YOUR TOTAL HIP REPLACEMENT

The Reasons For Having A Total Hip Replacement...

Articular cartilage forms a smooth surface that enables joints to move freely. Arthritis means inflammation of the joint. There are many types of arthritis that can destroy articular cartilage. The most common type is Osteoarthritis which is a wear and tear type of arthritis where the inflammation occurs secondarily to the process of the articular surface eroding away. There can be many underlying factors that can contribute to this process with ageing by far and away the most universal.

The end result of severe arthritis affecting the joint is pain and stiffness of the hip joint. The only indication for a total hip replacement is severe pain significantly affecting your quality of life due to severe arthritic damage of your hip joint. This pain usually causes some difficulties or limitations to your normal daily activities such as sleeping, dressing, walking, and work.

A total hip replacement is a very reliable form of treatment to relieve this pain. A significant improvement in the pain can be expected in over 95% of patients who undergo a primary total hip replacement. Although this treatment should not be considered a cure, it does give long term symptomatic relief. As long as there is not an excessive work load placed on the prosthesis, one should normally expect it will continue to function satisfactorily in the vicinity of 10 to 15 years in the vast majority of patients. Laboratory testing of the newer prosthetic materials currently being used suggest this period may have even been extended. However the prostheses themselves are yet to stand the test of time.

The Surgical Risks Of A Total Hip Replacement...

Total hip replacement surgery is major surgery and like all surgery there are risks involved which you have to be prepared to take if you hope to receive the potential benefits it most usually offers. If you have had a consultation with me, I will already have discussed these risks with you, however to briefly bring these to your attention again, they could include the following...

- **Infection.** The chance of a serious deep wound infection occurring around your hip prosthesis is about 1% or 1 in 100 at the time of surgery, and a further 1% risk occurs for the remaining life of your prosthesis.

- **Dislocation.** The chance of this becoming a recurrent problem requiring a second operation is less than 1%.

- **Damage to nerves or vessels** in the vicinity of your hip at the time of surgery. Together, the risk of these are less than 1%.

- **Fracture of the bones** at the time of surgery. The risk is slightly greater for uncemented hip replacements but still only causes serious problems in less than 1%.

- **Unequal leg length** can result from the surgery and in fact, is often present prior to surgery. Full correction may not be achievable due to the need to balance the soft tissues around the joint and not place excessive tension on the structures that pass by the hip joint. In general the aim is to achieve equal leg lengths to within a centimetre of the opposite legs length.

- **Wound haematoma** is a collection of blood within the wound. Rarely this can reach a size which requires surgery to drain it.

- **Blood clots** in the deep veins of the leg are unfortunately a common complication of total hip replacement surgery. So frequent in fact that a number of measures are employed to minimise the risk. If a deep vein clot were to occur however it could leave permanent swelling of the affected limb or pass to the lungs and pose a threat to your life. The chance of dying as a result of a blood clot passing to the lungs after a total hip replacement is about 1 in 500.
• **Metal Hypersensitivity** reactions are a very uncommon complication usually only seen in the newer types of metal on metal prostheses which may require removal and exchange of the prosthesis to a ceramic on plastic type of prosthesis.

• **Other medical and anaesthetic complications** could result indirectly from your surgery. These are more likely if you have pre-existing health problems in particular with your heart, lungs, digestive or urinary systems. It is also possible but unlikely that you could have a reaction to any of the medications you will be taking in the period surrounding your operation. Your anaesthetist will be discussing the anaesthetic risks with you in more detail prior to your surgery.

In summary, although the vast majority of patients who have a total hip replacement are satisfied with the outcome, and the risk of a significant complication is very small, the seriousness of the potential complications can be severe, including death. Whilst every effort is made to minimise the risks, there is no way of having the operation without having to face these risks.

**The Type Of Hip Replacement That Has Been Chosen For You...**

![Anatomy of the hip joints](image)

The hip joint is a ball and socket joint. The ball sits on the top of the thigh bone (or femur) and is referred to as the femoral head. The socket lies on the side of the pelvis and is referred to as the acetabulum.

Hip replacements are made up of 2 main parts. The socket or cup is referred to as the acetabular component and the ball attaches to a spike shaped object (referred to as the femoral component,) that is inserted into the shaft of the thigh bone.

There are many types of hip replacements available for implantation. The issues over why hip replacements fail are so complex that, despite over 30 years of intensive study, there is still not uniform agreement as to which is the best type of total hip replacement. It is however generally agreed that the main reason that hip replacements fail is that their bearing surface wears out. This is the case with most mechanical bearing surfaces.

