

Femoroacetabular impingement

What you're feeling

The pain of hip impingement usually starts in the groin, and it often creeps up slowly rather than arriving after one clear injury. Sometimes it begins after a small knock or twist. It tends to flare with activity, and anything that bends the hip up towards your chest makes it worse. Sitting for long stretches is a common trigger, so car trips, long meetings at a desk, or a movie can leave you aching. Exercise can set it off too, especially running or sports with quick changes of direction.

Everyday movements can become awkward. Putting on socks and shoes may hurt. Getting out of a low chair, climbing stairs, or pivoting to reach behind you can be uncomfortable. Some people feel catching or clicking deep in the hip, which happens when the joint surfaces or the labrum (a ring of cartilage around the hip socket) are irritated. The pain can spread towards the side of the hip, into the inner thigh, and occasionally down towards the knee.

Many people notice stiffness rather than pain at first. You might find it hard to rotate your hip inwards, or feel that one hip doesn't move as freely as the other. A slight limp can appear, often so subtle that others notice it before you do. Symptoms may be worse after activity or after sitting still for a while.

It's worth knowing that this condition is often missed at first, and groin pain is sometimes blamed on something else. If you're an active teenager or young adult with hip or groin pain that won't settle, it's reasonable to have your hip assessed. Your surgeon will look at the whole picture: your symptoms, how your hip moves on examination, and scans, because no single finding on its own confirms impingement.

What's actually happening

Your hip is a ball-and-socket joint. The ball is the top of your thigh bone, and the socket is a cup in your pelvis. Around the rim of the socket sits the labrum, a ring of cartilage that works like a gasket, sealing the joint and keeping fluid inside.

Impingement means the ball and the rim of the socket pinch against each other during normal movement. This happens because of small changes in the shape of the bones. Usually there is nothing dramatic, just a bump where the ball meets its neck, or a socket that covers slightly more of the ball than it should. When you bend

your hip up towards your chest, those two areas meet sooner than they should, and the labrum and joint surface get squeezed between them.

There are two main patterns. A cam impingement comes from the ball side: the head of the thigh bone is not quite round, so as it rotates in the socket it shears against the cartilage lining the socket. A pincer impingement comes from the socket side: the rim sticks out further than usual and pinches the labrum between the two bones. Most people have a bit of both. Over time, this repeated pinching can fray or tear the labrum, and the smooth cartilage covering the joint surfaces can start to lift away from the bone underneath. Left alone, that wear can eventually lead to wear-and-tear arthritis in the hip.

It is worth knowing that many people have these small shape changes and never feel a thing. The shape alone does not cause trouble until the hip starts to hurt. That is why your surgeon looks at your symptoms and your examination, not just your scans, before deciding what is going on.

What we can do about it

Dr Kieran Hirpara, an upper-limb 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. Our assessment covers your history, an examination, and imaging where needed, and that combination is what establishes the diagnosis.

For most people with hip impingement, the first line of treatment is not surgery. We usually begin with non-operative care: changing how you move and train, and a course of physiotherapy. Physiotherapy aims to settle your symptoms, improve how the joint works, and build strength around the hip. It often involves easing back on activities that push the hip into the pinching position, such as deep squatting, lunging, cycling and hurdling. Your programme will likely include exercises that strengthen the buttock muscles and train you to control movements that overload the hip. Tightness at the front of the hip is also treated, because it can tilt your pelvis and bring on the pinch sooner. Some people also benefit from hands-on treatment to loosen stiff areas around the joint. Give this a fair run: a full course of physiotherapy, usually at least 3 months, is expected before surgery is considered. Many people with a torn labrum improve after a minimum of 1 year of nonsurgical treatment.

Pain relief and anti-inflammatory tablets (a common group is called nonsteroidal anti-inflammatory drugs) can help you stay active while you rehabilitate. Injections into the hip joint are another option. Hyaluronic acid is a lubricating fluid that can reduce pain and improve function in mild impingement. Platelet-rich plasma, a preparation made from your own blood, has not been shown to improve results after hip impingement surgery.

Surgery enters the picture when hip pain has persisted for at least 3 months, interferes with sport or daily life, and has not settled with physiotherapy, activity change, anti-inflammatories or injections. The operation is a hip arthroscopy (keyhole surgery through small cuts), where we reshape the bump on the thigh bone or trim the overhanging socket rim, and repair the labrum if it is torn. We will talk through whether it suits you, and any decision about surgery is one we make together.

What to expect

Without treatment, symptoms of hip impingement will probably worsen over time. With treatment, many people improve. All studies of hip arthroscopy (keyhole surgery) for this condition found improvements in how patients rated their own hip at 2 years or more after surgery. About half of patients achieved an outcome they described as very good at 12 months, so surgery helps many people, though not everyone reaches a pain-free hip.

Timing matters. People whose symptoms have been present for 2 or more years before surgery tend to have poorer results than people treated sooner. In teenagers, the length of time symptoms have been present does not seem to change the outcome.

There are a few honest caveats. It is currently unknown whether treatment for impingement prevents wear-and-tear arthritis in the hip, and there is no evidence that it changes that risk. Scans also show more arthritis developing over time in some people who have this surgery. The other hip matters too: about one in four people with impingement have symptoms in the opposite hip, and 16% of hips that start out without symptoms develop them over the following years. Over longer periods, roughly half of people eventually develop significant symptoms in the other hip, while about half stay comfortable or nearly so.

If both hips need surgery, they can be done at the same time or staged separately. Either approach brings symptom relief and better hip function, and doing both at once does not increase complications, postoperative pain or painkiller use.

Results hold up over the long term for many people, including those with a slightly shallow socket (a mild form of hip dysplasia), where 91% of hips avoided further surgery at 10 years or more. Athletes, including older competitive athletes, report similar outcomes to other patients and most return to their activities.

When to see someone

See your GP if you have groin pain that keeps coming back with activity, or pain when sitting, driving, or putting on socks and shoes that will not settle. Ask for a specialist review if your hip feels stiff, catches, or clicks, if one hip moves less freely than the other, or if you notice a limp. This matters most for active teenagers and young adults with hip or groin pain, because the condition is often missed at first and a delayed diagnosis is common. If one hip is affected, keep an eye on the other side: about one in four people develop symptoms in the opposite hip, and over the years roughly half do. Getting assessed sooner rather than later is worthwhile, because symptoms left untreated tend to worsen over time, and results after surgery are better when symptoms have been present for less than 2 years.