

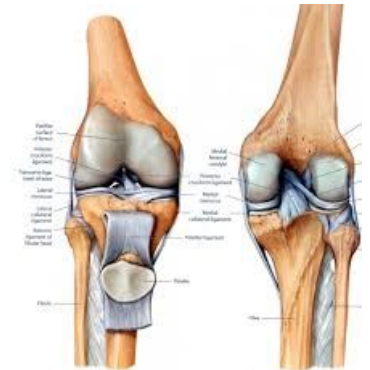
Knee Joint Replacement

Summary

1. Anatomy
2. PT can help
3. Surgery
4. Exercises

Anatomy

The knee joint is considered a hinge joint. The joint is made up of the femur (thigh bone) and the tibia (shin bone) along with your patella (knee cap). Other components of your knee include tendons, ligaments, bursae, and menisci. Tendons connect muscle to bone and ligaments connect bone to bone. The menisci are cartilage rings that help with shock absorption. Bursae are the fluid filled sacs that help the knee move smoothly.



PT Can Help

Physical therapy can be beneficial prior to getting surgery and may even prevent you from having surgery. PT can help increase ROM, increase strength, and decrease pain prior to having surgery. Individuals who perform PT prior to having surgery have been shown to have a quicker recovery following surgery. Their ROM and strength return faster and report improved function sooner than those who do not. Following surgery individuals are expected to get out of bed and walk 100 feet before leaving the hospital. Performing rehab prior to surgery can help individuals return to their homes sooner and eliminate the need for inpatient rehab.

Surgery

The most common reason for getting a knee joint replacement is arthritis. Osteoarthritis is age-related wear and tear that occurs in the joint. The cartilage cushioning the bone wears away over time providing less shock absorption to it. This wearing can cause pain and stiffness in the joint. In a total knee replacement, the damaged cartilage surfaces are removed along with small amounts of bone and are replaced with implants. Surgery is often recommended when individuals have pain that limits their daily activities, pain that continues with rest, stiffness that limits the ability to move the knee, and inadequate pain relief from anti-inflammatories and physical therapy.

Exercises

There are several exercises that can help improve ROM and strength prior to and following surgery. A physical therapist can determine which exercises will be safe for you to perform. While your physical therapist can help individualize a program based on your needs some common exercises that are beneficial include:

- Quad sets: laying on your back push you knee down as straight as you can and hold for 3-5 seconds and then relax.
- SLR: laying on your back with your leg out straight push your knee down first to contract your quad and then lift straight up. Lower back down and relax your muscles.
- Heel slides: laying on your back with your foot flat and knee bent use a towel around your foot to assist you pulling your knee toward your body and then straighten back out.
- Hamstring stretch: laying on your back use a towel or strap around your foot and lift straight up holding for 30 seconds and then relaxing.