There has been intensive research into the materials that can be used in the bearing surfaces as well as the design and materials used in the prostheses themselves in an attempt to prolong the life of the hip replacement. Although all new prostheses available on the market today have been extensively tested in the laboratories they remain to pass the definitive test of the passage of time inside patients.
There are 2 main types of prosthetic devices being used at present, those that require cement to fix them in place (or cemented prostheses) and those that are wedged or fixed into place without cement (or cementless). Another type of hip replacement called resurfacing, at this point in time, is giving encouraging early results in selected, young active patients.

On a world-wide basis there is a general trend towards the use of uncemented acetabular components. This is because it can be difficult to consistently insert the cemented type of acetabular components into place with an even mantle of surrounding cement. This is necessary to produce reliable long term results in the latter.

Opinion remains divided however as to whether or not it is better to use cement to fix the femoral component. This is perhaps because that both types of prostheses have their advantages and their limitations. In most cases however, it is possible to use the same bearing surface in the hip replacement whether the femoral component is inserted with cement or not. This makes it likely that the rate of wear, and hence the life expectancy, of the hip replacement is likely to be similar if not the same whether the cemented or uncemented component is used.

The decision as to whether you are better suited to a cemented or an uncemented type of hip replacement involves considering many factors and the process is constantly being reviewed in the light of any newly published scientific data. The main factor that determines the choice is however your age. In general the older you are at the time of surgery the more likely a cemented prosthesis will serve you best. Other factors that influence the decision include your general state of health, the level of physical activity you remain at, and the presence of osteoporosis.

With time as the bearing surface wears away, it liberates very small particles of the prosthetic material which are engulfed by our bodies’ immune cells. This unfortunately leads to a response by the body’s immune system which results in the destruction of the local adjacent bone. This in turn results in the loosening of the prosthesis irrespective of whether it is fixed by cement or not.

This pattern is almost always seen when the prosthesis is failing and is referred to as aseptic loosening. A similar but usually more aggressive process is seen when deep infection is the cause of failure of a hip replacement and is referred to as septic loosening.

Loosening from whatever cause generally leads to the recurrence of pain in the region of the hip and thigh. This problem usually requires revision of the hip replacement to control the pain once again. Severe loss of bone can lead to weakening of the supporting bone and lead to an increased risk of fracture of the involved bone.

For this reason it is recommended that after you have had your hip replacement you should remain under the care of your surgeon for life with infrequent but indefinite follow up visits (with x-rays) of the hip replacement. The recurrence of significant hip or thigh pain would be a reason to contact me prior to your planned review.
A newer type of bearing surface is called metal on metal. It is used in all resurfacing hip replacements and can also be used as the bearing surface in more conventional type total hip replacements. It has the advantage of a very low wear rate potentially reducing the need for a revision hip replacement later in life. It also allows for the use of ball and sockets of larger dimensions which reduces the risk of dislocation of the hip replacement.

The metal particles tend not to cause as much local bony destruction as some of the other bearing surface materials. They are absorbed into the body and excreted by the kidneys. Levels of the metals in the body are however moderately elevated and it is not known whether this will cause any serious health issues later on. It is being monitored closely and to date there have not been identified any health issues related to this, except a very small number of patients may develop a hypersensitivity reaction.

For more information on uncemented total hip replacements, go to [www.endoplus.co.uk](http://www.endoplus.co.uk). For more information on resurfacing total hip replacements, go to [www.corin.co.uk](http://www.corin.co.uk).

**Preparing For Your Hip Replacement...**

The ideal time to prepare yourself and your home is prior to undertaking the surgery. It is safest to return from hospital to the support of family or friends for the first 2 weeks at least. It is best therefore, if you normally live alone to seek family support for this period as soon as you have made the decision to proceed ahead with surgery. If it is not possible to arrange this support at home then the next ideal convalescence after discharge from the orthopaedic ward is to go to a rehabilitation unit for a period of usually about a further two weeks. This option has the added advantage of receiving more intensive physiotherapy on a regular daily basis. Stay in a rehabilitation unit can be arranged whilst you are an inpatient in hospital.

At the very least, you will require a walking stick for the first 6 weeks or so after you are discharged home. It is best therefore if you obtain one prior to coming in to Hospital. A raised toilet seat is also always required for the first 6 weeks after your surgery and these can be hired from either a surgical supplies distributor or many of the larger chemists.

You should not sit down in a bathtub for the first 3 months after your surgery. Showering during this period is much safer. The floor of the shower or the bottom of the shower/bath should have a non-slip rubber matt in place. A safety grab rail is also ideal in this location. If you sleep on a low bed it is best to add a second mattress or bed blocks under the bed legs to raise your sleeping height.

