

## Patient Information Leaflet : **Knee Arthroscopy**

### What Is It?

Arthroscopy literally means looking inside a joint. Modern day techniques allow us to do this by means of an arthroscope (small telescope) which we insert into the knee joint through a 1 cm incision, hence the term "Keyhole Surgery". A second small incision (cut into the skin) allows the passage of instruments into the knee joint to deal with any abnormalities seen.

### Why do we do it?

Arthroscopy of the knee is useful for three main reasons:

1. It allows us to diagnose conditions (confirm the cause of knee symptoms and problems) and plan further treatments
2. To allow treatment of those problems, i.e. undertake surgery to remove damaged tissue from inside the knee
3. A third and very useful reason for undertaking arthroscopy is that before any incision is made I will undertake an "examination under anaesthetic" of the knee joint comparing it with the other knee. This gives valuable information with regard to any joint laxity or ligament damage which may or may not need surgery. Should any ligament disruption be seen by me at the time of arthroscopy, ligament reconstruction surgery will not be undertaken unless I have thoroughly discussed this prior to the arthroscopy operation.

Some common procedures undertaken through the arthroscope are:

#### **Removal of cartilage (meniscal) tears**

Meniscal tears, i.e. splits in the gristle or cartilage on each side of the knee used to absorb impact, are a very common problem. Any tears of the menisci can lead to loose flaps which can get caught between the bone surfaces causing symptoms of sudden and sharp pain; locking, so that you cannot bend or straighten your knee properly; and instability, i.e. the knee gives way from under you. Often these symptoms are associated with marked swelling of the knee (effusion). It is a relatively simple and successful treatment to remove the torn portion arthroscopically.

#### **Biopsy**

Often carried out for recurrent knee pain and swelling when there is no obvious cause such as a fall or injury. This can be caused by inflammation of the joint lining (synovitis). This inflammation can be caused by many factors such as inflammatory joint disease (rheumatoid disease or gout) or reactive inflammation (reactive synovitis) often seen following a recent cold or flu. Occasionally there are abnormalities of the joint due to abnormal growth which can be benign (non-life threatening) or even malignant (life threatening cancers) and in order to diagnose these conditions biopsies can be taken from the affected areas to be looked at under the microscope.

#### **Osteo arthritis**

This is a form of wear and tear of the joint which is caused by advancing age. This is the commonest form of arthritis and is due to a gradual deterioration of the joint lining where the bearing surface breaks up and becomes uneven, and no longer allows smooth joint movement without pain and graunching. Other signs of this wear and tear osteo arthritis are gradual stiffening of the knee joint, moderate swelling of the joint and changes seen on xrays, particularly weight bearing xrays. Xray changes include narrowing of the joint space and altered bone around the joint such as new bone (osteophytes) or weakened bone (cysts). Arthroscopy can often help in first of all gauging the extent of any joint surface damage in order to plan further treatment and secondly to "tidy up" the knee joint by washing out debris which has built up over the years and smoothing off some of the worst affected areas.

## **What Are The Risks?**

Overall arthroscopy of the knee is a very safe operation. However, all operations are associated with risks which are variable in frequency depending on the type of operation undertaken. Some of the more common and more significant risks are discussed below.

### **Infection**

Any operation which involves making incisions can lead to post operative infection. This is usually an infection of the superficial tissues only (skin and underlying layers) and is treated with antibiotics. Occasionally the infection can go deep into the knee joint itself (deep infection rather than superficial infection) and this can be very serious, indeed life threatening. Such a complication if it occurs requires re-admission to hospital and often re-operation to wash out any infection from the knee joint and prolonged periods of antibiotics, often initially intravenously. For arthroscopy this is said to occur in around 1 in 1000 cases.

