

Hip replacement surgery

What is hip arthritis?

Please read the section on “Arthritis”.

What is a hip replacement?

In total hip replacement (arthroplasty) both the diseased ball and socket part of the hip joint is replaced with artificial parts. The artificial parts can be press-fit or fixed to the bone with bone-cement. With a press-fit or uncemented design a plastic (polyethylene) cup is sitting in a metal (titanium) shell that is put in the socket. Initially it is press-fit, but over time bone growth onto the shell. With a cemented design the plastic cup is fixed with bone-cement (poly-methyl-methacrylate or PMMA) to the bone. Similarly, the stem can be press-fit or cemented. The plastic liner can be substituted with ceramic and for the ball metal or ceramic can be used. These options provide a range of possibilities so you can get the hip replacement best suited for your age, activity level and bone quality. The decision on what implant to use is usually made in clinic at the time of booking your operation.

What implant will you get?

In my practice, I use either a cemented Contemporary Rim-fit (Stryker®) cup or an uncemented Delta TT (Lima®) shell with a plastic or a ceramic liner and a cemented Exeter (Stryker®) or uncemented H-Max (Lima®) or uncemented Securfit (Stryker®) stem with a metal or ceramic head. All these implants perform well in national joint registries. I do not use metal-on-metal bearings with conventional hip replacements and I do not perform hip resurfacing operations.

What does the operation involve?

The operation is typically done under a spinal anaesthetic. The procedure takes about 90-120 minutes. At the start a urinary catheter is inserted; this is usually removed on post-operative day 2.

A variety of approaches to the hip exist; I use a posterior approach. This has the advantage of smaller risk of limping (abductor weakness) after the operation.

A cut is made on the side of the hip to remove the ball of the hip and ream out the socket. As described before, the artificial parts of the hip are then fitted.

What are the results of hip replacement surgery?

Total hip replacement is one of the most successful operations in orthopaedics and surgery overall. Over 95% of operations are successful in achieving substantial long lasting pain relief and by that an improvement in mobility. A lot of patients can forget about their

What complications could occur?

1. **Infection** - Before, during and after surgery steps are taken to reduce the risk of infection. Your operation would be delayed if you have a current infection or skin lesion that could be a source of infection. You will be given special soap to shower with before surgery. The operation is done under sterile conditions in a positive pressure operating theatre. Intravenous antibiotics are given just before and up to 24 hours after surgery.

Dressings are kept clean and dry and only changed when necessary. Even with all these precautions, the risk of deep infection is about 1%. This could be devastating: if affecting the prosthesis, this would need to be removed, the infection treated and at a second operation a minimum of 6 weeks later, another joint put back in.

2. **Nerve / vessel injury** - There are several important nerves and vessels around the hip joint, however damaging them is very rare. Most common of these is a traction injury of the sciatic nerve, however this usually recovers in time.
3. **Fracture** - It is possible to fracture your bone during the insertion of the artificial hip, especially with an uncemented stem, the femur (thigh-bone) could crack. It is rare, and can be usually treated with wires around the femur. You may have to use crutches for longer than expected.
4. **DVT / PE** - Deep venous thrombosis (a blood clot in the leg) and pulmonary embolism (a clot in the lung) or thromboembolism together is a recognised risk with any surgery. DVT without clinical symptoms is actually quite common after hip replacement (up to 60% without prevention) while asymptomatic PE is around 2%. The risk of symptomatic PE (leading to breathlessness, bleeding or sudden death) is a fraction of this (0.05%). Unfortunately, no preventive measure has proven to be effective to reduce the risk of symptomatic PE. As for DVT, the combination of early mobilisation, mechanical (graduated compression stockings (TEDS) and foot pumps) and chemical (blood thinning medication).
5. **Bleeding** - This is inevitable during surgery. However most patients do not lose enough blood to cause symptoms. You will have a blood check the morning after surgery. If you feel lightheaded, dizzy or your blood pressure is low after surgery you may need a blood transfusion. If you do not agree to have a blood transfusion for any reason, you need to let me or the ward staff know.
6. **Dislocation** - Hip replacements are not as stable as native joints. The risk of dislocation is 2-3%. The physiotherapists will teach you which movements are dangerous - typically deep flexion (such as squatting) and twisting at the same time can pop the joint out. The risk of dislocation is higher during the first days after the operation but the risk is there even in the long term. When the hip dislocates, it is usually very painful and you will need to come to ED to put the hip back. If the hip keeps dislocating, further surgery may be necessary.
7. **Leg length difference** - During surgery it is possible to lengthen or shorten the leg. Efforts are made to make the legs equal length, but sometimes a few millimetres difference can occur. Often differences up to 15mm-s are not felt by patients and small differences like that can be corrected with a shoe insert.
8. **Wear and loosening** - All joint replacements wear out in time. Conventional hip replacements of metal on plastic bearing wear a fraction of millimetres a year. Plastic particles sometimes cause a reaction locally that can lead to loss of bone stock and so loosening of the implants. Loose implants can be painful, can dislocate or cause fractures and typically further surgery is necessary to exchange the prosthesis. The risk of revision is less than 1% a year for most tried and tested implants.

What should you expect after surgery?

You will be in hospital for 5-7 days. You will start mobilising the day after surgery; usually you are not restricted in how much weight you can put on the operated leg, but you will probably need crutches or a frame to walk with. The physiotherapists and nurses will help moving you. You will go home once you are safe and sufficiently mobile so you can look after yourself.

You should expect that you may need strong painkillers for up to 6 weeks. Most patients walk well without aid by 6 weeks. You will be able to return to driving at this stage. Most patients benefit from outpatient physiotherapy and later “hip classes”.

There will be no stitches to remove. The wound needs to be covered for 10-14 days. The first clinic appointment is at 6 weeks, when an X-ray is taken. Further follow-up appointments are at 6 months and a year.

How long will you be off work?

Depending on your job, you should expect to be off work for a minimum of 2 weeks after the operation if you work in an office, or up to 3 months if you do heavy physical work.