



# A Patient's Guide to Total Joint Replacement and Complete Care



## Table of Contents

Introduction	2
The Complete Care Program	3
Specialty Care Coordinator	
Pre-Operative Total Joint Education Class	
Overview of Total Knee Replacement	4
Overview of Total Hip Replacement	5
Preparing For Surgery	6
Exercise	
Diet and Nutrition	
Smoking and Alcohol Use	
Diabetes Guidelines	
Medications	
Home Safety Preparation	
Adaptive or Durable Medical Equipment (DME)	
Before Your Surgery	10
Checklists	
Pre-Admission Testing	
The Day Before Surgery	12
The Day of Surgery	12
Anesthesia	
Your Hospital Stay	14
Recovery/Rehabilitation	
Total Joint Precautions	
Your Hospital Discharge	16
At Home Instructions	17
Pain and Discomfort	
Incision Care	
The First 48 hours at Home	
Weeks 1 to 6 at Home	
Weeks 6 to 12 at Home	
Return to Work	
Three Month Follow-up	
Six Months and Future Follow-up Visits	
Potential Complications	22
Blood Clots	
Infection	
Home Exercises	24

# Introduction

Thank you for choosing Cleveland Clinic for your total joint replacement surgery. Your hip or knee replacement surgery will be performed by one of the most experienced orthopaedic surgical teams in the United States.

Each year, our surgeons perform thousands of joint replacements. Our surgeons have also developed many of the new techniques and technologies that are now used worldwide for a range of orthopaedic problems.

This guide is designed to give you the important information you need to achieve the best outcome from your joint replacement surgery. This guide is your workbook. It discusses:

- How to prepare for your upcoming surgery
- What to expect before, during, and after surgery and during your hospital stay
- What to expect and what to do to continue your successful recovery at home

# The Complete Care Program

Cleveland Clinic offers a unique approach – our Complete Care Program -- to prepare and care for patients who are undergoing total joint replacement surgery. The Complete Care Program is a team approach. It includes your surgeon and healthcare team, a Specialty Care Coordinator, and **you**.

Most patients who have undergone joint replacement surgery at the Cleveland Clinic have been managed through our Complete Care Program. Patients who become active partners in their own care achieve better outcomes. By participating in the Complete Care Program, patients experience:

- Shorter hospital stays
- Lower infection rates
- Shorter recovery with early return to activity

## How Does The Complete Care Program Work?

Your surgeon and healthcare team evaluate and address your individual needs and develop a customized care plan.

A **Specialty Care Coordinator** will work with you to help you prepare for surgery, ensure your plan of care is completed and, if necessary, assist with your discharge and follow-up care. This caregiver will be a key contact for you and your family before, during, and after your surgery and hospital stay. Before your surgery, your Specialty Care Coordinator will contact you.

## Pre-Operative Total Joint Education Class

The Complete Care Program begins with an educational class for you and the individuals who will be assisting you through your surgical preparation and recovery.

You are **required** to attend an educational class before your surgery. **Please review this Total Joint Replacement Guide before attending the class and bring it with you to class.**

During class you will receive useful information about your surgery and recovery. You will also have the opportunity to ask questions.

A schedule of total joint classes has been included in the front pocket of this guide and is also available online at [www.clevelandclinic.org/jointclass](http://www.clevelandclinic.org/jointclass).

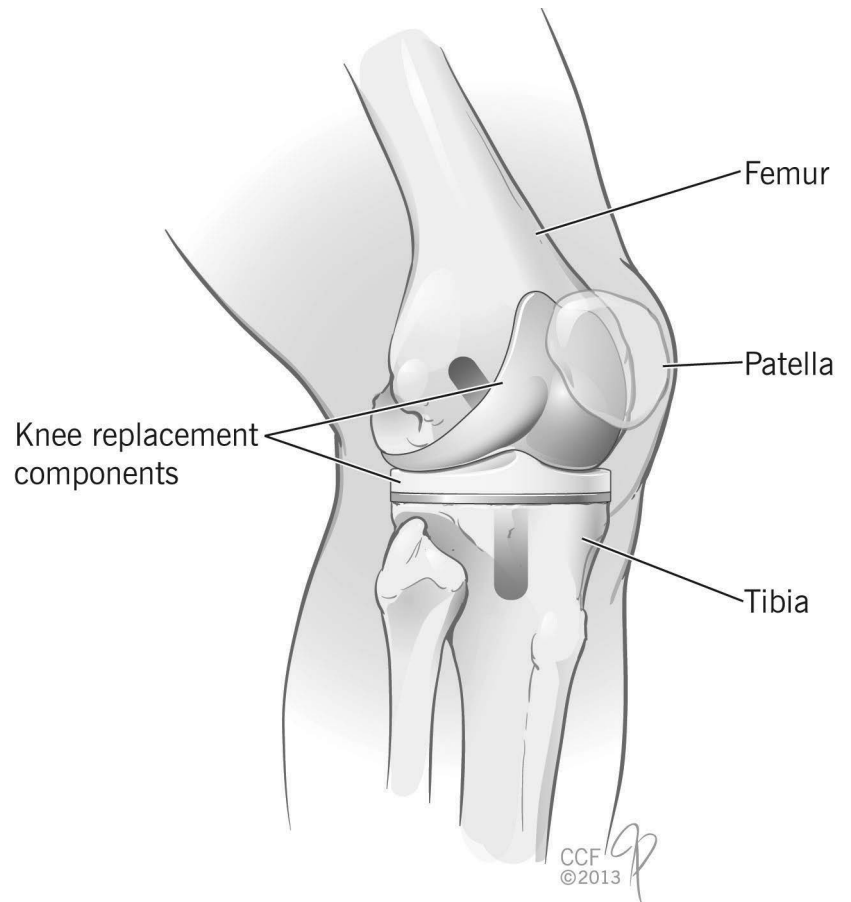
# Overview of Total Knee Replacement

The knee joint is the largest joint in the body. It is the “hinge” joint of the leg. It’s the joint that allows the leg to bend and straighten. The knee joint is located at the meeting point of the thigh bone (*femur*) and the shin bone (*tibia*). The knee cap (patella) covers the area where the two bones meet.

During total knee replacement surgery, the damaged part of your knee is removed and replaced with an implant. Implants are made of various materials: stainless steel, titanium, chrome, cobalt, or polyethylene. Bone cement may also be used in the repair.

The choice of implants varies from person to person. Factors considered are your age, activity level, body type, and the amount and strength of your bone and bone tissue. Your surgeon will choose the implant that is best suited for your needs and lifestyle.

During total knee replacement surgery, a relatively thin amount of bone is removed from the end of the thigh bone, the top of the leg bone, and the underside of the kneecap. This creates bone surfaces that allow the implant to have a good fit. Most of the major ligaments and tendons of the knee are left in place so that the knee can bend and straighten, yet remains steady in position from side-to-side and front-to-back.