### **Deep venous thrombosis (DVT)**

Venous thrombosis involves blood clots forming usually in the deep veins of the legs. This is usually due to reduced blood flow as part of the operation and the period of reduced movement of the affected leg, both before and after the operation. The thrombosis can occur in either leg, but usually in the operated leg. Blood clots often occur following even minor operations such as arthroscopy of the knee, but are often small enough to be unnoticed. However, occasionally the blood clot blocks large enough veins to cause symptoms of pain and swelling of the calf and foot and requires treatment with blood thinning agents (either Heparin or Warfarin) once the diagnosis has been confirmed by further investigation such as ultrasound scanning of the veins or injection of dye (venogram). Significant venous thrombosis (sufficient to cause a patient to go to his doctor or back to his specialist) occurs in around 1 in 200 cases of knee arthroscopies. However, following treatment the outlook generally is excellent with full restoration of blood flow and normal function within three-six months of treatment.

### **Pulmonary embolus**

An embolus is a blood clot which has broken off from a DVT and travelled in the veins back to the heart and either causes blockage in the heart chambers or goes through the heart and blocks part of the blood supply to the lung fields. The latter is called a pulmonary emboli and if the blood clot is large enough it can cut off sufficient blood flow to the lungs to cause collapse and even death. Thankfully this is very rare, around 1 in 10,000. Around 1 in 1000 patients who undergo arthroscopy develop pulmonary emboli sufficient to cause chest pain and shortness of breath for a short period after their operation and again this leads to re-admission to hospital for further investigation and treatment. With adequate treatment (blood thinning agents) most patients make a full and complete recovery from pulmonary emboli within three-six months.

### **Death**

Arthroscopy is carried out under a general anaesthetic in the vast majority of cases. Occasionally regional such as a spinal anaesthetic or even local anaesthetic can be employed but this is unusual. Use of anaesthetics (regional or general) carry risks of drug interactions or failure of anaesthetic machines and general anaesthetic procedures have a risk of major complication such as brain damage or death in around 1 in 1,000,000 cases. Modern equipment and anaesthetic techniques make these risks as low as is possible to achieve.

## **What Happens in Hospital?**

### **On Admission:**

Most patients who undergo knee arthroscopy will do so as a day case patient. This involves coming into hospital starved, i.e. having had no food or drink, apart from sips of water, for at least six hours before the operation. When admitted to the hospital you will be taken to your bed and then be asked a series of questions by nursing staff, myself and the anaesthetist. You will also be seen by the physiotherapist who will instruct you in exercise techniques and use of crutches for use after the operation. You will be encouraged to ask any questions or discuss any concerns that you may have during this time. If I have not already asked you to sign a consent form I will do so then and then apply a mark to the affected leg to make sure that both you and I are happy that the appropriate knee is to be operated on. The mark usually comes off over the next two-three days. You are then asked to change into theatre clothes, usually a dressing gown and appropriate underwear. This is normally required approximately one hour before you are due to go to theatre. Most theatre lists run for up to four hours and I usually

undertake day case operations at the beginning of my list to allow sufficient recovery time. However, depending on how the operating list is proceeding and depending on your position on the operating list, it may be some time before you are sent for operation.

### **After surgery**

After the operation you will wake up in the recovery room under the care of the anaesthetists and recovery nurses. Your vital signs (blood pressure, breathing and pain level) will be monitored over the next 15-30 minutes. Once your condition is stable you will be brought back to your room where you will stay in bed for the next hour or so, awake but drowsy. Once you have recovered from the anaesthetic you will be asked to sit up and take small amounts of fluid, and after this you will be seen by the physiotherapist or nurse who will help you to get out of bed for the first time and walk with the aid of sticks or crutches as appropriate. You will be encouraged to put as much weight as possible through the operating leg and use the sticks or crutches merely for support and confidence. Once you are independently mobile and comfortable enough you can go home, usually four-six hours after the operation. You will need to be taken home by a family member or friend or by transport arranged from the hospital.

When you wake up you will notice that there is a small plastic needle in the veins of the back of your hand (an intravenous cannula) which is left in place in case you need drugs or fluid urgently. This will be removed prior to going home. You will also have a heavy bandage over your knee made of wool and crepe but within the limits of this bandage you will be encouraged to move your lower limb (ankle, knee and hips) as much as comfort allows.

