

Total Knee Replacement

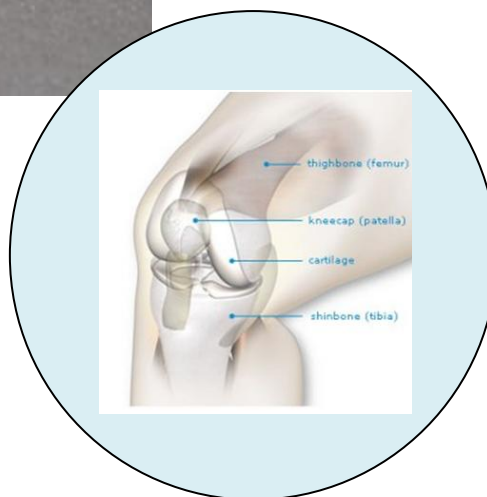


Learn About:

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- ✓ What to Expect From Your Artificial Knee
- ✓ Preparing for Knee Replacement
- ✓ Your Surgery
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Total knee replacement is a surgical procedure in which injured or damaged parts of the knee joint are replaced with artificial parts.

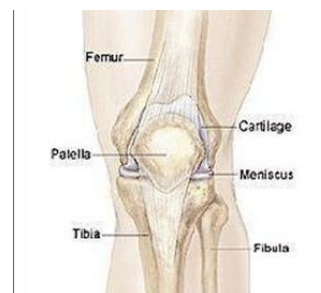
The procedure is performed by opening up the knee capsule and removing the ends of the thigh bone (femur), the shin bone (tibia), and the underside of the kneecap (patella). Artificial parts are cemented into place and make up the new knee joint. The new knee consists of metal implants on the ends of the shin bone and thigh bone, and a plastic trough in between them.



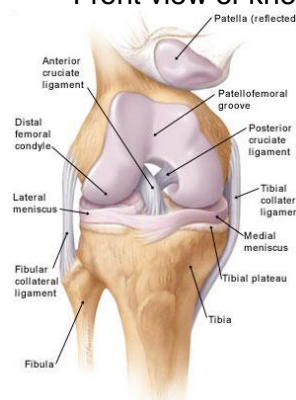
The knee joint is one of your body's most complex joints and the most likely joint to be injured. Considering how often the knee is called upon to perform; however, it is really quite durable.

The Bones

The bones of the knee give strength, stability and flexibility in the knee. The **femur**, commonly called the thigh bone and is the largest bone in your thigh, attaches by ligaments and the knee capsule to your **tibia**, commonly referred to as the shinbone. The **fibula** runs parallel to the **tibia**, between the knee and the ankle. The **patella**, commonly referred to as the knee cap, rides on the knee joint and offers protection as the knee bends, straightens and rotates.



Front view of knee

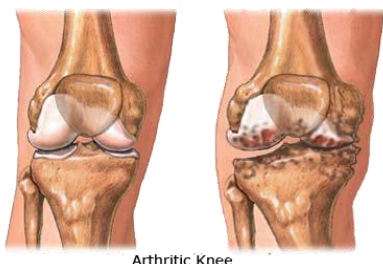


Interior view of knee

Supporting Tissue

While the bones around the knee support it and provide the rigid structure of the joint, muscles such as the **quadriceps** at the front of the knee and the **hamstring** at the back of the knee help to move the joint. **Ligaments** are equally vital because they are strong, tough bands that are not particularly flexible and stabilize the joint. The knee joint also includes **meniscal cartilage**, and C-shaped piece of tissue that aids in cushioning the joint and allowing the bones to slide freely on each other. A small fluid sac, known as the bursa, helps to lubricate the sliding movement.

Knee Related Problems



Arthritic Knee

Traumatic arthritis can follow a serious knee injury. A knee fracture or severe tears of the knee ligaments may damage the articular cartilage over time, causing knee pain and limiting knee function.

Osteoarthritis usually occurs in people 50 years of age and older and often in individuals with a family history of arthritis. The cartilage that cushions the bones of the knee softens and wears away. The bones then rub against one another, causing knee pain and stiffness.

Rheumatoid arthritis is a disease in which the synovial membrane becomes thickened and inflamed, producing too much synovial fluid that overfills the joint space. This chronic inflammation can damage the cartilage and eventually cause cartilage loss, pain, and stiffness.

Candidates for Total Knee Replacement

Total knee replacement surgery is usually done on people with severe arthritic conditions. If your knee is severely damaged, it may be hard for you to perform simple activities such as walking or climbing stairs. You may even begin to feel pain while you are sitting or lying down. Whether to have total knee replacement surgery should be a cooperative decision made by you, your family, your family physician, and your orthopedic surgeon. You may be a candidate if you have:

- Severe knee pain that limits your everyday activities
- Moderate or severe knee pain while resting, either day or night
- Failure to substantially improve with other treatments such as cortisone injections, physical therapy, or other surgeries
- Knee deformity: a bowing in or out of your knee
- Knee stiffness: inability to bend and straighten your knee
- Chronic knee inflammation and swelling
- Failure to obtain pain relief from nonsteroidal anti-inflammatory drugs

What to Expect From Your Knee

Most people have much less pain after knee replacement surgery and are able to do many of their daily activities more easily. Your artificial knee, or prosthesis, will function similarly to a regular, healthy knee. Although your artificial knee will not be as good as your real knee, in time it will enable you to resume most of your normal activities without pain. After surgery, you may be allowed to resume activities such as golfing, riding a bike, swimming, or walking for exercise. Your doctor may discourage you from running, squatting, and doing other things that put a lot of stress on the joint. Activities that overload the artificial knee must be avoided. About 90 percent of patients with arthritic knees before surgery will have better motion after a total knee replacement.

