

Morton's neuroma

What you're feeling

The pain sits in the ball of your foot, usually in the space between your third and fourth toes. It happens when a nerve in that space becomes thickened and irritated. The nerve there is built differently from the nerves between your other toes. It is thicker and held more firmly in place, which means it can get pinched and stretched as you walk.

The pain is felt on the underside of your foot, at the base of your toes. You might describe it as a burning ache, or a feeling of something sharp in the ball of your foot. Standing and walking put pressure on the sore spot, so symptoms tend to build through a day on your feet. Pushing off the ground as you step can make it worse. Taking your weight off the foot usually eases it.

Some people notice the pain most when they are up and moving, rather than at night or first thing in the morning. The flare tends to come after activity, once the nerve has been squeezed repeatedly.

Day-to-day, the sore spot makes itself known in small ways. Walking around the supermarket, standing at the kitchen bench, or climbing stairs can all press on the nerve. Shoes matter too. Narrow or tight footwear squeezes the bones in the ball of your foot together and presses on that nerve, so many people find themselves loosening laces or slipping shoes off under the desk. Some people feel the need to stop mid-walk, sit down, and take the shoe off to rub the sore spot.

If this sounds like your foot, there are ways to settle it. Simple, non-surgical treatments are tried first. Surgery is only considered once those have not worked.

What's actually happening

Between the bones of your toes, deep in the ball of your foot, runs a small nerve. The one between your third and fourth toes is different from the others. It is thicker, and it is held more firmly in place. Two nerve branches join together right there before running out towards your toes. That meeting point sits just under a strong strap of tissue that holds the bones of your foot together.

As you walk, your body weight squeezes the bones in the ball of your foot together. The nerve gets pinched between them, over and over. Because it is held tight and cannot slide out of the way, it takes the strain instead

of moving free. Think of a garden hose caught under a heavy doormat: every step presses it flat, and over time the hose itself changes. The nerve responds the same way. It becomes thickened and irritated, and that thickened nerve is the sore spot you can feel.

The symptoms you read about above follow directly from this. Pressure on the nerve causes the burning ache in the ball of your foot. Squeezing from tight shoes presses the bones together harder, which is why narrow footwear flares it up. Taking your weight off the foot releases the pinch, so the pain eases when you sit down or take the shoe off.

There is no grading system for this condition, and no test that sorts it into mild or severe. What matters is how much it interferes with your life. Simple, non-surgical treatments come first, and they work for many people. Surgery is considered when those treatments have not settled things. The usual operation removes the thickened nerve itself. Most people who need a second operation because pain came back get real relief from it, with 67% achieving complete relief or marked improvement.

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 that first visit we take a careful history, examine your foot, and arrange imaging if it is needed. Weight-bearing X-rays can rule out other causes of pain in the ball of the foot, such as a stress fracture. An ultrasound scan is another option, and an MRI scan can help tell a neuroma apart from other causes of forefoot pain such as a cyst or an inflamed joint lining.

The first things we try are the ones you can do yourself. A soft pad placed under the ball of your foot takes pressure off the sore spot and eases symptoms. Choosing roomier footwear and easing back on long days on your feet helps too, for the same reason. Physiotherapy aims to settle the irritation and get the load spread more evenly through your foot. We usually ask you to give these simple measures a fair go before moving on.

If self-management has not settled things, we can offer an injection. Using ultrasound to guide the needle means the cortisone goes exactly where the nerve sits. Cortisone is a strong anti-inflammatory medicine that calms the irritation around the nerve. Injections of cortisone given this way have shown better results for pain and function than injections of hyaluronic acid, a lubricating substance sometimes used for foot problems. Some people get relief that lasts, while others find the pain creeps back over time.

Surgery comes into the picture when these treatments have not given you enough improvement. The usual operation removes the thickened nerve itself through a small cut on the top of your foot. Another option reshapes the bones in the ball of your foot so pressure is spread more evenly when you walk, and this can be done through small cuts with a low rate of complications. We will talk through which option suits your foot and your goals, and decide together what to do next.

What to expect

Morton's neuroma rarely goes away on its own, but it does not have to run your life. For most people the pattern is one of flare and settle: the pain builds through a day on your feet, then eases once you sit down or take your shoes off. Left alone, it tends to keep coming back, especially if the footwear and activity that squeeze the nerve stay the same.

Simple, non-surgical treatments are tried first, and they work for many people. Changing your shoes, using a pad under the ball of your foot, easing back on long days standing, and physiotherapy all aim to take pressure off the nerve. If those have not settled things, a cortisone injection can calm the irritation. Some people get relief that lasts, while others find the pain creeps back over time. There is no fixed timeline for how long symptoms last; what matters is how much the sore spot interferes with your life.

Surgery is considered once these treatments have not given you enough improvement. The usual operation removes the thickened nerve itself, and most people who need a second operation because pain came back get real relief from it. Patient-reported outcomes after removal of a symptomatic neuroma are acceptable, though not always as strong as earlier reports suggested, so it is fair to go in with measured expectations rather than promises of a perfect foot.

A few things are worth knowing as you weigh it up. Removing the nerve can leave a numb patch between the affected toes, and in some people a tender spot can form where the nerve was cut. Operations that reshape the bones in the ball of your foot can shift extra load onto the neighbouring toes and cause aching there. These are the reasons your surgeon will be careful about matching the operation to your foot, and why surgery is held back until simpler treatments have had a fair go.

When to see someone

See your GP if you have a burning ache in the ball of your foot that keeps coming back, especially if it flares after walking or standing and eases when you sit down or take your shoes off. Ask for a specialist review if simple changes like roomier footwear, a pad under the ball of your foot, or physiotherapy have not settled things after a fair go, or if the pain is stopping you doing your normal work or daily activities. This condition is not dangerous, and there is no emergency attached to it. But the sooner the pressure on the nerve is eased, the better your chances of avoiding surgery later.