CQ HAND + UPPER LIMB
SPECIALIST ORTHOPAEDIC SURGEON

PATIENT INFORMATION

Periprosthetic fracture (hip)

What you're feeling

A fracture around a hip replacement usually follows a fall or a twist. The pain is felt in the thigh or the groin, and it is sharp when it starts. Weight bearing makes it worse, so standing and walking become hard. Resting with the leg still eases it. Some people feel groin pain after a knock or a fall, which can point to a break in the socket side of the hip rather than the thigh bone.

The pain tends to flare when you move. Getting out of a chair, climbing stairs, or stepping into the shower can all hurt. Night pain is common, and the leg may feel weak or unstable when you try to put weight on it. Daily tasks that need a strong leg, such as carrying shopping, hanging washing, or getting to the letterbox, become difficult. Many people need a walking stick or a frame they did not need before.

A broken bone around a hip replacement is a serious injury. It carries a higher chance of complications than a similar break in a hip that has never had surgery. The mortality risk is 34.7%. Most of these fractures happen in older people with other health conditions, and women over 75 are at highest risk. Weak bones, or osteoporosis, often play a part, and most of these fractures are fragility fractures, meaning the bone broke under a load a healthy bone would take.

The break can happen at the time of the original hip surgery in a small number of cases, or years later. If the implant is still firmly fixed in the bone, the fracture can often be held with a plate while the bone heals. If the implant has come loose, it may need to be replaced. Your surgeon will choose the treatment based on where the break is, whether the implant is stable, and the quality of your bone.

What's actually happening

A hip replacement sits inside your femur, the thigh bone, like a firm rod fitted into a hollow tube. The bone around it is real bone with real limits. If it is thin from osteoporosis, or worn away by small cysts called osteolytic defects, a fall or twist can crack the tube around the rod. That crack is a periprosthetic fracture.

The part of the thigh bone just below the hip carries some of the highest forces in your whole skeleton. Strong muscles pull on it every time you stand or walk. When it breaks, those muscle pulls drag the pieces apart, which is why the thigh pain and weakness you feel are so hard to ignore.

CQ HAND + UPPER LIMB
Dr Kieran Hirpara — Specialist Orthopaedic Surgeon
Suite 2, Level 1, Mater Private Hospital Rockhampton, 31 Ward Street, The Range, QLD 4700
Phone 07 4863 6556 · office@cqupperlimb.com.au · cqupperlimb.com.au

Surgeons sort these breaks into two broad groups. If the implant is still held tightly in the bone, it is sometimes called a happy hip, and the break can often be held with a plate while it heals. If the implant has worked loose, it is an unhappy hip, and the implant itself usually needs replacing. Where the break sits and how solid your bone is shape which treatment fits you.

A few things raise the chance of this happening. A fall is the most common cause. Press-fit implants, which are wedged into place without cement, carry a slightly higher risk than cemented ones. So do thin bones, and so does having had a revision, where an old implant is swapped for a new one. Breaks in the socket side of the hip are less common and usually happen during surgery or after a knock.

Most of these fractures are fragility fractures, meaning the bone broke under a load a healthy bone would take. That is why your surgeon will look closely at your bone health as part of your care.

What we can do about it

Dr Kieran Hirpara, a hip and knee surgeon at Mater Private Hospital Rockhampton, matches the treatment to your specific injury. 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. A clinic assessment, with your history, an examination, and imaging where needed, establishes the diagnosis. Plain X-rays show the break in most cases. If the X-rays are unclear, a CT scan gives a more detailed picture and helps us plan surgery.

Some breaks can be managed without an operation. Small cracks near the top of the thigh bone, or on the socket side, that have barely moved and have not unsettled the implant can be treated with a period of limited weight bearing and a brace. Non-operative care may also suit you if your health or frailty makes an operation risky, or if you were not walking before the break. If we choose this path, we watch the break closely with repeat X-rays.

Because most of these fractures are fragility fractures, we also look at your bone health. Osteoporosis treatment is linked with fewer of these fractures after hip replacement. If you take a bisphosphonate, a medicine that strengthens bone, it is fine to restart it one week after surgery.

Surgery is the usual path for most of these breaks, and it is often recommended straight away. Delaying the operation worsens the outlook, so we move quickly. The aim of surgery is to let you put your full weight on the leg immediately. If the implant is still firmly fixed in the bone, we hold the break with a plate, sometimes with cables around the bone, while it heals. If the implant has come loose, we replace it with a new stem that grips the bone further down the thigh. Sometimes both are needed. The choice depends on where the break sits and how solid your bone is, and we make that decision with you.

CQ HAND + UPPER LIMB
Dr Kieran Hirpara — Specialist Orthopaedic Surgeon
Suite 2, Level 1, Mater Private Hospital Rockhampton, 31 Ward Street, The Range, QLD 4700
Phone 07 4863 6556 · office@cqupperlimb.com.au · cqupperlimb.com.au

What to expect

A break around a hip replacement is a serious injury, and the outlook depends on quick treatment. Surgery done soon gives you the best chance of a good result. Waiting makes things worse, including your chances of surviving the injury. That is why your surgeon will move quickly once the break is confirmed.

Recovery takes time, and it is honest to say the road can be bumpy. These breaks carry a higher chance of complications than a similar break in a hip that has never had surgery. Some people need more than one operation, either because the bone is slow to heal or because a new problem appears. The break itself can come back in the same place, and the implant can work loose again later. Older people with thin bones and other health conditions tend to face a harder recovery than younger, fitter patients.

If the treatment goes well, the bone knits together and the implant keeps working. Most people get back on their feet and stay mobile. When the implant has come loose and needs replacing, most patients regain good function in the hip afterwards. If the socket side of the hip is broken, the outlook for that part of the implant is poorer, though the bone can still heal and the replacement can still work.

Leaving the break alone is rarely a safe option. Without surgery, the pieces of bone may not join, and the leg may stay painful and weak. The implant can loosen further as you try to walk on it. Because most of these fractures are fragility fractures, your bone health will be part of the plan going forward, as covered earlier on this page.

One more thing worth knowing. By 20 years after a revision hip replacement, nearly 12% of surviving patients will have had a break around the femoral implant. Regular follow-up with X-rays is the key to catching problems early, before they turn into a fracture. Keep your scheduled reviews, and tell your surgeon about any new thigh pain or a change in how your hip feels.

When to see someone

A break around a hip replacement is an emergency. Go to an emergency department straight away if you fall or twist and feel sharp thigh or groin pain, or if you cannot put weight on the leg. Waiting makes things worse, including your chances of surviving the injury, so this needs same-day assessment rather than a GP appointment.

Ask for a specialist review if you have new thigh pain or groin pain after a knock, even if you can still walk. Tell your surgeon about any change in how your hip feels. If groin pain follows trauma, a break in the socket side should be checked, as plain X-rays can miss it and further imaging may be needed.

If you have had a hip replacement and take a bisphosphonate, mention any new thigh pain to your GP, as these medicines are linked with a type of break around the implant.

CQ HAND + UPPER LIMB
Dr Kieran Hirpara — Specialist Orthopaedic Surgeon
Suite 2, Level 1, Mater Private Hospital Rockhampton, 31 Ward Street, The Range, QLD 4700
Phone 07 4863 6556 · office@cqupperlimb.com.au · cqupperlimb.com.au