NHS
Wrightington, Wigan and Leigh Teaching Hospitals
NHS Foundation Trust

Medial Patellofemoral Ligament Reconstruction Surgery

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Medial Patellofemoral Ligament (MPFL) Reconstruction Surgery

Patient Information

Sports Knee Service

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Medial Patellofemoral (MPFL) Reconstruction Surgery

This leaflet aims to help you gain maximum benefit from your operation. It is not a substitute for professional medical care and should be used in association with treatment at the WWL NHS Foundation Trust. Each person's operation is individual, and you may be given specific instructions that are not contained in this leaflet. This guide has been prepared to help you recover from surgery and to answer many frequently asked questions. It is designed to complement the advice of your Surgeon and Physiotherapist.

What is the Medial Patellofemoral Ligament?

The medial patellofemoral ligament (MPFL) helps to stabilise the patella (kneecap). The ligament attaches to the upper third of the patella and the inner aspect of the femur (thigh bone). It functions as a tether to stop sideways movement and dislocation of the patella.

MPFL tears happen when the patella is dislocated either traumatically e.g. following a tackle during sport, or atraumatically due to instability because of ligament laxity or reduced thigh muscle strength and control.

Some people can function satisfactorily without an MPFL by working on a programme of intensive rehabilitation. If symptoms of patella instability persist, a reconstruction of the ruptured ligament is often necessary.

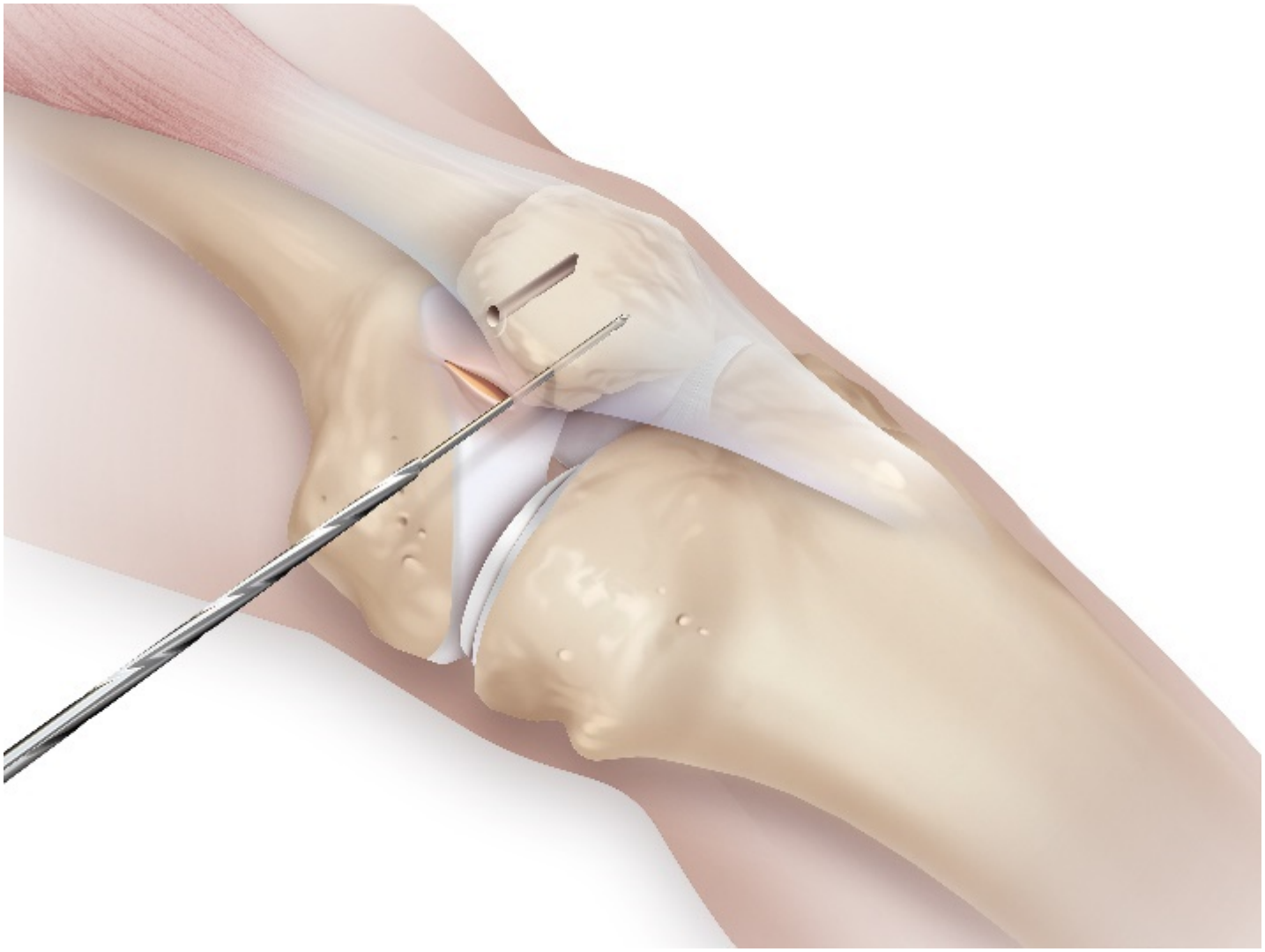
You and your surgeon have decided that an MPFL reconstruction is the best way to manage your injury. The expected outcome of surgery is:

