a discount opportunity available **provided** a deposit is paid before surgery and the Medicare and health fund cheques are received within 6 weeks of surgery.

Other costs that may be incurred are radiology, pharmaceuticals, physiotherapy, orthotics, pathology etc.

Knee Arthroscopy - Item No's. 49560. **49561.** 49562. 49563.

The most common item numbers for knee arthroscopy is **49561.** This number can sometimes change, according to the operative findings and requirements, some of which are unknown until surgery takes place.

Possible Complications of Knee Arthroscopic Surgery.

Most serious risks associated with knee surgery are rare and complications following arthroscopic surgery are uncommon. The surgical technique is minimally invasive and has been refined to reduce the incidents of problems and complications that were more common in the past. Surgeons who do a lot of these procedures would be expected to have a very low complication rate.

However all surgery carries potential risks and the possibility of complications. Despite the advances in surgical technique and the experience of the surgeon, problems and complications can still occur and **it is our duty to inform you and your right to be made aware** of the possibility of complications. We have therefore outlined some specific complications of arthroscopic knee surgery, some complications of general surgery and anaesthesia. This list of complications is not exhaustive. Rare and unusual problems can occur, although most of these are treatable and do not affect the end result.

Specific Complications Following Arthroscopic Knee Surgery

Some possible complications include the following:

Infection: The infection rate following arthroscopic knee surgery is very low. It is much lower than most other surgical procedures. Its incidence rate is less than 1 in 500 patients. The operation is done in a sterile environment and minimally invasive techniques involving the arthroscope make infections unlikely. However despite these precautions infection can still occur. Consequences of infection include joint stiffness and joint surface destruction. Treatment involves antibiotics and often further surgery. Chronic bone or distant organ infection is extremely unlikely but remains a possibility.

Joint Stiffness: Scar tissue can form in the knee after surgery. This can limit joint movement. This is a rare complication. Treatment depends on the degree of joint stiffness. Sometimes a slight loss in the ability to straighten the knee can be tolerated by the patient. Treatment for loss of motion can involve extensive physiotherapy and occasionally further surgical procedures to remove the scar tissue. These procedures are not always successful in restoring full motion to the knee.

Bleeding: Bleeding into the knee can occur following surgery. Small amounts of bleeding inside the joint after the surgery can be considered normal and needs no treatment. It will resolve in time. Larger amounts of bleeding can occur in patients who have blood clotting abnormalities or who have been taking Aspirin or anti-inflammatory medications prior to surgery. Patients are therefore advised to avoid Aspirin or anti-inflammatory medication two weeks prior to surgery. You must ensure your surgeon is aware of all medications you are taking prior to surgery.

Excessive bleeding into the knee can require aspiration of the blood with a needle under local anaesthesia and occasionally an arthroscopy.

Damage to Associated Structures: Arthroscopic surgery involves the passage of sharp instruments into the knee. This is particularly the case with meniscal suturing. This carries a very small risk of damage to the arteries, veins and nerves of the leg. Damage to these structures could cause further disability and require further surgery. Nerve damage can cause numbness and weakness in the leg below the knee.

Deep Venous Thrombosis: This term refers to the formation of blood clots within the blood vessels. If they form in the veins they are known as deep venous thrombosis (DVT) which can cause swelling and pain in the legs and restriction of blood flow. These clots can travel to the lungs and cause a pulmonary embolus. This complication is more likely to happen in overweight people, women taking oral contraception and smokers. For this reason patients are advised to stop smoking. Long aeroplane flights also increase the chance of blood clots forming and therefore patients should not fly and have surgery in the same two week period.

Regional Pain Syndrome (Reflex Sympathetic Dystrophy): This rare condition is not well understood by the medical profession. It involves over activity of nerves in a limb. It can occur after surgery or after injuries. It can occasionally occur spontaneously. It causes pain, swelling and sweating of the limb. If treated early the end result is much better than if treatment is delayed. It can cause prolonged disability.

Poor Results From Surgery: Poor results following arthroscopic knee surgery are usually due to pre-existing damage to the structures within the knee.

Knees with significant articular cartilage damage or arthritis tend to gain poorer results from arthroscopic surgery than knees with meniscal tears in an otherwise normal knee. Arthritic knees can become more painful following arthroscopic surgery although this does not usually last.

