Information for patients undergoing medial patella femoral ligament reconstruction

Introduction

The knee cap (patella) sits at the front part of the knee. As the knee bends, it glides in a groove on the femur (thigh bone). This groove helps the patella move in a straight line. Other factors also affect the position and stability of the patella, such as the shape of the bones, the strength of the muscles and the ligaments. When a patella dislocation has occurred the normal 'restraining' structures (ligaments) on the inner aspect of the patella may be stretched or torn, making the patella more likely to dislocate in the future

If a 'non operative' approach e.g. strengthening exercises/ strapping has not been successful – then an operation may be recommended.

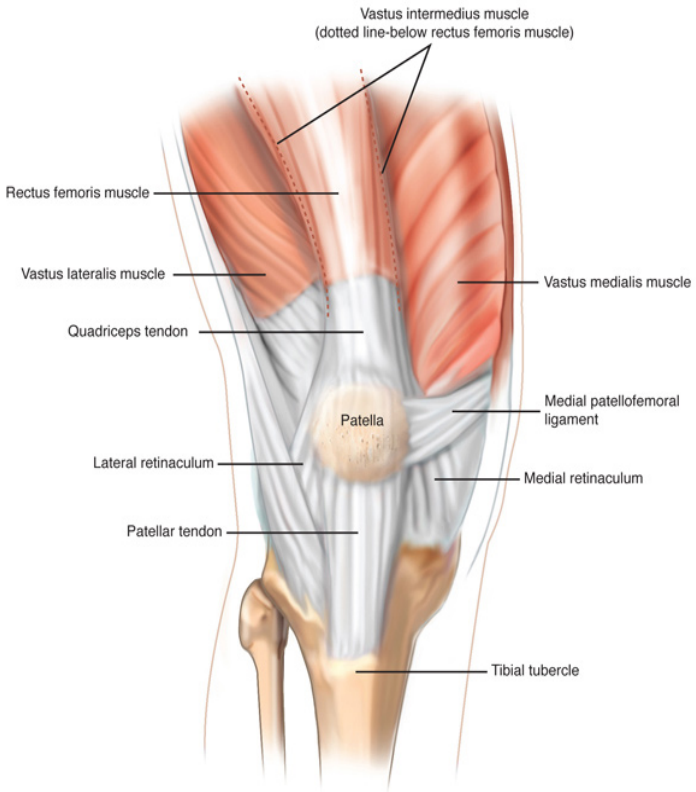

Figure 2. Knee Anatomy from the front

Surgery

Your consultant will explain more fully about the surgery but below is a brief description.

Surgical Procedure

A medial patellofemoral ligament reconstruction involves making a new ligament to compensate for the damaged one. Different graft options may be considered as a substitute for the MPFL. These include the use of one of your hamstring tendons vs synthetic material. The new ligament is formed from the front inner edge of the patella to the inner (medial) edge of the femur. This new medial patella femoral ligament is held into position with plastic screws or sutures placed into small drill holes. (Figure 3)

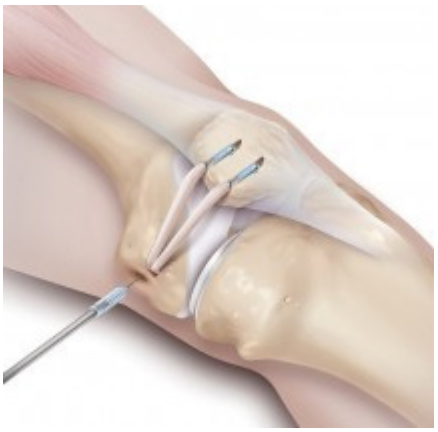

Figure 3. MPFL graft held in position with plastic screws in to patella and femur

Physiotherapy before surgery

The aims of physiotherapy before surgery are to regain knee movement and build muscle strength. A progressive exercise plan is included in this pack to assist you, If you have any questions about this, please ask your consultant during your clinic appointment or contact the Treatment Centre therapy team. The telephone numbers are at the end of this booklet.

