St George

Hip & Knee Clinic

TOTAL HIP REPLACEMENT

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Essential Information for Patients
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TOTAL HIP REPLACEMENT

You are considering undergoing total hip replacement surgery. To help you understand what is involved in this type of surgery, we ask that you carefully read the following information.

What is osteoarthritis? (OA)

You have been diagnosed with osteoarthritis of your hip joint (osteo means bone - arthritis means inflammation and stiffness of a joint). Osteoarthritis is the most common joint disorder encountered worldwide. The incidence of osteoarthritis increases with age. It is more common in females, people who have damaged their joints playing sports or in people whose work practices have involved prolonged stress on the joint. Hip arthritis has a genetic background and may be the result of other condition such as femoral head necrosis or post trauma. Ten percent of people over the age of 60 have osteoarthritis of the hip.

Osteoarthritis is also defined as a loss of articular cartilage with resulting bone changes to the joint. Hip cartilage can be compared to the rubber tread on an automobile wheel, very durable but susceptible to wear over time. Osteoarthritis is a degenerative process which results in the wearing out of the articular cartilage (joint surface). Over time the joint surface slowly breaks down until the underlying bone is exposed. This exposed bone can be very painful when the joint moves and bears weight. Driving on bare rims makes the ride very uncomfortable!

The hip is a ball shaped bone (on the top of the thigh bone) which fits neatly into a socket shaped bone (pelvis). Together, this ball and socket section form a joint that allows hip movements in all directions. Both sections are covered with a protective gristle, however this gristle sometimes wears away. If this happens bone edges are exposed, the shape of the hip joint gets distorted and movement is painful and difficult. A limp will often develop and the leg may become shortened and wasted.

Treatment of Osteoarthritis of the Hip

As osteoarthritis is a progressive disease, in the short term it can be managed non-operatively. Non-operative treatment includes anti-inflammatory drugs, cortisone injections, orthotics and exercises including a weight and fitness program which can delay the need for surgery. However surgical reconstruction of the hip may be necessary to continue an active lifestyle. Surgical techniques and joint replacement technology are rapidly evolving, providing treatment to restore people to pain-free active living.

Reasons for Undergoing Total Hip Replacement

- Treating the effects of arthritis when there has been an unsatisfactory response to non-surgical treatment.
- When the osteoarthritis of the hip is advanced and can be detected on x-rays.
- When pain and restricted mobility interferes with lifestyle choices. It has been clearly shown there is deterioration in general health when walking ability is compromised.
- Correcting deformities.
- Repairing a damaged hip resulting trauma.
- Improving mobility.

Deciding to Undergo Hip Replacement Surgery

Before consenting to surgery you should be satisfied you understand the reason/s and nature of this procedure and that it is the appropriate treatment in your case. You should take your time to make the decision to proceed with surgery and, if you would feel more confident, seek a second opinion.

As this is elective surgery, it is very important for patients undergoing this operation to understand the reasons for the procedure and to have a major role in making the informed choice to proceed with surgery rather than non-surgical methods of management.

In most cases the decision to proceed with surgery is made because the advantages of surgery outweigh the potential disadvantages.

It is important you have a realistic expectation of your surgical outcome and you should discuss this fully with your surgeon.

No surgery can fully restore a joint to pre disease/trauma status. However successful hip replacement surgery gives a pain free joint with reasonable mobility.

We encourage our patients to be informed and invite your input so as to promote co-operation and a team approach in working together to restore your hip function to the best possible state.

Oxford Hip Score

The Oxford Hip Score is a questionnaire used to measure the degree of pain and disability in osteoarthritis of the hip. You will be given a form (should be in the handout) with 12 short questions about your hip status before surgery. The questionnaire will be repeated six months after surgery, one year after surgery, five years after surgery and every five years thereafter.

Score ranges between 0 – 48 with zero being the worst possible score and 48 equalling full, pain free hip function. This score may be unreliable in patients with co-existing spinal or knee pathology.

The Hip Replacement

The new joint is called a hip prosthesis and is often made of metal alloys and toughened plastic and/or ceramic. Hip prostheses come in a variety of styles and your doctor selects the most appropriate one to suit your particular need.