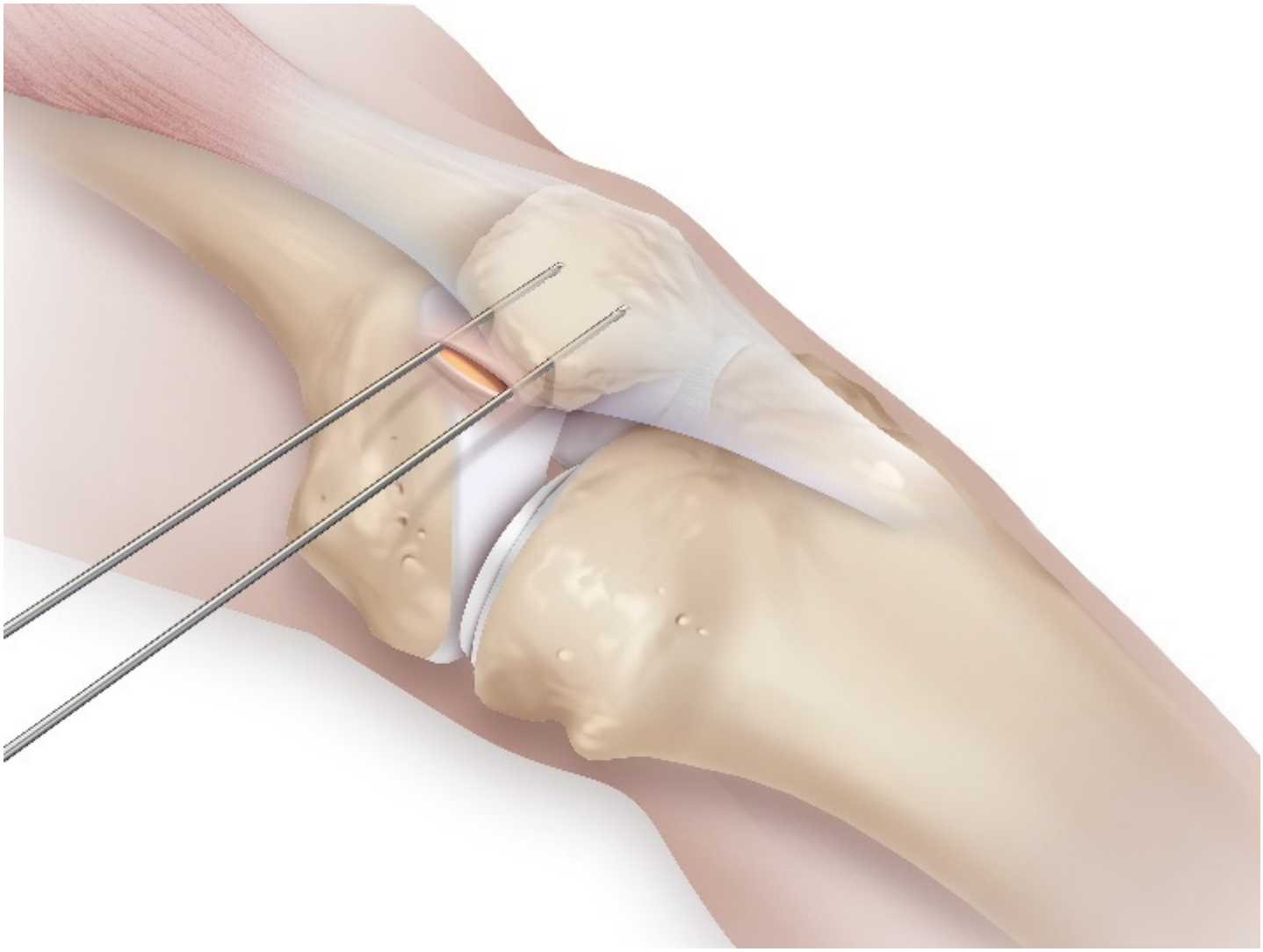
- Improved knee stability
- Improved function / mobility
- Reduced pain
- Recovery of function and return to previous level of sport.

