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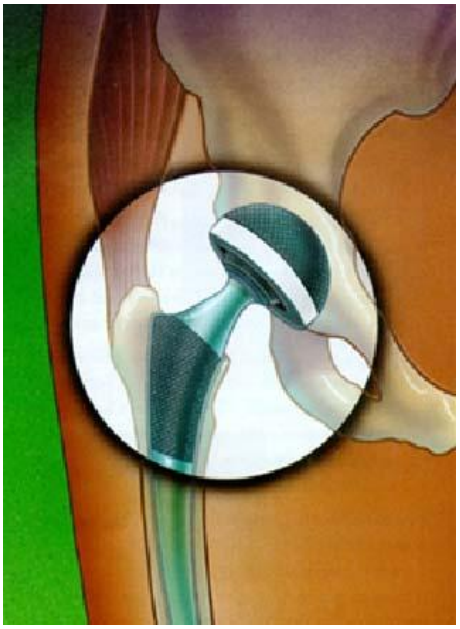
Total Hip Replacement

Whether you have just begun exploring treatment options or the decision has already been made for you to undergo hip replacement surgery, this information will help you understand the benefits and limitations of this orthopaedic treatment. You'll learn how a normal hip works and the causes of hip pain, what to expect from hip replacement surgery and what exercises and activities will help restore your mobility and strength and enable you to return to everyday activities.



If your hip has been damaged by arthritis, a fracture or other conditions, common activities such as walking or getting in and out of a chair may be painful and difficult. Your hip may be stiff and it may be hard to put on your shoes and socks. You may even feel uncomfortable while resting.

If medications, changes in your everyday activities, and the use of walking aids such as a cane are not helpful, you may want to consider hip replacement surgery. By replacing your diseased hip joint with an artificial joint, hip replacement surgery can relieve your pain, increase motion, and help you get back to enjoying normal, everyday activities.

First performed in 1960, hip replacement surgery is one of the most important surgical advances of the last century. Since then, improvements in joint replacement surgical techniques and technology have greatly increased the effectiveness of this surgery.

How the normal hip works

The hip is one of your body's largest weight-bearing joints. It consists of two main parts: a ball (*femoral head*) at the top of your thighbone (*femur*) that fits into a rounded socket (*acetabulum*) in your pelvis. Bands of tissue called ligaments (*hip capsule*) connect the ball to the socket and provide stability to the joint.

The bone surfaces of your ball and socket have a smooth durable cover of *articular cartilage* that cushions the ends of the bones and enables them to move easily.

A thin, smooth tissue called *synovial membrane* covers all remaining surfaces of the hip joint. In a healthy hip, this membrane makes a small amount of fluid that lubricates and almost eliminates friction in your hip joint.

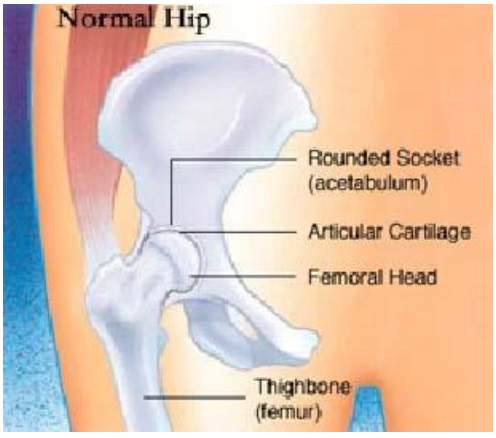
Normally, all of these parts of your hip work in harmony, allowing you to move easily and without pain.

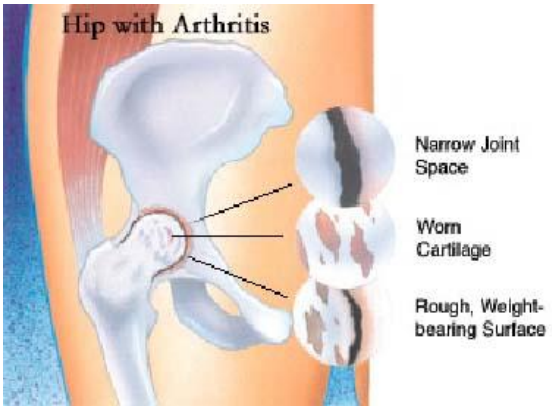
Common causes of hip pain and loss of hip mobility

The most common cause of chronic hip pain and disability is arthritis. *Osteoarthritis, rheumatoid arthritis,* and *traumatic arthritis* are the most common forms of this disease.