Dangerous Activity After Surgery jogging or running • contact sports jumping sports • high impact aerobics
Activity Exceeding Usual Recommendations After Surgery vigorous walking or hiking • skiing tennis • repetitive lifting exceeding 50 lbs. repetitive aerobic stair climbing
Expected Activity After Surgery recreational walking • swimming golf • driving • light hiking recreational biking • ballroom dancing normal stair climbing

Preparing for the procedure

Your hospital or surgery center will contact you with specific details about your appointment. You will likely be asked to arrive at the hospital an hour or two before your surgery. Do not eat or drink anything after midnight the night before your surgery. You will most likely be admitted to the hospital on the day of your surgery. Be prepared by bringing clothing such as undergarments, socks; and footwear.

Medical

Should you decide to undergo knee replacement surgery, your preparation will begin several weeks before the actual procedure. You may be asked to have a complete physical examination by your family physician several weeks before surgery to assess your health and to identify any conditions that could interfere with your surgery.

Tests

Several tests may be needed to help plan your surgery: blood and urine samples may be tested and a cardiogram may be obtained.

Blood Donation

Sometimes a blood transfusion is required after knee surgery. Many patients choose to donate several pints of blood beforehand. You may be advised to donate your own blood prior to the surgery. It will be stored in the event you need blood after your surgery.

The procedure

You will most likely be admitted to the hospital on the day of your surgery. After admission, you will be evaluated by a member of the anesthesia team. The most common types of anesthesia for a knee replacement is general anesthesia, in which you are asleep throughout the procedure. The anesthesia team will determine which type of anesthesia will be best for you with your input.

The procedure itself takes approximately 2 hours. Your orthopaedic surgeon will remove the damaged cartilage and bone and then position the new metal and plastic joint surfaces to restore the alignment and function of your knee.

After surgery, you will be moved to the recovery room, where you will remain for 1 to 2 hours while your recovery from anesthesia is monitored. After you awaken, you will be taken to your hospital room.

After Your Surgery

You will most likely stay in the hospital for several days. After surgery, you will feel some pain, but medication will be given to you to make you feel as comfortable as possible. Walking and knee movement are important to your recovery and will begin immediately after your surgery. To avoid lung congestion after surgery, you should breathe deeply and cough frequently to clear your lungs.

Your orthopedic surgeon may prescribe one or more measures to prevent blood clots and decrease leg swelling, such as special support hose, inflatable leg coverings (compression boots), and blood thinners.

To restore movement in your knee and leg, your surgeon may use a knee support that slowly moves your knee while you are in bed. The device, called a continuous passive motion (CPM) exercise machine, decreases leg swelling by elevating your leg and improves your venous circulation by moving the muscles of your leg. Foot and ankle movement also is encouraged immediately following surgery to increase blood flow in your leg muscles to help prevent leg

swelling and blood clots. Most patients begin physical therapy one to two days after surgery. A physical therapist will teach you specific exercises to strengthen your leg and restore knee movement to allow walking and other normal daily activities soon after your surgery.

Hospital Post-Op

Following your arthroscopic procedure, your knee will be bandaged, elevated and most likely iced down to minimize swelling. You may be given pain medication at the hospital, as well as a prescription to help alleviate any later discomfort.

Home Care

Although you will be able to walk on crutches or a walker soon after surgery, you will need help for several weeks with such tasks as cooking, shopping, bathing, and doing laundry. You may also consider making modifications to your home such as a stable chair for your early recovery with a firm seat cushion (and a height of 18 to 20 inches), a firm back, two arms; a footstool for intermittent leg elevation; a toilet seat riser with arms, if you have a low toilet; a stable shower bench or chair for bathing; a temporary living space on the same floor because walking up or down stairs will be more difficult during your early recovery. *Your surgeon will tell you when it is safe to put weight on your foot and leg. If you have any questions about bearing weight, call your surgeon. Keep your leg elevated as much as possible for the first few days after surgery. Apply ice as recommended by your doctor to relieve swelling and pain.*

Frequently Asked Questions

How do I know if I need a knee replacement?

If you have difficulty walking or performing everyday activities, it may be time to consider knee replacement surgery. Doctors generally try to delay total knee replacement for as long as possible in favor of less invasive treatments. However for patients with advanced joint disease, knee replacement offers the chance for relief from pain and a return to normal activities.

How soon can I return to normal activities after surgery?

In most cases, successful joint replacement surgery will relieve your pain and stiffness, and allow you to resume many of your normal daily activities. But even after you have fully recovered from your surgery, you will still have some restrictions. Normal daily activities do not include contact sports or activities that put excessive strain on your joints. Although your artificial joint can be replaced, a second implant is seldom as effective as the first.

How long is recuperation?

Recovery varies with each person. You will use a walker for approximately 4 weeks after the operation. You can drive a car in 2-4 weeks. Most people gradually increase their activities and play golf, doubles tennis, shuffleboard, or bowl in 12 weeks. More active sports, such as singles tennis and jogging are not recommended.

How long will a joint replacement last?

Longevity of the prosthetic knee varies from patient to patient. It depends on many factors, such as a patient's physical condition, activity level, and weight, as well as the accuracy of implant placement during surgery. It is useful to keep in mind that prosthetic joints are not as strong or durable as a natural, healthy joint, and there is no guarantee that a prosthetic joint will last the rest of a patient's life.

When recuperating from total knee replacement, you should remember these simple pointers.

DON'T	DO
<ul style="list-style-type: none">✓ Attempt vigorous exercises or walk up stairs until your doctor clears you to do so✓ Get your bandage wet✓ Dangle your leg when reclining✓ Stand for prolonged periods of time	<ul style="list-style-type: none">✓ Move and elevate your knee often✓ Use crutches or a cane as recommended by your physician✓ Follow your recovery program