CQ HAND + UPPER LIMB
SPECIALIST ORTHOPAEDIC SURGEON

PATIENT INFORMATION

Periprosthetic joint infection (hip)

What you're feeling

An infection around a hip replacement can look different from person to person. Some people notice redness and warmth over the hip, swelling, or a fever. Others have none of these signs, which is one reason hip replacement infections can be hard to pick up.

Pain is the most common symptom. It may be there day and night, or it may flare when you move the hip, such as when you get out of a chair, walk, or turn over in bed. Some people feel pain that never quite settles even though the replacement itself seems to be working well. That kind of pain is worth taking seriously.

Your history matters too. If you had a lot of fluid draining from the wound after your operation, or the wound was red and swollen on several occasions, or you needed a long course of antibiotics afterwards, these can all point towards infection. A small channel near the wound that leaks fluid is another sign doctors take seriously.

If infection is suspected, your surgeon will start with a careful history and examination, then blood tests that look for inflammation. X-rays may look normal, or they may show changes around the implant. Often the next step is drawing a sample of fluid from the hip joint with a needle, using local anaesthetic and imaging to guide the needle. The fluid is then tested for infection. No single test is completely reliable, so the diagnosis usually comes from putting several findings together.

One thing to know: if a late infection is suspected, antibiotics are usually held back until testing is complete, because they can hide the bacteria and make the results harder to read.

What's actually happening

A hip replacement is a metal ball that sits inside a plastic socket. Normally, the two parts glide smoothly against each other, like a well-oiled hinge. When bacteria get onto the surfaces of the implant, they can build a sticky coating, a bit like slime, that shelters them. This coating is called a biofilm. Once bacteria are inside it, they are very hard for your immune system and for antibiotics to reach. Antibiotics often cannot get through the film at normal doses, which is why infection around a replacement can be stubborn.

Your body reacts to the bacteria the way it reacts to any invader: with inflammation. That means swelling, warmth and pain around the hip. It also explains why the pain in an infected hip often does not settle, even

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when the replacement itself is still firmly fixed in place. The problem is not usually the implant coming loose. It is the infection living around it.

There are two broad patterns. An early infection shows up soon after surgery, often with wound problems such as fluid leaking. A late infection can appear months or years later, sometimes after bacteria travel through the bloodstream from another part of the body, such as the mouth, skin or urinary tract. Late infections can be sneaky, with pain as the only clue.

Infection around a hip replacement is uncommon. It happens in about 1% to 2% of first-time hip replacements. It is more likely after a revision, which is an operation to replace or redo part of an existing replacement.

How the infection is treated depends on how early it is picked up, which bacteria are involved, and your general health. Options range from keyhole washout with the implant left in place, to a single operation that swaps the parts, to two operations spaced apart with a temporary antibiotic spacer in between. Your surgeon will explain which approach fits your situation and why.

What we can do about it

Dr Kieran Hirpara, a hip surgeon at Mater Private Hospital Rockhampton, matches the treatment to the type of infection, how early it is found, and your general health. 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 confirm the diagnosis with a careful history, examination, blood tests and imaging, then talk through the options with you.

For an early infection caught soon after surgery, we can sometimes wash the hip out with keyhole surgery and leave your replacement in place. This works in about 65% to 75% of cases. It tends to work better for a full hip replacement than for a partial one done for a hip fracture. Some of the things that affect how well treatment goes can be improved before surgery, such as other health problems, so we address those first where we can.

When the infection is deeper or longer-standing, we usually recommend removing the replacement and building a new one. This can be done in one operation or two. In the two-operation plan, we take the infected parts out and place a temporary spacer that carries antibiotics straight to the area. We aim to put in the new replacement after about 3 months, once blood tests show the inflammation is settling and fluid samples from the hip are clear. Choosing between one operation and two depends on which bacteria are involved, whether they respond well to antibiotics, whether you have other health conditions, and the state of the skin and soft tissues around the hip. If a small channel near the wound has been leaking fluid, or the bacteria are hard to treat, we usually favour the two-operation plan. Antibiotics play a part in every pathway, given by drip or by mouth, and sometimes combined with antibiotic-loaded cement or bone graft during the new replacement.

In a small number of difficult cases, such as severe bone loss around the implant, removing the replacement without putting in a new one may be needed to control the infection. This leaves the hip shorter and weaker, and almost everyone who has it needs a walking aid afterwards. We treat this as a last resort, not a routine choice.

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Whichever pathway we recommend, we will explain the reasoning, what each option involves, and what it means for your recovery. The decision is yours, made together with us and your GP.

What to expect

With treatment, most infections around a hip replacement can be cleared. How well things go depends on how early the infection is found, which bacteria are involved, and your general health. Early infections caught soon after surgery tend to have the better outlooks, especially when the bacteria respond well to antibiotics and you do not have other health problems. Some of the factors that shape your outlook can be improved before treatment starts, so your surgeon will work on those first where possible.

If the infection is left alone, it rarely settles by itself. The bacteria sit in their protective film around the implant, where antibiotics and your immune system struggle to reach them. Untreated, the pain usually continues and can worsen, and the infection can spread through the bloodstream to other parts of the body. That is why an infected hip replacement is treated as a problem worth solving, not something to wait out.

Recovery looks different depending on which treatment you have. After a keyhole washout, many people are up and moving quickly, though antibiotics may continue for some weeks. After an operation to replace the parts, expect a longer road: weeks of healing, then months of building strength and confidence in the new hip. Some people need a walking aid for a while. There is also a chance the infection comes back, even after treatment that seems to have worked, so your surgeon will keep checking your blood tests and how the hip feels over the months that follow.

In a small number of difficult cases, the aim shifts from curing the infection to controlling it. Long-term, low-dose antibiotics can hold it in check and help some people avoid further operations. When the replacement has to be removed without a new one put in, the hip is left shorter and weaker, and almost everyone who has that operation needs a walking aid afterwards. Your surgeon will only suggest this when other options have been ruled out.

The honest summary: most people treated for a hip replacement infection keep a working hip, but the road there can be long, and it is rarely instant.

When to see someone

See your GP promptly if you have pain around a hip replacement that does not settle, especially pain that continues even when the hip seems to work well. Ask for a specialist review if you notice redness, swelling or warmth over the hip, a fever, fluid leaking from the wound, or a small channel near the scar that weeps fluid. Also mention it if you have had several bouts of wound redness, a lot of wound drainage after your operation, or a long course of antibiotics afterwards. Go to an emergency department if you feel generally unwell with fever and chills, or if the redness is spreading, as infection around a replacement can spread through the bloodstream and needs same-day assessment.

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