

## Total Knee Replacement

A Total Knee Replacement is a surgical procedure designed to replace the severely diseased knee joint with an artificial joint.

It involves removing parts of your femur (thigh bone), tibia (shin bone) and patella (kneecap) and replacing them with a combination of surgical-grade metal alloys and high wear resistant plastic.

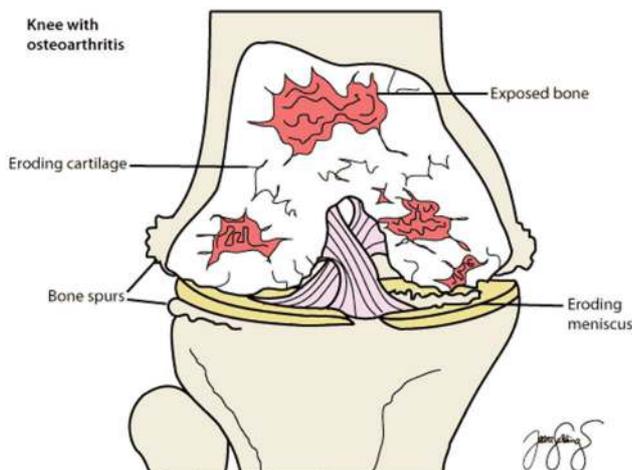
It's designed to help with pain and restore the bending movement of the knee.

### Who is this operation for?

The most common reason for a knee replacement is severe pain and stiffness caused by knee arthritis.

There are many types of arthritis but by far the most common type of arthritis is Osteoarthritis, followed by Rheumatoid Arthritis.

Osteoarthritis is a wear and tear process that occurs with aging but can also occur after an injury to the knee joint.



If you are considering knee replacement surgery, you should have first tried non-surgical options to help you with your knee pain.

Potential options include:

- pain medications (panadol and anti-inflammatories)
- using a walking stick or other walking aid
- exercises to maintain the movement and strength of the knee
- physiotherapy
- maintaining a healthy weight or losing weight if necessary
- a knee brace
- Injections of steroid or lubricant (synvisc)

A knee replacement may be a good option for you to consider if you have:

- **Severe pain.** A knee replacement is a large operation and should only be considered if the pain in your knee is severe. For example, your pain should make it difficult to walk, climb stairs and perform your activities at home.
- **Severe dysfunction.** Your knee pain should be affecting your mobility. Preventing you from fully bending or straightening your knee.
- **Tried other ways of controlling your pain.** You've tried other methods to improve symptoms but they've failed.
- **Be Old enough.** It is best to perform a knee replacement when you are over 60 years old. This is because knee replacements can wear out and eventually fail. Total knee replacements often last over 15 - 20 years, but the younger you are when you have a knee replacement, the fewer years they last.
- **Be Fit Enough for the Operation.** A knee replacement is major surgery and can put a lot of strain on your body. If you have conditions such as blocked arteries, diabetes, or are extremely obese, you have an increased risk of complications.

## What to expect from knee replacement surgery?

It is important to understand what a knee replacement can and cannot do before deciding to undergo the operation. Most people who have the procedure, experience a dramatic reduction of knee pain and a significant improvement in movement, allowing them to better perform common activities of daily living.

However, there are certain things that you **should avoid** with a knee replacement, such as:

- Jogging
- High impact sports such as football
- Many patients find it difficult to kneel afterwards

## The Operation

Most people are admitted to hospital the same day as surgery. The anaesthetic team will see you and decide the type of anaesthetic that is best for you.

The different types of anaesthesia include:

- **General Anaesthetic.** This type of anaesthetic puts you to sleep during the whole procedure and a machine controls your breathing.
- **Spinal Anaesthetic.** An injection is placed into your back to numb your knee and legs.

The operation usually takes 1 to 2 hours however, it can occasionally take a few hours. Your wound is approximately 15-25cms in length, depending on your shape and your knee anatomy, and is located directly in front of your knee.

Precise surgical bone cuts are made at the end of your femur (thigh bone) and the top of your tibia (shin bone), thereby removing your arthritic knee joint.

There are a number of technological advances that may be used to increase the accuracy of joint replacement. These include:

- **Computer Navigation**
- **Patient Specific Instrumentation**
- **Robotics**

The knee replacement is made of surgical grade metal alloy and plastic. It is inserted and held in place by surgical cement.

At the time of surgery and for a short period after your surgery, you will be given antibiotics and medications to thin your blood in order to prevent blood clots. (PVT / PE)

## Preparing for surgery

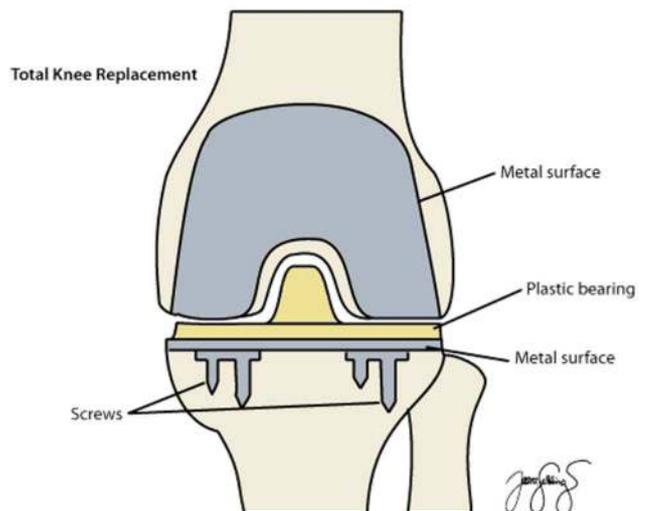
Prior to your surgery date, your fitness will be assessed and all the necessary tests will be performed.

