



## Total Knee Replacement



### Overview

This procedure restores function to a severely damaged knee. Most commonly, it is used to repair a knee that has been damaged by arthritis. During the procedure, the surgeon replaces the damaged portions of the knee with artificial parts. These parts consist of a metal femoral component, a metal tibial component and a plastic spacer. A small plastic patellar component may also be used.

### Preparation

In preparation for the procedure, anesthesia is administered and the patient is positioned. The surgeon makes an incision in the front of the knee. The surgeon gently moves the kneecap out of the way to expose the joint.

### Reshaping the Bones

The surgeon carefully trims away the damaged ends of the femur and the tibia. The surgeon removes cartilage and a small amount of underlying bone, reshaping the bones to provide a stable platform for the artificial components.

### Inserting the Metal Components

After the bones have been prepared, the surgeon may apply bone cement to stabilize these components. The surgeon inserts the metal femoral and tibial components.

### Inserting the Spacer

The surgeon secures a plastic spacer onto the tibia component. The spacer will allow the femoral component to glide smoothly and naturally as the knee is used.

### Patellar Resurfacing

In addition to repairing the femur and tibia, the surgeon may also choose to resurface the kneecap. If so, the surgeon will carefully trim away the back of the kneecap and replace it with a small plastic cap.

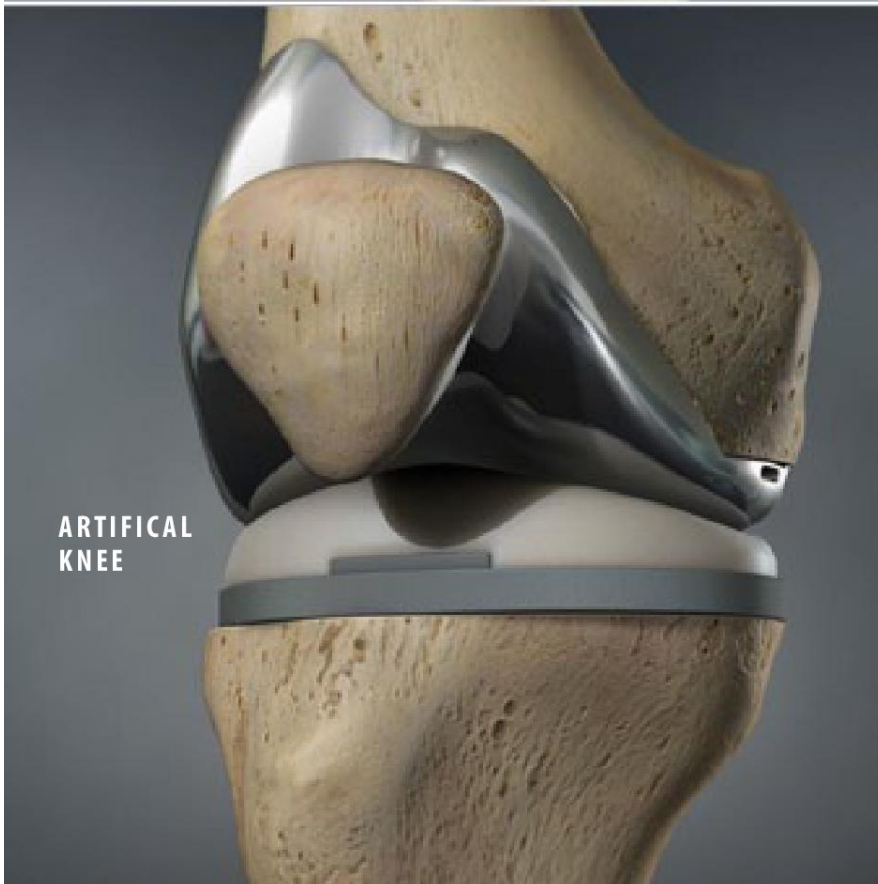
### Testing the Joint

When all of the components are in place, the surgeon tests the components by guiding the knee through a range of movements. The surgeon checks to make sure the knee flexes and extends with a fluid and natural motion.



See the video

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### End of Procedure

When the procedure is complete, the surgeon closes the incision and bandages the knee. Physical therapy is an important part of recovery.