

Anterior Muscle Sparing Total Hip Replacement

The Anterior Hip Replacement is a special way of performing a hip replacement that offers a number of advantages over the standard method.

These include:

- **Prevention of limping:** The anterior approach **DOES NOT CUT MUSCLES or TENDONS**. It is the only technique which follows intermuscular and internervous planes to reduce the risk of injury to muscles, tendons, vessels and nerves.
- **Reduced risk of dislocation:** (separation of the hip ball and socket): By preserving the muscles around the hip, the stability of the hip is greatly improved. The risk of dislocation is minimal, which means after the operation you will be able to sit and bend over with freedom and without the worry of dislocation.
- **Decreased post-operative pain:** The Anterior approach can reduce the post-operative pain and improves postoperative recovery as no muscles are cut.
- **Quicker rehabilitation:** Rehabilitation starts the day of the operation. Standing up and walking with assistance can begin immediately.
- **Less blood loss:** Preservation of muscles and vessels potentially reduces blood loss, therefore transfusions are much less common. Early movement, means better circulation in the legs, potentially leading to less formation of blood clots.
- **Shorter hospital stay:** Many patients can go home 2 days after the operation with minimal pain and are walking comfortably.
- **Small skin scar:** The skin incision is often shorter than with “conventional” surgery and so scar tissue is reduced.
- **Faster return to daily activities:** The Anterior technique allows you to return to daily activities in a shorter time frame. Depending on your general condition you may be driving in 8-10 days.

A total hip replacement is for patients who have severe pain and stiffness in the hip. The most common reason is arthritis. There are many causes of arthritis, but the most common ones include:

Osteoarthritis: Usually affects people above 50 years old, but can affect people who are younger.

It is essentially a 'Wear and Tear' process in your hip. Cartilage which covers the bones of your hip joint, femoral head (ball) and acetabulum (socket) is worn away, causing hip pain and stiffness.

Rheumatoid arthritis: Is an autoimmune disease in which a special membrane in you hip joint, called the synovial membrane becomes inflamed. This inflammation damages the joint cartilage.

Osteonecrosis: Your hip joint can be affected by a condition called osteonecrosis or 'bone death'. There are many possible reasons for osteonecrosis which include prolonged steroid use, alcohol abuse or genetics.



X-ray of the Pelvis
The Right Hip has been affected by Osteoarthritis

Why total hip replacement?

With almost 70 years of history, total hip replacement surgery is a very common and safe procedure for the treatment of severe osteoarthritis. The main benefits of a successful total hip replacement are:

- **Reduction in hip pain:** The pain will be rapidly and dramatically reduced. Usually eliminated.
- **Recovery of mobility:** Your hip will function with less effort, almost regaining your original mobility.
- **Improvement in quality of life:** Your everyday activities and social life will no longer be limited by pain and reduced mobility.

What to expect from hip replacement surgery?

It is important to understand what a hip replacement can and cannot do before deciding to undergo the operation. Most people who have the procedure, experience a dramatic reduction of hip pain and a significant improvement in movement, allowing them to better perform common activities of daily living.



However, there are certain things that you **should avoid** with a hip replacement, such as:

- jogging
- any high impact sports such as football.

Hip Replacement Surgery and Anaesthetic.

Most people are admitted to hospital the same day as surgery. The anaesthetic team will see you and decide the type of anaesthetic that is best for you.

The different types of anaesthesia include:

- **General Anaesthetic.** This type of anaesthetic puts you to sleep during the whole procedure and a machine controls your breathing.
- **Spinal Anaesthetic.** An injection is placed into your back to numb your hip and legs. You will be awake during the procedure, however a sedative can be given to help you doze off.
- **Nerve Blocks.** This special injection is used to help with your pain after the operation and often used in conjunction with a general anaesthetic.

The operation usually takes 1 to 2 hours however, it can occasionally take a few hours. Your wound is approximately 10-15cms in length, depending on your shape and your hip anatomy, and is located directly in front of your hip. Your muscles are then carefully separated until your hip joint is exposed.