Appointments will be arranged for the following:

- Perioperative Physician (Dr Belinda Smith)
- Pre-Admission Knee Information Session

Tests that may be ordered for you include:

- Blood tests
- ECG
- Urine test



**Preparing your skin.** Your skin should **not** have any infection or irritation present before surgery. If either is present, please let us know

**Go see your dentist.** We recommend treating significant dental diseases (including tooth extractions and periodontal work) before your operation.

**Medications.** Before surgery, Dr Belinda Smith will advise you which medications you should stop or continue taking.

**Strengthen your knee.** Exercising your knee before your surgery will help with your recovery. This can be done either by **cycling**, swimming, aqua-exercises, gym exercises or by seeing a physiotherapist.

**Get some help from your friends and family.**

Although you will be able to walk with crutches or a walker soon after surgery, you will need some help for several weeks with cooking, shopping, bathing, and laundry. If you live alone, an extended stay at rehabilitation can be arranged for you.

**Complications and Risks**

The complication rate following knee replacement surgery is **very low**. However, it is important to always understand the potential complications (no matter how small the risk) when considering any operation.

The risks for a total knee replacement include:

- **Joint infection:** Serious complication, occur in fewer than 2% of patients. The most common causes of infection after knee replacement surgery are from bacteria that enter the bloodstream during dental procedures, urinary tract infections, or skin infections. These bacteria can lodge around your prosthesis.
- **Failure of the Prosthesis:** Over years the knee prosthesis will wear or may loosen. With modern advances in materials and techniques, this risk is decreasing. When the prosthesis wears, bone loss usually occurs due to the debris produced by the wearing surfaces. This requires the operative to be repeated call Revision surgery
- **Revision surgery:** is often a larger operation with a higher complication risk and lower success rate, than the initial knee replacement.
- **Deep vein thrombosis (DVT):** Blood clots in the leg veins can be a potentially serious and life threatening complication. Many things are done to try to prevent this from happening/
- **Pulmonary Embolus (PE):** DVT clots can migrate to the lungs and be fatal. It's important to notify us or attend hospital immediately if you have pain in your calf, chest pain or difficulty breathing after the operation.
- **Damage to nerves and vessels around your knee**
- **Anaesthetic Risks**

**Prevention of Blood Clots in the Calf and Lungs (DVT / PE)**

To prevent Deep Vein Thrombosis (DVT) and Pulmonary Emboli (PE), we encourage you to start walking as soon as possible after the operation. Special foot pumps are used to encourage circulation in the leg.

Most people will also be prescribed medication for 6 weeks. There are a number of options for blood thinning medications, but a common one is 6 weeks of Clexane injections.

**Post surgery 'warning signs' to look for**

These include:

**Warning signs of DVT**

- Pain and tenderness in your calf
- Swelling of the lower leg, ankle and foot

**Warning signs that a blood clot has travelled to your lung (PE) include:**

- Shortness of breath
- Chest pain, particularly with breathing

**Warning signs of possible knee replacement infection are:**

- Persistent fever (higher than 37.5°C )
- Shaking chills
- Increasing redness, tenderness, or swelling of the knee wound
- Drainage from the knee wound

**Notify us IMMEDIATELY if you develop any of these warning signs. Should you not be able to contact us, (afterhours, weekend), it is imperative you go to the nearest Emergency Department or local doctor.**

### Wound care

**Looking after my wound.** It is important to keep your wound as dry as possible. Most patients are discharged home with a waterproof dressing, which can be left on for showering. During the first 24 hours, it is normal to have some minor ooze. After being discharged home, there should be no discharge, redness or bleeding around your wound. If there is redness, discharge or foul odour, please let us know as soon as possible.

**When will my sutures be removed.** Most wounds are closed with absorbable stitches and a mesh glue dressing. So for most people, there are no stitches or clips to be removed.

### Diet

**What should I eat and drink.** There are usually no specific diet or extra vitamins/nutrients needed to recover from your operation. It is important to have a normal healthy balanced diet. Drink plenty of non-alcoholic fluids and keep up with fibre intake especially whilst taking pain relief. Avoid smoking.

### Activity

#### What exercises should I do at home.

Physiotherapy and the exercises you perform at home are extremely important to achieve the best results after knee replacement. After returning home you should gradually be able to do more and more. It is important to look after your new knee and follow your physiotherapists instructions.

The program may include exercises that work on your and will be tailored to your needs:

- Walking
- Stair climbing
- Cycling
- Muscle strength
- Flexibility

#### Recovery after knee replacement surgery

Knee replacements often take 6 to 12 months before full recovery is achieved.

For more information on knee replacement  
[www.phongtran.com.au/kneereplacement](http://www.phongtran.com.au/kneereplacement)



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