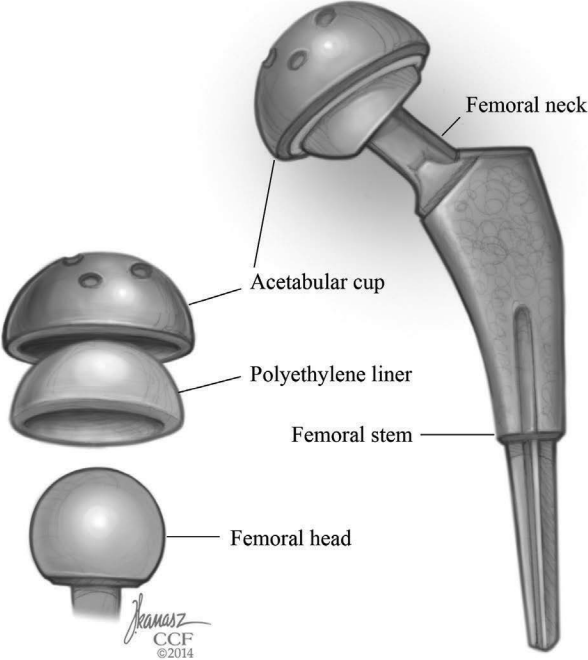
©Copyright 1995-2015 The Cleveland Clinic Foundation. All rights reserved.

# Overview of Total Hip Replacement

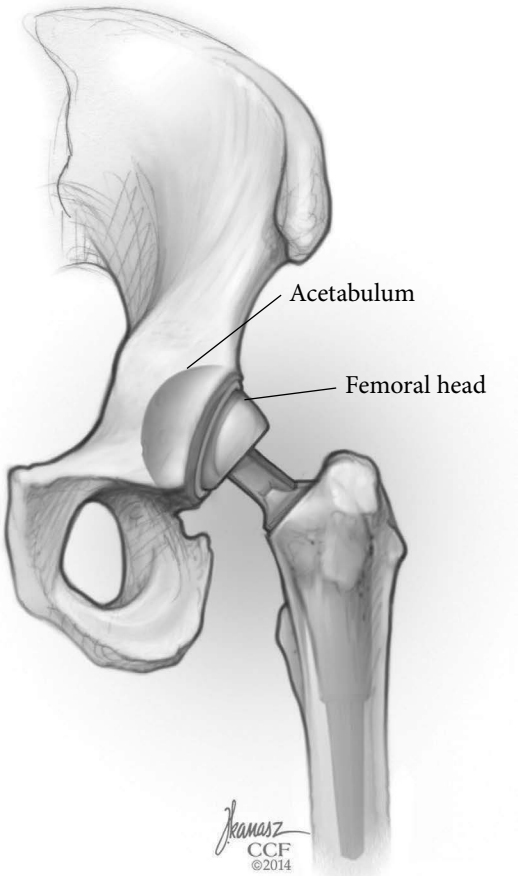
The hip joint helps us keep our balance and supports our weight in all of its movements. The upper end of the leg bone (femur) has a rounded head (femoral head) that fits into a socket (acetabulum) in the pelvis to form the hip joint.

During total hip replacement surgery, the damaged part of the hip is removed and replaced with implants, called components. Your surgeon selects the components that are best for you based on your age, activity level, and body type.

## Total Hip Replacement Components



## Location of Components in the Hip



©Copyright 1995-2015 The Cleveland Clinic Foundation. All rights reserved.

# Preparing for Surgery

## Exercise

Exercising, up to the day before your surgery, helps improve your strength, range of motion and endurance. This helps lead to a successful outcome and recovery. Talk with your surgeon about a referral to physical therapy if you would like help developing an exercise program. In addition, see the exercises at the end of this guide.

Why is exercise so important for your recovery?

- Strengthening exercises for the hip or knee joint improves recovery.
- Upper body conditioning exercises help reduce muscle soreness and fatigue caused by the use of a walker crutches, a cane, or other aids.
- A walking or water exercise program increases endurance, flexibility, and overall strength

## Circulation Exercises

Although swelling is a normal response after surgery, circulation exercises help control swelling and prevent more serious complications, such as blood clots. Review and learn the circulation exercises (see Physical Therapy section) before surgery to make them easier to perform after your surgery.

## Diet and Nutrition

Healthy eating and proper nutrition before your surgery aids the healing process.

- Drink plenty of fluids and stay hydrated.
- Eat more fiber to help avoid constipation (often caused by pain medications). Foods that contain fiber include corn, peas, beans, avocados, whole wheat pasta and breads, broccoli, almonds.
- Eat foods rich in iron, such as lean red meat, dark green leafy vegetables, raisins, and prunes.
- Eat foods high in Vitamin C to help your body absorb iron. Foods that are high in vitamin C include oranges, cantaloupe, and tomatoes.
- Make sure you are getting enough calcium, which is needed to keep your bones strong. Foods that are high in calcium include milk, cheese, yogurt, dark leafy greens, and fortified cereal.

Eat light meals, especially the day before surgery. The combined effects of anesthesia and your medication may slow down your bowel function. This can cause constipation after surgery.

## **Smoking and Alcohol Use**

**Smoking** - Smoking causes breathing problems, increases the risk of medical complications, and slows recovery. Smoking also increases the risk of infection and blood clots after surgery. If you smoke, we encourage you to quit at least a few weeks before surgery.

Cleveland Clinic Tobacco Treatment Program offers a variety of methods to help people who want to become nonsmokers. For more information and locations, please call 216.448.8800. Please be aware that smoking is strictly prohibited at all Cleveland Clinic hospitals.

**Alcohol Use** - Before surgery, it is important to be honest with your health care providers about your alcohol use. Tell your health care provider how many drinks you have per day (or per week). This information helps determine if you are at risk for alcohol withdrawal or other alcohol-related problems that could occur after surgery and affect your recovery. We are here to help you prepare and recover from your surgery as quickly and safely as possible.

## **Diabetes Guidelines and Blood Glucose Management**

Managing your blood glucose is always important, but it is extremely important before surgery. In fact, managing your blood glucose before surgery can help reduce the risk of problems after surgery, such as infection and other complications. Surgery can affect your blood glucose control in many ways. Stress before and after surgery can cause your body to release hormones that may make it more difficult to manage blood glucose levels. Surgery can also affect your normal diet, and may change your usual medication routine. Your diabetes will be managed throughout the entire surgical process, starting with a thorough review during the pre-operative testing and continuing through the post-op period.

## **Medications**

Some medications thin your blood, increase the risk of bleeding after surgery, or interfere with healing. These medications may need to be stopped before surgery. If you take medications that contain aspirin, anti-inflammatories (such as ibuprofen, [Motrin®, Advil®], naproxen [Aleve®]), blood thinners (such as warfarin, [Coumadin®]) or arthritis medications, ask your surgeon when to stop taking these medications. Because blood-thinning medications affect clotting and bleeding, these medications (plus all your other medications) will be reviewed with you either at your pre-admission visit or by your surgical team. If you have any questions about your medications, please contact your surgeon's office.