If unexpected pain continues following arthroscopic surgery then further investigation is required, usually with an MRI scan. Occasionally further arthroscopic surgery may be required.

Arthroscopic surgery cannot reverse the arthritic process and cannot repair damage to the articular cartilage (joint lining surface).

Complications of General Surgery.

The general risks of surgical procedures include the following:

Respiratory tract infections: This includes the development of pneumonia which can follow anaesthesia for surgical procedures. It is more common in the aged and very uncommon in the young and healthy. Treatment involves antibiotics, physiotherapy and respiratory support. Treatment is not always effective.

Thromboembolic problems: This term refers to the formation of blood clots within the blood vessels. If they form in the veins they are known as deep venous thrombosis (DVT) which can cause swelling and pain in the legs and restriction of blood flow. These clots can travel to the lungs and cause a pulmonary embolus. This complication is more likely to happen in overweight people, women taking oral contraception and smokers. For this reason patients are advised to stop smoking. Long aeroplane flights also increase the chance of blood clots forming and therefore patients should not fly and have surgery in the same two week period.

In emergencies, special precautions are taken. Treatment of this condition usually involves anti-coagulant (medication to prevent the blood from clotting) administered either by intravenous drip and follow up medication or by oral anti-coagulant therapy. Therapy for this condition is not always successful. If clots form in the arterial system then a stroke may occur.

Infection: This can occur following surgery, Operating theatres are designed to minimise the risk of bacterial infections. Surgical procedures are carried out in a sterile manner. In higher risk operations antibiotics are given to decrease the likelihood of infection. In low risk operations such as arthroscopy, antibiotics are not given because the complication rate from the antibiotic treatment is greater than the potential complication rate from infection.

Despite expert treatment and antibiotic cover infections still occur. These can cause prolonged disability and require treatment with antibiotics and occasionally surgery. Infections can affect the operative site, the lungs and urinary system.

Complications of Anaesthesia:

Anaesthesia itself entails a degree of risk, some of which has been outlined. Rare and unusual problems can occur as a result of surgery and anaesthesia.

Your anaesthetist will visit you in hospital before the procedure and you will have the opportunity to discuss the effects, possible complication, and any concerns you may have concerning your anaesthetic before proceeding with the procedure.

If you are concerned about the potential for complications or the advantages and disadvantages of a decision to proceed with surgery, from an anaesthetic view point, you may prefer to discuss that with the anaesthetist before admission to hospital.

Dr Rowden's regular anaesthetists are Dr Russell Hancock and Dr John Hamilton. Both doctors are part of the St George Anaesthetic Group and their office can be contacted on (02) 9588 1616. Occasionally another anaesthetist may be used.

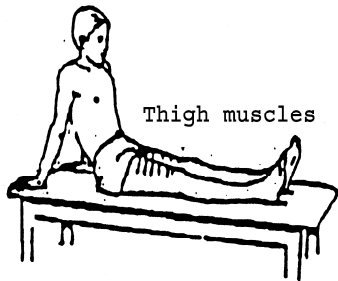
If there is any doubt in your mind concerning the anaesthetic, we would strongly recommend that you seek an independent second opinion.

Exercise Programme

It is recommended you commence thigh strengthening exercises:

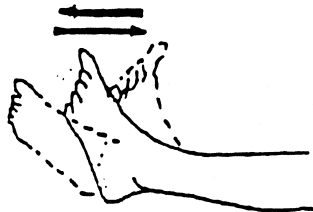
- a) Before your surgery
 - b) In the Recovery Room immediately following surgery.
 - c) For the week following surgery until your post operative visit.
 - d) Following your post operative assessment – as directed by your surgeon.
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Exercises



- 1) With your leg completely straight, contract your thigh muscles strongly and hold for three seconds. Rest for three seconds in between contractions. Repeat the muscle contractions ten times per session. This set of exercises should be undertaken at least ten times per day.

Foot exercises



- 2) From a lying position, move your foot backwards and forwards as far as it will go. Repeat this exercise five times in a session. Do this set of exercises at least ten times per day.

Knee Bending



- 3) Knee bending and straightening. From a lying position bend your leg to 45 degrees. Repeat this exercise five times in a session. Do this set of exercises at least 10 times per day.

All these exercises should be done gently. Exercise up to the point of mild discomfort is beneficial and it is very unlikely you will harm the knee with any routine post operative exercise programme.