

## Information for Patients following a Microfracture

**This leaflet has been devised to act as a guide to you, of what to expect following your operation.**

### **What do I need to bring into hospital?**

- Toiletries and a towel.
- Dressing gown and slippers if you have them.
- Suitable clothes to go home in e.g. loose trousers/skirt.
- Diversional activity e.g. book/magazines.
- Walking aids if you use any at home.

### **When will I be admitted to hospital?**

- You are admitted to ward, usually to the day case unit, on the morning of your operation.
- It is important to follow the fasting instructions given in your letter to come in to hospital.

### **Day of surgery**

- You will usually see your consultant, or one of their team, and the anaesthetist.
- You will sign the consent form for surgery, if not signed at the pre-op clinic.
- When it is your theatre time, you will be taken to theatre, usually walking or in a chair.

### **Operation**

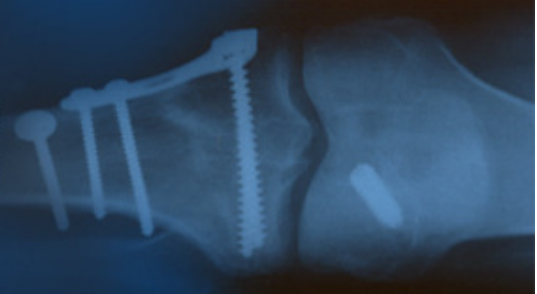
An arthroscopy is an operation, which allows your consultant to look inside your knee joint using a special camera.

### **How is it done?**

**The procedure is usually carried out under general anaesthetic.**

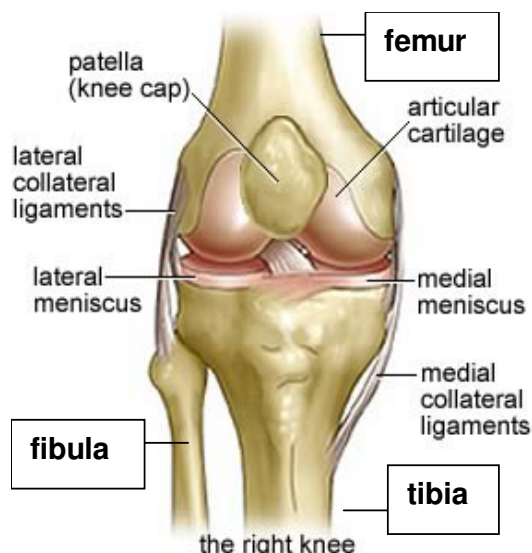
An arthroscopy involves inserting a fibre optic camera that is about the size of a pencil into the joint through incisions that are approximately 1 cm in length. Fluid is then passed into the joint; this allows the structures in the joint to be seen. Then, using miniature instruments the structures can be examined.

Two or three incisions are often required, but occasionally it may be necessary to use a larger incision and it will be closed with staples.



## Patient Information

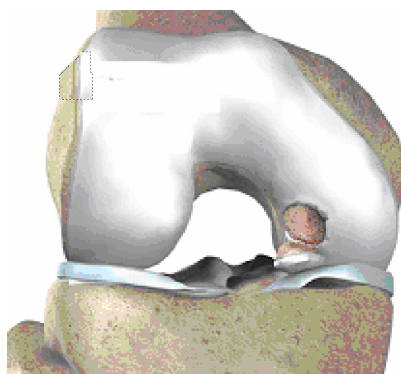
### Anatomy of a right knee joint



The knee is a complicated joint between the femur (thigh bone) and tibia (shin bone). The ends of these two bones are covered with a layer of articular cartilage. This is similar to the cartilage that you will have seen at the end of a chicken bone. This smooth, shiny surface ensures that when two bone ends meet they glide and slide over each other without rubbing. This reduces wear and tear stresses across the joint surfaces.

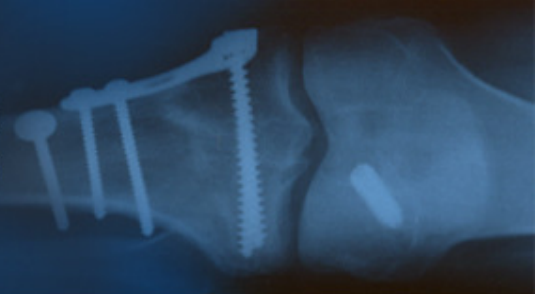
This layer of articular cartilage can wear away over time and wear and tear degeneration is what is commonly known as osteoarthritis.

It can also be damaged through injury in a more localised area and is called a lesion or defect and can give symptoms such as pain, swelling or giving way in the knee.



If you have injured this cartilage layer you will have a roughened area in the normally smooth surface. If this is not treated it can wear against the smooth surface opposite it causing early arthritis. This occurs most commonly on the ends of the femur (thigh bone) but can occur behind the patella (knee cap) and on the top surface of the tibia (shin bone) as these areas also have articular cartilage covering them.

This type of injury can be helped by a technique known as microfracture.



## Patient Information

The aim of the procedure is to encourage new cells to form and fill in the defect with fibrocartilage cells. Although this is not exactly like the original cartilage it provides a better surface than bare bone.

### Microfracture

During surgery multiple small holes are made in the bone at the bottom of the cartilage defect. This causes bleeding and a clot is formed in the hole. This clot enables new cells to form a repair cartilage that fills the gap.

After surgery it is important to protect this clot so that new cells can form. This is done by limiting weight bearing. You are allowed to place your foot on the floor, but not to take much weight through the leg for 6-8 weeks, depending on the size of the area involved.

Return to function and sporting activities can vary between individuals but most people notice significant improvement 6 months after surgery, although full recovery can take up to 12 to 18 months.