## **Home Safety Preparation**

Setting up your home for your return before you have surgery will help keep you safe, make your life easier, and aid in your recovery. Listed below are suggestions for preparing your home for a safe recovery.

### **Traffic pattern**

Move obstacles – such as throw rugs, extension cords, and footstools – out of your walk way. Create a wide, clear path from your bedroom to your bathroom and kitchen so you can easily move about with a walker or crutches.

### **Bathroom**

Ask an occupational therapist how to adapt your bathroom to meet your needs during recovery. You will likely need an elevated toilet seat or commode and a shower chair. (Read more about Bathroom readiness in the Adaptive and Durable Medical Equipment Section)

### **Sitting**

Sit in chairs that keep your knees lower than your hips. Choose a firm, straight-back chair with armrests. A dining room chair may work if you don't have other chairs. Add a foam cushion or folded blanket if you need to raise yourself up, but avoid sitting on a soft pillow. Also, avoid sitting in rolling chairs or recliners.

### **Children and Pets**

Small children and pets can pose a safety hazard. Small children may need to be taught how to interact with you in ways that keep you safe. If you have pets, make arrangements to keep pets in another area of the house when you arrive home.

### **Access to Items**

To avoid reaching or bending, keep frequently used items within easy reach, especially in the kitchen, bathroom, and bedroom, for example, food, medications, phone. It's a good idea to carry a cell phone or portable phone with you at all times during your recovery.

### **Stair climbing**

It's okay to climb stairs without assistance, if you are able. However, you may need help with climbing stairs when you first get home. Consider installing handrails or make sure existing handrails are secure.

### **Laundry and cleaning**

Get help with cleaning and laundry. Have a few weeks' of clean clothes available.

## Mail

Arrange for somebody to collect mail or place delivery on hold (same with newspaper).

## Meals

Arrange for help with your meals and perishable foods (milk, salad, and fruits and vegetables). Freeze pre-made dinners before your surgery. Stock up on non-perishable foods (boxed, canned, and frozen) to make it easier to prepare meals after surgery.

## Driving

Arrange for someone to drive you to your after surgery appointments. Do not drive until your surgeon tells you it's okay to do so. **Absolutely do not drive while taking narcotic medications.** Do not drive until you have regained the range of motion, strength, and reaction time needed to drive safely.

## Adaptive or Durable Medical Equipment (DME)

A walker, crutches, or cane are standard equipment used by all patients recovering from joint replacement surgery. It is highly recommended that you contact your insurance company to find out what is covered under your policy.

For patients with hip replacements, an elevated toilet seat or bedside commode may be needed for safety. Both provide increased height, while the bedside commode also has arms and can usually fit directly over your home toilet. It may also fit in the shower.

Below is a list of suggested items that can make your life easier and keep you safe. Most of the items can be found at a medical supply store or at pharmacies, home improvement stores, or thrift stores. These items should be purchased before your surgery, however before buying; we suggest you talk to either a physical or occupational therapist about your specific needs.

## Personal Aids

- Walker (with 5 inch wheels, not a Rollators or walker with seat)
- Cane
- Reacher (or grabber)
- Crutches
- Sock aid
- Long-handled shoehorn
- Elastic shoe laces

## Bathroom

- Elevated commode seat
- Toilet seat riser
- Shower chair
- Grab bar for shower / tub
- Hand-held shower head
- Long-handled bath sponge

# Before Your Surgery

## Checklists

The following checklists are guides to help you prepare for surgery and recovery. Careful preparation improves the chance of a complication-free recovery.

### To complete before surgery:

- I have verified with my insurance company that I have coverage for my surgery.
- I have attended the total joint replacement education class.
- I have received my pre-admission testing schedule. If I have not received my schedule with in two weeks before my surgery, I will contact the surgery scheduling office.
- I have completed all lab work requested from my surgeon's office.
- I will call my Specialty Care Coordinator if I have questions or concerns about my surgery.
- I have talked to my Specialty Care Coordinator or surgeon about discharge options.
- I have completed a Living Will or Health Care Power-of-Attorney to have on file in my chart.
- I have not shaved my legs 3 days before my surgery.
- I have arranged for someone to drive me home when I'm discharged from the hospital.
- I have arranged for someone to drive me to my follow-up appointments.

### To improve my health before surgery:

- I quit smoking to improve healing and reduce the risk of infection after surgery.
- I had a dental check-up to make sure all my dental needs are taken care of before surgery.
- I received a flu vaccination (if during flu season -- October through March).
- I am eating lightly the week before my surgery to help reduce the risk of constipation. I have increased fluids and fiber in my diet as well.
- I had my diabetes checked, and it is under control (if applicable).

## **What to Bring to the Hospital:**

- Current list of medications and supplements, noting which ones have been stopped
- Loose pajamas or short nightgown and short robe if desired
- Under garments
- Loose shorts, jogging suit, sweats, tops
- Slippers with backs and rubberized sole or walking sneakers/shoes with Velcro® closures or elastic shoe laces
- Socks
- Personal toiletries (toothbrush, toothpaste, denture cleanser/cup, deodorant, electric or other razor, shaving cream, comb, NO powders)
- Eyeglasses
- Hearing aid and batteries
- CPAP machine settings, tubing, and machine
- Cell phone or calling card
- Driver's license or photo ID, insurance card, Medicare or Medicaid card
- Copy of your Advanced Directives
- Important telephone numbers (include person bringing you home)
- Any hand-carry equipment you may have such as a reacher, sock aid, long-handled shoe horn
- This guide booklet so you can review items with your health care team
- Do not bring a walker. The person driving you home should bring it at the time of your discharge.
- Do not bring valuables - no jewelry, credit cards, checkbooks, or cash.
- Do not bring your own medications.

## **Pre-Admission Testing**

A pre-operative work-up is mandatory for all joint replacement patients. At this visit, you will be asked about your medical history, previous surgeries, illnesses and current state of health. You will also undergo a series of tests, such as lab work, urinalysis, nasal swab, X-ray, EKG and / or stress test.

# The Day Before Surgery

You should receive a call from the surgeon's office to confirm your procedure and the time you need to arrive at the hospital. If you do not receive a call by 3:00 p.m. the day before surgery, please call your surgeon's office. For Monday surgery, call Friday afternoon. You will be told which medications to take the morning of surgery with a small sip of water.

## Do

- Remove nail polish.
- Shower and wash your hair the night before. Bathing helps reduce the amount of bacteria on the skin and may lessen the risk of infection after surgery. Use the antibacterial soap provided and follow the instructions.
- Sleep in clean pajamas or clothes.
- Sleep on freshly laundered linens.
- Get a good night's sleep – it's important to be well-rested before surgery.