Some patients will qualify for surgery using the minimally invasive, tissue sparing SuperPATH technique. Dr Szomor will discuss this option with you should you qualify.

Preparing For Your Operation

Once you have made the decision to proceed with a hip replacement, it is important to understand that a major factor in achieving a better recovery from this surgery is to regain your mobility as soon as possible following surgery.

It is beneficial to your recovery if you practice thigh strengthening exercises **PRIOR** to your operation. The quadriceps muscles are found on the front of your thigh and are sometimes called thigh muscles. For instructions please see diagrams on the last page of this brochure.

Where reduced fitness and muscle weakness complicates surgical outcome, your surgeon may advise referral to a sports physician or physiotherapist, for a pre operative and/or post operative fitness programme.

Hospital Admission Forms

Dr Szomor generally performs the hip replacements at St George Private Hospital, 1, South Street, Kogarah. Telephone: (02) 9598 5555 - Fax: (02) 9598 5000.

The paperwork for your admission including the consent will be organised in Dr Szomor's rooms. You will be provided with a folder which will include:

- St George Hospital Admission Booklet.
- St George Hip & Knee Clinic Admission Protocol.
- Online booking information.
- Pre-Admission contact numbers.
- Referral form for blood tests including FBC, ESR and EUC.
- Referral for an MSU (urine).
- Referral for an ECG.
- Referral for a pre-operative assessment with an Anaesthetist or Cardiologist (if required).
- Referral for a group and hold (your blood group will be noted and a supply will be on hand to use if required. This is just precautionary. In the past some patients donated their own blood (autologous blood) several weeks before surgery and this was stored and used if required. This is an expensive service and there is a strict criteria for prospective donors. However it remains an option and you are asked to advise the Clinic if you wish to avail yourself of this facility, in order that the necessary arrangements can be made.

Pre Admission Clinic

Once St George Private Hospital has received your admission papers, a nursing sister will contact you by phone and arrange an appointment for you to attend the Pre-Admission Clinic. This is an educational session that will take about two hours and you will be given instructions about your procedure and the type of post-operative care you will require when discharged from hospital. The session is held at the hospital and a nurse will meet you in the main foyer on the Ground Floor. You may take a support person with you when you attend.

You have the option of having your pre operative tests done at this Clinic.

Anaesthetist

Dr Szomor's regular anaesthetists are from St George Anaesthetics, 57A Montgomery Street, Kogarah. T: (02) 9588 1616 - F: (02) 9553 8607. Occasionally anaesthetists from another group may be used.

You should provide the Anaesthetist a list of medications, advise him of any known allergies and discuss any previous anaesthetic problems. You will have the opportunity to discuss the effects and possible complication or any concerns you may have before proceeding with the procedure.

Admission Time

You will be admitted to the hospital the **day of your surgery.** You will be asked to ring Dr Szomor's office on **02 9598 6777** between 9.0am – 11.00am, the working day before your operation and you will be advised what time you are required to arrive at the hospital. You will also be given fasting instructions. (ie. You will be told when you must stop eating and drinking before your surgery).

Day of Admission

All patients are asked to shower at home on the morning of surgery, using **PHISOHEX** (antibacterial solution) instead of soap. In particular, care should be taken to wash the relevant hip. Phisohex can be bought from a Chemist without a prescription. ***DO NOT shave your legs.***

No nail polish or makeup should be worn. We advise patients not to take any jewellery or valuables with them to the hospital.

We strongly advise that you **stop smoking** for as long as possible before the surgery.

Please ensure you take all relevant **x-rays and MRI scans** to the hospital with you.

Please ensure you take **crutches** or a walking frame to hospital on admission. You will usually need them for the first 1–2 weeks following surgery and can discard them once you can fully weight bear.

Medications

Please take a list of your current medications and known allergies to the hospital on admission for your medical records. Hypertensive (blood pressure) and cardiac (heart) medications should be taken at the usual time with a small sip of water unless you have been advised otherwise by the anaesthetist or cardiac physician.

Aspirin and/or other anticoagulant and anti-inflammatory medications should have been ceased seven days before surgery unless in specially advised circumstances.

