

COMPLICATIONS SPECIFIC TO TOTAL KNEE REPLACEMENT

INFECTION

One of the risks after total knee replacement is infection. Infection may be superficial (i.e. in the skin) or deep (around the prosthesis). Infection rates of 1-2% 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 knee replacement is removed and another one put in 6 - 8 weeks later, when the infection has cleared up.

FRACTURE (BREAK) OF THE FEMUR, TIBIA OR PATELLA

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.

STIFFNESS (LACK OF MOVEMENT)

Some people form excessive scar tissue after total knee replacement. The average long-term bend of total knee replacement is 120 degrees. If you are not bending past 90 degrees by 6 weeks, you are readmitted to hospital. Whilst under either epidural or spinal anaesthetic, the knee is forcibly manipulated to break the scar tissue which is stopping your bend.

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, particularly on the outside (on the side of the little toe). 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 dull 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.

WEAR

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

Conventional knee replacements have about an 85 - 95% 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 total knee 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, 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 knee joint before you get symptoms.

It is extremely important that you do not lose contact with Dr Walker during the life of your knee 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 particles 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.

DAMAGE TO LIGAMENTS

There are ligaments (e.g. collaterals, quadriceps, patella) surrounding the knee, which can be damaged before or after surgery. Damage to these ligaments can cause instability of the knee or the inability to straighten the knee. Depending on the circumstances this may require a brace or further surgery.

DISLOCATION

An extremely rare complication of total knee replacement is dislocation of a prosthesis. This is where the two major components; the femur and tibia, lose contact with each other. This almost always requires re-operation but usually only occurs many years after insertion of the prosthesis when there is a lot of wear.

HETEROTOPIC OSSIFICATION

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

COSMETIC APPEARANCE

The knee 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 knee 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.