

Unicompartmental Knee Replacement

Information for Patients

Introduction & Pre-Surgery Care

Unicompartmental knee replacement (UKR) is a surgical procedure involving the replacement of one area of the knee joint. This is most commonly the inside or "medial" half of the joint. Less commonly, the "lateral" or outside compartment is replaced. Patients undergoing unicompartmental knee replacement usually have arthritis affecting the inside part of the knee joint, with the remainder of the joint being relatively unaffected. UKR is major surgery and a decision to proceed with the operation is made only after a thorough evaluation of your symptoms and the likely risks and benefits of surgery.

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

Blood transfusion is rarely required with unicompartmental knee replacement, but is occasionally necessary with bilateral surgery.

You should stop taking any medication containing aspirin, or any non-steroidal anti-inflammatories one week before surgery. Aspirin and non-steroidals interfere with platelets which are part of the blood clotting mechanism. You may need to stop other medications, and this should be discussed with Dr Parker prior to surgery. You should bring your medications to hospital so that the staff can arrange ongoing prescription of the appropriate dose. You must also bring your x-rays to hospital to assist with the surgical planning. Please ensure that you have no cuts or scratches on your skin, as this is an infection risk, and will usually lead to postponement of your surgery.

What are the other Options?

Patients with isolated medial (or lateral) compartment arthritis may:

1. Try to control the symptoms by non-surgical means and postpone surgery as long as possible. This advice may be given to younger patients and patients whose symptoms are moderate.
2. Undergo limb realignment surgery, known as osteotomy, which involves changing the alignment of the leg to take the weight away from the worn part of the joint. This can relieve symptoms for up to 10 years or more, and is more suitable for the relatively young and those with heavy jobs or wishing to continue with impact sports, such as tennis. UKR places more restrictions on activity level, due to the presence of an artificial joint.
3. Undergo total knee replacement, which resurfaces all of the surfaces of the knee joint, and is done when the arthritis is less localised. Recovery after total knee replacement takes longer than after unicompartmental knee replacement and more bone is removed. However, studies of implant survivorship show that total knee replacements in general last longer than unicompartmental knee replacements.

Hospital

You are usually admitted to hospital the day before surgery. You will meet your anaesthetist prior to surgery who will discuss the anaesthetic. This will usually take the form of a general anaesthetic, but the specific details will be discussed between yourself and the anaesthetist.

Surgery is carried out through an incision over the front of the knee and takes approximately one hour. Small parts of the joint surfaces are removed and replaced with metal and plastic implants, which are fixed to the bone with cement.

At the end of the procedure the knee is injected with local anaesthetic for postoperative pain relief. A drain is utilized to remove shed blood from the joint.

A variety of measures are used to control pain, including patient controlled analgesia (where you push a button to deliver a small intravenous dose of medication), nerve block injections, ice and oral medication. It usually takes between three to six weeks before you will agree that the replaced knee feels better than prior to surgery, although this varies between patients.

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Rehabilitation

On the first post-operative day, the drain is removed, the dressing reduced and a small waterproof cover applied to the wound. Rehabilitation begins in earnest and involves supervised walking with the physiotherapist as well as a series of exercises to help achieve range of motion and to improve mobility and strength.

Discharge from hospital occurs when the knee is bending satisfactorily and you are walking well, either with crutches or a frame. The length of hospital stay varies but is somewhere in the vicinity of 2 to 5 days.

Some patients require a more prolonged stay in hospital for intensive physiotherapy. This is usually arranged, if necessary in a rehabilitation hospital. Most patients will require some form of walking aid, such as crutches, or a frame or stick for the first six weeks but this is variable. This depends on the patient's confidence although a stick outside the home is a good idea for the first 2 – 3 months as it alerts others that you are not fully able bodied. You should continue with the white stockings until the six week post-op check, at which time, further X-rays are taken.

Most patients can safely drive 6 weeks after unicompartmental knee replacement. Walking distance gradually increases at this time. Bowls and golf are resumed at 3 – 6 months. Running is not recommended at any time after the surgery.

Results and Complications

Overall, 95% of patients are happy with their unicompartmental knee replacement. Approximately 90 – 95% are relieved of the majority of their pain, deformity (crookedness) of the leg is usually corrected and mobility is improved. Range of motion averages approximately 120 degrees, and is usually similar to that prior to the surgery. Should the prosthesis wear out or become loose, revision to a total knee replacement is the next step, which is more complex surgery but usually with good results.

It is important to avoid jarring activities or any impact such as jogging. Weight gain should be minimized and heavy physical work, such as carrying loads in the garden should be avoided. It is important you tell your dentist that you have a prosthetic knee if you have any dental work performed, particularly in the first two years after surgery. Antibiotics can be given to prevent the rare complication of infection following dental surgery. This is also the case for any open surgery. It is important that you have prompt antibiotic treatment of any skin infection or any urinary infection.

Precautions after Surgery

The prosthesis is a mechanical device and will slowly wear over time. The prosthesis may also become loose with time. This eventual wearing out of the prosthesis, along with wearing out of the remainder of the knee that was not replaced are the reasons why the implant may eventually fail and need to be removed and replaced with a total knee replacement. Too high an activity level is one factor that can accelerate this wearing out. In general, studies have shown that approximately 90% of implants function 10 years or more.

Some of the important complications include infection, blood clots, inadvertent injury to blood vessels or nerves, problems regaining movement, difficulties with wound healing, and ongoing pain. 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 is not entered into lightly.

Dr Parker and his team work very hard to prevent complications and it is important that you cooperate with all medical, nursing and physiotherapy staff to obtain an optimum result. If you have any questions concerning complications, please feel free to speak with Dr Parker. If you develop unexplained calf pain, chest pain, fever or wound discharge after surgery, please notify Dr Parker or one of his team immediately.

Costs

Dr Parker's charges and any associated gap not covered by Medicare and your health fund will be discussed with you when your surgery is arranged. Please feel free to discuss any aspect of this which is unclear to you, either with Dr Parker or his secretary.

If you have any questions concerning your surgery, its risks, benefits, likely outcome or complications please do not hesitate to contact Dr Parker.

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