Take all your regular medications with you to the hospital. This includes vitamins and natural remedies. Most other regular medications can be deferred and taken after the surgery, unless advised otherwise by anaesthetist or cardiac physician.

Skin problems

If you develop any rashes, abrasions, cuts, pimples or sores on the leg you are having surgery on, please notify our office immediately. This sometimes means the operation will need to be deferred until the area has healed.

The Operation

Once you have been admitted to hospital, the anaesthetist will visit you prior to the surgery. You will also be fitted with compression stockings.

The operation is usually performed under a general anaesthetic. You will be fully sedated throughout the procedure. You will be in the Operating Theatre for approximately 1½ to 2 hours and in the Recovery Room for a further 2 hours.

When you wake up you will be in the Recovery Room and you may experience some soreness for which you will be kept comfortable with pain control medication. You will have an intravenous drip in your arm.

Standard Post-Operative Nursing Care Following Hip Replacement

In order to assist your recovery, Dr Szomor requires the following protocol to be implemented, after you have returned to the ward.

- You should be given regular pain medication. If this fails to control your pain to a tolerable level, please advise the nursing staff.
- It is important you begin the exercises shown on the last page of this brochure, as soon as the anaesthetic has worn off.
- You will be assisted with mobilising/walking the morning following surgery, either by a physiotherapist or nursing staff.
- A physiotherapist should visit you some time each day following surgery and you should be instructed in appropriate exercises to help your recovery. By the time you leave hospital, you should be confident using your crutches or walking frame.
- The dressing over the incision is generally not changed during your hospitalisation. This dressing must be kept clean & dry at all times and if by accident it becomes damp, please let the nursing staff know as it must be changed immediately.
- You will be given an anti-coagulant injection daily whilst you are in hospital.
- You should wear TED (compression stockings) for up to four weeks following your surgery, unless Dr Szomor tells you otherwise. If you think the stockings are too tight and uncomfortable due to swelling, please inform nursing staff. Failure to comply with this instruction will place you at increased risk of developing a DVT (blood clot).
- It is important to realise post-operative progress varies from patient to patient. Therefore some variation to this standard protocol may be authorised by Dr Szomor according to individual requirements.

Before Going Home From Hospital

- Prior to discharge from hospital, the dressing on your thigh will be changed and a dry dressing applied. **This must be kept dry.** If the dressing becomes wet or soiled, you must replace it with a clean dressing or band-aids.
- In most cases, dissolvable sutures are used for this surgery and therefore do not have to be removed.
- Please make sure you have procured the medication for pain control that has been prescribed for you when you leave hospital. Ensure you understand what to take and when to take it. Please make sure you have appropriate prescriptions and an adequate supply.
- As a precaution to minimize the risks of developing deep venous thrombosis (blood clots) it is recommended you take one tablet of low dose Aspirin once a day for four weeks following surgery.

Cartia (i.e. Aspirin with a coating to protect the lining of your stomach) can be purchased without a prescription from your chemist. However this medication is not suitable for patients with a history of gastrointestinal problems and should be ceased immediately if you develop any gastrointestinal discomfort.

Rehabilitation Options

As a general rule, Dr Szomor encourages his patients to return to their homes and transference to a Rehabilitation Hospital is only indicated for people with special needs. Infection rates are lower for people who return to their homes.

At Home Following Surgery

- An appointment to see Dr Szomor about 14 days after surgery, has usually been made for you when your operation was booked. This is usually noted on the inside of your Operation Folder. However if you do not have an appointment, please make one when you return home.
- You can discard your crutches when you can fully weight bear without too much discomfort. A walking stick may give confidence when going out for the first 2-3 weeks.
- You will be unfit to drive a motor vehicle for approximately six weeks following total hip replacement. Research has shown there is a delayed response time in breaking for 1-4 weeks following surgery. You must only drive when you have regained full function.
- It is recommended you do not travel long distances by car or plane for four weeks following surgery owing to increased risk of developing DVT's (Blood clots). If circumstances demand you must travel, speak with Dr Szomor about precautions that can be taken to minimise this risk.

Return to Work

You may return to normal duties as your hip function improves well enough for you to do your particular job. As a general guide you will be unfit for sedentary duties for eight weeks following surgery and unfit to resume manual duties for four months following surgery.

