



KNEE REPLACEMENT

SURGERY INFORMATION

Introduction

The knee joint is among the strongest, largest and most complex joints of the body. Whenever you walk, sit, squat, turn around, drive or perform many other seemingly simple movements, you are depending on the knee for support and mobility. When your knee is healthy, you may take it for granted, not giving a thought about the job it does for you. But once it starts to become painful, stiff, and you are forced to restrict certain activities, you may come to realize how much freedom of movement means to you.



Fortunately, today's advanced medical technology makes it possible to replace the knee joint with an artificial one that reduces pain, allows you to strengthen your legs, and improves your quality of life.

Knee replacement is a procedure commonly performed throughout the world, and one that offers an outstanding rate of success.

In this handbook, we will discuss how your knee works, how arthritis causes your pain, and the knee replacement surgery you will have. We will also help you make preparations for the upcoming surgery and outline what you can expect every step of the way.

How your knee joint functions

The healthy knee. The healthy knee joint is a remarkable mechanism. It is formed by the bottom end of the femur (thigh bone), the top end of the tibia (shin bone) and the patella (knee cap). A healthy knee joint has cartilage between the bones that acts as padding. This padding helps assure a gliding movement of the knee that is both effortless and smooth. The healthy knee joint also has a joint capsule which houses the synovial membrane. This membrane produces lubricating fluid which contributes to the smooth movement of the knee.



The human knee is designed to withstand a lifetime of stressful activity. However, sometimes arthritis intrudes, interfering with the knee's ability to cushion the body from stress, and eventually causing the pain that dramatically erodes your quality of life.