## Do Not

- Do NOT eat or drink anything after the time you were instructed; ice chips, gum, or mints are NOT allowed.
- Do NOT use lotions or powders.
- Do NOT shave before surgery.
- Do NOT shower the morning of your surgery.

# The Day of Surgery

**On the day of surgery, you must remember several important things:**

- Take only the medications you have been told to take; take them with a small sip of water.
- Comply with the strict instructions about food / beverage consumption.
- Do not wear make-up or jewelry.
- Do not take insulin unless otherwise instructed.
- Do not take your oral diabetes medication (pills) on the morning of your surgery.

## When You Arrive

- You will be asked to empty your bladder.
- Any glasses, contacts, hearing aids, or dentures will be removed before surgery and returned after surgery.
- Advanced directives will be noted.
- You will have your vital signs checked (Vital signs are your heart beat rate (pulse), breathing rate, body temperature, and blood pressure).
- Your operative site will be prepped and the surgeon will review the procedure.
- An intravenous (IV) line will be started to give you fluids and medication.

## Anesthesia

The anesthesiologist or nurse anesthetist will talk with you about the types of anesthesia used during surgery.

**General Anesthesia** puts you to sleep following an injection of medications into your IV. You will not feel pain and will be completely asleep throughout your surgery.

**Regional Anesthesia** numbs a part of your body with an injection of local anesthetic. For total joint replacement surgery of the knee and hip, regional anesthesia may involve injections into your back or around the nerves in your leg or hip. You will be awake but will not feel any pain.

Remember to tell the anesthesiologist (or nurse anesthetist) if you prefer to be asleep or want to stay awake. It is your choice.

## The Surgery

Your surgery takes about one to three hours to complete. While you are in the operating room, your loved ones may wait in the surgical waiting room. The surgeon or representative will speak with your family while you are recovering.

## Right After Surgery

You will recover in the Post-Anesthesia Unit (PACU) and be cared for by a nurse before being taken to your hospital room. The average time in this unit is about two hours. While here:

- Your vital signs will be checked.
- You will be asked questions to determine if anesthesia is wearing off.
- Your pain medications will be started.
- You will be warmed with blankets if you are cold.
- You will be given oxygen to help you breathe (if needed).
- You will wear compression sleeves on your lower legs to help prevent blood clots.
- Your surgical site will be wrapped with a cold pack to reduce swelling and pain.
- You might have a urinary catheter placed to empty your bladder.
- You may have an x-ray taken of your joint replacement.

# Your Hospital Stay

After your stay in the PACU, you will be moved to a nursing unit that specializes in the care of patients with joint replacements. Some patients, for various other reasons, are moved to another nursing unit.

It is normal to drift in and out of sleep until the anesthesia completely wears off. Because it's important to rest as much as possible, we encourage friends and family to limit their visits.

While in your hospital room, your nurse will:

- Monitor your vital signs frequently.
- Check your incision.
- Give IV fluids and antibiotics.
- Check your urinary catheter (if one is present).
- Check your oxygen level.
- Help you use an incentive spirometer (this breathing device helps keep your lungs clear and helps prevent pneumonia).
- Check your compression devices (special stockings) that help prevent blood clots.
- Assess blood clot prevention, administer oral blood-thinning drugs, and assist with getting out of bed and starting to walk.

**REMEMBER:** Do not get out of your bed without assistance. Although getting up on the day of surgery aids in your recovery and helps prevent complications. You **MUST** not do so without assistance.

Within 24 hours after arriving to your hospital room you will receive a visit from a physical and/or occupational therapist to begin mobility exercises. You may also receive a visit from:

- Your surgeon, resident, fellow or physician's assistant
- A medical doctor
- An anesthesiologist or nurse anesthetist
- Your Specialty Care Coordinator

A physical therapist or nurse will help with bedside activities. Also, remember to perform the circulation exercises at the end of this guide.

## Recovery/Rehabilitation Process

Physical therapy and occupational therapy after your joint replacement surgery are critical parts of your recovery, as well as to help you regain range of motion and strength. Although you may feel significant pain during and after your therapy sessions, it is necessary for your recovery.

Your physical therapist will teach you how to:

- Lay in your bed in comfortable positions.
- Move from sitting to standing
- Walk with an assistive device (a walker, crutches, a cane).
- Comply with hip and knee precautions.
- Perform a home exercise program on your own.
- Walk up and down stairs with an appropriate assistive device.

Your occupational therapist will teach you how to:

- Comply with hip or knee precautions while performing functional activities
- Perform transfer techniques, such as getting on and off toilet seat with and without assistance or getting into and out of a car.
- Perform self-care activities, such as dressing with adaptive equipment and assistance if needed. See Adaptive or Durable Medical Equipment section.

## Total Joint Precautions

While recovering from surgery, you will follow specific precautions provided to you by your therapists. These precautions allow you to heal properly and help prevent potential complications. Make sure to ask your surgeon when it is safe to stop following these precautions.

### Knee

- Do not pivot or twist your operated leg.
- Do not kneel or squat.

### Hip

Note: Precautions may vary, depending on the surgical approach. Your surgeon and therapist will discuss your specific precautions. General precautions are as follows:

- Do not bend your operated leg beyond a 90 degree angle.
- Do not pivot or twist your operated leg.
- Do not cross your operated leg or ankle.



## **The Days Following Surgery**

Your goal is to keep moving. We encourage you to get up for meals, go to the bathroom, and get out of bed – all with assistance. You will continue to have therapy, and your activity level will be increased.

Your IVs will be discontinued and removed once you are drinking enough fluids.

Pain is an expected part of recovery. Pain levels vary per person. We will give you cold packs or wraps to manage your pain and reduce swelling. Oral pain medication will be prescribed for you and available at discharge. While in the hospital, we will ask you to rate your level of pain several times a day.

It's important to tell us if you've had any problems with any pain medications in the past. Knowing this will help us better manage your pain.

## **Medication**

After surgery, we will give you medication to thin your blood. This medication, also called an anti-coagulant, lessens the chance of harmful clots forming in your blood vessels. Blood-thinning drugs may be given by mouth or by injection.

## **Your Hospital Discharge**

Discharge planning starts the moment you decide to have surgery. One of the first things you need to do is arrange a ride for the day of your discharge. Most patients are ready to be discharged from the hospital one to three days after surgery; however, specific criteria must be met. You will be discharged from the hospital when:

- Your medical condition is stable.
- You are able to eat and urinate.
- Your pain is controlled with oral pain medication.
- Your home is prepared for your safety.
- You successfully met physical and occupational therapy goals. See Recovery/Rehabilitation Process section.

If you have not met the criteria to be discharged home, you will be discharged to a skilled nursing facility. We will contact the facility to arrange an arrival time.

