

Hallux rigidus

What you're feeling

Hallux rigidus means wear-and-tear arthritis in the joint at the base of your big toe. The joint stiffens, and a bony lump often forms on the top of your foot. This lump is called a bone spur. It can rub against your shoe.

The pain sits at the base of your big toe, where it meets your foot. Standing, walking and sport make it worse. Bending the toe up is often the painful part, and that movement gets more limited over time. The toe may also look swollen or red around the lump.

Some people notice the toe aches after activity, or feels stiff when they first get up. The joint can be stiffest in the morning and loosen a little as you move.

Daily tasks that bend the toe become hard. Pushing off when you walk, climbing stairs, squatting, kneeling, or getting up from your heels can all hurt. Running and jumping are usually the first things to go. Shoes with a heel or a narrow toe box press on the spur, so many people switch to flat, roomy footwear.

The stiffness comes from the joint itself and from the bone spurs around it. The spurs act like a block, stopping the toe from bending up as far as it should. Your other foot may have the same changes, as this condition often affects both feet. It can also run in families.

You may notice changes in how your foot works as you walk, because the big toe helps your arch do its job. When the toe cannot move well, your foot has to compensate.

If you are over 50, you are not alone. This condition is common at that age, and it often appears alongside wear-and-tear arthritis in the knee.

What's actually happening

Your big toe joint is where the long bone of your foot meets the first bone of your toe. In a healthy joint, smooth cartilage covers both bone ends and lets them glide over each other. In this condition, that cartilage wears away. The bones then rub on each other, and the joint space narrows.

Your body responds by growing extra bone around the joint. These are the bone spurs you may feel on the top of your foot. They act like a doorstep wedged under the toe, blocking it from bending up. That is why pushing off when you walk hurts most: your toe should bend up as your heel lifts, and the spurs stop it getting there.

The wearing away usually starts on the top of the joint, so bending the toe up is lost first. Bending it down often keeps working longer. The joint surfaces can also press into each other through the whole movement instead of gliding smoothly, which adds to the wear.

This condition can appear from your thirties onward. It is more common in women, and it often affects both feet, especially when it runs in the family. In younger people it may trace back to an old injury to the joint surface that was never noticed at the time.

Your surgeon will grade how advanced the changes are, from early wear with mostly spurs, to late-stage wear where the joint surface is largely gone. Early stages are usually treated with operations that keep the joint, by trimming the spurs so the toe can move again. Late stages, where the joint is badly worn, tend to need bigger operations such as stiffening the joint or replacing it.

What we can do about it

Dr Kieran Hirpara, an orthopaedic foot and ankle 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 first visit we take a history, examine your foot, and arrange imaging if it is needed to confirm the diagnosis. Because this is a long-standing wear-and-tear problem, we usually try non-operative care first and consider surgery when that has not given enough improvement.

The first step is changing what you ask the joint to do. A shoe with a stiff sole and a deep, high toe box takes pressure off the bone spur on top of your foot and stops it rubbing. A stiff insert or a carbon fibre plate inside the shoe can limit how far the toe bends, which eases pain when you push off. A rocker-bottom shoe, with a curved sole, also helps by rolling your foot through each step instead of bending the toe. We may suggest an orthotic with a built-in extension under the big toe for the same reason. You will need to pause sport while things settle. For people over 60 who are less active, these simple measures are usually enough on their own.

Pain relief can help alongside these changes. Anti-inflammatory tablets, a group of medicines called NSAIDs, can settle the aching in the joint. We will talk you through what is safe for you to take.

If these steps stop working, surgery is the next option. The right operation depends on how advanced the wear is. For early to mid-stage changes, we can trim the bone spurs off the top of the joint in an operation called a cheilectomy, which frees the toe to bend again. Some people also need a small cut and realignment of a bone in the toe or foot to shift load away from the worn surface. When the joint surface is largely worn away, we may recommend stiffening the joint solid, called a fusion, or replacing it with an artificial joint. A fusion removes all movement at the toe but gives a permanent, reliable result, and many people stay very active with a fused toe. Joint replacement suits older, lower-demand feet; it wears out sooner in younger, more active people. We will go through the options with you and decide together what fits your foot and your lifestyle.

What to expect

Wear-and-tear arthritis in the big toe joint tends to be a long-term condition. The stiffness and pain usually build slowly over years rather than arriving all at once. Without treatment, the joint generally keeps stiffening, and bending the toe up becomes harder as the spurs grow. The pain does not usually go away on its own, though simple changes such as roomier shoes and activity changes can settle it for long stretches.

Early on, most people manage well with the simple steps described above. When those stop working, surgery aims to remove the block and ease the pain. For early to mid-stage wear, an operation that keeps your joint can increase how far the toe bends and reduce day-to-day pain. For late-stage wear, stiffening the joint or replacing it can relieve pain, and a solidly healed fused joint allows a very high proportion of people to move without pain and function well.

Recovery after joint-preserving surgery is often quicker than people expect. You can put weight on your foot as tolerated in a hard-soled shoe soon after the operation, with no limits on bending the toe up or down. Your surgeon will also show you how to care for your toe afterwards, because good follow-through at home helps the toe heal in the right position.

Set your expectations around improvement rather than a return to a perfectly normal toe. The goal is a toe that bends further, hurts less with walking and daily tasks, and lets you get back to the activities you enjoy. How much movement you regain depends on how much wear was there to begin with, which is why earlier treatment tends to suit this condition better.

When to see someone

See your GP if you have ongoing pain at the base of your big toe that does not settle with rest, or if bending the toe up stays painful and stiff. Ask for a specialist review if the bony lump on top of your foot stops you wearing normal shoes, or if the toe stays swollen and red around it. Ask for a review if the stiffness has spread to your other foot, since this condition often affects both feet. It is also worth mentioning if a parent or sibling has the same problem, as it can run in families. If you already know you have wear-and-tear arthritis in your knee, tell your GP, because the two often go together.