There should be at least one chair in your house that you can use to sit in after you have had your hip replacement. It should have a firm base which is at least at the height of your knees and arms to help you push up from. A long handled reaching/grabbing device is also needed to assist with picking up objects from the floor when you get home.

Support services such as meals on wheels and district nursing services to assist with showering can be arranged near the time of your surgery or by the hospital staff when you are an inpatient.

If you are a male then you will need to be able to pass urine into a bottle whilst in bed especially in the first 48 hours after your surgery. It is a good idea to have one practice of this at home into a vessel whilst lying down. If you are unable to do this, then you should contact me to discuss whether there could be a need to be seen by an urologist prior to undergoing your surgery.

Any infections around your teeth are similarly best dealt with prior to undergoing your total hip replacement.

If you have any major medical problems I will be arranging for you to be seen by a Physician or my Anaesthetist prior to your admission.

If you do not suffer with any major health problems it is still a good idea to see your general practitioner for a regular check up as soon as you have made up your mind to go ahead with the surgery. If you have any allergies to medications make sure you check with your GP the exact name of the medications you are allergic to so that you can inform the hospital staff of its name at the time of your admission.
Depending on your age and general state of health a number of preoperative tests could be ordered to ensure that you are fit for the surgery and minimise the risk of postoperative problems. These tests will include the following:

- A full blood count to ensure you are not anaemic and your blood has enough clotting cells prior to surgery.
- An electrolyte screen to ensure your kidneys are functioning satisfactorily.
- Cross-matching 2 units of blood for the surgery. Donation of your own blood prior to surgery is no longer encouraged.
- A micro urine is taken to ensure there is no infection in your bladder prior to surgery.
- A chest x-ray may be required if you are over 65 or have a history of respiratory or heart problems.
- Other more specific tests may be ordered preoperatively if you have any other significant health problems.

Because you will be started on warfarin (blood thinning) medication immediately after your operation, it is a good idea to cease your arthritis medications about one week prior to surgery any aspirin you may be taking should also be stopped prior to coming into hospital.

Your Admission To Hospital...

For further information about Greenslopes Private Hospital, go to www.ramsayhealthcare.com.au/gph.

For further information about Mater Private Hospital Redlands, go to www.mater.org.au – click on Hospitals and then click on Mater Private Hospital Redlands.

For surgery at Greenslopes Private Hospital, you are advised to present to hospital at about 3pm of the day prior to surgery, or on the morning of surgery depending where you are on the operating list. Admission to Mater Private Hospital Redlands usually takes place at 10am on the morning of surgery. It is best to bring along comfortable clothing such as tracksuits, shorts and T shirts or casual dresses. These will make it easier for you when it comes time to exercise after your surgery. Shoe wear should be sensible non slip, enclosed, slip on type shoes or slippers.

On your arrival, the nursing staff will check you in and ensure the necessary preoperative investigation results are to hand. You must bring along any recent x-rays of your hip and chest that you have. You should also bring along any prescription medications (in their containers), you are currently taking. Observations of your vital signs such as blood pressure, temperature, and pulse will commence. An ECG will be taken on your heart.
For surgery at Greenslopes Hospital, I will be seeing you on the Friday afternoon before your surgery to ensure all necessary medications are written up and preoperative investigations have been performed. It is also the time to ask any final questions you may have and ensure all instructions surrounding your admission are understood.

You will not be allowed to eat or drink anything after midnight on the night before your surgery if it is to be performed on the morning list. However sips of water will be allowed to have your normal medications. If your surgery is planned for an afternoon list then you will be allowed to have a light breakfast at 6 am.

On the morning of your surgery you will be given some antiseptic soap to shower with when you are woken. You will then be asked to wear a theatre gown and the area around your hip will be shaved and painted with antiseptic solution. Do not attempt to shave yourself prior to this time as it increases your risk of infection.

The area around your hip will then be covered with a sterile towel which remains on until you arrive in theatre. You will also be given a permanent marker pen to place a mark (arrow) on the leg that is to be operated on.

On arrival to theatre you will be taken to an anaesthetic room where the anaesthetist will insert a drip into one of your veins. This is to allow him to give his anaesthetic medications and fluids to replace any lost blood. He will also be starting your antibiotics prior to the commencement of the surgery.