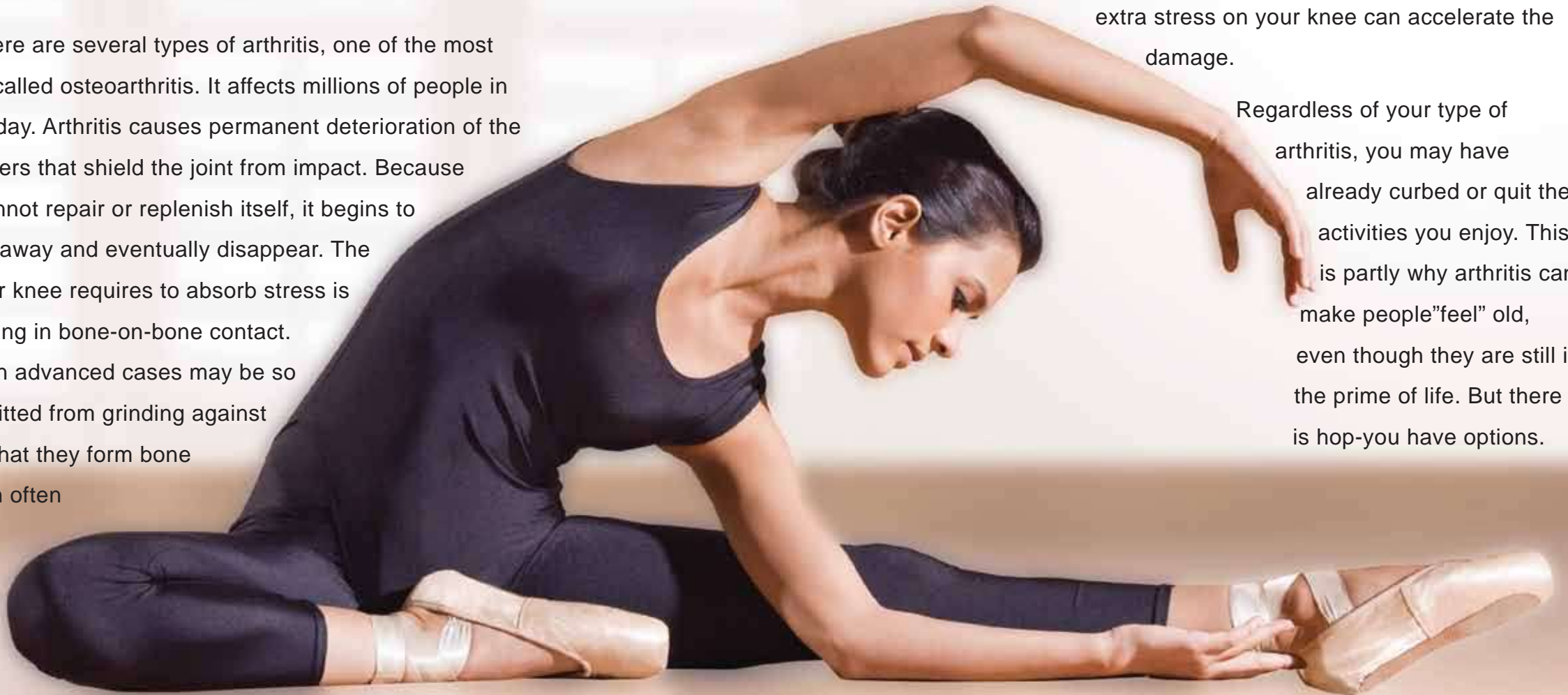
What is Arthritis

Arthritis is not a symptom of “just getting old”. It is a degenerative or inflammatory disease of the joints that is not necessarily part of the normal ageing process. Indeed, some patients with arthritis present symptoms in their 20s and 30s.

Although there are several types of arthritis, one of the most common is called osteoarthritis. It affects millions of people in the world today. Arthritis causes permanent deterioration of the cartilage layers that shield the joint from impact. Because cartilage cannot repair or replenish itself, it begins to crack, wear away and eventually disappear. The cushion your knee requires to absorb stress is gone, resulting in bone-on-bone contact. The bones in advanced cases may be so rough and pitted from grinding against each other that they form bone spurs, which often cause stiffness.

In the first stages of osteoarthritis, your knee may feel stiff and swollen. Later, you may feel pain and may notice that one leg seems shorter or more crooked than the other. Eventually, your mobility may become limited and you may need to alter your lifestyle to accommodate your sore, arthritic knee. If you are overweight or have a malalignment, the extra stress on your knee can accelerate the damage.

