

Operation Information

Total Knee Replacement

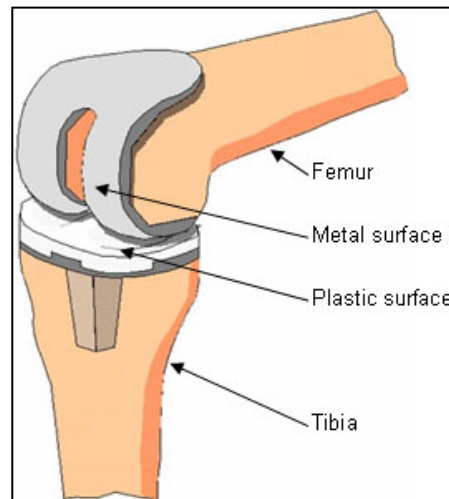
Introduction

Total Knee Replacement is a surgery involving replacing your existing diseased cartilage and bone in the knee joint by a prosthesis composed of metal and plastic. There are usually three components: femoral prosthesis, tibial prosthesis and patellar prosthesis.

The knee joint can be divided into two parts: femoral-tibial articulation and femoral-patellar articulation. Depending on the severity of disease in your knee, the femoral-tibial articulation, with or without the femoral-patellar articulation, will be replaced by the prosthesis.

Indication

1. End-stage arthritis of knee joint:
The most common symptoms are pain, deformity and stiffness. Occasionally, patients may complain of instability of the joint
2. Occasionally for tumor and fracture



Source:
<http://chandigarhjointreplacement.com/page11.htm>

Procedure

1. The operation is performed under a general anaesthesia or regional anaesthesia
2. A tourniquet may be put around the thigh region of the limb. It will be inflated during the procedure to decrease the blood flow to the leg
3. Incision is made in the anterior aspect of the knee joint
4. Diseased cartilage and bone are then removed. The femoral prosthesis and tibia prosthesis are usually fixed to the bone by cement or other mechanical means
5. If your patella needs to be replaced, your surgeon will implant the patella prosthesis
6. Drain(s) may be inserted for drainage purpose

Possible Risks and Complications

1. General Risk and Complications:
Like other surgical procedures, there are associated risks and complications with total knee replacement surgery, including wound complications, pneumonia, stroke and heart attack etc.
2. Specific Risk and Complications:
 - i) Revision surgery: The artificial joint is expected to suffer from mechanical wear. The joint will be loosened eventually and revision surgery will be required
 - ii) Infection: One of the biggest enemies of artificial joint replacement is infection. The infection rate increases if you have adverse comorbidity, for example, diabetes mellitus
 - iii) Nerve palsy: Nerve may be injured during total knee replacement. Nerve injury can result in loss of sensation and function. Some numbness of skin around and at the outer side of the incision should be expected
 - iv) Bleeding
 - v) Fracture: Fracture can occur both within the operation and after the operation
 - vi) Problem in wound healing: The problem encountered in wound healing may range from persistent wound discharge to wound edge necrosis and wound dehiscence, which may require further surgical reconstruction
 - vii) Complications associated with extensor mechanism of knee: The complications of extensor mechanism complication include symptomatic patellar instability leading to the need of re-operation, patellar fracture, rupture of patellar tendon and soft tissue impingement problem
 - viii) Thromboembolic disease: Deep vein thrombosis after Total Knee Replacement is not uncommon. However, the chance of subsequent pulmonary embolism is low. Death can follow pulmonary embolism but the incidence is very low

- ix) Stiffness: Stiffness occurs occasionally after surgery which may require any further treatments
- x) Dislocation: The chance of dislocation in a total knee replacement is infrequent
- xi) Vascular injury: There is a remote chance of major vessel injury during total knee replacement. Major vascular injury may result in the loss of a limb

** It is impossible to mention all the possible complications that may happen and the above is only a few important complications which may occur. Before agreeing for the operation, you must acknowledge and accept the fact that no matter how ideal the situation may be, these events may occur. Damage to peripheral organ, severe haemorrhage and leakage after operation, it may require another operation to deal with the complications.

Pre-operation Preparation

1. Your doctor will explain to you the reason, the procedure and the possible complications. Patient will need to sign the consent form.
2. No food or drink is allowed six to eight hours before operation (for general anaesthesia).
3. Nursing staff will assist you to clean the skin and perform shaving if necessary.
4. Change to operation attires and removal of loose objects (e.g. dentures, jewellery, contact lens etc).
5. Empty bladder before surgery.

Post-operation Instruction

1. Allowed to eat and drink when your condition is stable (Please follow doctor's instruction).
2. The stitches / staples will be removed after the wound heals.
3. Need to start mobilization exercise of the ankle. This will help the circulation of blood inside your calf and decrease the chance of deep vein thrombosis.
4. Physiotherapy will be started later to maintain the range of motion gained during the operation. These include achievement of full extension, maximal flexion and regaining the muscle strength, e.g. quadriceps. After a few days, physiotherapists will start to train you to walk with walking aids.

Possible Additional Procedures / Treatment

1. Transfusion: Bleeding is inevitable in total knee replacement. Blood transfusion may be required.
2. Additional Procedure for Fixation of Fracture: The chance of intra-operative fracture is low. However, if fracture is encountered, your surgeon may need to stabilize the fracture by extending the wound and fixing the fracture with additional metal implants.
3. Additional Vascular Procedure: Despite the chance of major vessel injury in total knee replacement is remote, the consequence of such injury can be devastating and may lead to potential loss of the limb. If such injury occurs, vascular surgery will be needed.

Advice on discharge

1. Please contact your attending doctor or go back to hospital for severe pain or redness of wound, swelling, purulent discharge, bleeding or fever (body temperature above 38°C or 100°F) etc.
2. Keep the wound clean and dry. Please take the medication as prescribed by your doctor.
3. Follow up: Please attend the follow-up as arranged.

Alternative Treatment

Your surgeons will consider total joint replacement for you only if the symptoms cannot be controlled after exhausting other means of conservative treatments, including analgesics, physiotherapy and activities modification. On the other hand, total knee replacement is not a life saving surgery. One can always select to adopt conservative treatments, despite the presence of significant symptoms in terms of pain, stiffness and deformity.

Remarks: Should you have any enquiries, please consult your doctor.

Reference

Hospital Authority – Smart Patient (Website: http://www21.ha.org.hk/smartpatient/tc/operationstests_procedures.html)

Compiled by Union Hospital Consent Form Taskforce

The above information is for reference only, please enquire your physician for details

Our Hospital reserves the RIGHT to amend any information in this leaflet without prior notification