The surgery will take approximately 2 hours and you will wake up in the recovery room where you will be closely monitored for a period of an hour or so. You will find when you wake up there are a number of tubes connected to your body. These include a drain coming from your wound to remove any excess blood that may collect after surgery is finished. The intravenous line is left in to allow continued high doses of antibiotics and possibly a transfusion of blood. A urinary catheter is also inserted for the first 48 hours after the surgery. You will also be wearing short long leg stockings which should be worn for the first 6 weeks after your surgery to help minimise the risk of clots forming in the veins of your legs and also swelling in your knee and legs. Whilst you are in bed, a special pump will be placed upon your feet which increases the blood flow in your legs and also helps to prevent the development of clots in your leg veins.

For the first 48 hours your vital signs will be monitored very closely. On the evening of your surgery you will be commenced on blood thinning medications (heparin injections and warfarin tablets) to also minimise the risk of developing a clot in the veins of your legs. Your pain will be controlled with the use of local anaesthetic and powerful pain killing medications, the dose of which will be under your control. Do not be afraid to use as much as you need.

On the first postoperative day your haemoglobin will be checked to assess the need for any further blood replacement. An x-ray will be taken of your hip replacement to ensure it is in its correct orientation and that it is safe for you to place all your weight on the operated side when you commence mobilizing. The physiotherapist will start some deep breathing (to keep your lungs inflated) and foot movement exercises (to keep the circulation flowing in your legs and help minimize the risk of clots forming) with you. Your drain may be removed on this day if there is minimal drainage coming out.

On the second postoperative day, the remaining drips, drains and catheters will most likely be removed. You will be allowed to stand out of bed and commence mobilising. Usually you will be allowed to put all your weight on the operated side when you stand. Initially you will need to rely on a wheeled walking frame and either your physiotherapist or nurse to assist you at all times. Over your stay however you will graduate to using either a pick-up walking frame or a walking stick independently.

You will also be taught how to negotiate stairs safely.

From the time of your surgery your blood will be carefully “thinned out” to reduce the risk of blood clots in your lower limbs. This requires careful monitoring on a regular basis and will continue after you have been discharged from hospital until your first postoperative visit which takes place at six weeks after your surgery.
Going Home From Hospital...

Most patients have stabilised medically following their surgery and are mobilising independently by somewhere between 5 and 7 days after admission. It is then usually safe to return home. It is usually safe to be taken home in your own vehicle as long as it is not too small. It is suggested that the vehicle’s passenger seat be pushed back as far as it can go and a firm cushion be placed on it to minimise the amount of hip flexion required to get in and out. Your physiotherapist will instruct you on the safest way to get into and out of a car. If you are unable to arrange for a suitable vehicle to pick you up from hospital, then an ambulance transfer home can be ordered for you.

A visit will be arranged by the district nurse to remove skin staples at two weeks post op. Further visits to assist with showering can also be arranged if required. Usually we can arrange for a private pathology firm to visit your home to take blood to monitor and advise about the dose of your warfarin tablets. **You must not take any aspirin, arthritis tablets nor other blood thinning tablets whilst you are taking the warfarin tablets.** Most people require very little if any physiotherapy after their discharge. Short regular walks at least twice a day should be undertaken and as much as possible avoid car travel until your six week postoperative appointment.

The Expected Outcome...

It takes on average about 6 weeks before the pain after the surgery is less than the pain before the surgery.

Most patients slowly improve following the surgery for up to 12 months. What you are like 12 months after the surgery is usually how your hip will remain functioning hopefully for at least 10-15 years thereafter.

Initially there will be a degree of waddling in your gait which tends to improve over this 12 month period as the muscles in your buttock regain their strength and fitness. Most, but not all, patients will have lost this limp by the end of the first year.

Whilst it may be possible to flex your hip up beyond a right angle [or 90 degrees] after your surgery, you are strongly advised against this practice indefinitely as it significantly increases the risk of dislocation of your prosthesis. Some activities therefore should never be attempted such as tying shoe laces, cutting toe nails nor squatting.

You should also avoid sitting in low soft chairs that don’t have arms, such as some lounge chairs as to get out of these you have to bend forward and flex your hip up beyond the safety limit of 90 degrees. Whenever possible you should sit on a chair where the seat is firm and approximately level with your knees.

You should not return to a manual type occupation after a total hip replacement. You should never run nor play impact sports such as tennis after a total hip replacement. Although regular exercise and in particular walking is encouraged it should be in moderation and more than 3 kilometres per day is excessive. Try not to allow excessive weight gain to occur as this is also thought to shorten the life expectancy of your prosthesis not to mention your own.

