

MPFL reconstruction

Why this operation has been suggested

Dr Kieran Hirpara, an upper-limb surgeon at Mater Private Hospital Rockhampton, matches the treatment to your specific injury. Patients are generally referred to our clinic by their GP; if a physiotherapist has suggested you see us, you will still need a referral from your GP in order to be eligible for the Medicare rebate. At your appointment we take a history, examine your knee, and arrange imaging if it is needed.

This operation rebuilds a ligament on the inner side of your kneecap. That ligament, the MPFL, holds the kneecap in its groove and stops it sliding out. We suggest it when the kneecap has dislocated more than once and bracing or physiotherapy has not given enough improvement. It is not offered for kneecap pain alone, or for wear-and-tear arthritis. Before deciding, we check your kneecap, your joint shape, and the cartilage behind the kneecap. Some people also need a procedure to move or reshape bone, and we plan for that if your joint shape calls for it. The operation aims to keep your kneecap in place, so you can move and use your knee without it giving way.

Before the operation

You will need some imaging before surgery so we can plan it. This is usually an X-ray and an MRI scan, which takes detailed pictures of the soft tissues in your knee. Sometimes an ultrasound is used as well.

In the weeks before your operation, we will give you clear instructions. You will need to stop eating and drinking seven hours before surgery. We ask for seven hours rather than six so we can bring you forward if the theatre list runs early. Some medications may need to be paused; we will tell you which ones and when. Bring a written list of everything you take, including any supplements. Arrange for someone to drive you home afterwards, as you will not be able to drive yourself. Wear loose, comfortable clothing on the day.

If you have other medical conditions, you may need blood tests or a review with the anaesthetist (the specialist who looks after you during the operation). Most people do not need either.

On the day

You arrive at the hospital's surgical admissions unit, where you are checked in and prepared for theatre. You will meet the anaesthetist there. This operation is done under general anaesthetic. A regional nerve block is sometimes added for post-operative pain relief; the anaesthetist will discuss this with you on the day. You are then taken into the operating theatre, where the operation is performed.

You wake up in the recovery area, where nurses monitor you while the anaesthetic wears off. Once you are stable, you either go to the ward or go home, depending on the procedure and your recovery. If you go home the same day, the person you arranged earlier will drive you.

What the operation involves

Your surgeon rebuilds the MPFL, the ligament on the inner side of your kneecap that holds it in its groove. The new ligament is made from a piece of tendon. This may come from your own body, most often from the hamstring tendons, or from donated tendon tissue. Both work equally well, and your surgeon will choose the one that suits you.

The surgeon makes small cuts around your knee to reach the kneecap and the thigh bone beside it. The tendon graft is then attached to the inner side of the kneecap and to the thigh bone, so it holds the kneecap in its groove as your knee bends and straightens. The graft is held in place with small screws or anchors (small devices fixed into the bone). These hold it firmly while it heals into position. The cuts are closed with stitches and covered with a dressing.

Sometimes the joint shape of the knee also needs attention. If your kneecap sits too high, or the groove it runs in is too shallow, your surgeon may move or reshape bone at the front of the shin during the same operation. This is planned before surgery using your X-rays and scans. If the cartilage behind the kneecap is damaged, that can be treated at the same time as well.

The aim of all of this is a kneecap that stays in its groove when you move, bend, and put weight on your leg.

After the operation

You will wake up in the recovery area, where nurses watch over you while the anaesthetic wears off. Your knee will be covered with a dressing, and you may have a supportive sleeve rather than a heavy brace. Nurses will help you manage any pain, and they will check on you regularly. Most people stand and take a few steps with help on the same day, and a physiotherapist may show you how to walk safely. Because you may feel drowsy or unsteady, someone should stay with you for the first 24 hours after you get home. Your team will tell you whether you go home the same day or stay one night in hospital. We leave the dressing on for about 10 days; please do not take it off before then unless we tell you to. We change or remove it when we see you.

Recovery

For the first few days your knee will be sore and swollen. This is normal and settles gradually over the coming weeks. Rest, ice, and the pain medication your team prescribes will ease the discomfort. Keeping your leg raised when you sit also helps the swelling go down.

Most people stand and take a few steps with help on the day of surgery. After that, a physiotherapist guides your rehabilitation. Early on, you will work on bending and straightening the knee and switching the thigh muscles back on. As movement returns, you move on to strength work and exercises that use several joints together, such as controlled squats or step-ups. Your physiotherapist will tailor the program to you and progress it as your knee allows. You can move around the house and do light daily tasks, but you should avoid twisting, pivoting, or pushing off hard on the operated leg until your team says it is safe.

Recovery varies between individuals, and your timeline may differ from someone else's. Your surgeon and physiotherapist will guide you at each stage. It is worth being patient: returning to sport before your knee is fully ready can lead to more pain and poorer function later on. Waiting until your strength, movement, and confidence are back gives the new ligament the best chance to serve you well. Some people also feel nervous about the kneecap giving way again as they get back to activity. That is common, and talking it through with your team can help you work through it.

What can go wrong

Most patients do well, but problems can occasionally happen. Your surgeon and the team monitor you closely to spot any issue early.

The most common problem is stiffness, where the knee does not bend as far as it should. You might notice you cannot fully bend or straighten the knee, or that it feels tight and resists movement. This can happen if the new ligament is a little too tight. Tell your team at your next review; early treatment with physiotherapy often helps.

The kneecap can still slip or dislocate again, though this is uncommon. You would feel the same sudden giving way you knew before surgery, often with pain and swelling. If it happens, contact the clinic. Sometimes the feeling is milder: a sense that the kneecap might slide, or a loss of trust in the knee when you turn. Mention this at your review, as it can be checked and treated.

Rarely, the kneecap can break. This causes sudden, sharp pain at the front of the knee, often with swelling, and you may not be able to put weight on the leg or straighten it against gravity. Go to the emergency department if this happens.

The position where the graft attaches to the thigh bone matters. If it is not quite right, the kneecap may still feel unstable or the knee may not track smoothly. If your knee does not feel settled after several months, bring it up at review so it can be assessed.

Some people need a further operation. Reasons include a kneecap that still dislocates, ongoing stiffness, or discomfort from the small screws or anchors used to hold the graft. If you feel a nagging ache near one of these, or notice the knee catching, let us know.

If your operation also included moving or reshaping bone at the front of the shin, the overall chance of problems is somewhat higher, though the kneecap tends to stay put more reliably. Your team will discuss this with you before surgery.

The complications table on this page lists typical rates if you want the specifics.

When to call us

Most problems show up early, and we would rather hear about them sooner than later. Call us if you have a fever, if the skin around the wound becomes more red or starts to leak fluid, or if your pain suddenly gets much worse. Go to emergency if you have swelling or pain in your calf, or shortness of breath, as these can be signs of a blood clot. Also go to emergency if your leg goes numb, changes colour, or you cannot move it.