### **On Discharge from Hospital**

On discharge from hospital you will be given a note to keep at home which summarises your hospital treatment in case you have any requirement for emergency GP visits over the next 48 hours. A separate letter will be sent by the hospital to your GP but this often takes two-three days before it arrives. You will be asked to take down your knee bandage after one-two days and you will see underneath the wool bandage there are two clear plastic dressings with Steristrips (skin sutures) underneath them. There is normally some blood around these dressings but not leaking from them. You should leave the clear dressings in place until they fall off naturally between four-seven days post operation. You will be asked to use an elasticated support around your knee for seven days following the operation. This can be taken off for washing and showering. The adhesive dressings should be left in place whilst washing and showering, and although you can get the dressings wet they should not be allowed to soak, i.e. left under water. Once the dressings have fallen off you can then shower and bathe as normal.

### **How Mobile Will I Be After Discharge?**

Patients who have undergone keyhole surgery normally recover very quickly. Patients are usually walking without the aid of their sticks or crutches within 48 hours but will still have a slight limp. During the first 48 hours they are advised to stay indoors most of the time but go out for short periods or walks.

### **When Can I Drive?**

Normally patients are advised to refrain from driving for at least 48 hours following the operation. This is as much to recover from the general anaesthetic drugs as it is from the operation itself. If the operated leg is the right leg you will be advised to refrain from driving for around one week. This is because the right leg operates the brake and you need to be able to activate the brake without fear of discomfort to make you safe to drive. As a general rule, once you can walk without a limp you are safe to drive.

### **When Can I Return To Work?**

Most patients will be able to return to work within one week of surgery, sometimes less if you have a supervisory position. If your work is moderate-heavy manual, or if your operation is more complex than normal, you may require up to two weeks off work. This will be discussed with me prior to discharge. A sick note can be provided at the hospital before you leave.

### **What Drugs Will I Need?**

When you are discharged you will be asked whether or not you have any pain killers/analgesics at home and if not you will be provided with a few days supply. This will normally be simple analgesics such as Panadol, Nurofen or Distalgesics. It is likely you will need between two-

seven days of pain killers following discharge from hospital. With regard to other medication this should be taken as normal both before and after the operation unless specifically instructed otherwise by myself or the anaesthetist. On discharge from hospital you will be given a review appointment to see me in clinic, six weeks following discharge.

#### **What Exercises Should I Do?**

Prior to discharge from hospital you will have been seen by the physiotherapists and given an exercise programme to follow. This is important first of all to get your knee working properly following the operation and secondly to help recover any muscle loss which has occurred as a result of the injuries or symptoms which led you to have the operation in the first place. Often the physiotherapist will arrange to review you in the physiotherapy department following discharge from hospital to monitor progress and to give further advice and encouragement as required. This will be dependent on individual circumstances.

#### **What Does It Cost Privately?**

Most insurance policies cover fully the cost of surgery and I do not charge over the recommended medical insurance guidelines. If you are not insured then the Fitzwilliam Hospital has a Fixed Price Package for most procedures. This package includes all in patient hospital costs, i.e. surgeons fees, anaesthetists fees, hospital fees and theatre costs. Should there be any reason to undertake additional treatment such as staying in overnight or dealing with complications within the first month of discharge this will again be covered by the Fixed Price Package. An up to date fixed price package can be obtained by contacting the Fitzwilliam Hospital. Arthroscopic surgery of the knee costs in the order of £2,450.00 at the present time.

#### **What Happens If Things Go Wrong?**

Should you be unfortunate enough to develop a complication, either as an in patient or following discharge from hospital, this will be dealt with either by your own GP or myself. Should you develop any problems you can phone the hospital ward and speak to the nursing staff on duty for advice. They would normally be able to deal with most queries or suggest suitable alternatives such as phoning your GP, attending the accident and emergency department locally or returning to hospital, depending on the circumstances.