



Total Knee Replacement

What is knee joint?

The knee is made up of the lower end of the thighbone (femur), the upper end of the shinbone (tibia), and the kneecap (patella). The ends of these three bones where they touch are covered with articular cartilage.

What is total knee replacement?

For a total knee replacement, the damaged bone and cartilage would be removed and replaced with prosthetic components.

Common causes of diseased knee

Osteoarthritis, rheumatoid arthritis, post-traumatic arthritis, and osteonecrosis of femoral condyle are the most common forms of this disease.

Symptoms of diseased knee

Knee pain, stiffness, swelling with deformity, limited activities, and limping gait are the common symptoms of diseased knee.

Orthopaedic evaluation and preparing for surgery

- Complete the informed consent: Your orthopaedic surgeon will review the results of your evaluation with you and discuss whether hip replacement surgery is the best method to relieve your pain and improve your mobility. In addition, your orthopaedic surgeon will explain the potential risks and complications of hip replacement surgery.
- Routine examination: Several tests, such as blood and urine samples, an electrocardiogram (EKG), and chest X-ray, may be needed to help plan your surgery. Many patients with chronic medical illness, like heart disease, may need to be evaluated by a specialist, e.g. a cardiologist, before the surgery.
- Pre-operative anesthetic assessment: You will be evaluated by an anesthesiologist. The most common types of anesthesia are general, spinal, or epidural anesthesia. The anesthesia team discuss with you about the most suitable choice. The anesthesiologist will also explain the choice of post-operative pain control to improve your recovery.
- Skin condition: Cleanse your skin the day before operation.
- Do not eat or drink after the midnight before the operation day. Intravenous fluid supplement will be given.

Surgical procedure

Your orthopaedic surgeon will make an incision over your anterior knee and remove the damaged cartilage and bone. A metallic implant with a plastic spacer will be positioned into your knee joint to restore the alignment and function of your



knee.

Postoperative care

- Wound care: You may have stitches along your wound or a suture beneath your skin. A draining tube will be positioned. Please take care not to kink or pull the drain tube and don't kink or pull it. Ice pillow could be used for pain or swelling. Notify a nurse if dressing change is necessary in case of bloody oozing over the gauze.
- To assure proper recovery and prevent dislocation, you should not cross your legs, not bend your hips more than a right angle, not turn your feet excessively inward or outward, and use a pillow between your legs at night when sleeping in the first 6 weeks after the surgery.
- Pain management: After surgery, you will have some pain, but your medical staff will provide medication to make you feel more comfortable. Inform a nurse if you have intolerable pain.
- Physical therapy: A physical therapist will teach you specific exercises to strengthen your leg and restore knee movement to allow walking and other normal daily activities soon after your surgery. A continuous passive motion (CPM) exercise machine will be used to move your knee while you stay.
- Blood clot prevention: Foot and ankle movement is encouraged immediately following surgery. Your orthopaedic surgeon may prescribe drugs or physical methods to prevent blood clots and decrease leg swelling.
- Diet: A balanced diet, often with an iron supplement, is important to promote proper tissue healing and restore muscle strength. Be sure to drink plenty of fluids.
- If you have any discomfort, inform your nurses as soon as possible.