# At Home Instructions

After surgery you can expect gradual improvement over the coming months. You should expect less pain, stiffness and swelling, and a more independent lifestyle. Returning to work depends on how quickly you heal and how demanding your job may be on a new joint.

After you are discharged from the hospital or rehab facility, there will be a few weeks before you return for a follow-up visit with your surgeon. This period of time is critical in your rehabilitation and for positive long-term results from your surgery.

In general, patients do very well after discharge. However, it's important that you contact the surgeon's office if any of the following occur:

- You have increasing pain in the operative site.
- There is new or increased redness or warmth since discharge
- There is new or increased drainage from your incision.
- The operative site is increasingly swollen.
- Your calf becomes swollen, tender, warm, or reddened.
- You have a temperature above 101 for more than 24 hours.
- For total knee replacement, your ability to flex (bend your knee) has decreased or remains the same as when you were discharged from the hospital.

## Managing Pain and Discomfort

We encourage you to take your pain medication as soon as you begin to feel pain. Do not wait until the pain becomes severe. Follow the instructions on the prescription label. Remember to take your pain medication before activity and bedtime.

If you need to have stitches or staples removed and you are still taking pain medications, be sure to have a friend or family member drive you to your surgeon's appointment.

Pain medication may cause nausea. If this happens, decrease the amount you are taking or stop and contact your surgeon's office.

If you need additional pain medication, please contact your surgeon's office.

If you need more pain medication, you must give a **three day advance notice** before you run out medication. Please plan ahead, especially for holiday weekends.

### Also remember:

- You are not permitted to drive a car while taking narcotic pain medication.
- It may take several days to have a bowel movement. Anesthesia and pain medication often cause constipation. Drink plenty of fluids and eat whole grains, fruits, and vegetables. A stool softener or laxative can help bowel function return to normal.
- Please do not hesitate to call your surgeon's office with any questions or concerns.

## Incision Care

Your incision will be covered with a dressing. Before you go home, your surgeon or nurse will explain how to take care of your wound and when to remove your dressing. Make sure you understand these instructions before you leave the hospital and who to contact if you need assistance. Note: How to care for your wound is included in your hospital discharge instructions.

Call your surgeon immediately if you notice any increase in drainage, redness, warmth, or have a fever above 101 degrees Fahrenheit for more than 24 hours. These may be signs that your incision may be infected.

## Walker, Crutches, Cane

Use your assistive devices for balance as instructed by your surgeon or therapist. By your first post-op visit with your surgeon, you may have already improved and changed from using a walker or crutches to a cane (as recommended by your surgeon or therapist).

## The First 48 hours at Home

No matter how much you prepared for your homecoming, it will be an adjustment. You will likely experience anxiety and question whether you were discharged too early. This is a normal feeling, so relax and focus on your recovery.

Expect a call from the Specialty Care Coordinator. This is your opportunity to report any problems and ask any questions. Also expect a visit from the physical therapist or occupational therapist within 48 hours of discharge.

### Activity

- Continue your exercise program and increase activity gradually; your goal is to regain strength and function.
- Follow all therapy instructions.
- Resume activity as you gain strength and confidence.
- For total knee replacement, swelling of the knee or leg is common with an abrupt increase in activity. If this occurs, elevate the leg above the level of your heart (place pillows under the calf, not behind the knee joint), and apply ice directly to the knee. You may continue with elevation and icing as needed to help decrease swelling and discomfort.
- Continued exercise at this early stage is important to achieve the best outcome with your new joint replacement. Based on your needs, your therapy may be continued at home or in an outpatient setting of your choice. You will be given an exercise program to continue exercising at home.

**Do not sit for longer than 30 to 45 minutes at a time.** Use chairs with arms. You may nap if you are tired, but do not stay in bed all day. Frequent, short walks—either indoors or outdoors—are the key to a successful recovery.

**You may experience discomfort in your operated hip or knee, and you may have difficulty sleeping at night.** This is part of the recovery process. Getting up and moving around relieves some of the discomfort.

**You should climb stairs with support.** Climb one step at a time – “good” leg up - “bad” leg down. Hold on to a railing, if available.

**You may be a passenger in a car, but you should sit on a firm cushion or folded blanket to avoid sitting too low.** See the instructions at the end of this guide for specific information for getting in and out of the car.

**You may not drive before your first post-op visit.** The decision to resume driving your vehicle is made by your surgeon.

### Lifting

Do not lift anything heavy after surgery. Avoid lifting objects in a position where you need to squat or bend. Avoid climbing ladders. Your surgeon will let you know when it is OK to lift heavy objects.

## Weeks 1 to 6 at Home

Our health team members are available to assist you 24 hours a day, 7 days a week. You or a family member can call and receive answers to general questions as well as instructions in the event of an emergency. Do not hesitate to call your surgeon's office regardless of the issue.

During the first six weeks after discharge, you should be making progress week by week. Most patients are eager to report their progress at follow-up visits and are ready to move to the next level in their recovery. Most patients can accomplish the following during the first six weeks after total joint replacement:

- Walk without help on a level surface with the use of walker, crutches, or cane as appropriate.
- Climb stairs as tolerated.
- Get in and out of bed without help.
- Get in and out of a chair or car without help.
- Shower using a tub bench once staples are removed – as long as there are no issues with the incision.
- Resume your activities of daily living including cooking, light chores, walking, and going outside the home. You should certainly be awake and moving around most of the day.
- Some patients return to work before the first follow-up visit. This is approved on an individual basis and should be discussed with your surgeon.

## Icing and Elevation

After a joint replacement, swelling is expected. Swelling can cause increased pain and limit your range of motion, so taking steps to reduce the swelling is important. Continue using ice packs or some form of cold therapy to help reduce swelling.

For knee replacement, you may use pillows to elevate; however, it's important to elevate the entire leg, down to the ankle. Never put a pillow only behind your knee so your knee is in a bent position. Your knee should be straight when elevated.

## Sexual Activity After Joint Replacement

Many people worry about resuming sexual activity after a joint replacement.

**Hip** - Generally, it is safe to resume sexual activity six weeks after surgery as long as there is not significant pain. Initially, being on your back will be the safest and most comfortable positioning. As your hip heals, you will be able to take a more active role. Please discuss any specific concerns with your physical therapist or advance practice nurse.

**Knee** - Sexual activity may resume when you are comfortable. If interested you may request a pamphlet demonstrating safe positions. Talk with your physical therapist or occupational therapist.

## **Diet**

Resume your diet as tolerated and include vegetables, fruits, and proteins (such as meats, fish, chicken, nuts, and eggs) to promote healing. Also, remember to have adequate fluid intake (at least 8 glasses a day). It is common after surgery to lack an appetite. This may be the result of anesthesia and the medications.