If your occupation requires particularly demanding hip function such as bending, lifting, squatting or climbing stairs you may be unfit to resume work for up to six months subject to assessment by Dr Szomor.

Signs To Be Aware Of After Hip Surgery

If you experience swelling and excessive pain and/or calf pain which does not respond to ice, elevation and rest you should contact our office during business hours.

If you require assistance outside of office hours, please contact St George Private Hospital on 02 9598 5555 and speak with the Sister in Charge of the Orthopaedic Ward, or go to your GP or nearest public hospital.

Please also refer to Specific Complications Following Surgery.

How To Improve Your Recovery Process

Rapid recovery from this operation revolves around reducing pain, reducing swelling and muscle strengthening. Failure to address these goals will slow down your recovery considerably. Remember if pain, swelling and thigh weakness persists for more than a few weeks your recovery will be considerably prolonged.

- **Reduce Pain**

It is normal for your hip and thigh to be sore and swollen for a few weeks following surgery. You should ensure your pain medication is taken as prescribed as a means to prevent significant pain rather than waiting until pain is severe and impacting on your ability to do appropriate exercises.

Activities should be increased gradually. You should avoid prolonged walking or standing. You should avoid trying to bend your leg beyond 90 degrees as this will cause pain and swelling. Most uncontrolled pain is due to excessive swelling.

Excessive pain can be due to spending too much time on your feet before the thigh muscles have been adequately strengthened or inadequate or non compliance to pain medication.

- **Reduce Swelling**

Initially elevation, regular quadriceps contractions, cold packs for 20 minutes every two hours and anti-inflammatory medication (optional) should diminish swelling rapidly. If swelling persists it is likely you are spending too much time on your feet. However if swelling does not gradually decrease after the first few days despite these measures, contact our office.

- **Muscle Strengthening**

You will have been seen by a physiotherapist whilst in hospital. They will have supervised your exercise programme. The thigh strengthening exercises you practiced before your surgery should also be continued until your muscle strength has returned to normal (see last page).

When you have seen Dr Szomor at your post operative appointment, he will be able to advise you whether you require ongoing supervised physiotherapy or if you are suitable to continue with a self supervised, home based exercise programme.

Specific Complications Following Hip Surgery

All surgeries carry potential risks and the possibility of complications. Despite the advances in surgical technique and the experience of the surgeon, problems and complications can still occur and it is our duty to inform you and your right to be made aware of the possibility of complications. We have therefore outlined some specific complications of total hip replacement surgery, some complications of general surgery and anaesthesia.

This list of complications is not exhaustive. Rare and unusual problems can occur, although most of these are treatable and do not affect the end result. The success rate of this procedure in restoring pain free function to the hip is very good although there can be some deterioration over time.

- **Infection**: The infection rate is very low. Antibiotics are given at the time of surgery to reduce the risk of infection. The operation is performed in a sterile environment. However despite these precautions infection can still occur and cause prolonged disability. Although unlikely, chronic bone infection and/or distant organ infection eg the lungs and urinary system is a possibility. Other consequences of infection include joint stiffness, joint surface destruction and implant failure. Treatment involves antibiotics and often further surgery.

- **Respiratory tract infections**: This includes the development of pneumonia which can follow anaesthesia for surgical procedures. It is more common in the aged and very uncommon in the young and healthy. Treatment involves antibiotics, physiotherapy and respiratory support. Treatment is not always effective. In emergencies, special precautions are taken. Treatment of this condition usually involves anti-coagulant (medication to prevent the blood from clotting) administered either by intravenous drip and follow up medication or by oral anti-coagulant therapy. Therapy for this condition is not always successful. If clots form in the arterial system then a stroke may occur.

- **Joint Stiffness**: Scar tissue can form in the hip after surgery. This can limit joint movement. Sometimes the soft tissues around your joint harden making it difficult to move the hip – a process called ossification. This usually is not painful. If you are at risk of ossification, your doctor may recommend medications or radiation therapy to prevent it from happening. These procedures are not always successful in restoring full movement.

