Dos and Don'ts Following Total Knee Replacement

Total knee replacement has been one of the most remarkable innovations in Orthopaedic Surgery during my practice lifetime. I first began performing total knee replacement during my residency at the Cleveland Clinic, Cleveland, Ohio.

Total knee replacement has progressed through many stages of development and presently is one of the most effective and reliable treatments that we offer.

See Online Orthopaedic website article on LCS mobile bearing total knee replacement for our recommendation of the best total knee prosthesis available.

We perform total knee replacement in patients with severe arthritis of the knee primarily to relieve pain, but also to allow the patient to function more effectively and to correct deformity that the arthritis often will cause.

Depending on the age of the patient undergoing total knee replacement he or she might even be interested in an active life style that may include sports participation.

As experience with total knee replacement has grown over the years it has been noted that the procedure is frequently offered to patients in a younger population group.

This is because the success of the procedure has been excellent in 10 to 15 year follow up of large numbers of patients.

When we perform total knee replacement on patients 65 years and older, which are the only patients who received the prosthesis in the early years more strenuous activities and sports participation were rarely an issue.

Now that we are dealing with a younger group of patients, often in their 50's, more strenuous activities and occasionally sports participation are often desired.

As we point out in the Online Orthopaedics LSC Mobile Bearing Total Knee Replacement article, a knee replacement prosthesis does not reproduce normal knee function. Not only are the cruciate ligaments sacrificed in total knee replacement in most cases, but the knee joint loses its important proprioception ability.

When a total knee replacement fails it is usually related to wear change in the polyethylene spacer between the two metal components attached to the femur above and the tibia below. There are many different types of failure, which are beyond the scope of this article.

Therefore, what are the recommendations regarding activities following a total knee replacement?

Because of the tendency of the knee replacement prosthesis to mechanically fail if excessive loads are applied to it, I recommend participation in low demand and low duration activities.
In 1999 members of the Knee Society were surveyed regarding recommendations for activities.

I use these guidelines for participation no matter what the patient's age is.

**Allowed activities:**
- Walking
- Slow dancing
- Stationary or non-stationary bicycle
- Bowling
- Golf
- Low impact aerobics
- Croquet
- Swimming
- Shuffleboard
- Horseshoes

**Allowed activities with some experience:**
- Hiking (mild to moderate)
- Rowing
- Cross Country skiing
- Stationary skiing (Nordic Trac)
- Faster walking
- Tennis (non-competitive)
- Certain weight machines
- Ice skating

**Activities not recommended:**
- Handball
- Squash
- Rock climbing
- Soccer
- Singles Tennis
- Volleyball
- Football
- Gymnastics
- Lacrosse
- Hockey
- Basketball
- Jogging
- Running

**Probably not recommended:**
The reasons that most orthopaedic surgeons including myself strongly discourage jogging and running after total knee replacement is that the knee joint reaction forces during these activities place tremendous stress across the joint on the polyethylene bearings and can lead to catastrophic failure of the polyethylene material.