Total Knee Replacement

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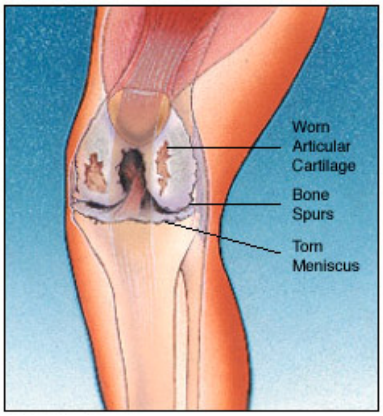
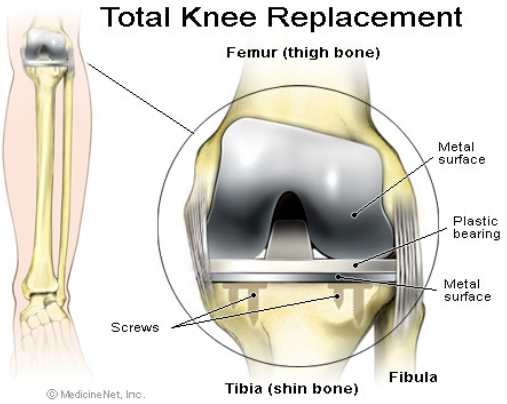
The largest and one of the most important joints in the human body is the knee. We take for granted how important healthy knees are for everyday activities. Many individuals above the age of 50 will develop osteoarthritis, which occurs when the knee cartilage wears away and the bones rub against each other. This results in pain, stiffness and general discomfort when doing simple tasks such as walking or even just sitting down.



Treatment varies from case to case, and sometimes a partial knee replacement will be performed, where only part of the knee is replaced. However, people with constant, chronic pain will be encouraged to receive total knee replacement. These individuals have pain in their knees while resting, and their knees limit everyday activities such as walking or getting in or out of a chair without the use of a cane or walker. Usually total knee replacement is done in patients aged 60-80 years. About 300,000 total knee replacements are done each year in the United States, and about 600,000 worldwide. The first total knee replacement was done in 1968.

There are various types of total knee replacement, but all of them include the replacement of three main parts: the femoral component, the tibial component and the patellar component. The femoral component if often made of a highly polished, durable metal. This rests in the tibial component, which is made of a durable plastic mounted on a metal tray. The patellar part is also made of plastic, which is placed under the knee cap. The surgical procedure takes about two hours to perform, where the bone will be cut and replaced with the new synthetic parts. These are attached to the bone with metal screws and cement. The knee ligaments are sometimes retained, sacrificed or replaced with a polyethylene post depending on the patient's condition. Cost of the surgery ranges from $40,000-$50,000, while the actual parts cost $4,000-$6,500

The patient will have to stay in the hospital for several days after the surgery, and most patients will be encouraged to start exercising their knee the day after surgery. Knee joint infection occurs in less than 2% of patients. The most common complication is blood clots in the leg veins, and can be prevented by blood thinners, elevation of the leg, and lower leg exercises to increase blood circulation. Full recovery of the knee often takes three to six weeks until the patient can return to normal conditions. Specific exercises can help the knee regain strength and mobility after the surgery.



Even after the surgery, there is still the risk of blood clots developing, which can end up traveling to the lungs.

Activities that can be safely preformed after this procedure includes: walking, swimming, golfing, driving, stair climbing and light hiking. Activities that should be avoided include: skiing, tennis, contact sports, running, jumping and lifting objects exceeding 50 pounds.

References:

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