

Total Knee Replacement

Osteoarthritis is a chronic process of cartilage loss from a joint surface. Cartilage is a layer of cushioning that protects the ends of bone. As this cartilage breaks down, the bones begin to rub together and can result in pain and swelling and cause a sense of buckling and instability.

In the early stage of arthritis there are several effective non-operative procedures which may help reduce pain, including physical therapy, cortisone or lubricant injections and weight loss. If these interventions are unable to provide relief of pain and you are no longer able to do the activities you enjoy, you may want to consider total knee replacement surgery. Joint replacement surgery is a safe and effective procedure to relieve pain, correct leg deformity, and help you resume normal activities.

Since its inception in the late 1960's, improvements in surgical materials and techniques have greatly increased its effectiveness. Total knee replacements are one of the most successful procedures in all of surgical medicine.

Total knee replacement (total knee arthroplasty) is a bit misleading and could more accurately be described as knee resurfacing, as the objective of the surgery is to replace only the surface of the bones using implants. Knee replacement implants include a metal alloy on the end of the thigh bone (femur) and polyethylene (plastic) on the top of the shin bone (tibia) and underneath the kneecap (patella). The implant is designed to create a new, smoothly functioning joint that can prevent painful bone-on-bone contact.

During surgery, the joint is exposed by an incision made down the center of the knee. The arthritic bone ends are then resurfaced with components designed to re-create the natural contours of the bones in a healthy knee. (ADD LINK TO EDHEADS VIRTUAL TKA CONTENT) The metal and polyethylene (plastic) implants allow the bones to smoothly glide against each other, much like natural cartilage. Total knee replacement is performed while you are under anesthesia. There are various types of anesthesia available and your physician will explain your options to you before surgery. The length of surgery may be approximately 1 – 2 hours.

After surgery you will begin physical therapy. It will be important to start moving your knee as soon as possible to promote blood flow, help regain knee motion and to facilitate the recovery process. You will be out of bed and walking with crutches or a walker within 24 hours of surgery. Physical and Occupational therapy will work with you to help you safely return home. Rarely, the therapists will recommend that a short stay at a rehabilitation facility is appropriate before returning home. Once home you will continue supervised therapy either at home or an outpatient therapy facility.

While uncommon, complications can occur during and after surgery. Rare complications include infection, blood clots, implant breakage, mal-alignment and premature wear. Excessive activity or weight may speed up this normal wear and may cause the knee replacement to loosen and become painful. Therefore, most surgeons advise against high-impact activities such as running, jogging, jumping, or other high-impact sports for the rest of your life after surgery. Realistic activities following total knee replacement include unlimited walking, swimming, golf, driving, light hiking, biking, ballroom dancing, and other low-impact sports. With appropriate activity modification, knee replacements can last for many years.