

Some of the important complications include infections, blood clots, inadvertent injury to blood vessels or nerves, problems regaining flexion or extension of the knee and difficulties with wound healing. Deep infection may require removal of the implant, prolonged antibiotics and later surgery to insert a new implant. Major clots are rare but can be fatal. All surgery and anaesthesia carries risks and it is not entered into lightly. Dr Coolican and his surgical team work very hard to prevent complications and it is important that you cooperate with all medical and paramedical staff to achieve an optimum result. If you have any questions concerning complications, please feel free to speak with Dr Coolican. If you develop unexplained calf pain, chest pain, fever or wound redness, please notify Dr Coolican or the hospital staff.

Precautions after Surgery:

You should avoid impact and jarring activities. You are not able to run with your prosthesis. Dr Coolican will be happy to provide you with a list of activities which you can carry out safely after knee replacement but it is important that you have one foot on the ground at all times. Accordingly, you should not run or jump.

In the first year or two after surgery, you should tell your dentist if you have any dental work, so that antibiotics can be provided to prevent secondary infection in the knee. This is the case for any open surgery and you should ensure prompt antibiotic treatment of any skin infection or urinary tract infection.

Costs

Dr Coolican's fees are above the Medicare schedule. This will produce a gap payment for your surgery and Dr Coolican's secretary will inform you of the gap.

If you have any questions concerning your forthcoming knee replacement, including risks, complications or likely outcome, please do not hesitate to contact Dr Coolican.

Normal Knee Joint

Parts of Bone Resected (in blue)

Medical Grade Stainless Steel
Polyethylene (Plastic)
Titanium
Screws



Dr Myles R J Coolican

Level 1, 445 The Gallery
445 Victoria Avenue
Chatswood NSW 2067

Phone: 02 9904 6099
Fax: 02 9410 0666

Web Address: www.sydneyortho.com.au

Dr Myles R J
Coolican

Total Knee Replacement

Information for Patients

Introduction

Total knee replacement (TKR) is major surgery and a decision to proceed with the operation is made only after a thorough consideration of the symptoms you are suffering and the likely risks and benefits of surgery.

Prior to booking surgery, Dr Coolican will question you on your general health. If there is a history of medical problems, such as troubles with your heart, lungs, blood pressure, kidneys, circulation or other health issues, you may be referred to an appropriate specialist for an opinion on whether you are fit for the surgery and whether any special precautions are required. If you are considered unfit or the specialist considers the risk of surgery to be great, it may still be possible to proceed with surgery but only after you and your relatives are aware of and are prepared to accept the risks.

Please stop any aspirin containing medication that you have been taking 10 days prior to surgery. Non-steroidal anti-inflammatories should also be stopped 10 days prior to surgery. These drugs interfere with the clotting mechanism. You should continue with all your other medications and bring them to hospital, so that the staff can arrange ongoing prescription at the appropriate dose. You must also bring your x-rays and other imaging scans. If you are taking aspirin or Plavix for a special reason that makes it dangerous to stop, it may be necessary to continue with this medication up to surgery but this should be discussed with Dr Coolican. If you are taking Warfarin, specific arrangement, depending on the requirements for Warfarin will be made. It is usual to stop the Warfarin 5 days or thereabouts before surgery and continue without anticoagulation or possibly continue with some form of anticoagulation injection in the period up to the surgery.

Hospital

You are usually admitted to hospital the day before surgery or occasionally on the same day. Prior to this, you will attend a preadmission clinic which will involve blood tests, an ECG and chest X-ray. You will also meet the ward staff.

On the day of surgery, your leg is washed, shaved if necessary and painted with antiseptic solution. The leg is then wrapped in a sterile towel. You will meet the anaesthetist prior to surgery who will discuss the anaesthetic with you. This usually takes the form of a general anaesthetic and something else to control pain after the surgery. This may be an epidural or spinal injection, nerve block, nerve catheter or local anaesthetic around the knee. Varieties of these forms of postoperative pain

care are carried out. You will also be given a PCA button which delivers a small volume of narcotic intravenously.