Proper nutrition is needed for healing. During the healing process, the body needs increased amounts of calories, protein, vitamins A and C, and sometimes, the mineral zinc. Eat a variety of foods to get all the calories, proteins, vitamins, and minerals you need.

If you have been told to follow a specific diet, please follow it. What you eat can help heal your wounds and prevent infection and potential complications.

If you're not eating well after surgery, contact your healthcare provider about nutritional supplements.

## **Weeks 6 to 12 at Home**

This period after joint replacement is a time of continued improvement. You will probably notice an increase in energy, a desire to do more activities, and a noticeable improvement in your new joint. Please keep in mind that every patient is different and will improve at different pace. If you are not happy with the pace of your recovery, please contact your surgeon's office to discuss your concerns.

## **Walking**

After your six-week follow-up visit, you will likely start using a cane to walk and move about. Use the cane until you return for your 12-week follow-up visit. Walk with the cane as much as you want as long as you are comfortable.

## **Back to Work**

Many patients return to work after the six-week follow-up visit.

Tips to remember for returning to work include:

- Avoid heavy lifting after you return to work.
- Avoid standing or sitting for long periods of time.
- Avoid activities such as frequently climbing stairs or climbing ladders.
- Avoid kneeling, stooping, bending forward or any position that puts the new joint under extreme strain.
- Expect a period of adjustment. Most people return to work with few problems. However, you may find the first several days very tiring. Give yourself time to adjust to work again and gradually this should improve.

## **Continue Exercise Program**

Continue to exercise. Many patients stop working with physical therapy during this time. However, exercising is the most important activity to increase strength and leads to the best outcome. Work or home activities should not replace your exercise program.

## **Comply with all Restrictions**

Although you are feeling back to normal, it is important to understand and follow the restrictions your surgeon discussed with you. Any restrictions are to protect your operative hip or knee as you continue to heal. If you want to achieve a successful outcome, be patient and follow your surgeon's instructions.

## Three Month Follow-Up

You will see your surgeon for another follow-up visit about 3 months after surgery. We encourage you to resume normal activities both inside and outside the home. Helpful tips:

- Be realistic and pace yourself and gradually resume activities.
- Increase your walking distance and activities, but not all at once.
- Keep a cane in the trunk of your car to aid with discomfort, or uneven or icy ground.
- Enjoy the benefits of your total joint.
- Continue to call with any questions or concerns. Our staff is always available to assist you.

## Six Months and Future Follow-Up Visits

Your next appointment is six months after surgery, then once a year unless told otherwise. These appointments give you a chance to discuss any concerns about your total joint replacement or other joints in which symptoms may develop.

### Lifelong Fitness

The goal of your surgery is to give you a new joint that allows you to perform everyday activities without pain. However, this joint is not indestructible. Avoid sports or other activities that may put stress on the joint until discussed with your surgeon. Stay as active as you can after recovering from your surgery. Ask your surgeon or therapist about activities and exercises that are right for you. It may or may not be appropriate to return to the exercise routine that you used before surgery.

An increase in body weight puts stress on the hip, so try to maintain a healthy weight.

## Potential Complications

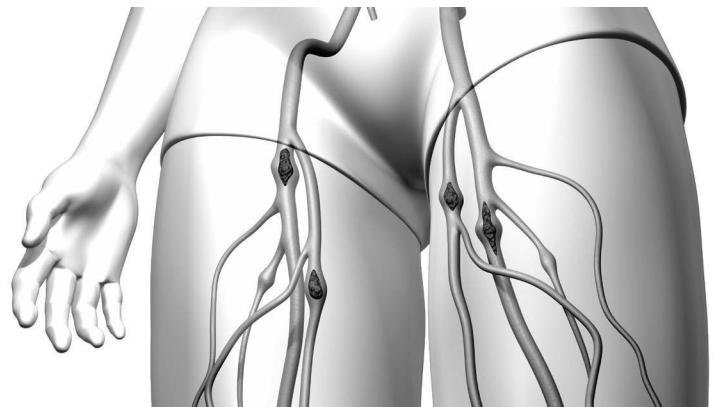
### Blood Clots

Blood clots are potential complications following hip or knee joint replacement surgery. A blood clot from your leg can travel to your lungs and cause serious health complications. Preventing a blood clot from forming is the best treatment method.

You can lower your risk of developing a blood clot by:

- Exercising and staying active (moving about).
- Taking blood thinners, such as aspirin, warfarin (Coumadin®), Lovenox, or other drugs.
- Wearing support stockings.

Some foods and supplements may alter the effectiveness of blood-thinning medications, such as foods with high amounts of vitamin K. Talk to your surgeon about certain foods to avoid while on this medication.



The symptoms of a blood clot include:

- Pain and / or redness in your calf and leg unrelated to your incision.
- Increased swelling of your thigh, calf, ankle, or foot.
- Increased skin temperature at the site of the incision.
- Shortness of breath and chest pain or pain when breathing.

**If you develop any of these symptoms, go to the nearest emergency department or call 911.**

## **Surgical Site Infection**

A surgical site infection (SSI) is an infection that occurs after surgery in the part of the body where the surgery took place. Most patients who have surgery do not develop an infection.

Some common symptoms of surgical site infection are:

- Increased redness and pain around the area where you had surgery
- Any drainage, in particular, cloudy fluid from your surgical wound
- Fever

If any of these symptoms occur contact your surgeon's office immediately.

## **Preventing Infection**

Preventing infection is extremely important for the rest of your life. Your new joint is artificial and does not have your body's natural protection against infection. It is possible to develop an infection in your artificial joint if antibiotics are not taken before certain procedures. These procedures include:

- Dental procedures
- Colonoscopy/Sigmoidoscopy
- Cystoscopy/Genitourinary instrumentation
- Prostate and/or bladder surgery
- Kidney surgery
- Cardiac catheterization
- Barium enema
- Endoscopy

Before having any procedures, let the physician or dentist doing the procedure know you have an implant. He or she should provide antibiotics. You may also contact the surgeon who performed your joint replacement to obtain the appropriate prescription antibiotics, if needed.

Thank you for choosing Cleveland Clinic for your joint replacement surgery. For questions or inquiries, please call your surgeon.



# Total Knee and Total Hip Replacement Exercises

These can be performed before and after surgery

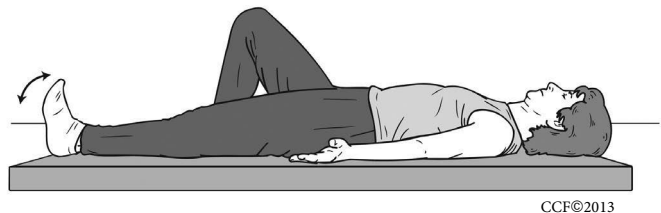
## GENERAL INFORMATION

It's important to keep your body strong and flexible both before and after your joint replacement surgery. Following the exercise program presented below will help speed recovery and make doing everyday tasks easier and less painful during your rehabilitation period.

