CQ HAND + UPPER LIMB
SPECIALIST ORTHOPAEDIC SURGEON

PATIENT INFORMATION

Cartilage repair of the knee

Why this operation has been suggested

Dr Kieran Hirpara, a knee surgeon at Mater Private Hospital Rockhampton, matches the treatment to your specific cartilage problem. 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 where it is needed to work out what is causing your pain.

Cartilage repair means encouraging or placing new cartilage in a worn or damaged patch inside your knee. It is usually offered to younger, active people with one clearly defined area of damage, rather than widespread wear-and-tear arthritis. We usually try non-operative care first, such as activity change, physiotherapy, bracing or injections. Surgery is considered when those steps have not given enough improvement. The operation aims to ease pain and improve how your knee works in daily life and sport.

Before the operation

In the days before surgery, we confirm the plan from your examination and imaging, such as X-rays or an MRI scan. Most people need no other tests. If you have other medical conditions, you may need blood tests or a review with the anaesthetist, the doctor who gives your anaesthetic. You will receive clear instructions about your regular medications, including which ones to pause and when. Do not eat for seven hours before your operation. We ask for seven hours rather than six so you can be brought forward if the theatre list runs early. Arrange for someone to drive you home afterwards, as you cannot drive yourself. On the day, wear loose, comfortable clothing and bring a list of your current medications.

On the day

You arrive at the hospital's surgical admissions unit, where you are checked in and prepared for theatre. You then meet the anaesthetist, the doctor who gives your anaesthetic. 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 taken into the operating theatre, where the operation is performed.

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You wake up in the recovery area, where nurses watch over you while the anaesthetic wears off. Once you are stable, you either go to a ward or go home, depending on the procedure and how your recovery is going.

What the operation involves

There is more than one way to repair a patch of damaged cartilage, and the right one for you depends on the size of the damaged area, whether bone underneath it is affected, your age, and what you want to be able to do afterwards.

Some repairs are done through small keyhole cuts using a camera. One common keyhole technique makes tiny breaks in the bone beneath the damaged patch. This releases cells from the bone marrow that form a blood clot, which slowly turns into new repair tissue. Other keyhole repairs use your own cells. This is done in two stages: first a small sample of your healthy cartilage is taken, then those cells are grown in a laboratory and later placed back into the damaged patch, sometimes held with a supportive scaffold.

If the damaged patch includes bone loss, your surgeon may transfer small plugs of healthy cartilage and bone. These can come from a less loaded part of your own knee, or from a donor. Donor plugs are used for larger damaged areas. Sometimes the alignment of your leg is also corrected with a separate procedure that changes the angle of the bone, so the repaired area carries less load as it heals.

The cuts are closed with stitches or sutures and covered with a dressing. You will wake up in recovery with your knee dressed and ready for the next stage of your recovery.

After the operation

You wake up in the recovery area, then move to the ward when you are ready. Nurses check your pain regularly and give you medication to keep you comfortable. Your knee will be covered with a dressing, and you may use crutches at first as you learn to walk safely again. 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

Your knee will be sore and swollen for the first days and weeks. This is a normal part of healing. Rest, ice and the pain medication your team prescribes will ease the discomfort. Keeping your knee raised when you sit or lie down also helps the swelling settle.

You will use crutches at first while you learn to walk safely again. Your physiotherapist will guide you through exercises that restore movement and build strength in the muscles around your knee. These exercises are a central part of your recovery, so doing them as directed matters. You will keep the dressing on for about 10

days; we change or remove it when we see you. At home, you can move around as comfort allows, but you will need to avoid kneeling, squatting and heavy lifting until your surgeon says otherwise.

Milestones come as events rather than dates. Once the swelling settles, bending becomes easier. As movement and strength return, walking gets steadier and daily tasks feel less tiring. When your surgeon clears you to drive, you can return to the road. When your repaired cartilage has healed enough, your physiotherapist and surgeon will talk you through a gradual return to work and sport, building up step by step.

Recovery varies from person to person. Your timeline may differ, and your surgeon and physiotherapist will guide you along the way.

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.

Infection is the problem seen most often after keyhole knee surgery. Watch the wound for redness that spreads out from the cuts, increasing pain, warmth, or fluid leaking through the dressing. If you notice any of these, call the clinic straight away rather than waiting for your next appointment.

The keyhole camera can occasionally touch other smooth surfaces inside the knee. If this happens, you might feel a new clicking or grinding, or a patch of catching pain. Mention it at your next review so it can be assessed.

Some repairs use small plugs of your own cartilage and bone taken from a less loaded part of your knee. That donor spot can itself be sore afterwards, sometimes for some time. Tell your team if pain there does not settle, so they can adjust your rehabilitation.

Repairs using donor tissue carry a small chance of your body reacting to it. Signs include swelling, warmth and pain that build rather than ease. Report these to the clinic promptly.

Repairs grown from your own cells can sometimes overgrow, making the patch proud or lumpy. You might feel catching, locking or a fullness in the knee. Bring this up at review; a small procedure can trim it if needed.

Stiffness from scar tissue can follow some repairs, especially when a cartilage repair is done alongside a ligament reconstruction. If your knee will not bend or straighten as far as expected, or movement becomes harder rather than easier, contact the clinic early. Early treatment works better than late treatment.

A blood clot in the leg is a risk with longer operations, particularly if you are overweight, have had a clot before, take birth control pills, or have been off your feet since the injury. Watch for sudden swelling and tenderness in the calf. If this appears, seek medical care the same day.

Some people develop ongoing widespread pain after surgery that is out of proportion to the operation. If pain keeps spreading or will not settle, tell your team.

If a repair fails, pain and swelling can return. About one in four people who have a further repair on the same patch will face another setback. Your surgeon will discuss options with you if this happens.

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

When to call us

Most problems show up early, and quick action makes them easier to treat. Call us if you have a fever, or the redness or fluid leaking from your wound is getting worse. Call us if your pain suddenly becomes severe, or your knee becomes more swollen, warm or painful rather than easing. Go to emergency if you have swelling or tenderness in your calf, or shortness of breath, as these can be signs of a blood clot. Go to emergency if you lose feeling in your leg or foot, or you cannot move it. When in doubt, call the clinic. We would rather hear from you than have you wait.

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