Surgery is carried out through an incision over the front of the knee and takes approximately one to two hours, depending on what is required. Small parts of the ends of the bones (femur and tibia) are removed and replaced with prostheses matched for size and side. The patella may be resurfaced, depending on the findings at surgery and your preoperative clinical features. The prostheses are fixed to your bone either by bone cement or a press fit where the bone grows into porous surface on the undersurface of the prosthesis. There is not yet a clear consensus that either form of fixation gives better long term results. A low pressure suction drain is utilized to remove shed blood from the joint and the shed blood can be stored, filtered and retransfused if suitable.

Most patients recovering from total knee replacement find the knee to be quite uncomfortable in the first two weeks. A variety of measures are used to control pain, including continuous epidural infusion (similar to that used in childbirth), patient controlled analgesia, nerve block injections, ice and oral medications. It usually takes between 2 and 12 months before the patient agrees that the replaced knee feels better than before surgery but this is variable. Some patients will have very little pain after surgery and wonder what all the fuss is about whilst others, are troubled by quite severe night pain for two or three months after surgery.

The day after surgery, the nursing staff will remove the drain and dressings and apply TED stockings. Although this is a relative rest day, it is important to wiggle your ankles up and down a few times, every 20 minutes or so whilst you are awake. This helps the calf muscle pump and prevents clots. Usually, the nursing staff and physiotherapist will sit you over the side of the bed on the first postoperative day and you may take a few steps.

On the second postoperative day, rehabilitation begins in earnest. This is supervised by the physiotherapist and involves a series of exercises to achieve two goals. These are to get the knee bending and to improve independent mobility. A continuous passive motion (CPM) machine may be used in order to obtain knee bend. These are electric operated machines placed on the bed with the machine moving the knee up and down. Controls determine the degree of motion and the patient holds a stop button. CPM machines are not always utilized and depends on progress with range of motion.

Discharge from hospital occurs when the knee is bending adequately and you are mobile, either on crutches or a frame and can safely get about. The average length of hospital stay is a week or a shade under and has reduced over time. You may be required to stay in hospital longer if complications or problems arise.

Rehabilitation

Most patients require a more prolonged stay in hospital for intensive physiotherapy. This is usually arranged if necessary in a rehabilitation hospital. We utilize a number of different hospitals, depending on your needs and the area where you live. Most patients require some form of walking aid – crutches, frame or a stick for the first three months or thereabouts although people vary with this. It is entirely up to the patient's confidence although a stick outside the home is a good idea for the first three months as it alerts others that you are not fully mobile and able bodied. Injections of low molecular weight heparin (usually Clexane) continue until transfer to rehabilitation and you should continue with the white (TED) stockings until the 6 week postoperative check. At this appointment, further radiographs are taken of your knee.

Most patients can safely drive at 6 weeks and gradually increasing walking distances occur around this time. Bowls and golf can be resumed whenever you feel confident, usually somewhere between 3 and 6 months. Running is not permitted at any time after the operation as wear of the prosthesis occurs very quickly. You may be able to drive an automatic car sooner than 6 weeks post-operatively if your left knee has been replaced but studies are suggestive that it takes most patients around 6 weeks before they can confidently operate the pedals with sufficient power and speed to drive safely.

Results and Complications:

Overall, 95% of patients are happy with the knee replacement. Approximately 90 – 95% are relieved of the majority of their pain. The deformity (crookedness) of the leg is corrected and mobility is improved. Range of motion averages around 115° but patients with poor motion prior to surgery seldom achieve a large improvement.

Should the prosthesis wear out, revision knee replacement is possible but is more complex surgery than the first replacement with results not being in general as satisfactory as first time surgery. The risks of revision surgery are slightly greater.

The prosthesis is a mechanical device with a bearing surface which wears out over time. Mostly the implant will out survive the patient. Failure occurs due to wearing out of the plastic component or the implant works loose in the bone. Too high an activity level and soft bone (e.g. due to rheumatoid arthritis) are factors in an implant requiring revision. Avoiding excessive weight gain is also important.