The arthritic femoral head (ball) is removed. This allows access to your acetabulum (socket) which is prepared for the new implant. The acetabular implant is secured into your hip joint socket. Your thigh bone (femur) is then prepared and your new femoral stem and ball is inserted. Your hip joint is then tested for stability, flexibility and size.

What is the hip replacement made of ?

They are made of surgical grade metal alloys (often chromium, cobalt, stainless steel or titanium), highly wear resistant plastic or ceramic. A hip joint is basically a ball and socket joint.

It is designed to replace this normal anatomy and is composed of a;

- **Shell:** Medically called Acetabular Component. Made of a metal alloy and has a special surface coating which allows bone to grow into it for extra stability.
- **Liner:** The liner fits snugly into the socket to provide an ultra-smooth surface for the hip joint. It can be made of plastic, ceramic or metal.



- **Ball:** The artificial ball component is smaller than your normal hip ball. It is incredibly polished and perfectly round and smooth. It is usually made of metal or ceramic.

- **Stem:** The stem fits snugly into your thigh bone (femur) to provide a stable structure for the ball. It is made of metal. It either has a special coating which allows the bone to grow into it or is held in place with special bone cement.

There are different types of hip replacements available, your surgeon will decide which one is best for you.



Preparing for surgery

Prior to your surgery date, your fitness will be assessed and all the necessary tests will be performed.

Appointments will be arranged for the following:

- Physician
- Pre-Admission Hip Information Session
- Anaesthetist (if necessary)

Tests that may be ordered for you include:

- Blood tests
- ECG
- Urine test
- X-ray (chest, hip and pelvis)

Preparing your skin. Your skin should **not** have any infection or irritation present before surgery. If either is present, contact your surgeon for a program to improve your skin.



Go see your dentist. We recommend treating significant dental diseases (including tooth extractions and periodontal work) before your operation. Routine dental procedures should be delayed until six months after surgery.

Medications. Before surgery, your surgeon or physician will advise you which medications you should stop or continue taking.

All complimentary and alternative medications should be stopped 2 weeks prior and not started until 2 weeks postoperatively unless otherwise recommended.

Get some help from your friends and family.

Although you will be able to walk with crutches or a walker soon after surgery, you will need some help for several weeks; cooking, shopping, bathing, and laundry. If you live alone a discharge planner at the hospital can help you make advance arrangements to have someone assist you at your home. A short stay in an extended-care facility during your recovery after surgery may also be arranged.

Home Planning. The following is a list of home modifications that will make your return home easier during your recovery:

- Securely fastened safety bars/handrails in your shower or bath and along all stairways
- A stable chair for early recovery with a firm seat cushion (that allows your knees to remain lower than your hips), a firm back, and two arms
- A raised toilet seat
- A stable shower bench or chair for bathing
- A long-handled sponge and shower hose
- A dressing stick, a sock aid and a long-handled shoe horn for putting on/taking off shoes and socks without excessively bending your new hip
- A reacher that will allow you to grab objects without excessive bending of your hips
- Firm pillows for your chairs, sofas and car that enables you to sit with your knees lower than your hips
- Removal of loose carpets and electrical cords from the areas where you walk in your home

Complications and how to help avoid problems after a Total Hip Replacement?

The complication rate following hip replacement surgery is **very low**. However, it is important to always understand the potential complications

(no matter how small the risk) when considering any operation.

Preventing Infection

The most common causes of infection after hip replacement surgery are from bacteria that enter the bloodstream during dental procedures, urinary tract infections, or skin infections. These bacteria can lodge around your prosthesis.

Future dental or surgical procedures may require antibiotic coverage.

**See our separate information sheet for more detail*

The risks for a total hip replacement include:

- **Joint infection:** Serious complication, occur in fewer than 2% of patients.
- **Heart attack and Strokes:** Major medical Complications occur less frequently.
- **Uneven legs:** Leg-length inequality may occur or may appear worse after hip replacement. Your surgeon will take this into account during the operation in addition to other issues, including the stability and biomechanics of the hip. Some patients may feel more comfortable with a shoe lift after surgery.
- **Dislocation.**
- **Wear & Tear:** Over years the hip prosthesis will wear or may loosen. With modern advances in materials and techniques this risk is decreasing. When the prosthesis wears, bone loss may occur due to the debris produced by the wearing surfaces. This process is called osteolysis.
- **Revision surgery:** Having the operation done again.
- **Deep vein thrombosis (DVT):** Blood clots in the leg veins or pelvis are the **most common** complication of hip replacement surgery.

