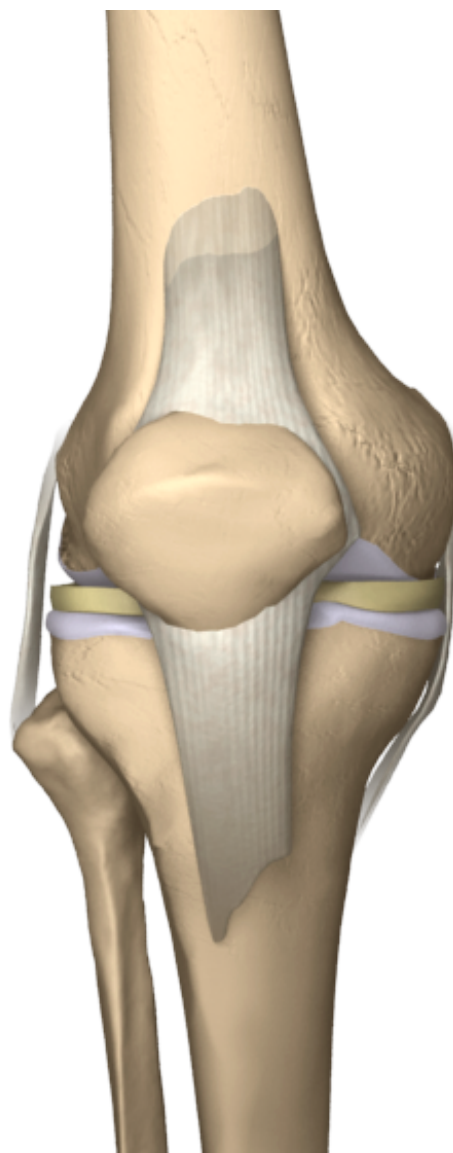
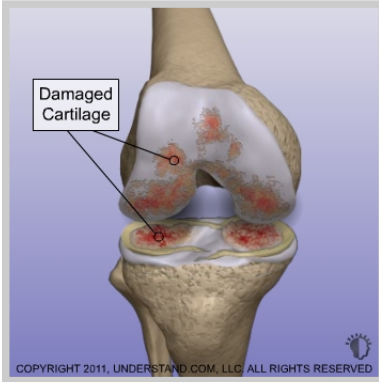


Total Knee Replacement

Total Knee Replacement is performed to remove the degenerated and worn portions of the knee and reposition it into normal alignment. New components will be implanted into the knee to replace the worn-out bone and cartilage. Implant components can be made of metal, polyethylene plastic or ceramic material. In cases requiring total knee replacement, the cartilage covering the femur, tibia, and patella becomes worn and the underlying bone develops spurs and various irregularities which produce pain and loss of knee motion.



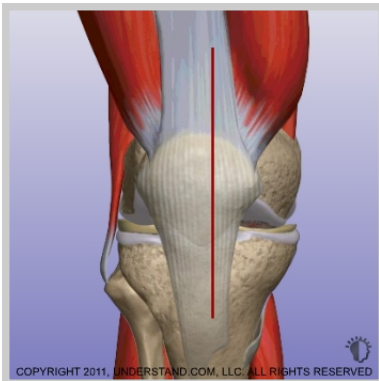


Total Knee Replacement Introduction

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Doctor's Personal Note: A Message From Your Doctor

Thank you for visiting our website and viewing our 3D Animation Library. These animations should assist you in better understanding your condition or procedure. We look forward to answering any additional questions you may have at our next appointment.



Incision

An incision is made in the front of the knee to allow access to the joint. A deeper incision is made through the middle of the quadriceps muscle and tendon. It is then extended along the inside border of the patella and patellar tendon.



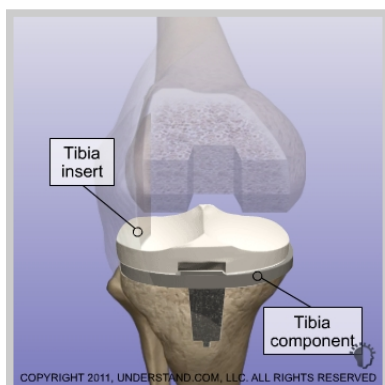
Accessing the Joint

The patella, including the tendon, is moved toward the outside of the knee to expose the femur and tibia. A series of alignment and cutting guides may be used to accurately remove the damaged bone surfaces and precisely fit the new components of the knee.



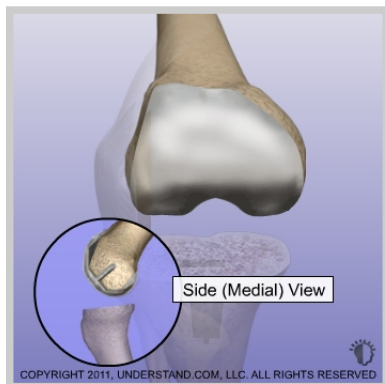
Preparing Bone Surfaces

The bone surfaces are prepared for the replacement components.



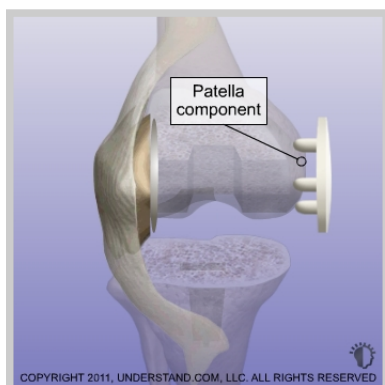
Fitting Tibia Components

The components are fitted to the tibia. Surgical cement is used in this example; however in some situations cement is not necessary.



Fitting the Femur Implant

Next, the femur is securely fitted with the implant.



Fitting the Patella

Finally, the patella is fitted and the implant is secured.



End of Procedure

The motion of the knee is tested prior to repairing the quadriceps muscles, tendons and skin. Following adequate healing and rehabilitation exercises knee motion and strength generally return to near normal.