

# GUIDE ON KNEE REPLACEMENT

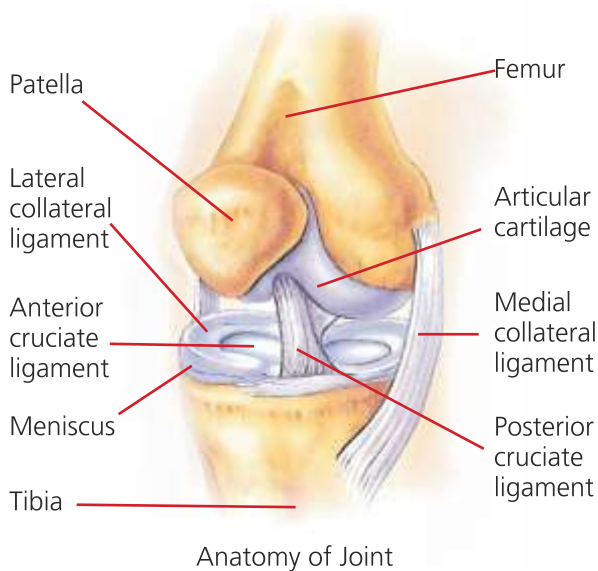


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# ABOUT

## KNEE REPLACEMENT

This leaflet provides a brief introduction to Knee Replacement. It can help you make a list of questions to ask your doctor, but it is not meant to provide complete information. Check with your doctor about patient education materials.



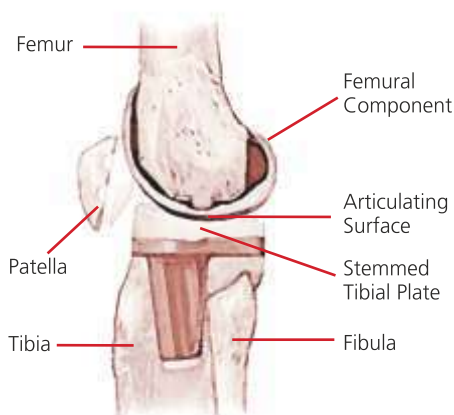
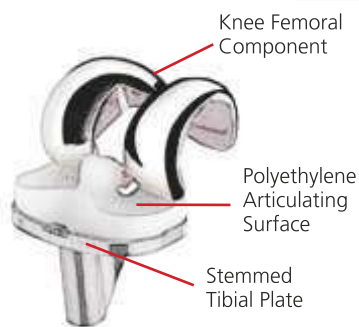
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#### WHAT ARE THE CAUSES OF KNEE PAIN?

There are different causes for knee pain, including injury, arthritis and infection.

It depends on the problem. Some knee pain can be treated through rehabilitation, other cases may require surgery.

In total knee replacement surgery, the parts of bones that rub together are resurfaced with metal and plastic implants. Using computers and special precision instruments, the damaged surfaces of the bones are removed and replacement surfaces fixed into place. The surface of the femur is replaced with a rounded metal component that comes very close to matching the curve of your natural bone. The surface of the tibia (leg bone) is replaced with a smooth plastic component. This flat metal component holds a smooth plastic piece made of ultra-high-molecular-weight polyethylene plastic that serves as the cartilage. The undersurface of the knee cap may also be replaced with an implant made of the same polyethylene plastic.



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## HOW DO I KNOW IF I NEED A KNEE REPLACEMENT?

It is required when the joint is completely worn out. 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 to get back in to normal activities.



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## HOW DO I PREPARE FOR KNEE REPLACEMENT SURGERY?

If your surgeon decides that total knee Replacement is right for you, a date will be scheduled for your surgery. Several things may be necessary to prepare for surgery. For example, your surgeon might ask you to have a physical examination as blood transfusions are likely to be needed during your surgery. You may want to donate one or two units of your own blood, if your surgeon feels it is needed. All preparations for the surgery should be discussed with your surgeon.

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## WHAT HAPPENS DURING KNEE REPLACEMENT SURGERY?

On the day of the surgery, a small tube (intravenous line) will be inserted into your arm. This tube will be used to administer antibiotics and other medication during the surgery. You will then be taken to the operating room and given anesthesia. After the anesthesia takes effect, your



Shaved head of tibia



Prosthesis in place

knee will be scrubbed and sterilized with a special solution. The surgery will begin with an incision over the knee that will expose the joint. When the bones are fully visible to the surgeon, special, precision guides and instruments are used to remove the damaged surfaces and shape the ends of the bones to accept the implants.

Computer navigation is useful at this stage. The implants are then secured to the bones. When the surgeon is satisfied with the fit and function of the implants, the incision will be closed. A special drain may be inserted into the wound to drain the fluids that naturally develop at the surgical site. A sterile bandage will then be applied and you will be taken to the recovery room, where you will be closely monitored. Your surgery will likely take between one and three hours, depending on individual circumstances.

As your anesthesia wears off, you will slowly regain consciousness. A nurse will be with you and may encourage you to cough or breathe deeply to help clear your lungs. You will also be given pain medication. When you are fully awake, you will be taken to your hospital room. Your knee will remain swollen and tender for a few days.

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## HOW IS THE IMPLANT AFFIXED IN THE BODY?

Generally, implant systems are affixed in the body by using bone cement, however there are cement less systems for young people.

**Bone Cement** is a special type of acrylic bone cement which may be used to secure some or all of the implant components to the bone. Bone cement takes about 15 minutes to set.



Cemented with bone cement

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## WHAT CAN I EXPECT AFTER THE KNEE CEMENTED WITH BONE CEMENT REPLACEMENT SURGERY?