If this technique is used on the patella you will be put in a knee brace, which restricts your range of movement when walking. You will be able to take weight through the leg as long as it is comfortable.

It is very important after the operation, wherever in the knee it has been performed, to regain full range of movement of both knee bending and straightening. To help achieve this, you will stay in hospital overnight and a machine will help to move the knee for you whilst you are recovering.

## After the operation

- You will wake up in the recovery area of the theatre.
- You may have 2 or 3 small wounds, which will be covered with a small dressing.
- You will have a compressive wool and crepe bandage on your knee.
- It is normal for your knee to be a little sore and swollen for the first 48 hours.

## Benefits

These things should be improved following your operation, but remember this will not happen immediately. It can take 2-6 weeks for the knee to become less swollen.

1. Reduction of pain.
2. Your knee should stop giving way or locking.

## Risks

- 1 in a 100 chance of a portal infection.
- 1 in a 500 chance of septic arthritis (infection deep within the knee).
- 1 in a 100 chance of complex regional pain syndrome– An abnormal pain reaction to any surgery, which may need prolonged physiotherapy or a pain clinic appointment.
- 3 in a 100 chance of deep vein thrombosis (DVT) – clot in the calf.
- Pulmonary Embolism (PE) – clot in the lungs. Very rare following keyhole surgery to the knee but potentially life threatening.



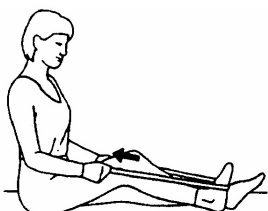
## Patient Information

- Patients who take the combined oral contraceptive pill need to stop taking it 6 weeks prior to surgery, and use alternative precautions.

## Exercises

The following are exercises that can be performed in the first week after your operation when you are at home. These should be performed 4 times each day.

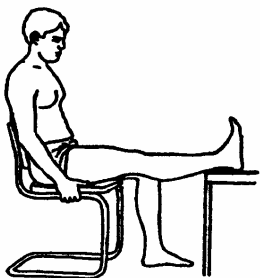
1.



Long sitting. Put a band around your foot. Gently pull the band to bend your knee a little more.

Hold 5 seconds.  
Repeat 10 times.

2.



Sitting on a chair with the leg to be exercised supported on a chair as shown.

Let your leg straighten in this position.

Hold 5 seconds.  
Repeat 10 times.

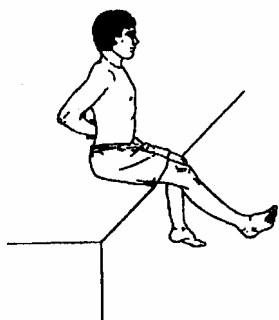
3.



In lying/sitting with leg straight. Lift your leg 2-3 inches only keeping knee straight.

Hold 5 seconds.  
Repeat 10 times.

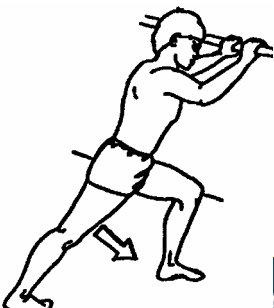
4.



Hamstrings stretch right leg. Sit on the edge of the firm bench so the feet are unsupported. Your back should be straight and your hands in the small of the back to stop slumping. Slowly straighten out your right leg.

Hold the stretch for 20 seconds.  
Repeat 10 times.

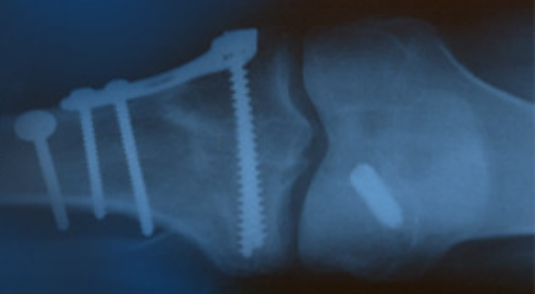
5.



Stand with the leg to be stretched straight behind you and the other leg bent in front of you. Take support from a wall or chair.

Lean your body forwards until you feel the stretching in the calf of the straight leg.

Hold approx. 20 seconds – relax.



## Patient Information

Stretch the other leg.

Repeat 10 times.

If at any times your knee becomes acutely painful, you can take pain-killing tablets and it may be worth using ice to reduce your symptoms.

To do this, make sure the ice is in a sealed bag, and then wrapped in a damp towel. Alternatively a bag of frozen peas wrapped in a damp towel may be used. Apply the ice for no longer than 10 minutes at any one time. You can use ice every hour if necessary.

You will be seen around 2 weeks after the operation, as an outpatient, by your consultant's orthopaedic team. Staples/stitches will be removed now (if you have them) and it will be explained what was done during your operation.

### Walking

Depending on the area treated you may not be allowed to place all your weight on the leg for the first 6 weeks. OR your leg may be placed in a brace for the first 6 weeks.

### GENERAL ADVICE

As a general rule, avoid activities that are painful and cause the knee to swell. A swollen knee is harder to bend and straighten. You may need to keep walking distances short to help keep swelling at a minimum.

### Showering

You may shower provided that you keep the affected area water tight, i.e. with a plastic bag or cling film around your leg and sealed. If the dressing becomes wet or soiled, please replace it with a clean dry one.

You will be seen post-operatively at 2, 6, 12 and 26 weeks.

We monitor the results of this surgery to provide information on our performance and how well you recover from the operation.

Before surgery you will receive a questionnaire to determine your knee function. This will be repeated after surgery in order to assess the success of the operation.

We would be grateful for your co-operation to enable us to achieve our long-term follow-up plans, which will help to further improve our knee service. If you change address in the future could you please inform us so that we can continue your post surgery follow-up.