CQ HAND + UPPER LIMB
SPECIALIST ORTHOPAEDIC SURGEON

PATIENT INFORMATION

Knee osteoarthritis

What you're feeling

Knee osteoarthritis is wear-and-tear arthritis in the joint. The pain is usually a deep ache, and it tends to get worse with activity and ease with rest. Stairs, hills, and getting up from a chair are common triggers. Many people notice stiffness on waking that settles within half an hour, and swelling around the knee that comes and goes.

As the condition progresses, everyday movements become harder. Bending and straightening the knee may feel restricted, and you might feel or hear a grinding sensation when the joint moves. Some people develop a bow-legged or knock-kneed shape to the leg, or a feeling that the knee gives way. Walking longer distances can take more effort than it used to.

The pain does not always match what an x-ray shows. Some people with little joint damage have a lot of pain, and some with worn joints have less. That is normal, and it is one reason your surgeon will examine the knee and listen to your story rather than rely on scans alone.

It is also worth knowing that osteoarthritis often affects both knees over time, even if it started in one. And living with ongoing knee pain can weigh on your mood. If you have been feeling low or anxious, mention it at your appointment. It is a common part of this condition, and it deserves attention alongside the knee itself.

What's actually happening

A healthy knee is a hinge joint with a smooth, slippery surface of cartilage on the ends of the bones. Cartilage lets the surfaces glide over each other with almost no friction. Around the joint, two C-shaped pads of gristle called menisci act as shock absorbers, spreading load and helping keep the joint stable.

In osteoarthritis, that smooth surface wears away. The bone underneath hardens and changes shape, and small bony lumps called osteophytes form at the joint edges. The whole joint is involved, not just the surface: the bone beneath the cartilage, the joint lining, the ligaments, the capsule and the muscles around the knee all change as the condition develops. This is not simply wear from use. The cartilage cells lose their ability to maintain and repair the surface, and age is a big part of that. Genetics, obesity and being female also raise the risk.

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The symptoms you read about above follow directly from this. Worn cartilage and changed bone surfaces grind rather than glide. Swelling comes from the joint lining reacting to the damage. As the joint wears unevenly, the leg can drift into a bow-legged or knock-kneed shape, which loads one side of the knee even more and can speed up the wear.

Sometimes there is a clear starting event. A torn meniscus, a ruptured ACL (the ligament that stops the shin bone sliding forward), or a broken bone involving the joint can set off cartilage breakdown. More than 40% of people develop arthritis within 5 to 15 years of an ACL injury, and the risk is higher again if the meniscus was torn at the same time. Removing the whole meniscus raises contact stress in the joint by 235%, and 48% of people show arthritis changes 21 years later.

Less often, the problem is osteonecrosis, where a patch of bone loses its blood supply, softens and can collapse. This can follow the same path to arthritis.

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. We assess your knee with a history, an examination, and imaging where it is needed, then build a plan with you.

The first steps are things you can do yourself. Keeping a healthy body weight eases symptoms and slows the wear, and if your body mass index is above 25 kg/m², losing at least 5% of your current weight and keeping it off helps. Because forces at the knee reach three to seven times your body weight, small changes in weight matter. Exercise is strongly recommended, including supervised programs, exercising on your own, and water-based exercise. A physiotherapist can guide a program that strengthens your core and legs, keeps the knee moving daily, and builds towards 150 minutes of aerobic activity a week, with strengthening on 2 to 3 days each week. A six-week physiotherapist-led exercise and education program has led to lasting improvements in pain for people waiting on knee replacement surgery. Canes and braces can help too. More than 50% of people referred with mild to moderate knee osteoarthritis may not need surgery at 7 years, so it is worth giving these measures a fair go.

If self-management is not enough, we move to medical treatment. Rub-on anti-inflammatory creams (topical NSAIDs) are strongly recommended, as are anti-inflammatory tablets and paracetamol. Strong opioid tablets, including tramadol, are not recommended for knee osteoarthritis. Cortisone injections into the joint can settle pain in the short term. Injections such as platelet-rich plasma (a preparation made from your own blood) may reduce pain and improve function, though the evidence is still developing and we will discuss whether it suits you.

Surgery comes into the picture when these measures have not given you enough relief and your knee is limiting your life. For wear confined to one part of the joint, options include realigning the leg with a high tibial osteotomy (cutting and reshaping the shin bone to shift load to the healthier side) or a partial knee replacement. When the whole joint is affected, a total knee replacement replaces the worn surfaces with an artificial joint and

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consistently improves pain and function. We will talk through what each option involves and decide together on the right path for you.

What to expect

Osteoarthritis does not go away, but it does not always march steadily downhill either. For most people it comes and goes, with good stretches and bad stretches. Some knees change slowly over many years. A smaller group follows a faster course: in the year or two before arthritis shows clearly on an x-ray, some people notice the knee swelling often, hurting daily, and needing more pain medication than before.

There is no set timeline for how long symptoms last, because the condition varies so much from person to person. What tends to matter is how much of the joint surface is worn and how the knee is loaded day to day. If arthritis started after an old injury such as a torn meniscus or ACL, the wear can continue to build over the years that follow.

The honest picture with treatment is mixed. Many people manage well for years with weight control, exercise, and simple pain relief, and more than half of those referred with mild to moderate disease may still not need surgery 7 years later. But some people who avoid surgery still have pain and function no better than when they started. When the whole joint is badly worn, a total knee replacement reliably improves pain and function, though it carries a real risk of complications, including infection, which is the most common reason a replacement needs redoing.

If the knee is left alone, symptoms usually persist rather than settle. The wear tends to progress, and both knees are often affected over time. Some people reach a point where surgery becomes the reasonable next step, and some put it off for years. There is also such a thing as too early: replacing a knee before the cartilage is fully worn tends to leave people less satisfied with the result.

The realistic goal is a knee that lets you do what matters to you with manageable pain. That looks different for everyone, and your surgeon will help you judge when, or whether, the time is right for surgery.

When to see someone

Most knee osteoarthritis does not need urgent care, but some changes do. See your GP if your knee pain is not settling with rest and simple pain relief, or if it is stopping you sleeping, working, or doing the things you care about. Ask for a specialist review if the knee locks, catches, or gives way, if it is increasingly unstable, or if swelling keeps coming back, as these can point to a mechanical problem inside the joint that may eventually need surgery. Go to an emergency department if the knee is hot, red, and severely painful, or if you feel feverish and unwell, because a joint infection needs same-day treatment. Sudden severe pain with a limp after no injury also deserves prompt assessment.

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