What is MPFL reconstruction surgery?

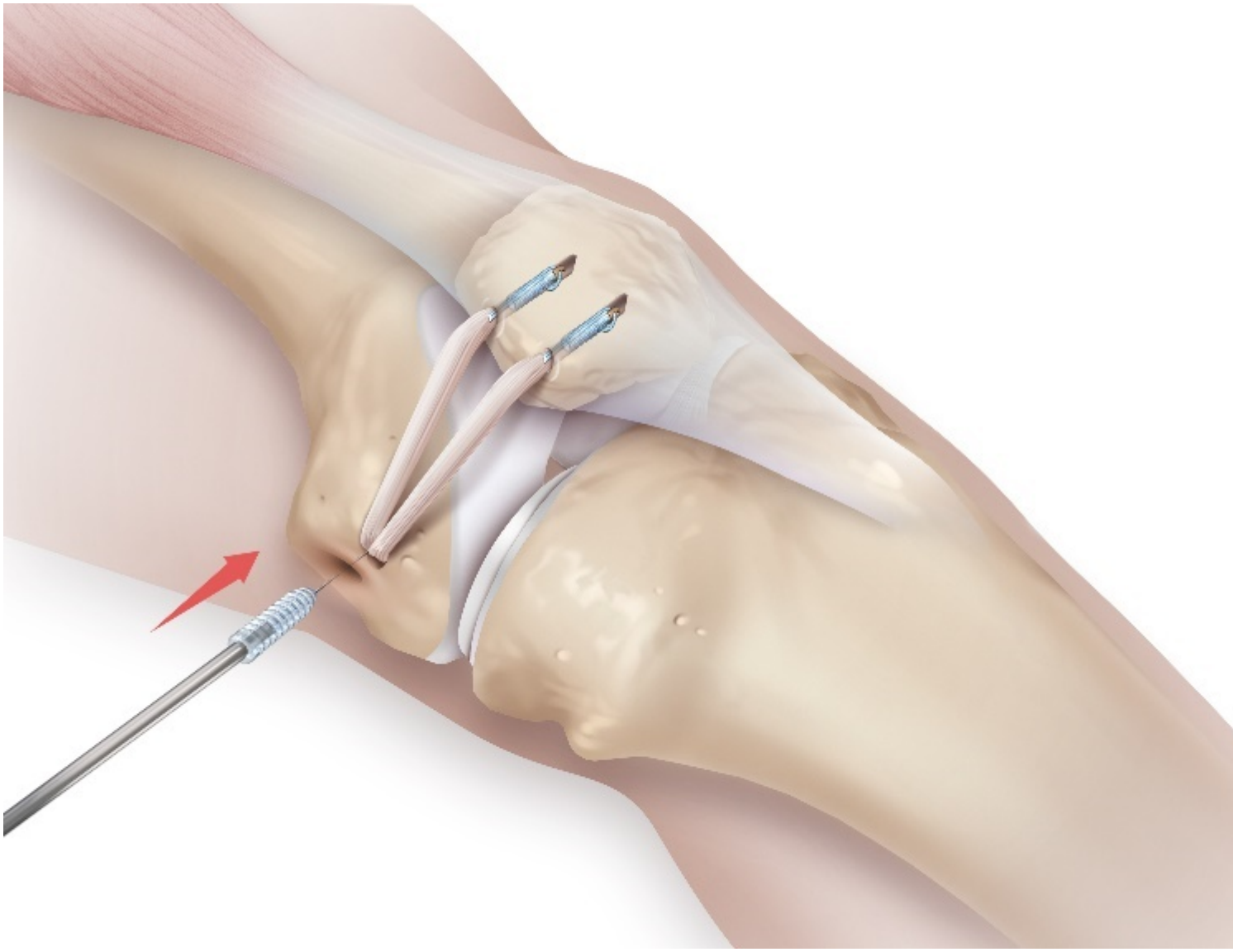
The operation involves using part of your hamstring / gracilis tendons (from the inner aspect of your knee) to replace the torn MPFL inside your knee joint.