### Circulation Exercise: Ankle Pumps

Lie on your back. Gently point and pull ankle of your surgical leg by pumping foot up and down.

- Repeat 10 times (1 set)
- Do two sets a day

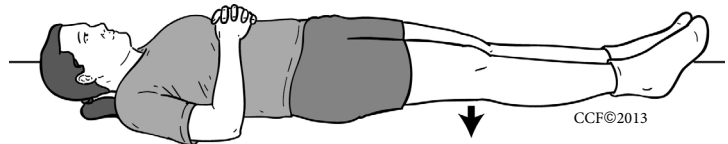


---

### Circulation Exercise: Quadriceps Sets

Lie on your back with your legs straight. Tighten your thigh muscle by pushing your knee down into the bed. **Do NOT hold your breath.**

- Repeat 10 times (1 set)
- Do two sets a day

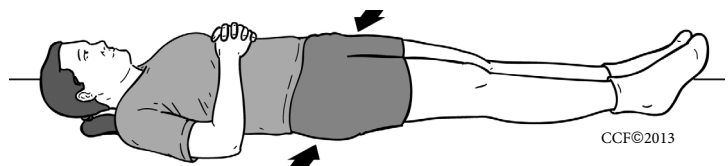


---

### Circulation Exercise: Gluteal Sets (buttock)

Lie on your back with your legs straight. Squeeze buttock together and tighten buttocks muscles. **Do NOT hold your breath.**

- Repeat 10 times (1 set)
- Do two sets a day



## Short Arc Quads

Lie on your back with a towel rolled under your knee. Slowly straighten your surgical knee by lifting your foot up while keeping your thigh on the roll.

- Repeat 10 times (1 set)
- Do two sets a day



## Heel Slides

Lie on your back. Bend your surgical knee by sliding your heel toward your buttocks.

- Repeat 10 times (1 set)
- Do two sets a day



You may be instructed to pull on a bed sheet hooked around your foot to help you slide your heel.

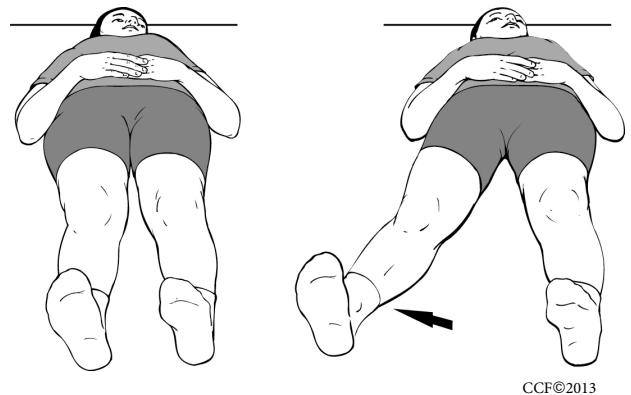
## Hip ABD/Adduction

Lie on your back. Keep your knee straight and toes pointing toward the ceiling. Slide your surgical leg out to the side and back to the center.

**Do NOT allow your surgical leg to cross the midline.**

- Repeat 10 times (1 set)
- Do two sets a day

**Note: After surgery for hip replacement ask your surgeon or therapist about this exercise.**



## ADDITIONAL JOINT REPLACEMENT EXERCISES

### Sitting Knee Flexion

Sit with a towel under your surgical leg(s).  
Your feet should be flat on the floor.  
Slide one foot back, bending your surgical knee.  
Hold for 5 seconds, then slide your foot forward.

- Repeat 10 times (1 set)
- Do two sets a day

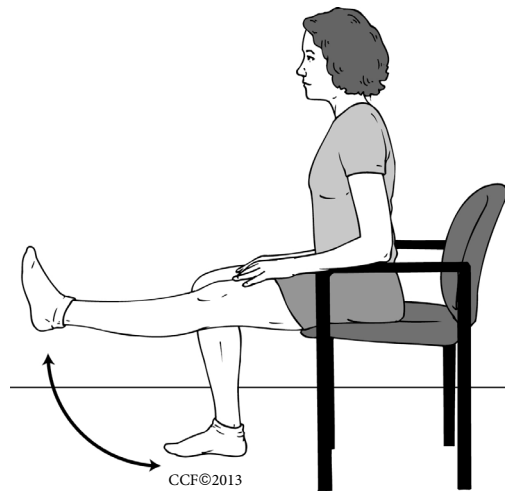


CCF©2013

### Seated Knee Extension

Straighten your surgical leg.

- Repeat 10 times (1 set)
- Do two sets a day



CCF©2013

### Hip Abduction, Standing

While standing, raise your leg out to the side.  
Keep your leg straight and keep your toes pointed forward the entire time. Use your arm if needed for balance and safety.

- Repeat 10 times (1 set)
- Do two sets a day

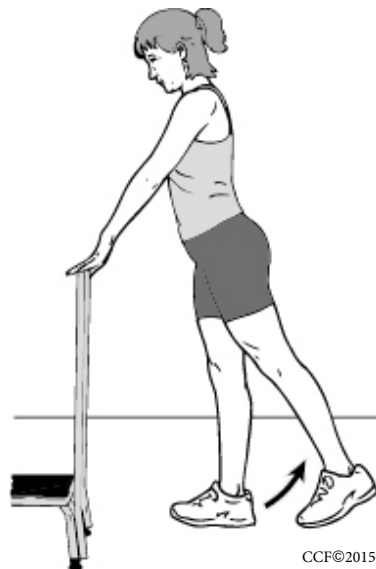


CCF©2015

## Hip Extension, Standing

While standing, move your leg back.  
Use your arms if needed for balance and safety.

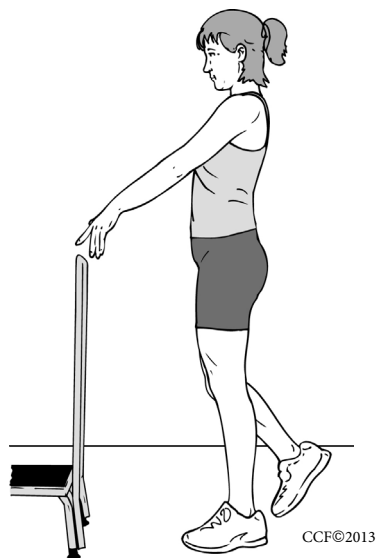
- Repeat 10 times (1 set)
- Do two sets a day



## Single Leg Stance

Stand on one leg and maintain your balance.

