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RECOVERING FROM TOTAL KNEE REPLACEMENT

by Jim Driggers



Does the sight of a broken-down escalator or the thought of having to make an extra trip across the room make you wince? Severe knee pain due to arthritis can affect most of your daily activities and limit mobility. If your knee hurts while climbing stairs, walking, or even sitting—and medicine, physical therapy, and walking aids no longer help—your doctor may recommend total knee replacement surgery, or total knee arthroplasty.

The prospect of having surgery may be unnerving, but know that if you and your doctor decide that surgery is right for you, you can handle it. If you have lived with the pain and loss of movement that arthritis can cause, you can work through the knee replacement recovery process.

As Brian Hill, PT, of Pleasanton Hill, California, points out, total knee replacement is major surgery. The procedure involves cutting into skin, blood vessels, and tendons to expose the knee joint, removing injured bone and cartilage from the knee, shin, and thigh, putting an artificial joint in their place and cementing or otherwise attaching it to bone, and then suturing together

the cut tissues and skin. Although the recovery process can be long, Hill assures his physical therapy patients that bruising, swelling, and pain after the surgery are normal and should fully subside.

If your doctor has recommended knee replacement, you are not alone. According to the American Academy of Orthopaedic Surgeons, each year about 581,000 knee replacement procedures are per-

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Being aware of and talking about the upcoming challenge of recovery will help both you and your caregivers prepare.

formed in the United States, and most of them are total joint replacements. (Partial joint replacements, which typically replace one side of the knee joint, may be less invasive and require less recovery time.) More than 90% of people who have a total knee replacement find that their knee pain is greatly reduced and that they are better able to do daily tasks.

Now that you've learned that the surgery may give you increased comfort and mobility, educating yourself about what to expect afterward—during recovery—can help you better prepare for it.

Before surgery

Ideally, preparing for your recovery begins weeks before surgery. Being prepared and ready to deal with the physical, mental, and emotional challenges inherent in recovery will largely determine how much benefit you get from your new knee. You should focus on three areas: your physical self, your mental self, and your environment.

Your physical self. Sometimes before and more often after surgery, your doctor or physical therapist will give you exercises to do to help your knee regain strength and mobility. If you're able, try to "prehab" your knees and legs by doing the same exercises before surgery that you'll be doing afterward. Ask your doctor about the routine ahead of time. The more familiar you are with the exercises, the easier they will be, and exercising your legs will help keep them strong.

Also try to increase your upper body strength before surgery. This will help when you're using crutches or a walker, as you may need to do for several weeks during recovery.

Your mental self. Preparing yourself mentally for recovery is especially important. While factors such as body weight, pain tolerance, and level of physical fitness can all affect the speed and ease of recovery, the most important factor is how motivated you are to do what is necessary to recuperate. If you are a proactive participant in your own recovery, you should fare much better than if you don't follow your doctor's advice and don't invest time and effort into regaining function.

Your environment. This includes not only the place where you will recover but also the people who will care for you. Many people underestimate

how incapacitated they will be for the first few weeks after surgery. Depending on the type of knee replacement you have, you'll leave the hospital two to five days after the surgery. When you do, you will definitely need help. Hospital staff will make sure you can get in and out of bed and walk with crutches or a walker before you are discharged, but you won't be able to drive a car for several weeks, and it will be difficult to do many daily tasks at home. If you don't have family or friends who are willing and able to help you after your surgery, or if you have special needs, then you may want to go to a specialized rehabilitation facility. Ask your surgeon about your options.

If your family or friends will be caring for you, have them read this article. You all are about to begin a journey that requires a lot of hard work and patience. As adults we're generally not used to being so dependent on others. For their part, your care-



RECOVERY RESOURCES

The following book and Web sites may help you as you prepare for and recover from knee replacement surgery.

BOOK

KNEE SURGERY

The Essential Guide to Total Knee Recovery
by Daniel Fulham O'Neill, MD, EdD
St. Martin's Griffin, New York, 2008

WEB SITES

AMERICAN ACADEMY OF ORTHOPAEDIC SURGEONS

<http://orthoinfo.aaos.org>

Whether you would like to learn more about preparing for total knee replacement surgery, what happens during the procedure itself, or how your new knee will be different, you can find it all and more on this site. From the home page, click on "Joint Replacement" in the left-hand navigation bar, and then scroll down to the articles on knee replacement.

HEALTHBOARDS

www.healthboards.com

Online sources of peer support, such as the "Knee and Hip Problems" message board on this site, can provide valuable advice and insight from people who have had knee replacement surgery. Sometimes knowing that others have gone through what you're experiencing can significantly ease worry and help improve your outlook.

givers may not expect to have to provide as much help as you will need during the first several weeks of your recovery. Preparing your meals, making sure you have ice packs for your knee, keeping track of when you should take pain medicine, and helping you with exercises, dressing, and undressing may seem like an exhausting full-time job for those not used to caregiving. That effort may strain relationships if your family and friends are unprepared. Talking about this upcoming challenge will help both you and your caregivers prepare.