During the reconstruction a small incision (cut) is made over the upper and inner part of your shin to harvest (remove) the tendon which is to be used for your graft. A further incision is made along the inside border of your patella so that two tunnels can be drilled into the patella.





Two holes are made in the patella for the graft



The graft is put in position and fixed into place with screws

The free ends of the graft are then placed into the tunnels and fixed in place. A third incision is made at the inner aspect of your knee so that a tunnel can be drilled into your femur. The loop of the graft is passed into this tunnel and fixed into place with a screw. The position of the graft closely matches the original position of your ruptured MPFL.

You will also have two very small incisions – one on either side, just below your patella. This is so that the arthroscope (keyhole camera) can be used to check the whole of your knee

joint for any further damage.

The wounds are usually closed with stitches and / or steri-strips (adhesive strip), covered with dressings and bandaged with a wool and crepe bandage to keep the swelling to a minimum for the first 24 to 48 hours. Dependent on your muscle control, you may also have a knee splint in situ for 48 hours after surgery to help stabilise the joint and protect the graft until your muscle function returns.

What are the Risks?

All operations involve an element of risk:

- Potential problems for MPFL reconstruction include graft rupture, joint stiffness, and aching
- Uncommon problems include infection and blood clot / deep vein thrombosis (DVT)
- Rare problems include nerve or blood vessel injury
- Minor complications relating to the anaesthetic such as sickness and nausea are relatively common. Heart, lung or neurological problems are much rarer

Please discuss these issues with the doctor / surgeon if you would like further information.

Frequently Asked Questions

Will it be painful?

This procedure can be painful but the following pain control methods are used to ensure you have as little discomfort as possible:

- Local anaesthetic injection into the wound immediately post-operatively
- Painkillers and anti-inflammatory medication taken regularly
- Ice application

Local anaesthetic injection

This is used to decrease the pain in the knee joint and the incision area immediately after your operation, which can:

- Reduce the risk of feeling sick or vomiting
- Allow you to eat and drink earlier
- Enable you to get up and mobilise earlier
- Lessen the chance of an overnight stay in hospital

Painkillers

You will be given painkillers (either as tablets or injections) to help reduce the discomfort whilst you are in hospital. A one-week prescription for continued pain medication will be given to you for your discharge home. Keep the pain under control by using the medication regularly at first. It is important to keep the pain to a minimum as this will enable you to move the knee easier, recover muscle function in your thigh muscles, and begin the exercises you will be given by the physiotherapist.

Ice

If you do not have any circulatory disorders, you will benefit from applying ice regularly following surgery. This will help to minimise pain and swelling.

Before your wound has fully healed, wrap your knee with cling film to keep the area dry. Then place a bag of frozen peas, ice cubes, or an ice pack in a damp tea towel.

Elevate your affected leg and apply the ice pack for approximately 20 minutes. This should be done regularly throughout the day.

Will I need to use crutches?

You will be provided with a pair of crutches for use when walking. You may also be given a splint to wear, whenever you are on your feet, for the first 48 hours. Unless you have been instructed otherwise, the crutches are used for comfort. You can gradually decrease their use as comfort allows. It is important that you take the weight through your leg in the correct manner i.e. putting the heel down first. Be guided by your Physiotherapist who will inform you as to when you can get rid of the crutches. It is very important you follow the advice on how to use the crutches safely and avoid twisting or pivoting on your knee as this may damage your graft. It is also important that you are not on your feet for prolonged periods of time early on after the operation as this may increase your swelling.

Do I need to do exercises?

Yes, it is important to start getting the knee moving but in a controlled manner. The ward Physiotherapist will show you the exercises you will need to start with. These will be progressed, under guidance, as you are physically able. You will be referred for continued

physiotherapy as an outpatient and it is essential that you are seen within one week of your operation. If you are having your physiotherapy elsewhere and there is a delay being seen, please contact our physiotherapy department on the number shown. That way we can arrange for you to be seen here at Wrightington in the interim.

What do I do about the wounds?

When you are discharged from hospital, you will have a compression bandage on your knee that should remain in place for 24 to 48 hours. After this time, remove the bandage. Only change the small plaster dressings underneath if they are heavily blood stained and take care not to pull at the steri-strips. You must take extra care to ensure you have thoroughly washed your hands to prevent infection when you change the dressings.