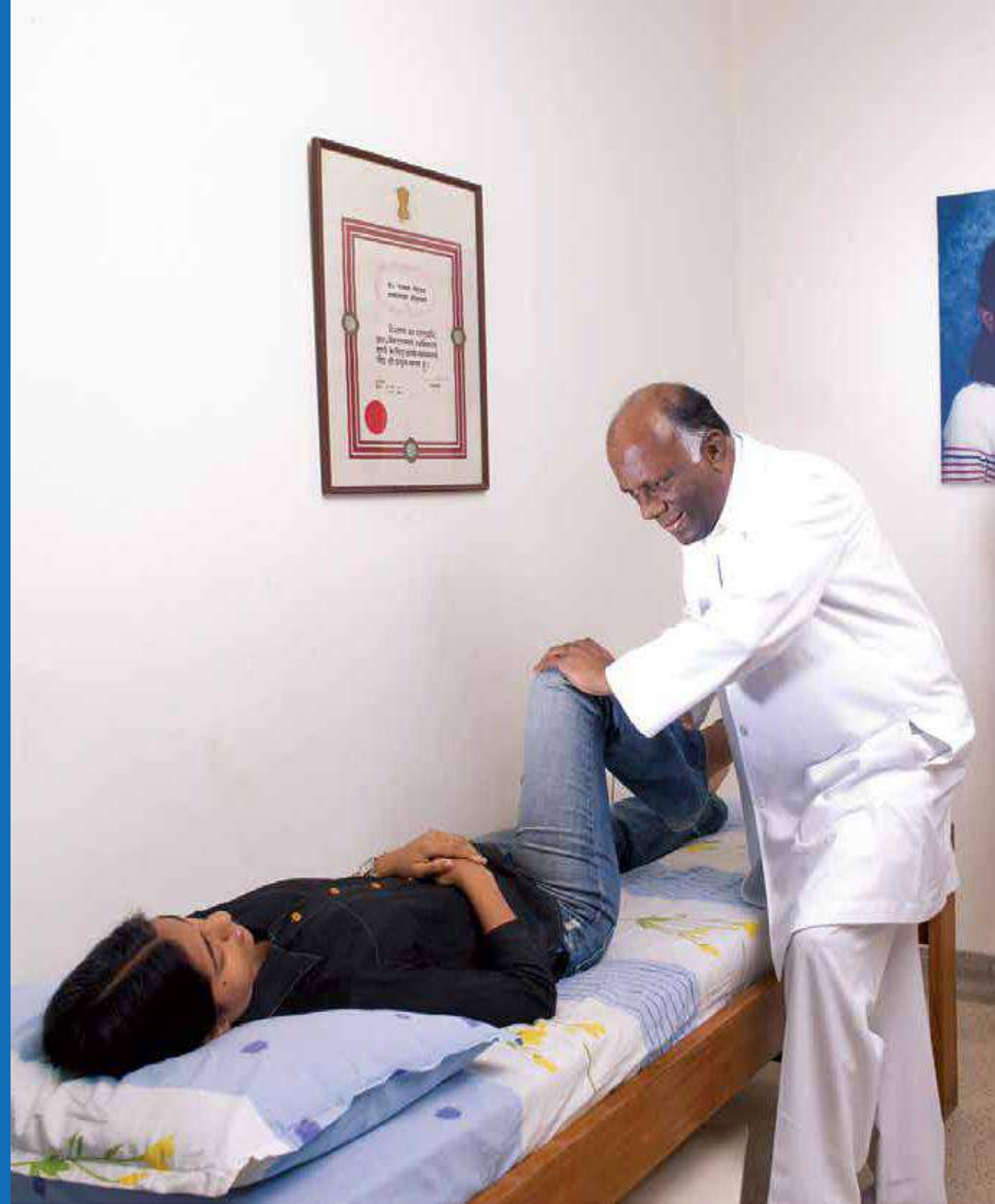
Regardless of your type of arthritis, you may have already curbed or quit the activities you enjoy. This is partly why arthritis can make people “feel” old, even though they are still in the prime of life. But there is hop-you have options.



How to know when you are ready for total knee replacement surgery.

Total knee replacement surgery is an elective procedure. Along with your doctor, you will decide when the time is right for this surgery. Your doctor has more than likely treated your condition with plain medications, anti-inflammatory drugs or perhaps even minor surgery. But now the pain has become severe. Even staying off your feet doesn't help.

You cannot sleep at night because of the discomfort. You are probably the best judge of when you will finally need total knee replacement surgery. When the pain becomes so chronic that even medication does not seem to help, you are probable ready to consider surgery.



Getting into shape mentally and physically.

Take the four essential steps that will help you get into shape before knee replacement surgery.

1. Commit to the success of your surgery

Working as a team, you, your physician and your family must adopt a positive attitude toward the success of your surgery. Together, you will gain a clear understanding of the common goals and expectations of the procedure.

2. Stop smoking

If you have not already done so, it is suggested that you stop smoking. This will be good for you during and after your surgery.

3. Lose excess weight

Because excess weight causes strain to be placed on already-damaged joints, losing weight is one of the best ways to improve the condition of your knee and optimise surgical results. Remember to seek your doctor's advice before beginning your weight loss program.

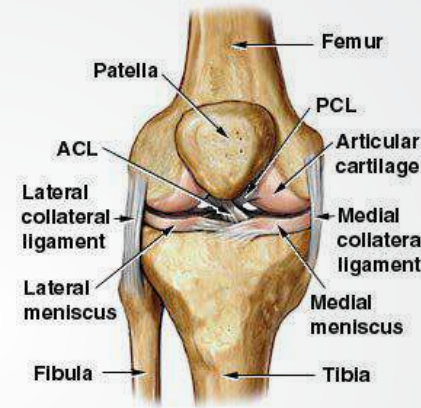
4. Start a physician approved, low-impact exercise plan

After a comprehensive assessment of your condition, your physician or physical therapist may recommend a low-impact exercise for your knee without creating further damage. Do not attempt an exercise program without consulting your physician.



