

Total Knee Arthroplasty (Total Knee Replacement)

Definition: The standard prosthesis for most arthritic knee conditions is a tri-compartmental or total knee replacement. Most failures can be attributed to incorrect ligament balance or incorrect alignment. Cement fixation of the components has proved effective, allows for early wt bearing and a more rapid rehabilitation.

Anatomy:

A total knee replacement resurfaces the damaged surfaces of the end of the femur and the top of the tibia. Bone is removed and anatomically replaced with metal and plastic implants. New manufacturing processes have made these articulating surfaces very durable.

Persons affected:

Persons with degenerative arthritic wear of their articular cartilage or osteoarthritis, persons with autoimmune diseases such as rheumatoid arthritis, and persons with the rare case of post traumatic deformity and bone death all have a great potential to benefit from a total knee replacement.

Symptoms of Knee Arthritis:

Severe knee pain from osteoarthritis is a common problem, particularly for our patients who have led an active lifestyle. Patients with arthritis will experience pain with simple activities such as walking and climbing stairs. More vigorous activities leave the joint uncomfortable. To relieve that terrible pain, many people undergo total knee replacement.

Diagnosis of Knee Arthritis

Physical exam will often reveal joint line pain, crepitance, grinding, popping. Patellar compression may cause pain. Often there is swelling. Gait may exhibit pain. Stair climbing is uncomfortable. The leg may have angular deformity. X-rays reveal the classic findings of sclerotic (thickened and dense) bone changes, osteophytes (spurs), joint space narrowing and cysts.

Treatment of Knee Arthritis:

Activity modification with low impact sports such as cycling, walking and low resistance strengthening will help. Use of nonsteroidal anti-inflammatory, injections with corticosteroids and hyaluronates may help. Weight loss is difficult in a less active person with pain but has a great benefit; particularly with the long term wear should a total knee replacement be necessary.