It is important to keep your wound clean and dry until it is fully healed. Stitches or steri-strips may need removing and this is usually carried out between 10 and 14 days after the operation. The ward staff may send a referral to your General Practitioner (GP) for your local district nurse to come to your home and remove these for you. If not, you may be instructed to go to your GP to arrange this yourself or alternatively this may be done at your first clinic visit. The wound should remain covered with the dressings until the stitches, or steri-strips are removed.

You may shower before the removal of the stitches/steri-strips – you will need to put several layers of cling film around your knee to keep the area dry. Pat the area when drying yourself and do not rub over the wound sites. Be guided by the clinician who removes your stitches/steri-strips as to when you can stop using cling film and leave the wound uncovered.

Is there anything I need to watch out for?

You may notice some sensation loss around your wounds. This is normal. The area will shrink in size, but you may experience a small area of numbness permanently.

Occasionally problems do occur. Signs of possible problems include:

- Increased knee pain not reduced by medication, dramatic increase in knee swelling, inability to weight-bear – this could indicate an infection, and you should attend the Emergency Department as soon as possible

- Marked calf pain and / or swelling and swelling around the ankle – this could indicate a blood clot (DVT) and you should attend the Emergency Department as soon as possible

- Increased temperature. It is normal to have a slight fever following surgery, but anything more or that persists may indicate a problem

- Stomach upset after taking medication

- Increased loss of knee movement

If you experience any of these problems in your first week, please contact your GP or one of our team.

When do I return to the outpatient clinic?

An appointment is usually arranged for 2 to 3 weeks after you are discharged from hospital to check your progress. Please discuss any queries or worries you may have when you are at the clinic. Appointments are made after this as necessary.

If you have not received an appointment, it is essential you phone the outpatient department.

Your physiotherapy appointments should begin within one week of your operation and these will continue for several months until you are able to return to your normal pre-surgery or

pre-injury activities.

Are there things I should avoid doing?

To protect your new graft, you will need to avoid putting too much stress through it. You should not perform any twisting, turning or pivoting manoeuvres on your affected leg. You should also avoid straightening the leg out when you are in a sitting position i.e. a leg extension exercise.

You should avoid standing for prolonged periods of time as this will increase the swelling in your knee. If your knee is swollen, you will need to elevate your leg and use the ice as instructed.

It is important to avoid walking with a limp – use crutches if needed, to allow you to put the weight through your leg in the correct manner i.e. walking with the heel going down first, and also not walking on a bent knee.

When can I drive?

You may drive when you are comfortable and safe to do so. You must have stopped using crutches; be able to sit comfortably; and have enough power and bend in your knee to perform an emergency stop. The law states that you should be in complete control of your car at all times. It is your responsibility to ensure this and to inform your insurance company about your surgery. Please ask your Physiotherapist for advice.

When can I return to work?

When you return to work depends very much on the demands of your job and it is difficult to generalise. You need to feel that you can cope with the tasks involved in performing all duties of your job including any travelling required. Generally, it is recommended that if you are in a sedentary job, you will require at least 2 weeks off work. For a heavy manual job or one which involves twisting, turning and running you may require up to 10 weeks. Discuss

this with your Surgeon and Physiotherapist before you contemplate a return to work, and you may also wish to consider approaching your employer regarding a phased return.

When can I fly?

It is recommended that you do not fly for six weeks after the surgery.

How will I progress?

During your first visit after surgery, your Physiotherapist will decide how often they would like to see you depending on your progress. Initially you may need regular appointments to help and support you through the early stages of rehabilitation. You will be given exercises to perform at home and in the gym and you may progress to a gym-based class at the physiotherapy department.

It is extremely important that you continue to work on the exercise programme you are given and follow your physiotherapist's instructions carefully.

Your return to leisure activities will be guided by your Physiotherapist and will depend on how you are progressing and whether you are reaching certain goals. Your therapist will advise you when you are physically capable to deal with different activities and will ensure you progress to a level where it is safe for you to return to sport.

The earliest return to sport is 3 months after your operation but this will vary dependent on your progress and the demands of your sport. Return to contact sport is more likely 6 months after your operation. It is extremely important that you take guidance on this by your Physiotherapist, as if you return too early you may not achieve a good outcome from your surgery.

Useful Telephone Numbers

Title	Telephone number
Admissions	01257 256211
Preoperative Clinic	01257 256340
Wards:	
D	01257 256269
A	01257 256276
B	01257 256410
John Charnley	01257 256267
Physiotherapy	01257 256305

Pain Team	01257 252365 (weekdays between 8.30 and 16.30)
Outpatient Department	01257 256295
Main Switchboard	01942 244000

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