You should allow six weeks after your hip replacement before resuming sexual activity. The recommended positions for you to use are either on your back or your side. You should avoid any position that causes pain or any position that flexes your hip above the safe range of 90 degrees. Do not bring the knee of the operated leg towards your chest or allow it to point outwards excessively. These restrictions do not apply to the non-operated leg.

There is a very small but indefinite risk of an infection occurring around your prosthesis due to the passage of bacteria in your bloodstream to your hip replacement from a site of infection elsewhere in your body. It means that you should be vigilant about infections anywhere in or on your body and seek early antibiotic treatment from your GP. Some surgical and dental procedures also carry a small risk of transferring bacteria in this way and you should always mention that you have a total hip replacement to your surgeon or dentist so that they can administer preventative antibiotics at the time of the procedure.
Within the limitations that are set out above, and exercising some common sense, your hip replacement will allow you to undertake most of your normal daily activities. The vast majority of hip replacement patients are happy with the relief of pain and improvement in function this operation provides. If you at any time in the future, have concerns relating to your hip replacement then please contact my rooms for advice.

Post Operative Instructions / Frequently Asked Questions After A Total Hip Replacement...

**FOLLOW UP** - Approx 2 weeks from date of surgery – check you have an appointment.

**REMOVAL OF SKIN STAPLES** - At approximately 14 days from time of surgery – if you are given a staple remover by the ward sister remember to bring this to your follow up appointment.

**CARE OF WOUND** – You may have either a waterproof or a non waterproof dressing on your wound. It is very important that you never let your wound get wet before the staples have been taken out as this very often leads to a wound infection. If you have a waterproof dressing on that lifts off and gets water under it remove the dressing immediately and replace the dressing (you should have been given a spare dressing).

If your dressing is not waterproof then ensure it is completely covered and sealed with plastic and sticking tape before entering the shower. If the dressing gets inadvertently wet remove it immediately and replace it.

**WEARING OF STOCKINGS** – Stockings provide protection from blood clots and help reduce swelling in your feet and lower leg. You should continue to wear the surgical stockings you were provided whilst in hospital for a further four weeks during the daytime but they may be removed at night.

**BLOOD THINNING MEDICATIONS** – The type of anticoagulant [blood thinning medication,] you are on can vary depending on the type of surgery you have just had and any other medical conditions you suffer with. Most patients after knee replacements remain on a single daily injection of the medication called fragmin for a period of about four weeks. Most patients after hip replacements are placed on warfarin tablets for about six weeks. If you are on warfarin, this will need to be monitored by the local pathology firm. It should have been arranged at the time of your discharge for them to visit your home. Do not take any anti-inflammatory medication whilst you are on warfarin.

**PHYSIOTHERAPY** – Physio is very important in the early postoperative rehabilitation after a total knee replacement. You should be seen once or twice a week every week for the first four weeks after discharge. Physio is not essential after discharge from hospital following a total hip replacement.

**DRIVING A CAR** – Most patients can go back to driving a car following total hip or knee replacement surgery within six weeks of surgery. A general rule is when you have the coordination to walk competently with a single stick, you have the coordination to drive a car.

**WALKING AIDS** – As you get older your balance becomes more impaired. It is often safest to use a walking frame when you get home so long as you do not have more than one or two stairs to negotiate. If your home has a number of stairs you must negotiate daily then you will need to use crutches. After a few weeks you should be getting comfortable and confident enough to progress to a walking stick. If you are unsure when you are ready for a stick, a physiotherapist could help you with this.

**ANALGAESIA (Pain killers)** – On average it is up to six weeks before patients are finding the pain to be less than it was before the surgery. It is likely therefore, you will continue to require regular analgesia for the first few weeks after discharge from hospital. You should have been given the appropriate tablets at the time of your discharge.

**SIGNS OF INFLAMMATION** – Inflammation is the first stage of healing of a wound. It is normal therefore for a little warmth and “pinkness” to remain around your wound for the first three to six months after your operation. Similarly because you have had major surgery and your mobility is reduced for the first few months, a little bit of swelling of the operated limb is also very common.
Warning signs are when the pinkness seems to be increasing and extending well beyond the wound or increasing pain in the region. Further sudden increase in lower limb swelling that doesn’t settle with elevation over night could be significant. Please contact my rooms if either situation arises.

IF YOU HAVE ANY CONCERNS REGARDING YOUR RECOVERY PLEASE CONTACT MY ROOMS ON (07) 3394 7400, OR IF IT IS MORE URGENT, ATTEND THE CASUALTY DEPARTMENT OF GREENSLOPES PRIVATE HOSPITAL.

It is a good idea to write down any questions you may have thought of and bring them along to refer to when you next see me.