

Revision knee replacement

Why this operation has been suggested

Dr Kieran Hirpara, an orthopaedic surgeon at Mater Private Hospital Rockhampton, recommends revision knee replacement when a previous knee replacement has stopped doing its job. This operation means taking out some or all of the parts of your original knee replacement and putting in new ones. We most often suggest it for infection around the implant, loosening of the implant, instability, stiffness, or wear of the plastic spacer. 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. Our assessment includes your history, an examination, blood tests if needed, and X-rays, and we check that your pain is not coming from somewhere else, such as your hip or your back. For long-standing problems we usually try non-operative care first, such as activity change, physiotherapy, splinting, or injections, and we consider surgery when that has not given enough improvement. Revision knee replacement reduces pain and improves function and stability. Most people can expect a meaningful improvement in how their knee feels and works.

Before the operation

In the weeks before surgery we will plan your operation carefully. You will have X-rays of your knee, and sometimes a CT or MRI scan as well, so we can see the implant, the bone around it, and how much bone needs rebuilding. You will also come in for an assessment where we check your knee, your skin, your general health, and review your old operation notes and scans. If you have other medical conditions, you may need blood tests or a review with the anaesthetist before the day. In the days before surgery we will give you clear instructions about your medicines, including which ones to stop and when. On the day of surgery, do not eat for seven hours beforehand. We ask for seven hours rather than the standard six so your operation can be brought forward if the theatre list runs early. Arrange for someone to drive you home afterwards. Wear loose, comfortable clothing and bring a list of your current medicines.

On the day

You will come to the hospital's surgical admissions unit, where you are checked in and prepared for theatre. You will meet the anaesthetist, who will go through your health and your medicines with you. 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. The operation can take longer than a first knee replacement, because the old parts need to be removed carefully and the bone may need rebuilding.

You will wake up in the recovery area, where nurses watch you closely while the anaesthetic wears off. Once you are stable, you will either move to a ward or go home, depending on the operation you had and how your recovery is going. If you go home the same day, someone must drive you and stay with you. If you stay in hospital, we will plan your discharge with you before you leave.

What the operation involves

Revision knee replacement means taking out some or all of the parts of your original knee replacement and putting in new ones. Your surgeon uses the same general approach as your first operation, usually through a cut at the front of the knee, often along or close to the old scar. The surgeon opens the knee and clears away scar tissue around the joint, including the sticky bands that can form in the pouch above the kneecap and along its sides. This clearing gives room to see the whole joint and to move the kneecap aside so the old parts can be reached.

The old metal and plastic parts are then removed. How much bone is left decides what happens next. If there are small hollows in the bone, they may be filled with bone cement or with small chips of donor bone. If larger areas of bone are missing, the surgeon may rebuild them with metal blocks or shaped metal sleeves, or with special cones that fit inside the bone and give the new parts something solid to grip. The new parts are then fitted. They may be held with cement, without cement, or a mix of both, and some designs have stems that sit inside the thigh and shin bones for extra support.

Before the skin is closed, the surgeon washes the joint out and removes any tissue that is not healthy. The cut is then stitched closed and covered with a dressing. If infection is the reason for the revision, the operation may be done in stages, with the new parts placed at a later operation once the infection is cleared.

After the operation

You will wake up in the recovery area, then move to the ward when you are stable. Nurses will check your knee, your pain, and how you are feeling. Your pain relief will be planned for you, and you can tell the nurses if your pain is not well controlled. Your knee will be covered with a dressing. 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. Most people stand and take a few steps with a frame or crutches within the first day, and the physiotherapist will show you how. Your team will tell you whether you go home the same day or stay one night in hospital. Someone should stay with you for the first 24 hours after you get home.

Recovery

Your knee will be sore and swollen in the first days and weeks. This is normal after a bigger operation like this one. The swelling often looks worse around the front of the knee and above the scar, and it can take a while to settle. Rest, ice, and keeping your leg raised when you sit will ease the discomfort. Take your pain medicine as prescribed, and tell your team if it is not working.

You will be up and moving soon after surgery. Most people stand and take a few steps with a frame or crutches within the first day. Your physiotherapist will guide your exercises, which focus on bending and straightening the knee and building strength in your thigh. Keep doing these at home, little and often. You will not wear a brace for this operation. You can walk around your home as much as you feel able, but avoid twisting, kneeling, and heavy lifting until your team says otherwise. Sleeping on your back with a pillow under your knee is often the most comfortable position early on.

Milestones come as events rather than dates. When the swelling settles, walking gets easier. As movement returns, stairs and getting in and out of the car feel less awkward. Once your surgeon clears you to drive, you can return to the road. Many people return to their usual activities after this operation, though this often happens later than after a first knee replacement. Recovery varies from person to person, and your timeline may differ. Your surgeon and physiotherapist will guide you at each step.

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 around the new joint is the problem we watch for most closely. It can make the knee hot, swollen and painful, with redness spreading out from the wound. Some people feel generally unwell or run a temperature. If you notice any of these signs, call the clinic straight away rather than waiting for your next visit. Infection can also appear months or years later, so mention new pain or swelling at any review, however small it seems.

Sometimes the new parts work loose without any infection. This usually feels like pain that returns gradually, often worse when you stand or walk, after a period where the knee had settled. If your knee starts to feel less steady than it did, or the pain changes character, bring it up at your next review.

Stiffness can develop if the knee does not bend and straighten as far as hoped. You might notice you cannot get down stairs comfortably, or that bending feels tight and blocked. Your physiotherapist will keep checking your movement. If progress stalls, tell your team, as sometimes a further procedure helps restore motion.

A blood clot can occasionally form in the leg after surgery. This feels like sudden swelling and tenderness in the calf, sometimes with warmth or a heavy ache. If you notice this, or if you become short of breath or have chest pain, go to the emergency department or call an ambulance.

Some health problems make complications more likely after this operation, including being a smoker, carrying a lot of extra weight, and kidney problems. We will talk through your own risks before surgery, and there are steps we take during and after the operation to lower them.

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

When to call us

Call us straight away if you have a fever, if the skin around your wound becomes more red or starts leaking fluid, or if your knee becomes hot and swollen. Call us if you have sudden severe pain in your knee, or if you cannot feel or move your leg. Go to the emergency department or call an ambulance if your calf becomes suddenly swollen and tender, or if you become short of breath or have chest pain. If you are worried about anything at all, call us. We would rather hear about a small concern early than have you wait.