- **Bleeding**: A small amount of bleeding inside the joint after the surgery can be considered normal and needs no treatment. It will resolve in time. Larger amounts of bleeding can occur in patients who have blood clotting abnormalities or who have been taking Aspirin or anti-inflammatory medications prior to surgery. Patients are therefore advised to avoid Aspirin or anti-inflammatory medication two weeks prior to surgery. You must ensure your surgeon is aware of all medications you are taking or have recently taken, including non prescribed medications, prior to surgery.

- **Damage to Associated Structures**: Total hip replacement carries a very small risk of damage to blood vessels and nerves of the leg. Damage to these structures could cause further disability and require further surgery. Nerve damage can cause numbness and weakness in the leg below the hip which may not fully recover.

- **Deep Venous Thrombosis**: This term refers to the formation of blood clots within the blood vessels. If they form in the veins they are known as deep venous thrombosis (DVT) which can cause swelling and pain in the legs and restriction of blood flow. These clots can travel to the lungs and cause a pulmonary embolus. This complication is more likely to happen in overweight people, women taking oral contraception and smokers. For this reason patients are advised to stop smoking. Long aeroplane flights also increase the chance of blood clots forming and therefore patients should not fly and have surgery in the same 4 -6 week period.

- **Change in Leg Length**: Your surgeon takes steps to avoid this problem but occasionally your new hip may make your leg longer or shorter than the other one. Sometimes this is caused by weakness in the muscles surrounding your hip or pre-existing leg length difference and cannot be completely corrected.

- **Implant Failure**: It is possible to have wearing, loosening, dislocation or breakage of the implant (up to 5% by ten years).

Future infections

An artificial hip implant can become infected in the future if there is infection elsewhere in the body. For this reason you are advised to see your general practitioner promptly for antibiotic cover if you develop any infection such as a urinary tract infection.

Causes of Implant Problems

Wearing and loosening of the implant most likely occurs in patients who:

- Engage in excessive heavy lifting and high impact activities
- Prolonged walking (5-10 kilometres per day)

Hip joint dislocation: Certain positions can cause the ball of your new joint to become dislodged. To avoid this, you are cautioned not to bend more than 90 degrees at the hip and do not let your leg cross the midline of your body. Surgery usually in not necessary to relocate the hip joint.

Breakage of the prosthesis: Though rare your artificial hip can break several years after surgery. Another operation would be required to replace the broken joint.

General Complications of Surgery and Anaesthesia

General anaesthesia in Australia is extremely safe. Australia has one of the best records for anaesthetic safety. However anaesthesia itself entails a degree of risk, some of which has been outlined. Rare and unusual problems can occur as a result of surgery and anaesthesia. Your anaesthetist will visit you in hospital before the procedure and you will have the opportunity to discuss the effects, possible complication, and any concerns you may have concerning your anaesthetic before proceeding with the procedure.

If you are concerned about the potential for complications or the advantages and disadvantages of a decision to proceed with surgery, from an anaesthetic view point, you should discuss these issues when you visit the anaesthetist for a pre-operative medical assessment before admission to hospital. If there is any doubt in your mind concerning the anaesthetic, we would strongly recommend that you seek an independent second opinion.

Post Hip Replacement Surgery Activity Protocol

For a short time following hip replacement surgery you will need to change the way you do some everyday things such as dressing, toileting, showering, sitting and traveling. This will help the new hip heal. Before you leave the hospital you will be assessed to ensure you are able to carry out each activity of daily living in a safe manner. Some changes include:

- Using a raised toilet seat.
- Sitting on a raised shower stool or chair.
- Sitting in firm chairs.
- Using an "Extended Hand" to pick things up.
- Using a cushion to raise the seat when traveling.
- Taking special care when getting in or out of cars.
- Ensure walkways are wide enough to walk through with your walking aid.

Cautions

- **Bending:** Do not bend the operated hip more than 90 degrees. Avoid bending the knee up to the chest or sitting completely upright.
- **Crossing your Legs:** To guard against dislocation, avoid crossing your legs, even long after leaving the hospital. Always keep the operated leg to the side with knees and toes pointing ahead.

- **Sitting:** Avoid sitting in deep chairs. It is most important not to sit in a low chair following hip replacement. As a guide, your knees should be lower than you hips. This is necessary so that the hip is not flexed to more than 90 degrees at the hip joint and therefore prevents a dislocation. It os essential that your chair is high, firm backed and with supportive arms.