Osteoarthritis usually occurs after age 50 and often in an individual with a family history of arthritis. It may be caused or accelerated by subtle irregularities in how the hip developed. In this form of the disease, the articular cartilage cushioning the bones of the hip wears away. The bones then rub against each other, causing hip pain and stiffness.

Rheumatoid Arthritis is an autoimmune disease in which the synovial membrane becomes inflamed, produces too much synovial fluid, and damages the articular cartilage, leading to pain and stiffness.





Traumatic Arthritis can follow a serious hip injury or fracture. A hip fracture can cause a condition known as avascular necrosis. The articular cartilage becomes damaged and, over time, causes hip pain and stiffness.

Is hip replacement surgery for you?

The decision whether to have hip replacement surgery should be a cooperative one between you, your family, your general practioner, and your orthopaedic surgeon. The process of making this decision typically begins with a referral by your doctor to an orthopaedic surgeon for an initial evaluation, where the following process is carried out.

- *A medical history*, information about your general health and about the extent of your hip pain and how it affects your ability to perform every day activities.
- *A physical examination* to assess your hip's mobility, strength and alignment.
- *X-rays* to determine the extent of damage or deformity in your hip.
- *Occasionally, blood tests* or other tests such as an *Magnetic Resonance Imaging (MRI)* may be needed to determine the condition of the bone and soft tissues of your hip.

Although many patients who undergo hip replacement surgery are age 60 to 80, the decision for each patient is individual and based on their particular circumstances. Recommendations for surgery are based on the extent of your pain, disability and general health status, not solely on age.

You may benefit from hip replacement surgery if:

- Hip pain limits your everyday activities such as walking or bending.
- Hip pain continues while resting, either day or night.
- Stiffness in a hip limits your ability to move or lift your leg.
- You have little pain relief from anti-inflammatory drugs.
- You have harmful or unpleasant side effects from your hip medications.
- Other treatments such as physiotherapy or the use of a gait aid such as a stick don't relieve hip pain.

As your surgeon I will explain the potential risks and complications of hip replacement surgery, including those related to the surgery itself and those that can occur over time after your surgery. These risks and complications are discussed later in this booklet. Please feel free to ask questions, it often helps to write a list of questions prior to your consultation and bring it along to discuss with me.

What to expect from hip replacement surgery

An important factor in deciding whether to have hip replacement surgery is for you to gain an understanding of what the procedure can and can't do.

Most people who undergo hip replacement surgery experience a dramatic reduction of hip pain and a significant improvement in their ability to perform the common activities of daily living. However, hip replacement surgery will not enable you to do more than you could before your hip problem developed.

Following surgery, you will be advised to avoid certain activities, including jogging and high-impact sports, for the rest of your life. You may be asked to avoid specific positions of the joint that could lead to dislocation.

Even with normal use and activities, an artificial joint (prosthesis) develops some wear over time. If you participate in high-impact activities or are overweight, this wear may accelerate and cause the prosthesis to loosen and become painful.

Preparing for surgery

Medical Evaluation. If you decide to have hip replacement surgery, you will be asked to have further assessment by an anaesthetist and you may be asked to see a physician. This is needed to assess your health and find conditions that could interfere with your surgery or recovery.

Tests. Several tests such as blood samples, an ECG, chest X-rays and urine samples may be needed to help plan your surgery.

Preparing Your Skin. Your skin should not have any infections or irritations before surgery. If either is present, contact Michael via the rooms.

Medications. Have a complete list of medications you are taking. You may need to stop some of these prior to surgery.

Weight Loss. If you are overweight, you may be asked to lose some weight before surgery to minimize the stress on your new hip, and possibly decrease the risks of surgery

Dental Evaluation. Infections after hip replacement are not common but can occur if bacteria enter your bloodstream. This can happen during dental procedures therefore consider getting treatment for significant dental diseases before your hip replacement surgery. Delay routine dental work for several weeks after surgery.

Urinary Evaluation. Individuals with a history of recent or frequent urinary infections and older men with prostate disease should consider a urological evaluation before surgery.

Social Planning. Although you will be able to walk with crutches or a walker soon after surgery, you will often need some help for several weeks with such tasks as cooking, shopping, bathing and laundry. You may also benefit from a short stay in a rehabilitation unit after surgery. You can discuss this with Michael and your Physiotherapist.

