

An Overview of Knee Transplantation

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Introduction

Knee replacement, also known as knee arthroplasty, is a surgical procedure that replaces the weight-bearing surfaces of the knee joint to relieve pain and disability. It is most commonly used when conservative measures fail to alleviate joint pain, as well as for other knee diseases like rheumatoid arthritis and psoriatic arthritis. The procedure may be more challenging and risky in individuals with significant deformity caused by advanced rheumatoid arthritis, trauma, or long-term osteoarthritis. Osteoporosis does not usually cause discomfort, deformity, or inflammation in the knees and it is not a rationale for knee replacement. Meniscus tears, cartilage abnormalities and ligament rips are all common causes of severe pain. Osteoarthritis debilitating pain is far more frequent among the elderly.

Description

Knee replacement surgery can be conducted in two ways: partial or complete. The operation entails replacing the diseased or damaged joint surfaces of the knee with metal and plastic components that are tailored to facilitate continuing knee mobility. The procedure usually results in a lot of postoperative discomfort and requires a lot of physical therapy. The recovery phase might be up to 12 weeks and it may include the use of mobility aids to help the patient regain his or her pre-surgery mobility. Total knee replacements are expected to survive 25 years in about 82 percent of cases.

Knee replacement, commonly known as complete knee replacement or knee arthroplasty, is a surgical operation that resurfaces a knee that has been destroyed by arthritis. The extremities of the bones that make up the knee joint, as well as the kneecap, are capped with metal and plastic pieces. If you have severe arthritis or a major knee injury, you may want to consider this operation.

The knee joint can be affected by a variety of arthritis forms. The degradation of joint cartilage and neighboring bone in the knees can be caused by osteoarthritis, a degenerative joint disease that primarily affects middle-aged and older persons. Rheumatoid arthritis produces pain and stiffness by inflaming the synovial membrane and resulting in an excess of synovial fluid. Traumatic arthritis, or arthritis caused by an accident, can harm the cartilage in the knee.

The purpose of knee replacement surgery is to resurface damaged areas of the knee joint and to reduce knee discomfort that is uncontrollable with conventional therapies. Because just the surfaces of the bones are replaced, a knee replacement is more correctly referred to as a knee "resurfacing."

A knee replacement technique consists of four essential steps:

- **Get the bone ready:** Damaged cartilage surfaces on the femur and tibia ends, as well as a tiny piece of underlying bone, are removed.
- **Place the metal implants in their proper places:** Metal components are used to replace the lost cartilage and bone, re-creating the joint's surface. Metal pieces can be cemented or "pressed-fit" into the bone.
- **The patella should be resurfaced:** With a plastic button, the undersurface of the patella (kneecap) is sliced and resurfaced. Depending on the situation, some surgeons do not resurface the patella.
- **Place a spacer between the lines:** To generate a smooth gliding surface, a medical-grade plastic spacer is put between the metal components.

Patients whose knee joints have been compromised by degenerative arthritis, trauma, or other uncommon joint-destructive disorders might undergo total knee replacement surgery. In the United States, severe osteoarthritis of the knees is the most prevalent cause for knee replacement [1-5].

Conclusion

Regardless of the origin of the joint injury, the patient's increasingly worsening pain and stiffness, as well as decreased daily function, lead to complete knee replacement. It is difficult to decide whether or not to get knee replacement surgery. Before deciding on a knee replacement, patients should be aware of the dangers as well as the advantages.

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