



Total Hip Replacement

What is a total hip replacement?

A total hip replacement is a surgical procedure that involves resurfacing an arthritic hip joint and replacing it with a prosthesis. It is a very good treatment for people with pain and impaired function due to hip arthritis.

What does total hip replacement surgery involve?

A total hip replacement involves surgically replacing the ball and socket of your hip joint with a prosthesis. The acetabular (socket) component is comprised of a metallic shell with a plastic (polyethylene) liner. The femoral (ball) component is comprised of a metallic stem with a metal or ceramic ball. The prosthesis is held in place using specialised bone cement, or via a specialised material which allows your bone to attach to the prosthesis. It is performed through an incision over the outer aspect of the hip. I usually use computer planning and individualised 3D-printed guides to help accurately position your hip replacement. This requires three additional very small incisions over the crest of your pelvis.



Before surgery, you will need to have a new CT scan and set of xrays of your pelvis. This allows us to accurately plan your hip replacement and program the computer with your individualised plan. I commonly refer patients for a pre-operative medical assessment with a physician colleague. This helps to reduce your risks from surgery by ensuring that any medical conditions you have (eg diabetes, heart disease etc) are optimised prior to surgery. You are also required to have a pre-admission assessment at the hospital prior to surgery.

Surgery is performed either under a general anaesthetic, or a spinal block (a local anaesthetic injection in the back, causing numbness in the legs) with sedation. A spinal block is an excellent option, as it reduces your blood loss during surgery, and provides pain relief when you wake up. Most people require 3-4 nights in hospital after surgery, to help control your pain and allow time to get mobile. Some patients may choose to go to an inpatient rehabilitation unit for a short period to improve their mobility before going home. You will be discharged from hospital with pain-relief medications and a blood-thinner to help prevent blood clots (DVT).

What approach do you use for total hip replacement?

There are a number of different ways to surgically gain access to the hip joint for hip replacement. I use the most common approach – known as the “posterior” approach. This approach involves a 15-20cm incision over the outer aspect of the hip. Although alternative approaches (including the anterior approach) are often promoted as being minimally invasive and offering fewer post-operative restrictions, there are no quality scientific studies which demonstrate long-term superiority over the traditional posterior approach.

How do I know if I am ready for a total hip replacement?

Although a hip replacement is generally a very good pain-relieving operation, the procedure carries a small but significant risk. Therefore, it is important that in your mind, you are convinced that you are ready for this undertaking.

A hip replacement should be reserved for people with arthritis who have moderate-severe pain that is significantly impacting their quality of life. For example, pain that affects your sleep and limits your ability to walk normal day-to-day distances. It is also a good idea to have tried some of the physical treatments and medications for arthritis before jumping straight into a hip replacement.

When deciding when to have a hip replacement, it is important to try to be in optimal physical and mental health, have adequate home support and have sufficient time (6-12 weeks) to concentrate on your rehabilitation.

What does recovery and rehabilitation involve?

A total hip replacement can be a painful operation. The first few days after surgery can be tough, but we try to give you enough pain relief to keep you as comfortable as possible. Pain gradually improves day by day, but you can expect to have some pain (particularly at night) for around 8 weeks after surgery. Your pain and function may continue to improve for 6-12 months after surgery.

Rehabilitation should be supervised by a physiotherapist, with the aim of regaining your mobility and muscle strength. You will be allowed and encouraged to walk on day 1 after surgery. Initially you will require the aid of a walking frame, before gradually weaning down to crutches or a walking stick. You can wean off all walking aids as your pain allows. For most people, expect to walk with some aid for 6 weeks after surgery.

In the first six weeks after surgery there are certain movements to avoid, to prevent the hip replacement from dislocating. These will be explained to you after surgery. Particularly, deep hip flexion (bending) combined with internal rotation of the femur should be avoided. You may also wish to sleep with a pillow between your legs. From six weeks after surgery, there are generally no movement restrictions.

Return to work will depend on the demands of your work, but allow approximately 6 weeks. Driving depends on which leg is operated on, and whether you drive a manual or automatic car. If you are having a right hip replacement, allow at least 6 weeks before driving. If you have a left hip replacement and drive an automatic car, you may be able to drive after ~2-3 weeks, once you are over the anaesthetic and are no longer taking strong pain-killers. You will likely find that transferring in and out of a car will be more difficult than driving itself.

Return to sport depends on the demands of your sport. You should be able to return to low impact activities such as swimming or golf after 6-12 weeks. Higher impact activities such as tennis or surfing may take 3-6 months. There are no absolute restrictions after a hip replacement, but I would recommend against high impact activities (such as going for runs) indefinitely.

Will I be pain free after my total hip replacement?

Studies suggest that over 90% of patients are very happy after their hip replacement. Full recovery usually takes 6-12 months. A small percentage of patients (~5%) may be unhappy, and continue to experience some discomfort. 1-2% of patients (usually those who have a complication, such as infection or instability) may be worse off than before surgery. Fortunately, this is rare, and we take all possible precautions to prevent this.

How long will my hip replacement last?

In recent years there have been significant improvements in the longevity of hip replacement implants. How long your hip replacement lasts depends on a number of factors such as age, weight and gender. In general, however, Australian statistics show that ~91% of total hip replacements performed for osteoarthritis, last at least 20 years.

What are the major risks and complications of total hip replacement?

Risks of total hip replacement include, but are not limited to:

- **Anaesthetic risks and medical complications**
- **Pain:** as discussed above, not all patients who have a hip replacement will have complete relief of their pain. A small percentage of patients may develop a new pain as a result of surgery, such as trochanteric bursitis or iliopsoas tendinitis.

- **Instability/dislocation:** a small percentage may experience hip dislocation after a hip replacement, where the ball comes out of its socket. This usually requires the hip to be put back in joint, under an anaesthetic in hospital. If this occurs on more than one occasion, you may require revision hip replacement surgery.
- **Leg length discrepancy:** hip replacement can change your leg length. We try our best to restore your native leg length or match the other side. Unfortunately, some patients may feel that their leg has been lengthened after hip replacement surgery. Usually, this feeling settles in six months as the muscles and soft tissues adapt to the new hip. A small percentage of patients may need to modify their footwear to accommodate a leg length discrepancy.
- **Infection:** is a rare, but potentially disastrous complication of total hip replacement. It occurs in ~1% of cases. We take great precautions to prevent this by ensuring complete sterility during surgery, and routine antibiotics after surgery. Infection may occur early (in the months after surgery) or late (many years after surgery). Patients with an infected hip replacement usually require at least 1 or 2 revision operations, and months of antibiotics to control the infection.
- **Nerve and blood vessel injury:** extremely rarely, an important nerve (such as the sciatic nerve) or blood vessel may be injured during surgery. This can affect the function and sensation of the leg long term.
- **Wound complications:** rarely, the wound may be slow to heal or continue to leak after surgery. This may require regular attention with dressings and antibiotics. If it persists, further surgery to wash and re-close the wound may be required.
- **Bloods clots (DVT):** are not uncommon after hip replacement surgery. Rarely, clots can travel to the lungs (pulmonary embolism) and can be dangerous or even fatal. We give everybody blood-thinning medication after surgery to reduce this risk.
- **Loosening of the prosthesis over time:** uncommonly, the implants can become loose over time, requiring revision surgery.
- **Fracture:** rarely, the femur or acetabulum may be fractured when inserting the hip replacement prosthesis. This may require additional surgical fixation of the fracture and slow your rehabilitation.