Home planning

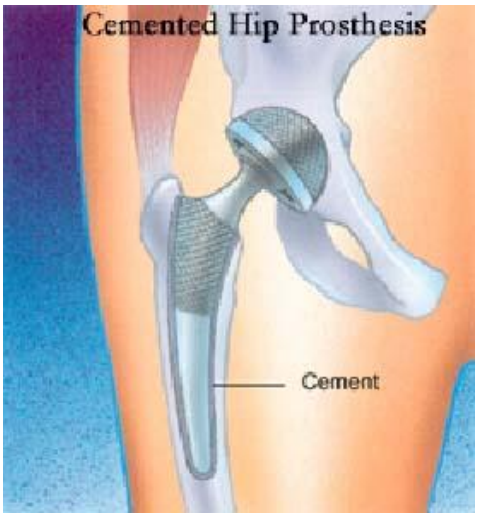
Here are some items and home modifications that will make your return home easier during your recovery. Again you will be helped with these arrangements at the pre-admission clinic.

- Securely fastened safety bars or handrails in your shower or bath
- Secure handrails along all stairways
- A stable chair for your 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 and 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 to sit on that keep your knees lower than your hips for your chairs, sofas and car
- Removal of all loose carpets and electrical cords from the areas where you walk in your home

Your surgery

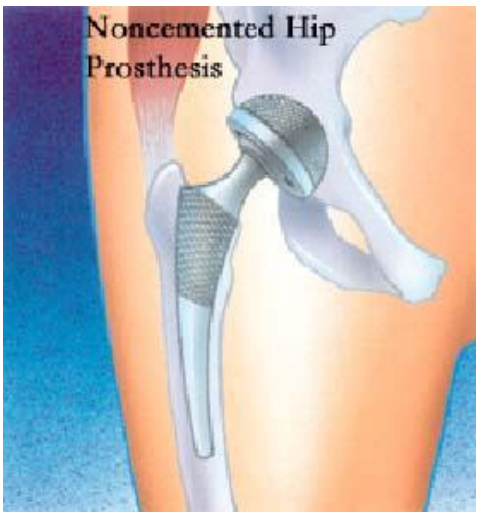
You will most likely be admitted to the hospital on the day of your surgery. Prior to admission, a member of the anaesthesia team will evaluate you. The most common types of anaesthesia for hip replacement surgery are *general anaesthesia* (which puts you to sleep throughout the procedure and uses a machine to help you breath) or *spinal anaesthesia* (which allows you to breath on your own but anaesthetizes your body from the waist down). The anaesthesia team will discuss these choices with you and help you decide which type of anaesthesia is best for you.

Surgical Procedure



The surgical procedure usually takes 1-2 hours. The damaged cartilage and bone is removed, then new metal, plastic or ceramic joint surfaces are positioned to restore the alignment and function of your hip.

Many different types of designs and materials are currently used in artificial hip joints. All of them consist of two basic components: the *ball component* (made of a highly polished strong metal or ceramic material) and the *socket component* (a durable cup of plastic, ceramic or metal, which may have an outer metal shell).



Special surgical cement may be used to fill the gap between the prosthesis and remaining natural bone to secure the artificial joint.

A non-cemented prosthesis has also been developed which is used most often in younger, more active patients with strong bone. The prosthesis may be coated with textured metal or a special bone-like substance, which allows bone to grow into the prosthesis.

A combination of a cemented ball and a non-cemented socket may be used.

The type of prosthesis that best meets your needs is selected.

After surgery, you will be moved to the recovery room where you will remain for one to two hours while your recovery from anaesthesia is monitored. After you awaken fully, you will be taken to your hospital room.

Your stay in the hospital

You will usually stay in the hospital for a few days. After surgery, you will feel pain in your hip. Pain medication will be given to make you as comfortable as possible.

To avoid lung congestion after surgery, you will be asked to breathe deeply and cough frequently.

Walking and light activity are important to your recovery and will begin the day of or the day after your surgery. Most hip replacement patients begin standing and walking with the help of a walking support and a physiotherapist the day after surgery. The physiotherapist will teach you specific exercises to strengthen your hip and restore movement for walking and other normal daily activities.

Possible complications after surgery

The complication rate following hip replacement surgery is low. Serious complications, such as joint infection, occur in less than 2 percent of patients. Major medical complications, such as heart attack or stroke, occur even less frequently. However, chronic illnesses may increase the potential for complications. Although uncommon, when these complications occur they can prolong or limit your full recovery.