Prevention of Blood Clots in the Calf and Lungs (DVT / PE)

To prevent Deep Vein Thrombosis (DVT) and Pulmonary Emboli (PE), we encourage you to start walking as soon as possible after the operation. Special foot pumps are used to encourage circulation in the leg.

Most people will also be prescribed medication for 6 weeks. If you have been assessed to be at higher risk of DVT/PE, then you may be placed on Clexane injections instead. This threat is present any-time after your operation and lasts for several weeks after your surgery.



Post surgery 'warning signs' to look for; These include:

Warning signs of DVT

- Pain and tenderness in your calf
- Swelling of the lower leg, ankle and foot
- Skin that is red and warm

Warning signs that a blood clot has travelled to your lung (PE) include:

- Shortness of breath
- Chest pain, particularly with breathing

- Nausea

Warning signs of possible hip replacement infection are:

- Persistent fever (higher than 37.5°C orally).
- Shaking chills.
- Nausea.
- Increasing redness, tenderness, or swelling of the hip wound.
- Drainage from the hip wound.
- Increasing hip pain with both activity and rest.

Notify your surgeon *IMMEDIATELY* if you develop any of these warning signs. Should you not be able to contact your surgeon it is imperative you go to the nearest Emergency Department or local doctor.

Wound care

Looking after my wound. It is important to keep your wound as dry as possible. Most patients are discharged home with a waterproof dressing, which can be left on for showering. During the first 24 hours, it is normal to have some minor ooze. After being discharged home, there should be no discharge, redness or bleeding around the wound. If there is redness, discharge or foul odour, please seek medical attention as soon as possible.

When will my sutures be removed. There are a number of ways your wounds may be closed. Our first choice is absorbable stitches but depending on surgical and patient factors non-absorbable or surgical staples may be used. The sutures or staples are usually removed 10-14 days post surgery.

Diet

What should I eat and drink. There are usually no specific diet or extra vitamins/nutrients needed to recover from your operation. It is important to have a normal healthy balanced diet. Drink plenty of non-alcoholic fluids and keep up with fibre intake especially whilst taking pain relief. Avoid smoking.

Activity

What exercises should I do at home.

Physiotherapy and the exercises you perform at home are extremely important to achieve the best results after hip replacement. After returning home you should gradually be able to do more and more. It is important to look after your new hip and follow your surgeon and physiotherapists instructions.

The program may include exercises that work on your and will be tailored to your needs:

- Walking
- stair climbing
- Sitting
- muscle strength

Avoiding Falls

A fall during the first few weeks after surgery can damage your new hip and may result in a need for more surgery.

Be careful on stairs. Stairs are a particular hazard until your hip is strong and mobile and you have regained your balance. You should use a walking aid such as a cane, crutches or a walker. Use the handrails on stairs or ask for someone to help you.

Special Precautions

One of the possible complications of hip replacement surgery is dislocation. Dislocation is most common during the first year after surgery but can also occur at any time. Sensible precautions should be taken after this:

- Do not force your hips into positions they could not do previously e.g. Yoga or Pilates
- Do not start a new sport or exercise that previously you were not confident with.

Taking care of your new hip

Long term care of your total hip. Follow your orthopaedics surgeon's instructions carefully to minimize any potential complications which can affect your recovery and your implant lifetime. These complications, however, are quite infrequent and some simple rules can dramatically reduce their likelihood.

Don't Forget.

- Lead a healthy and active life
- In-case of fever, throat inflammation, pulmonary inflammation or any infection, tell your doctor you have a hip implant.
- Undergo regular general check-ups.

If you have any concerns whatsoever about your new hip, do not hesitate to contact your surgeon.

