

Ankle arthrodesis

Why this operation has been suggested

Dr Kieran Hirpara, an orthopaedic foot and ankle surgeon at Mater Private Hospital Rockhampton, offers ankle fusion when the joint itself is the source of lasting pain. Ankle fusion, also called ankle arthrodesis, joins the bones of the ankle together so they no longer rub against each other. We usually suggest it for people with moderate to severe wear-and-tear arthritis of the ankle, or arthritis that followed an injury, where pain and stiffness are limiting daily life.

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 ankle and arrange imaging if needed. Non-operative care usually comes first: changing activities, physiotherapy, bracing and injections. Surgery is considered when those steps have not given enough improvement.

The aim of this operation is relief of pain that is disabling you, along with better function and a stable ankle. When good technique is used in carefully selected patients, fusion reliably eases this kind of pain. With modern techniques, fusion rates of better than 90% should be expected in standard, uncomplicated cases. Whether fusion or an ankle replacement suits you best is a decision we make together, based on your joints, your health and what you want your ankle to do.

Before the operation

Once you and your surgeon have agreed on fusion, a few simple preparations help the day go smoothly. You will need imaging such as X-rays, and sometimes an MRI or ultrasound, so the plan for your ankle can be worked out. Do not eat or drink for seven hours before surgery. We ask for seven hours rather than the usual six so your operation can be brought forward if the theatre list runs early. Your surgeon will tell you which of your regular medicines to stop and when, and it helps to bring a written list of everything you take. Arrange for someone to drive you home afterwards, and wear loose, comfortable clothing. If you have other medical conditions, you may need blood tests or a review with the anaesthetist.

On the day

You will arrive at 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. Afterwards 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 the ward or go home, depending on the procedure and your recovery.

What the operation involves

Ankle fusion joins the bones of your ankle together permanently. Your surgeon removes the remaining smooth cartilage from the joint surfaces, so the bones can grow into one solid piece. Screws hold everything in place while the bones heal together.

The operation can be done in two ways. With keyhole surgery, your surgeon works through two or three small cuts, each about 1 cm, using a thin camera and small instruments. With open surgery, your surgeon makes one larger cut over the ankle to reach the joint directly. Both approaches aim for the same result: the worn joint surfaces are cleared away and the bones are pressed firmly together before the screws are placed.

Your surgeon will choose the approach that suits your ankle. Keyhole surgery tends to suit ankles with little or no deformity, while more shaped or misaligned ankles may need the open approach. Sometimes a small plate is added to the screws for extra stability. The cuts are then closed with stitches and covered with a dressing.

You will wake up with your ankle in a cast or a protective boot, which keeps everything still while the bones fuse.

After the operation

You will wake up in the recovery area, where nurses watch over you while the anaesthetic wears off. Your ankle will be in a cast or protective boot, and the nurses will keep you comfortable with pain relief. You can expect some soreness around the ankle for the first day or two. Someone should stay with you for the first 24 hours after you get home. 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. Your team will tell you whether you go home the same day or stay one night in hospital.

Recovery

Expect soreness and swelling around your ankle in the first days and weeks. This is a normal part of healing. Resting with your foot raised above the level of your heart eases the swelling, and pain relief taken as directed keeps you comfortable. The discomfort usually settles gradually as the ankle calms down.

You will go home with your ankle in a cast or protective boot, which stays on until we tell you otherwise. We leave the dressing on for about 10 days and change or remove it when we see you. For the first while you will need to keep weight off the foot, using crutches or a frame to move around the house. Your physiotherapist will guide you through exercises to keep the rest of your leg strong and your circulation moving, and will show you how to move safely on the stairs and around your home. Sleeping on your back with the foot raised is often more comfortable at first.

The bones grow together slowly, so patience matters. Once we confirm the fusion has healed, we will let you start putting weight on the foot, first in the boot and then in normal shoes. As the swelling settles and your confidence returns, you will walk further each day and begin everyday activities again. When we clear you to drive, the usual rules apply: you must be able to react in an emergency stop and be off strong pain medication.

Recovery varies from person to person. Your timeline may differ, and we 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.

The main thing we watch for after an ankle fusion is the bones not joining together. You might notice a deep, aching pain in the ankle that does not settle the way you expected, or a feeling that the joint is loose or shifting when you put weight on it. If the pain is not easing as your recovery goes on, tell us at your next review so we can check how the bones are healing.

Some health conditions make this more likely, including diabetes, nerve problems in the feet, poor blood supply to the bone, and smoking or heavy alcohol use. If any of these apply to you, we will talk about them before surgery and keep a closer eye on your healing afterwards.

The joints next to the fused ankle can also develop more wear-and-tear arthritis over time. This usually shows up as new stiffness or aching in the middle of the foot or on the top of the foot, years after the fusion has healed. Mention any new pain like this at your review appointments so we can assess it.

Infection is a risk with any operation. Watch the area around your wound for redness that spreads out from the dressing, warmth, increasing swelling, oozing, or a fever. A wound problem can also mean the edges of the cut are slow to settle or weep a little. If you see any of these signs, contact the clinic straight away rather than waiting for your next appointment.

If you become generally unwell, with spreading redness, fever or pain that is getting worse quickly, go to the emergency department.

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

When to call us

Most recoveries go smoothly, but some signs need urgent attention. Call us if you have a fever, increasing redness or discharge around the wound, or pain that keeps getting worse instead of easing. Go to emergency if you have sudden severe pain, swelling in your calf, shortness of breath, or chest pain. These can point to a blood clot. Call us straight away if your foot or toes feel numb, look pale or blue, or you cannot move them. When in doubt, call us. We would rather hear from you early.