If you'll be recovering at home, speak with a physical or occupational therapist about what equipment would be helpful to have. Crutches, a walker, or a cane will help you get around after surgery. Your physical therapist will help you decide which walking aid is best for you and how long you will need to use it. Equipment such as a reacher or grabbing tool, a long-handled shoehorn, and elastic shoelaces can help you handle daily tasks that may seem Her-

culean at first. A raised toilet seat and an elevated bed, couch, and chair can also help you avoid bending your knee more than it's ready to in the first few weeks of recovery. And a shower chair, handheld showerhead, and long-handled sponge will make washing much easier. In addition, if your bedroom is upstairs, you may want to consider setting up a bed on the ground level. It will be difficult to climb stairs for a while after surgery. You should also be sure to clear any tripping hazards, such as throw rugs, from the floor.

Also consider stocking up on food staples. Having a full pantry and frozen meals on hand will make meal preparation easier. A few days before surgery, be sure to pay your bills and clean your house. You want to come home focused on recovery, not invoices and dust bunnies.

After surgery

In his book, *Knee Surgery: The Essential Guide to Total Knee Recovery*, Daniel Fulham O'Neill, MD, EdD, notes that different knees heal at different rates. A person who has two knee replacements may even find that one knee heals faster than the other. The timelines in this article are intended to help you manage your caregivers' and your own expectations—please use them as guides, not rules.

There are many aspects to recovering from knee replacement surgery, so you should talk with your orthopedic surgeon about what to expect. Three aspects are particularly important: controlling pain, increasing range of motion, and maintaining a positive mental attitude.

Controlling pain. Of course, the ultimate benefit of knee replacement surgery is the reduction or even elimination of arthritis pain. The downside is that the surgery, with all of the cutting, shaping, and attaching it requires, constitutes significant trauma to the tissues in and around your knee. As your body heals from this trauma, you will experience pain. Fortunately, the pain goes away day by day, but managing pain will still be one of your main concerns in the first four to eight weeks of recovery.

Your doctor will prescribe medicine to help you control your pain so you can better rest and rehabilitate. For the first few weeks, or in some cases months afterward, you may take an opioid pain reliever such as hydrocodone with acetaminophen (brand name Vicodin). Be sure to take your pain medicine as prescribed by your doctor.

Some people are afraid to take opioid medicines because they think they will become addicted to them. Addiction to opioids, which are sometimes referred to as narcotic painkillers, is often in the headlines, and although it is a concern for people who abuse these drugs, it is typically not an issue for

people who take them as directed. Opioid medicines are effective at controlling postsurgical pain, and pain control is essential to recovery. According to Aaron Salyapongse, MD, a surgeon at the Webster Orthopaedic Medical Group in San Ramon, California, enduring high levels of pain may make you less able to increase your knee's flexibility and strength, sap energy needed for exercise, and make it difficult to keep a positive mental outlook.

It's a good idea to keep a journal in which you record how much pain you feel and when and how much pain medicine you take. By keeping a journal, you may find that you're actually taking less medicine than you thought, and that you need to take more if your pain levels are inhibiting your recovery. If you're worried that you're taking too much pain medicine, show the journal to your doctor and get his or her advice.

Another strategy for controlling pain is RICE, which stands for rest, ice, compression, and elevation.

■ **Rest:** Beginning your recovery exercise program as soon as possible after surgery is crucial to your recovery, but so are periods of rest in which you take the weight off your knee and give it a break. You should also use your crutches or walker as recommended by your physical therapist.

■ **Ice:** Applying ice or other cold therapy to your knee can help to reduce pain and swelling. To help alleviate discomfort, put an ice pack on your knee for 20 minutes several times during the day. Keep two or three ice packs available so you can use one while the others refreeze. In a pinch, bags of frozen peas or corn can make good ice packs.

Instead of ice packs, some surgeons send knee replacement recipients home with a DonJoy IceMan Cold Therapy unit or similar machine. Such machines consist of a small ice chest with a pump connected to a flexible pad. You wrap the pad around your knee and the pump continuously circulates cold water to soothe it. Because the water isn't as cold as ice, you can use the machine for relief from pain and swelling for hours at a time. Ask your surgeon whether a cold therapy machine will be available to you.

■ **Compression:** The hospital may send you home with compression hose or stockings, which can help to reduce swelling. They also help keep blood flowing and lower the risk for blood clots. A physical therapist may help you create compression by showing you how to wrap your knee with an ACE or similar bandage, beginning above your ankle and ending up over your knee.

■ **Elevation:** Elevating your knee above your heart while you rest it helps to prevent blood clots and reduce swelling. Elevate your knee by placing pil-

OTHER PREPARATIONS

Along with exercising, preparing your home, and discussing your recovery with the people who will be caring for you, there are a few other things you should do to ensure that your knee replacement surgery and recovery will go smoothly.

■ Discuss the procedure with your orthopedic surgeon. You'll want to be clear on all the logistics, including what time you should arrive at the hospital, what type of anesthesia you will receive, and how long you can expect to stay in the hospital after the procedure.