When you are back in your hospital room, you will begin a rehabilitation program that will help you regain strength, balance, and range of movement in your knee. Fortis hospitals rehabilitation program will be designed specifically for you.

Your physiotherapist will help you perform appropriate exercises. About 24 hours after surgery, you will probably be asked to stand. Within the next 24 hours, you will probably begin to walk a few steps with the help of a walker. You will be discharged as soon as your surgeon feels that you have recovered sufficiently. You can expect to stay in the hospital for about three days after your surgery. You may be transferred to a rehabilitation facility for a few more days, as determined by your surgeon. Your bandages and sutures will usually be removed before you leave the hospital. At home, you will need to continue your exercises. Your physiotherapist will instruct you about proper home care and may continue to work with you.



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## HOW SOON CAN I RETURN TO NORMAL ACTIVITIES AFTER SURGERY?



Within six weeks after surgery, most patients are able to walk with the help of a cane. You will probably feel well enough to drive within seven to eight weeks 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 may still have some restrictions. Normal daily activities do not include contact sports or activities that put excessive strain on your joints.

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## WHAT ABOUT SEX?

Doctors generally allow patients to resume sexual activities as soon as they feel comfortable. In the months following surgery, patients are generally advised to take it easy and modify their positioning to keep pressure off of the joint while it's healing. As always, it is best to consult with your doctor about what's safe for your particular condition.

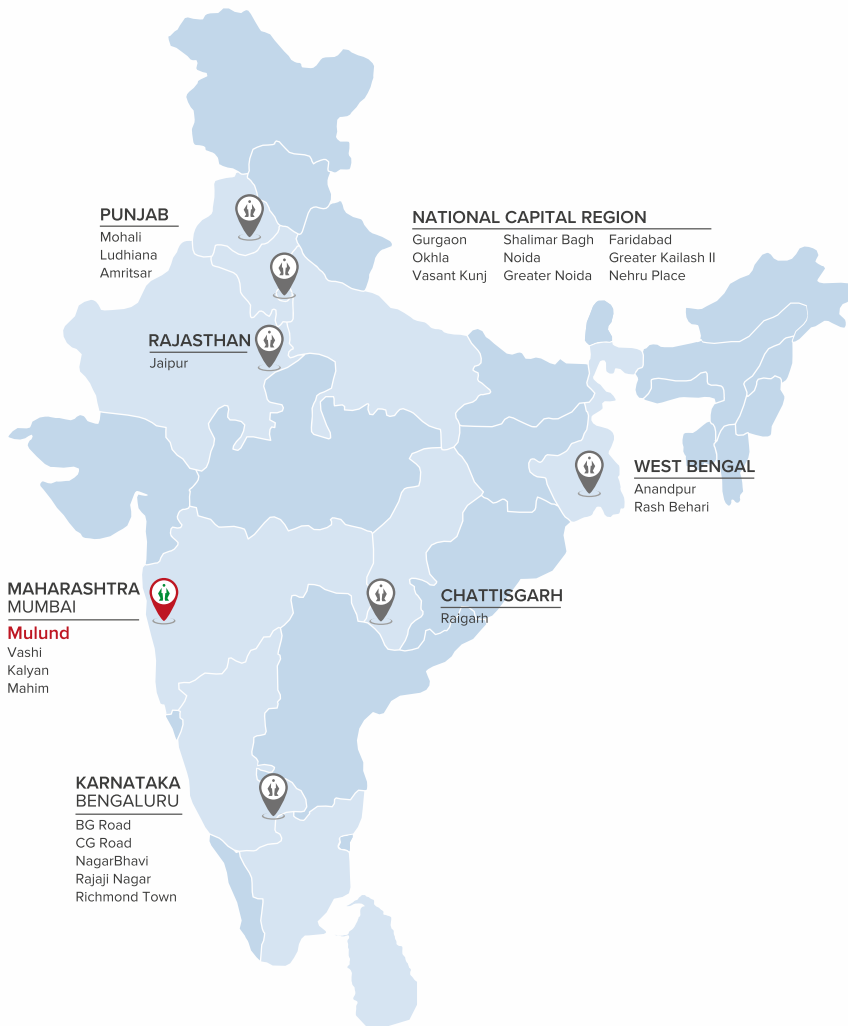


Longevity of the prosthetic knee varies from patient to patient. It depends on many factors, such as a patient's physical condition, activity level, and weight, as well as the accuracy of implant placement during surgery. It is useful to keep in mind that prosthetic joints are not as strong or durable as a natural, healthy joint, and there is no guarantee that a prosthetic joint will last the rest of a patient's life. Today, Total Knee Replacement has become a common and predictable procedure. Many patients enjoy relief from pain and improved function, compared to their status before surgery. Yet, with any mechanical joint, the knee components move against each other. Natural fluid in the joint space, called synovial fluid, helps to lubricate the implants just as it lubricates the bones and cartilage in a natural joint. The prosthetic components do wear as they roll and slide against each other during movement. As with car tires or brake pads, the rate of wear depends partly on how the knee joint is used. Activities that place a lot of stress on the joint implants, as may be the case with heavier and more active patients, may reduce the service life of the prosthesis. Implant loosening and wear on the plastic portions of the implant can lead to the necessity for revision surgery to replace the worn components or all of the components. Your doctor will be in the best position to discuss these issues with you, taking into account your clinical circumstances, the type of implants used and your post-surgical lifestyle.

As a general guide we expect a joint to last 10 to 15 years but there have been instances where they have lasted as long as 40 years. On the other hand if there is injury or infection or any complication the life of joint will be reduced.



# THE FORTIS HOSPITAL NETWORK



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