

# COMPLICATIONS SPECIFIC TO TOTAL HIP REPLACEMENT

## INFECTION

One of the risks after total hip replacement is infection. Infection may be superficial (i.e. in the skin) or deep (around the prosthesis). Infection rates of 1-3% have been reported around the world. If you do get an infection, it will be treated aggressively with antibiotics but occasionally reoperation is necessary to clean out the infected material. In very rare circumstances, sometimes the hip replacement is removed and another one put in six to eight weeks later, when the infection has cleared up.

## FRACTURE (BREAK) OF THE FEMUR OR PELVIS

This may occur during surgery and at times may not be recognised. It may require more extensive surgery during the operation and, very occasionally, re-operation a few days later. If the bones do crack or break, sometimes you are required to stay in traction or in bed for several weeks post operation (this is very rare).

## DAMAGE TO NERVES OR BLOOD VESSELS

During the operation nerves or blood vessels may be damaged. These may be repaired at the time if recognised but may require a second operation to explore or repair any damage. It is very rare that a damaged nerve does not recover on its own. If a damaged nerve does not recover, it can lead to poor function of the leg below the joint replacement (e.g. foot that does not work properly due to weakness or sensory loss).

## BLOOD CLOTS (DEEP VEIN THROMBOSIS OR PULMONARY EMBOLUS)

Blood clots can form in the calf muscles and they can travel to the lung. These can occasionally be serious and even life threatening. These blood clots will be treated immediately and every measure is taken to avoid these occurring. You will be given a blood thinning agent by injection during your stay in hospital. Stockings will be provided for you to aid in trying to prevent blood pooling in the veins, in the calf and you should wear these for 6 weeks post-operatively. A calf pump is also used during the operation on the non-operated leg. You will also be given aspirin (unless it is contraindicated in you) to thin the blood after you leave hospital. Occasionally, instead of blood, fat can go to the lungs, which may cause temporary shortness of breath. This usually passes off without any of the aggressive treatment mentioned above.

## WOUND IRRITATION OR BREAKDOWN

The operative scar will always cut some skin nerves, so you will have numbness around the wound. This does not affect the function of your joint but may be irritating to you over the short to medium term. Eventually, this numb feeling improves slightly and does not worry most people. Occasionally, instead of a numb sensation you will have burning or a hypersensitive sensation in the wound. This usually settles down over many months but occasionally, can be long term and troublesome. Occasionally, there is some aching around the scar for many months, which can become worse in cold weather but this is usually nowhere near as uncomfortable as the pain you had before the operation.

Wound breakdown is rare but if it does occur it may require surgery to repair it. You can also get a reaction to the sutures used, causing a stitch abscess. This usually appears as a small pimple on your scar. They can usually be treated with an antiseptic dressing but occasionally require a short course of antibiotics.

## TROCHANTERIC BURSITIS

It is not uncommon after total hip replacement to get inflammation where the muscles pass over the trochanter (the prominent part of the femur bone, just adjacent to the hip). This is called trochanteric bursitis and usually improves over time as your limp improves. Occasionally injections are given into the painful area and usually this condition cures itself. Occasionally people can have long-term discomfort in this area.

## DISLOCATION

After the operation, the new hip may dislocate. This means the ball pops out of the socket. This usually occurs in the first 6 - 8 weeks when the capsule around the hip has not reformed and your muscles are weak. Dislocation rates from 2 - 4 % have been recorded in literature. If the hip dislocates this is usually relocated under general anaesthetic without a cut needing to be made in the skin. It is rare for the hip to continue

dislocating but occasionally further surgery is required to make an adjustment to one of the components or to make the hip tighter by lengthening the leg.

### LEG LENGTH INEQUALITY

When total hip replacement is performed there are two major issues, which need to be addressed: Firstly, the hip has to be stable. Secondly, we try not to lengthen the leg.

It is very difficult to make the leg exactly the same length as the other one. Occasionally we need to deliberately lengthen the leg to make it more stable (i.e. prevent it from dislocating). A dislocating hip is a far greater disability than a leg length inequality as 30% of the normal population has a 1cm leg length inequality without having had any surgery or disease. In general, most patients (80%) have equal leg lengths after surgery. Approximately 15% are less than 1cm long and about 5% are 1cm or more longer but again this may be necessary to make the hip stable at the time of surgery. Occasionally, because you may have arthritis or deformity of the other leg, it is impossible to match your leg lengths.