All about total knee replacement surgery.

Surgeons and manufacturers have made remarkable advances in joint replacement technology over the last few years. The materials are long-lasting and durable. The surgical methods have been fine-tuned and standardized. As a result, the chances for successful outcome are excellent.



The components of your new joint.

In total knee replacement (also known as total knee arthroplasty, or TKA), the joint's bone end surfaces are resurfaced with man-made materials. In total knee arthroplasty, the implant (prosthesis) design may vary according to your needs, but the most common implant consists of three component parts. The patella, or knee cap, is made of high-density polyethylene, which offers tremendous strength and durability. The femoral section, or thigh bone, is metal, while the tibia, or shin bone, is made of high-density polyethylene and may be supported by a metal tray.

Risks of knee joint replacement surgery.

As with any major surgery, there are potential risks involved. It is important that you are informed of these risks before the surgery takes place.

Infection

Because a bacterial infection from your mouth could infect your new joint, you will be asked to complete all dental work before surgery. Consult your physician before scheduling any post – operative dental work.



Benefits of Knee Joint Replacement.

Once your new joint has completely healed, you will reap the benefits of the surgery. These include:

- Reduced joint pain (maybe no pain!)
- Increased leg strength (if you exercise)
- Increased movement and mobility
- Improved quality of life ability to return to normal activities and pastimes.
- Correction of deformity

Most likely, running, jumping, or other high – impact activities will be discouraged.

Making preparations for surgery.

1. Medical Evaluations

Before surgery, your doctors need to understand your overall health status. You will be evaluated in several ways.

2. Complete medical evaluation

Your doctor will take your health history, an inventory of medications you now take, and will administer a total physical. X-ray images will be taken of your knee that help the surgeon plan your surgery. Some patients will also need chest X-rays, ECGs and other tests to ensure they are strong enough for surgery and recovery.

3. Preliminary lab work

As part of your pre-admission process, you will need to undergo routine lab work. Your physician's nurse can explain what each test is and why you need it.

4. Blood donation

It is strongly recommended that the family members (or) relatives of the patients be the "DONORS" as it is the safest and ideal option.



Getting your home ready

To make your life easier post-operatively, it pays to think ahead about how to adapt your home environment for safety and greater efficiency. Here are some tips that can help:

1 Arrange for help now

You won't be able to drive immediately after surgery. This means you will need the assistance of someone who can drive you to your follow-up doctor's appointments, as well as help you with shopping and errands. Try to line up this person's assistance now.

2 Reorganize your home

Bending, kneeling and squatting will be impossible immediately following your surgery. Also remember, you will be on crutches or a walker for a while. Place everyday essentials in top drawers or easy-access places. Remove electrical cords and clutter that pose a hazard.

3 Obtain assistance items

It makes sense to have certain assistance items ready when you return home. Some suggested items might be a cordless phone, large apron with pockets, reaching aids and bathing aids. Check with your surgeon and hospital to identify which items will be provided to you at discharge.

Packing For The Hospital



When packing your hospital bag, bring your list of medications and the telephone numbers of your relatives or designated “help” person. Bring walking shoes, loose, comfortable cloth, underwear, books, personal care items and cash for sundries. Please don’t bring jewelry, large amounts of cash, credit cards or other valuable items to the hospital with you.

A Note About Medications

It is very important to tell your doctor about every single medication you are taking, even aspirin or ibuprofen. Some medications are not compatible with anesthetic, and others could increase bleeding or cause other problems. Your physician will determine which medications you can continue up until your surgery, and which ones you must discontinue.



