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REHABILITATION
I n s t i t u t e

After Your New Knee

By Shaleen Bhagat

Joint problems have become the complaint of the 21st-century. We are living longer and our joints are suffering more wear and tear as a consequence. Not only that — more people than ever before are taking part in sporting activities, and sports injuries have escalated.

Our joints are formed by the ends of two bones. In between the bones is a tissue called cartilage. Healthy cartilage serves as a protective cushion offering shock absorption and allowing smooth, low-friction movement of the joint. With active lifestyles, age and/or increased weight, the cartilage starts to wear away, allowing the rough edges of bone to rub against each other, causing pain. This is in medical terms called osteoarthritis and is very commonly seen in knees.

The knee joint is the largest joint in the body. It is formed where the lower part of the thigh bone (femur) joins the upper part of the shin bone (tibia) and the kneecap (patella). Shock absorbing cartilage covers the surfaces where these three bones touch. When only some of the cartilage and joint is damaged, a surgeon may be able to repair and clean just the damaged parts by using an arthroscope, but when the entire joint is damaged, a total joint replacement is often done. The surgeon removes the diseased or damaged parts of the thigh bone, shin bone and knee cap and inserts artificial replacement parts which are then held in place with bone cement.

Joint replacement surgery has been one of the major breakthroughs in orthopaedic surgery during the past three decades in the treatment of painful and disabling joint problems. Total joint replacements can be performed on nearly all joints of the body, but the hip and knee total joint replacements are by far the most common. In the United States alone, more than 500,000 of these procedures are performed each year, and the numbers have doubled in the past 10 years.

How do you know if a knee joint replacement may be helpful for you? If you have significant pain despite treatment by a health professional, pain prevents you from sleeping at night, you have tried different medications and they do not help alleviate the pain, the painful joint is keeping you from regular daily activities, such as visiting friends or going shopping and your activity is restricted to the point where you have trouble getting out of a chair or going up stairs, then you may be a candidate for a total knee replacement.

With total knee replacements, you usually spend 3-7 days in the hospital, depending on how well you heal. Rehabilitation with a physiotherapist is important for optimal outcome from the surgery and begins immediately after surgery. With the help of a physiotherapist, patients are encouraged to start walking with the help of a knee brace and walker the first day after surgery. Most surgeons will allow you to put full weight on the knee immediately after surgery. In addition a machine called CPM (continuous passive motion) is placed on the knee and it slowly and smoothly straightens and bends

your knee for several hours at a time while you relax. You are also shown various exercises to strengthen all the muscles of the leg. Before discharge from hospital you should be able to bend your knee to 90 degrees, get out of bed by yourself, walk a short distance with a walker or crutches and go up and down stairs.

Once you are home, walk as much as you like, but remember that walking is no substitute for the exercises your physiotherapist will prescribe. Through the guidance of a physiotherapist you will be put on an exercise program that will focus on gaining full movement in the knee joint and restoring above average strength to the muscles around the knee, so that your new joint has good support. Swimming is also recommended and is the ideal form of exercise as it improves muscle strength and endurance without exerting any pressure or stress on the replaced knee joint; you can begin as soon as the sutures have been removed and the wound is healed (approximately 2-4 weeks after surgery). Most people are able to return to work in 6-8 weeks (depending on the type of work). Once full rehabilitation is complete (usually takes 3 months or more, depending on how active you were before surgery), you can return to some physical activities safely; these include cycling, dancing, golfing. Care should be taken to avoid activities that put stress on the knee; these activities include: tennis, badminton, contact sports, squash, jumping, skiing, running or heavy lifting (more than 40 pounds).

A knee replacement can last at least 10-15 years in about 80% of those who get them. Today, new components and materials are being developed that should help improve the function and life of the artificial joint. The surgical procedures are undergoing modification as well to make them more reliable and to decrease rehabilitation time. Total knee replacements are very successful and relatively low-risk treatment for relieving pain and increasing mobility in people who are not helped by non-surgical treatments.