■ Talk with the surgeon about stopping certain medicines before surgery. Some drugs, including aspirin and other nonsteroidal anti-inflammatory drugs (NSAIDs), can raise the risk of bleeding during surgery that is difficult to stop. Make sure the surgeon knows about everything you take, including prescription and over-the-counter drugs and vitamins, herbs, and other supplements.

■ If you smoke, make an effort to quit. Smoking increases the risk of surgical complications and can slow healing. If you drink alcohol, don't drink any within 48 hours of surgery.

lows under your entire leg (not only under the knee).

According to Craig Klass, PT, of Pleasanton, California, you shouldn't use heat on your knee for the first month because heat may increase swelling. After your leg has had about a month to recover from surgery, ask your physical therapist or doctor about using heat on the front of your shin and thigh to warm muscles and help them stretch.

Increasing range of motion. Initially, the trauma of surgery and subsequent swelling will significantly reduce how much you can straighten (extend) and bend (flex) your knee. Scar tissue may form as your knee heals, and it too can reduce range of motion. According to Charlie Lee, PT, also of Pleasanton, California, people who have had a knee replacement should eventually be able to straighten their leg fully. People who are inactive—who typically walk short distances and only occasionally climb stairs—should aim to be able to bend their knee to 100

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TRADITIONAL VERSUS MINIMALLY INVASIVE SURGERY

One factor that can affect your recovery time is the type of total knee replacement surgery you have. In traditional knee replacement, the surgeon typically makes an 8- to 10-inch incision over your knee. In a newer technique called minimally invasive knee replacement, the surgeon makes smaller incision, usually 4–6 inches, and may use techniques for accessing the knee joint that avoid cutting key muscles and tendons. In many cases, minimally invasive knee replacement requires a shorter hospital stay and less recovery time overall.

If you are considering total knee replacement, discuss the different options with your surgeon. Minimally invasive surgery isn't for everyone—people who are obese or at high risk for surgical complications typically are not considered good candidates. And because it is a relatively new procedure, it isn't yet clear whether artificial joints implanted through minimally invasive techniques are as reliable as joints implanted through traditional techniques.

If you are considering minimally invasive surgery, discuss the pros and cons with your surgeon—and ask about his or her experience with the technique. The risk of complications is lower when the procedure is done by an experienced surgeon.

degrees, and more active people should aim for at least 120 degrees. Use these as goals and don't worry if you haven't reached them in a few weeks. The important thing is to keep improving your range of motion week by week.

To help improve range of motion, some doctors will have you use a continuous passive motion (CPM) machine, which bends and straightens your knee while you are in bed. Normally, people recovering from knee replacement use the machine for about two hours at a time, two or three times a day, until they can easily reach 90 degrees of flexion.

Although CPM is often used after knee replacement surgery, its effectiveness has been questioned. Current research doesn't show that it significantly increases flexibility. Some doctors still believe CPM is a valuable tool to help increase your range of motion; others believe it's a waste of time and money. Some doctors reserve it for people who they believe will not exercise enough on their own. If your doctor does prescribe a CPM machine, make sure it's adjusted correctly to fit the length of your leg, and use it as instructed.

Whether or not you use a CPM machine, you'll increase your range of motion primarily by stretching. (If you do use a CPM machine, bear in mind that it isn't a substitute for other exercise. You must still keep doing the stretching and strengthening routine given to you by your physical therapist.) Among the physical therapists interviewed for this article, it's accepted that more frequent, less intense stretching is better than infrequent, intense stretching. Try to stretch multiple times a day and especially when your pain level is low. If you're grimacing, you're probably pushing too hard.

According to Klass, swelling is the main factor limiting flexibility in people who have had a knee replacement. Exercise may cause your knee to swell; if it does, use the RICE strategy. After the swelling has gone down, you should continue with your exercise program.

Positive mental attitude. It can take anywhere from two or three months to a year to fully recover from knee replacement. Keeping yourself positive during this time can be a challenge, especially if you're used to being physically active and independent. In the first few days of recovery, you'll be totally dependent upon others. Feeling frustrated is normal. In his book, Dr. O'Neill recommends "positive self-talk (repeating affirming words, phrases, or compliments)" as a way of dealing with the pain and setbacks that may occur during recovery. Don't ignore your problems and concerns, but try not to magnify them. Talk with your doctor if you have concerns about your level of pain, your flexibility, or any other issues related to your recovery. Depression can make the mental aspects of rehabilitation especially difficult, so if you have depression, talk to your doctor about strategies for coping with the recovery process.

The main mental challenge is to avoid becoming so discouraged that you give up. Talking with others who have had a knee replacement is a great way to get support and discover that others have had to deal with the same issues you're having. (See "Recovery Resources" on page 17 to learn how to connect with others who have had a knee replacement.)

Recovering from total knee replacement will be challenging, but so is living with arthritis. By following your doctor and physical therapist's advice, you can probably return to everyday tasks such as light chores about three to six weeks after surgery. If your recovery is faster, then that's great. If your recovery is slower, be patient and don't get discouraged. Don't think of recovery as a race—instead, consider it an investment in the rest of your life. □

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