

Ankle impingement

What you're feeling

Ankle impingement means something is being pinched or squeezed inside your ankle joint, usually at the front or the back. At the front of the ankle, repeated forceful bending of the foot up and down can build small bony ridges or spurs near the joint edge. These spurs then get compressed when you bend your ankle fully, which causes pain. At the back of the ankle, a small extra bone behind the joint (sometimes called an os trigonum) or irritated soft tissue can get squeezed in the same way when your foot points down.

The pain tends to sit in one spot. With front-of-ankle impingement, you feel it deep at the front of the joint, or slightly to the outside of the front. With back-of-ankle impingement, you feel a deep ache just in front of your Achilles tendon at the back of the ankle. Some people also feel catching or clicking, which can mean a loose fragment of cartilage or bone inside the joint.

Certain movements bring it on. Pointing your foot down hard, pushing off, jumping, or kicking can trigger back-of-ankle pain. Bending your ankle fully upwards, for example squatting or walking uphill, can trigger pain at the front. Many people with this problem have sprained the same ankle before, and the pain lingers or keeps coming back with activity rather than settling. Swelling and bruising around the ankle are common after a sprain, and pain when standing or walking on the foot is typical.

Day to day, it can limit the things you trust your ankle to do. Running, changing direction quickly, climbing stairs, or getting down into a squat may become uncomfortable or unreliable. Some people notice the ankle feels loose or gives way. If your pain has continued for weeks despite rest, strapping, or physiotherapy, or your ankle keeps catching or locking, it is worth having the joint examined properly.

What's actually happening

Your ankle joint is a hinge where the ends of your shin bone and the small bone on the outside of your leg grip a bone called the talus, which sits between them. Strong straps of tissue called ligaments hold these bones together. When you bend your ankle fully in either direction, those bones and ligaments move very close to each other.

Impingement happens when something extra takes up space in that tight spot. At the front of the ankle, years of forceful bending, common in jumping and running sports, can build small bony spurs at the joint edge.

Irritated or scarred soft tissue can thicken there too, often after one or more sprains have stretched the ligaments on the outside of the ankle. When you bend your ankle fully upwards, the spur or thickened tissue gets squeezed between the bones, and that squeezing is the pain you feel deep at the front.

At the back, the same idea applies in reverse. Pointing your foot down hard squeezes the soft tissue, or a small extra bone, between your heel bone and the bottom of your shin. Dancers and athletes who kick or jump a lot spend a lot of time in that position, which is why the ache sits deep behind the ankle near the Achilles tendon.

The catching, clicking and giving way you may have noticed fit the same picture. A sprain can leave behind a fold of scarred tissue inside the joint, a bit like a loose flap of rubber caught in a door hinge. Each time the ankle bends fully, that flap gets nipped, the joint stays irritated, and the swelling and deep ache keep coming back instead of settling.

What we can do about it

Dr Kieran Hirpara, an orthopaedic surgeon at Mater Private Hospital Rockhampton, starts with the least invasive options that suit your condition. 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 scans if they are needed to confirm what is being pinched and where.

For back-of-ankle impingement, we usually begin with simple measures. That means changing or resting from the activities that trigger the pain, and physiotherapy to settle the irritation and build strength and control around the joint. Give this a fair trial of 3 to 6 months. Nonsurgical treatment works for 60% of people with this problem. If the pain is still troublesome, an injection can settle it: 85% of people who had one reported pain relief. Surgery is considered after 3 to 6 months of unsuccessful nonsurgical treatment.

For front-of-ankle impingement, the same approach applies. Activity change, a period of rest or bracing, and rehabilitation come first. Arthroscopic surgery, which is keyhole surgery through small cuts using a thin camera, is considered when symptoms persist despite those measures.

Surgery may also be the right step for a loose or unstable ankle when non-surgical treatment, including physiotherapy, bracing and immobilisation, has not worked. In that case the operation is done arthroscopically, through small cuts, and can tighten the stretched ligaments and tidy up anything else inside the joint in the one procedure.

The operation itself is tailored to where your impingement sits. For front-of-ankle impingement, the surgeon removes the bony spur or thickened tissue that is being squeezed. For back-of-ankle impingement, the extra bone or irritated tissue at the back is removed the same way. Because the cuts are small, the joint is not opened widely, and many athletes choose this route because it suits an earlier return to their sport. We will talk through what the operation involves, what recovery looks like, and what it can and cannot achieve, so you can decide together whether surgery is right for you.

What to expect

Ankle impingement rarely settles on its own while you keep doing the activity that causes it. The pain tends to linger or come back each time you push off, jump, squat, or point your foot down. Some people manage for years by pacing their activity. Others find the ankle gradually limits more of what they trust it to do, especially if the joint also feels loose or gives way.

With sensible early management, many people do well without surgery. Changing activity, rest, and physiotherapy settle things for a good share of people with back-of-ankle impingement, and some children and teenagers with this problem avoid surgery altogether.

If you do have surgery, the outlook is generally steady rather than dramatic. Keyhole treatment for front-of-ankle impingement relieves pain well and lets most people return to work and sport. The complication rate for that procedure is low, around 4.6% overall, with serious problems in about 1.1% of cases. For back-of-ankle impingement, keyhole surgery carries a 7.3% complication rate, compared with 15.9% when the joint is opened through a larger cut. Those figures are worth weighing with your surgeon when you decide.

If your ankle is also unstable, surgery can tighten the stretched ligaments and clean up the joint in the same operation. Most people who have that ligament repair with early weightbearing are moving well by 6 weeks, and many are back to sport within a year. One patient followed for 14 years after a salvage ligament reconstruction still had a stable, painless ankle. Getting the most from any of these operations depends on doing the rehabilitation properly, in phases, rather than rushing back.

Nothing here is a promise for your particular ankle. Your own outlook depends on which part of the joint is pinched, whether the ligaments are stretched, and what you need the ankle to do.

When to see someone

See your GP if pain at the front or back of your ankle keeps coming back with activity, or has not settled after weeks of rest and physiotherapy. Ask for a specialist review if your ankle feels loose or gives way, or if it catches or locks, which can mean a loose fragment inside the joint. It is also worth getting checked if one spot at the front of the ankle stays tender to touch, or if pointing your foot down brings on a deep ache behind the ankle. Scans are not always needed straight away; a careful examination of your ankle is the main tool for working out what is wrong. If pain and swelling are severe in the first day or two after a sprain, an examination may be harder to read, so a review a few days later can give a clearer answer.