Physiotherapy after surgery

After surgery, the aim is to restore normal function in your knee. It is usual for the quadriceps muscle to weaken very quickly after surgery, to achieve best outcomes from the operation you need to return your leg muscle strength to its normal levels in the first 6 months of rehabilitation.
You need to regain normal movement, strength, balance and co-ordination. Exercise is important to achieve this and to prevent complications such as scar tissue formation, stiffness and muscle weakness.

The physiotherapist will see you following your surgery to teach you the exercise programme and how to walk safely with crutches, initially you will not be allowed to take full weight through your leg. They will also organise further physiotherapy appointments at your local NHS clinic.

Exercise

You will be taught exercises and given an exercise sheet. They may be uncomfortable but should not cause excessive pain or swelling. Pain relief is important to allow you to do the exercises every one to two hours.

Walking

You will be taught how to use crutches and assessed on the stairs if needed. You will usually need to use crutches for four to six weeks.

Swelling management

You must follow these guidelines for the first two to three weeks after your surgery:

- **Rest:** rest with your knee in a straight position.
- **Ice:** use ice packs regularly to reduce pain and swelling. Wrap an ice pack in a pillow case or towel. Apply it to your knee for 15-20 minutes every hour during the day.
- **Elevation:** elevate your leg above the level of your heart when you are resting. Your leg should be supported.

The most important goal for the first few weeks is to reduce pain and swelling. This will allow you to gain the most benefit from your exercises. You should rest on your bed or sofa for most of the day, use ice packs and do your exercises regularly. To reduce the risk of blood clots you can walk at home with your crutches for a few minutes every hour. You should stay at home as much as possible in the first few weeks after your surgery to avoid overdoing things.

Length of hospital stay

Ideally you will be discharged the day after your surgery, if you are:-

- medically well
- Pain is controlled
- able to walk with crutches safely
- able to do stairs safely.

Long term rehabilitation

It is vital that you follow the instructions from your physiotherapist. The exercises have been chosen specifically for this surgery and follow a protocol. Your physiotherapist will assess you to decide if you are ready to progress to the next stages.

You need to be committed to following your rehabilitation programme correctly. It is a lengthy, but rewarding, process. It takes 6 weeks to 3 months for the new graft to be secure in the bone, smoking has an impact on healing times and you are therefore advised not to smoke prior to your surgery and for at least 4 months afterwards.

Your risk of re-injury will be higher if you return to certain activities too quickly after your surgery. Swelling, pain and difficulty regaining movement may be signs that you are trying to do too much.

Return to work

The time to return to work depends on the type of job you do. You can talk to your consultant about this.

People with more physical jobs usually return to work later than those with office based jobs. You will also need to consider how you travel to and from work and whether you will be able to travel safely without aggravating your knee. Time frames vary between patients. You may be able to return to office work at 4 weeks. For manual work, it may take 3 to 9 months before you can return safely.

Driving

You will not be able to drive for 4 to 6 weeks. To be able to drive, you will need to be walking without crutches and be allowed to put full weight on your operated leg. You must be able to complete an emergency stop.

You should inform your insurance company and the DVLA that you have had surgery. DVLA enquires: 0300 790 6806.

Return to sport

Your physiotherapist will advise you when you can return to sport. As a general rule, you should not return to sport until 9 to 12 months after your surgery. You should not return to sport if you have not completed your rehabilitation or if your muscles are still weak. As well as having good strength, you will also need to improve your general fitness and strength.

Please note that this information is true for most patients. Sometimes you may have different instructions – if this is the case, your surgeon or physiotherapist will explain these to you.

References

www.sydneyknee.comau/medial-patellofemoral-ligamentreconstruction
Royal Berkshire NHS foundation trust patient information for medial patellofemoral ligament reconstruction.