- Repeat 10 times (1 set)

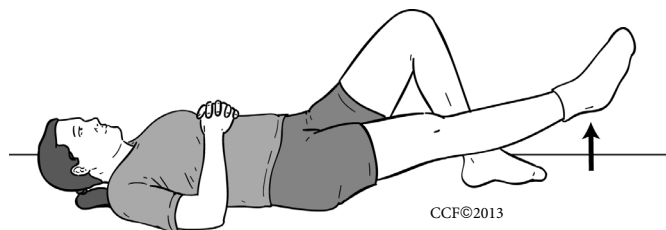


## ADDITIONAL KNEE REPLACEMENT EXERCISE

### Straight Leg Raise

Lie on your back with your non-surgical leg bent.  
Tighten your knee on surgical leg and slowly lift your leg to the level of the bent knee. Keep your back flat on the surface.

- Repeat 10 times (1 set)
- Do two sets a day



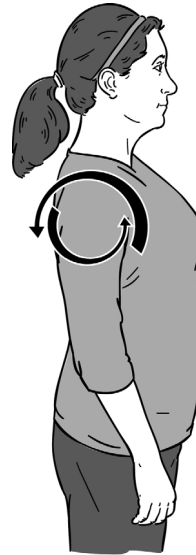
# Upper Body Conditioning/Strengthening Exercises

Before undergoing joint surgery, it's important to prepare for your rehabilitation. The following exercise program should be started 4 to 6 weeks before surgery. These exercises should be done daily if possible or at least five times per week.

## Conditioning/Strengthening Exercises

Move shoulders forward in a circular motion for a count of 10. Then, move shoulders backward in a circular motion for a count of 10.

- Repeat 10 times (one set).
- DO two sets per day.



CCF©2013

---

Pinch shoulder blades together by pulling arms back toward each other. Remember to keep elbows straight. Hold for 5 seconds, then relax.

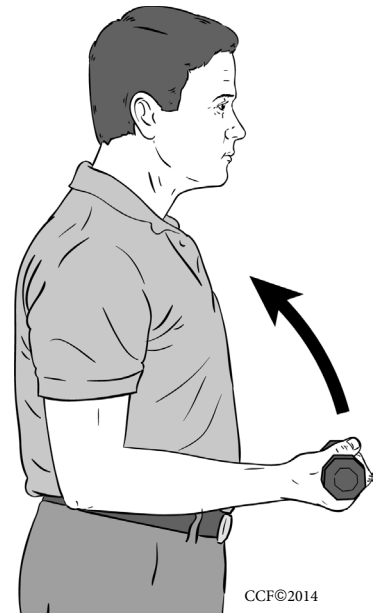
- Repeat 10 times (one set).
- DO two sets per day.



CCF©2013

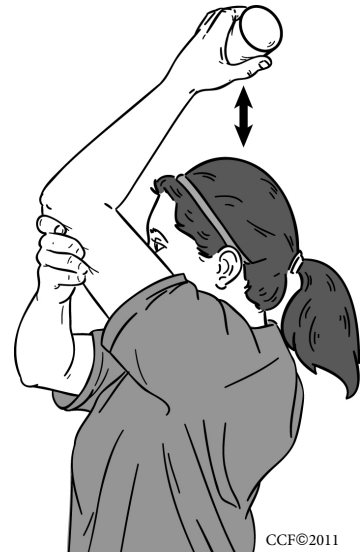
Stand with one arm bent to 90 degrees at side. Slowly bend elbow and raise the weight toward the shoulder. Remember to keep the palm up. Repeat with the opposite arm. Movements should be slow and controlled.

- Repeat 10 times (one set).
- DO two sets per day.



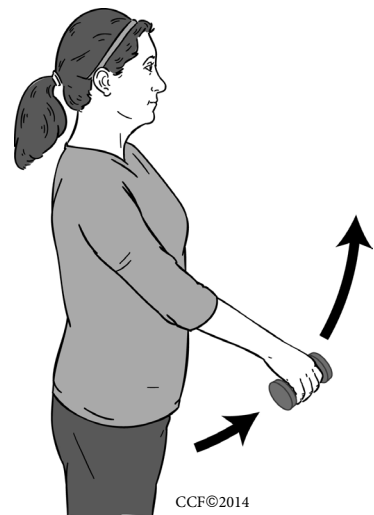
Stand or sit and bring arm up so elbow is near the ear. Support the arm that is holding the weight with the other hand by the elbow. Now slowly straighten the arm then bend it. Repeat using the opposite arm.

- Repeat 10 times (one set).
- DO two sets per day.



Keep elbow straight and raise arm above head. Very slowly return arm to side. This exercise may be performed sitting or standing. Repeat with opposite arm.

- Repeat 10 times (one set).
- DO two sets per day.



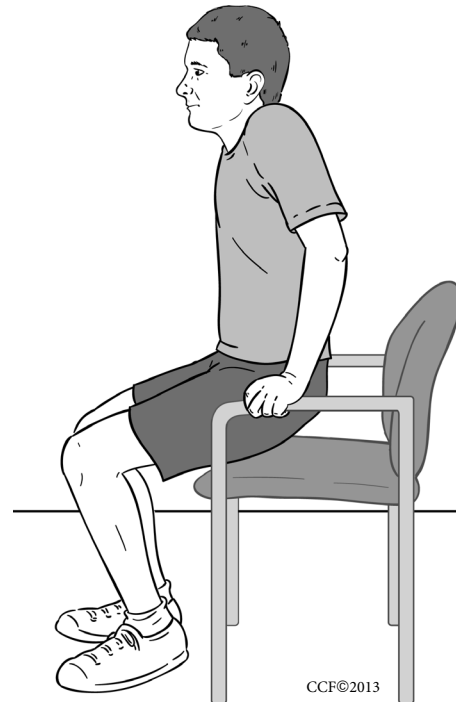
Sitting with back against chair, scoot to the edge of the chair, then scoot back. Remember to use both arms during this activity.

- Repeat 10 times (one set).
- DO two sets per day.



Sitting on the edge of the chair, place hands on arms of the chair and push body up out of chair. Lower body slowly back into the chair. Remember to use both arms during this activity.

- Repeat 10 times (one set).
- DO two sets per day.



# How to Get In and Out of a Car After a Total Joint Replacement

1. The front passenger car seat should be pushed all the way back before you enter the car.
2. Have the driver park on a flat surface and/or near the driveway ramp.
3. Walk toward car using the appropriate walking device.
4. When close to the car, turn and begin backing up to the front passenger car seat. **Never step into the car!**
5. Placing a plastic bag on a fabric seat may make moving easier.
6. Reach with your right hand and hold the door frame or headrest. Place your left hand on the car seat or dashboard.
7. Slowly lower yourself to the car seat.
8. Slide yourself back onto the car seat.
9. Swing your legs into the car. Try to move one leg at a time. Keep your toes pointed upward.
10. Do NOT cross your legs!
11. Reverse these steps to get out of a car.

When taking extended car rides, make sure to take breaks every 30 to 45 minutes. Get out of car and walk/stand for a few minutes so you don't become too stiff.

Generally, driving is not recommended for 6 to 8 weeks after surgery. Please contact your doctor to find out when it is safe to resume driving.