Some people have other causes for leg length inequality after total hip replacement. They may have a pelvis that is tilted abnormally due to spinal problems or previous injuries or growth abnormalities in the lower limbs that were present before the surgery. Some spinal abnormalities can also cause post-operative leg length inequality that may not have been apparent before surgery.

All leg length inequalities can be treated by a simple shoe raise on the shorter side. There is no guarantee for equal leg lengths following surgery.

### WEAR

The long-term complication of total hip replacement is wearing of the ball and socket. If you are hard on the joint (such as someone who does heavy manual labour, plays a pounding sport like jogging or is very overweight) it will wear out faster than a more sedentary person.

Conventional hip replacements have about an 80 - 90 % fifteen-year survival. There are a large number of factors which affect the survival rate. Continual improvements in technology make these components more likely to last for a longer period of time. It is our belief that the hip replacements of today will function better and last longer than those in the past but we won't know this for another 10 years.

If there is significant wear in the joint, then the liner may need to be replaced. Wear can sometimes cause loosening of the joint and the whole joint may then need replacing. This is why we need to follow you up forever. We need to assess your x-ray every few years to make sure that nothing worrying is occurring in the hip joint before you get symptoms.

It is extremely important that you do not lose contact with Dr Walker during the life of your hip replacement and if you move away from Sydney you should consider talking to him to recommend a surgeon in another part of Australia.

### OSTEOLYSIS

This means part of the bone is reabsorbed or disappears. This is a result of small wear articles setting up a reaction in the body causing this bone reabsorption. Occasionally, Dr Walker may recommend you have a procedure to change the liner (bearing surface) or bone graft these defects before they become major problems.

### LIMP

This is usually temporary and usually improves over a 12-month period. It is a result of muscle weakness. It can however persist, especially if you have had a limp for a long time prior to surgery or if you have a major anatomical problem associated with or causing your arthritis (e.g. congenital dislocation of the hip).

### HETEROTOPIC OSSIFICATION

This means bone forms in the soft tissues surrounding the hip. This can cause discomfort and stiffness and occasionally needs to be excised. This is quite rare in the hip.

## COSMETIC APPEARANCE

The hip may be more swollen than the other one or it may be a different shape than prior to surgery. This is normal as we place the hip in its proper alignment during surgery. It looks different because it was an abnormal shape because of the arthritis.

## BREAKAGE OF THE IMPLANT

This is very rare. If this were to occur, reoperation to remove the broken implant and replace it with a new one would be required.

# **ANAESTHETIC COMPLICATIONS**

Modern anaesthetics are extremely safe. Anaesthetists use technologically advanced equipment with sophisticated monitoring devices. Modern anaesthetic drugs also have fewer side effects and higher margins of safety.

Despite this, every anaesthetic carries a risk. Fortunately, major ones are rare.

You will see your anaesthetist prior to your surgery who will discuss your anaesthetic with you. This is your opportunity to discuss any concerns you may have. Any previous anaesthetic history is helpful for your anaesthetist. It is important to bring with you a list of medications and any test results you may have had (e.g. blood tests, cardiographs).

Anaesthetics are either general or local. General means you are put to sleep and local means a needle is given to anaesthetise (numb) the area for surgery. This may be a needle around the operative site, in nearby nerves, or a needle in the back (spinal or epidural).

## **GENERAL ANAESTHETIC**

Minor complications of general anaesthetic include:

- Headache
- nausea/vomiting
- pain or infection at drip sites
- sore throat
- bleeding from the tube
- chipped teeth.

Major complications include:

- heart attacks
- Stroke
- Kidney failure
- Death (very rarely).

The risk of these complications is increased in patients who have underlying medical problems and in those having more major surgery.

There is a risk of allergies to medications and it is important to notify all medical personnel of any known allergies.

If you have a blood transfusion, there is a risk of a reaction to it as well as an extremely small risk of infectious diseases such as hepatitis or AIDS.

## **LOCAL BLOCKS, EPIDURALS OR SPINALS**

Risks specific to local nerve blocks or spinal anaesthetics (needle in the back) include:

- Local nerve damage, which can cause ongoing irritation
- Spinal cord damage due to haematoma (bleeding) or infection. This is an extremely rare complication but can lead to paralysis or even death.

Your anaesthetist will make every effort to make you as comfortable as possible during your anaesthetic and will be more than happy to answer any questions for you. He or she will explain the risks of the anaesthetic to you.