What To Expect The Day Of Surgery

When you are admitted to the hospital you will change into a hospital gown. Your vital signs are taken by a nurse. An intravenous line containing medications and fluids will be inserted comfortably into a vein on your arm or neck. At this point, your anesthesiologist will arrive to begin administration of your anesthetic for surgery. Once you are transferred to the operating room, you are moved to the operating table where the surgery will take place. This is often the last thing you remember before waking up in the recovery room. You may have general anesthesia or spinal anesthesia with sedation.



What to expect right after surgery

In the recovery room, you will recover from surgery until you are awake and alert. You could experience chills or nausea-these are normal side effects of anesthesia. You may notice:

Drainage tubes and catheters.

A drainage tube and catheter may be in place

Pain medicationa. To manage the pain you may feel right after surgery, you will be given medication.

Elastic Stockings. You may be fitted with elastic surgical stockings that help prevent blood clots and improve circulation. You may wear these stickings every day for six to eight weeks following surgery.

CPM machine. Your operated leg may be connected to a CPM (continuous passive motion) machine, which slowly bends it up and down to improve range of motion.

You are returned to your regular hospital room 12 hrs / 24 hrs /48 hrs. Your family members may then visit you in your room.

FEW DAYS AFTER SURGERY.

IV tubes and lines are usually removed within the first few days following surgery. If a drain was placed in your knee, then it will probably be removed a few days after surgery.

They start of physical therapy.

Physical therapy usually begins for most patients within the first few days following surgery. The therapist focuses on helping to increase the knee's range of motion with bending exercises. You will also be building strength in the knee and muscles of the leg. Often the CPM machines continued at a higher degree of bend. Walking. It is imperative that you get up and begin moving as soon as possible. This ambulatory activity helps prevent clots and speeds your recovery. With the help of the therapist and nurses, you should be able to get from the bed to a chair (transfer) at least once or twice a day. You will eventually be able to transfer with your crutches or walker.



7 Days – 10 Days – 12 Days After Surgery

Your physical therapy will continue, except you will practice becoming more independent in your exercises, transfers from bed to chair, stair climbing and other activities your therapist has designed for your. Your dressings will be changed, as well as your blood tested for coagulation.

Before you are discharged from the hospital, your physician and physical therapist will review instructions for your continuing care and exercises at home. You will be given prescriptions for medication you need.



Long term care of your knee.

Your knee replacement should give you years of service. You can protect it by taking a few simple steps:

Watch for and prevent infection. Because your new knee is sensitive to infections, you must be diligent about preventing them. You may need to take antibiotics before seeing the dentist. If you suspect a bacterial infection of any kind, notify your physician right away.

Follow-up care. When you leave the hospital, you will be given a schedule of follow-up visits. These visits will ensure the long-term success of your operation. Your physician may want to check you several times during the first year and

annually thereafter. Often, follow-up X-rays will confirm proper placement and alignment of the implant.

Weight control. Keeping your weight under control will reduce the amount of pressure and stress on your new knee. Avoid high-impact sports and participate regularly in low-impact activities such as walking, swimming, golfing or cycling. These are excellent ways to strengthen your knee and get the exercise you need to stay fit.





GLOSSARY OF TERMS.

ABULATORY – Mobile, walking.

ARTHROPLASTY – The surgical replacement of your knee joint with an artificial one.

CARTILAGE – A layer of soft tissue that helps joints absorb stress.

CPM – Continuous passive motion machine that helps your new knee attain range of motion right after surgery.

EMBOLI (PULMONARY EMBOLISM) – The plugging of pulmonary arteries with fragments of a blood clot after surgery.

IV LINE – A tiny catheter inserted into your arm or neck to administer fluids or medications during, and one or two days after surgery.

OSTEOARTHRITIS – Degenerative disease of the joints in which the cartilage begins to wear away.

PROSTHESIS – The artificial joint; also referred to as the implant.

TRANSFER – A physical therapy term for getting up from your bed and moving yourself to a chair, or vice versa.