  The physiotherapist will show you how to sit correctly by keeping a straight back and leaning backwards. This position is also used for sitting on the toilet, but in this situation, a raised toilet seat MUST be used. Toilets on the Orthopaedic Ward have raised seats and the hiring of this equipment for home use will already have been discussed with you at the Pre Admission Clinic visit.

- **Getting in and out of bed:** Where possible always get in and out of bed on the side of the operated leg. Keep your legs well apart. Move your buttocks to the edge of the bed.

  Sit up, stretch out the operated leg until it reaches the floor. Lean backwards a little to avoid bending. When the operated leg reaches the floor, bend you knee and push down through your hands onto the bed to stand up. You may or may not be allowed to put weight on the operated leg for a while, depending on the type of prosthesis used. Hospital staff will inform you how much weight is allowed.

  Keep the operated leg out in front until you are in the standing position. It is a good idea to practice this activity before your surgery.

Negotiating Stairs

The physiotherapist should teach you how to climb stairs.

Going up:

- Move un-operated leg first.
- Move operated leg second.
- Move crutches or walking stick/s.

Going down:

The procedure is the exact reverse to going upstairs.

- Move crutches or sticks.
- Move operated leg second
- Move un-operated leg last.

Dental Work

Following surgery you will **always** need to advise your dentist when having invasive dental work that you have undergone joint replacement surgery. As a general rule your dentist will need to administer 2 grams Ampicillin one hour before undertaking any invasive dental work.

For people who are allergic to Penicillin, it is recommended that you take 600mg Clindamycin orally, one hour before proceeding with dental work.

Long Term Outcome Studies

Following surgery it is **essential** you have regular reviews to assess your progress and check implant wear. This will necessitate you returning for review with updated x-rays one year after your operation, five years after your operation and then every five years thereafter.

However, once you have had your operation your assistance in compiling our data base would be greatly appreciated and it is an ideal time to collect relevant information when you return for your standard assessment visits. If you are willing to participate, you will be asked to complete the Oxford hip score and your updated x-rays will be photographed when you return for your post-operative assessments.

You will also receive an Oxford hip score in the post six months after your surgery which you are asked to complete and return to my office.

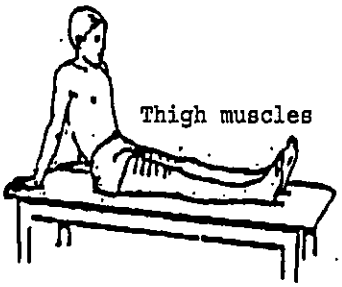
If data is used for statistical purposes it will be in de-identified forms, ie no names or personal information can be recognised.

Exercise Programme

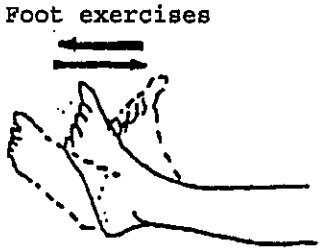
It is recommended you commence thigh strengthening exercises:

- Before your surgery.
- In the Recovery Room immediately following surgery.
- For the week following surgery until your post-operative visit.
- Following your post operative assessment – as directed by your surgeon.

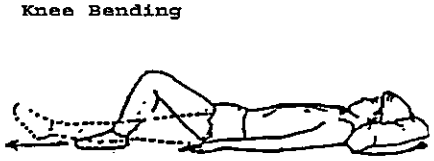
All exercises should be done gently. Exercising to the point of mild discomfort is most beneficial. It is very unlikely you will harm the hip with any routine post-operative exercise programme.



1) With your leg completely straight, contract your thigh muscles strongly and hold for three seconds. Rest for three seconds in between contractions. Repeat the muscle contractions ten times per session. This set of exercises should be undertaken at least ten times per day.



2) From a lying position, move your foot backwards and forwards as far as it will go. Repeat this exercise five times in a session. Do this set of exercises at least ten times per day.



3) Knee bending and straightening. From a lying position bend your leg to 45 degrees. Repeat this exercise five times in a session. Do this set of exercises at least 10 times per day.