Blood clots in the leg veins or pelvis are the most common complication of hip replacement surgery. You will be prescribed one or more measures to prevent blood clots from forming in your leg veins or becoming symptomatic. These measures may include special support stockings, inflatable leg coverings, ankle exercises and blood thinners. You will be individually risk assessed for this prior to surgery by our rooms Practice Nurse and Dr McAuliffe

Leg-length inequality may occur or may become or seem worse after hip replacement. Other factors including the stability and biomechanics of the hip are important in ultimately determining leg lengths during the operation. Some patients may feel more comfortable with a shoe lift after surgery.

Other complications such as dislocation, nerve and blood vessel injury, bleeding, fracture and stiffness can occur. In a small number of patients, some pain can continue, or new pain can occur after surgery.

Your recovery at home

The success of your surgery will also depend on how well you follow instructions at home during the first few weeks after surgery. This booklet along with the discharge information you receive from hospital will help in your recovery.

Wound Care. You will have sutures beneath your skin. The dressing can be removed about two weeks after surgery. Avoid getting the wound wet until it has thoroughly sealed and dried. A bandage may be placed over the wound to prevent irritation from clothing or support stockings.

Diet. Some loss of appetite is common for several weeks after surgery. A balanced diet is important to promote proper tissue healing and restore muscle strength. Be sure to drink plenty of fluids in order to avoid constipation, which is a common side effect of some pain medication. Dr McAuliffe will send you home with medication that will also assist in preventing constipation.

Activity. Exercise is a critical component of home care, particularly during the first few weeks after surgery. You should be able to resume most normal light activities of daily living within three to six weeks following surgery. Some discomfort with activity and at night is common for several weeks.

Your activity program should include:

- A graduated walking program, initially in your home and later outside
- Resuming other normal household activities
- Resuming sitting, standing, walking up and down stairs
- Specific exercises several times a day to restore movement
- Specific exercises several times a day to strength your hip joint

Driving After Surgery

It is safe to resume driving after hip replacement surgery once you are able to perform an "emergency stop" and you are no longer taking narcotic pain killers. The timing of this is usually between 4 to 6 weeks after surgery. If you have any concerns about driving, please discuss this with Michael or your GP. (This advice is based on recommendations from the Australian Arthroplasty Association).

Avoiding problems after surgery

Blood Clot Prevention. Follow all instructions carefully to minimize the potential risk of blood clots, which can occur during the first several weeks of your recovery.

Warning signs of possible blood clots include:

- Pain in your calf and leg, unrelated to your incision
- Tenderness or redness of your calf
- Swelling of your thigh, calf, ankle or foot

Warning signs that a blood clot has traveled to your lung include:

- Shortness of breath
- Chest pain, particularly with breathing

Notify Michael or your GP immediately if you develop any of these signs.

Preventing infection

The most common causes of infection following hip replacement surgery are from bacteria that enter the bloodstream as a result of other infections such as; urinary tract infections, or skin infections. These bacteria can lodge around your prosthesis. It is important to see your GP for treatment of these conditions if they occur.

Warning signs of a possible hip replacement infection are:

- Persistent fever
- Shaking chills
- Increasing redness, tenderness or swelling of the hip wound
- Drainage from the hip wound
- Increasing hip pain with both activity and rest

Notify Michael or your GP immediately if you develop any of these signs.

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. Stairs are a particular hazard until your hip is strong and mobile. You should use a cane, crutches, a walker or handrails, or have someone help you until you improve your balance, flexibility and strength.

The physiotherapist in conjunction with myself will help you decide what assistive aides will be required following surgery, and when those aides can safely be discontinued.

Other precautions

To assure proper recovery and prevent dislocation of the prosthesis, you must take special precautions. Do not cross your legs. Do not bend your hips more than a right angle (90 degrees). Do not turn your feet excessively inward or outward. Use a pillow between your legs at night when sleeping until you are advised that you can remove it. If you have any queries please ask Michael or your physiotherapist prior to your discharge from the hospital.

Dental Procedures

The Australian Arthroplasty Society has recommended that there is no longer a need to have prophylactic (preventative) antibiotics prior to undergoing dental procedures (unless immunocompromised or there are concerns about mouth infection).

How your new hip is different

You may feel some numbness in the skin around your incision. You also may feel some stiffness, particularly with excessive bending. These differences often diminish with time and most patients find these are minor compared to the pain and limited function they experienced prior to surgery.

After surgery, make sure you also do the following:

- Participate in a regular light exercise program to maintain proper strength and mobility of your new hip.
- Take special precautions to avoid falls and injuries. Individuals who have undergone hip replacement surgery and suffer a fracture may require more surgery.
- Attend all your routine follow-up appointments and X-rays, even if your hip replacement seems to be doing fine.