

# Guidebook for Knees

## Joint Replacement Center Phone Numbers

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Duracell Center at Danbury Hospital	203-739-7823
Gibson Perioperative Surgical Home (PAT)	203-739-7141
Joint and Spine Institute	203-739-7129
Western CT Homecare	203-792-4120

### Parking

Upon arrival to the hospital on day of surgery, you will park in the Duracell Parking Lot. This is the same area you entered for Pre-Admission Testing. After you have checked in, your family member may want to move the car to the Rizzo Garage, or the valet area located at the main entrance of the hospital by the fountain. It can be difficult to access your vehicle from the main hospital if it is located in the Duracell lot.

### Visitors

Visiting hours are from 10 AM to 8 PM. No more than two visitors at a time. Exceptions may be made on an as needed basis. Visitors are required to stop at the main information desk to check in and get a Visitor Pass. The hospital has expanded quite a bit in the past years and now has several wings with patient rooms. Upon checking in, please be sure to clarify with the staff which elevators you need to take to get to a patient's room.

### Food/Shopping

The cafeteria is located on 3 South. The staff at the information desk in the main lobby can direct you. The Bistro and Gift Shop are located in the main lobby. Any questions regarding hours and locations, please ask the information desk.



# Guidebook for Knees

## Section One:

## Preparing for Surgery

### Welcome!

We are pleased you have chosen Danbury Hospital to have joint replacement surgery.

The goal of surgery is to:

- Relieve pain.
- Restore independence.
- Return to an active lifestyle.

### How to Use This Guidebook

The Guidebook will assist you with:

- What to expect.
- What you need to do.
- How to care for your new joint.

Your doctor, nurse, or therapist may add or change any of the recommendations. Always use their recommendations first and ask questions if you are unsure.

**\*\*All exercises in this book can be found in video form on the Interactive Patient Portal. Please remember to sign up!**

### Joint Center Overview

We offer a unique program to encourage discharge from the hospital very soon after surgery. Program features include:

- Nurses and therapists trained to work with patients after joint replacement.
- Casual clothes.
- Family and friends as “coaches.”
- Joint care team who coordinate preoperative care and discharge planning.
- Patient Guidebook.
- Interactive Patient Portal

**We strive to enable patients to walk the day of surgery and resume normal activity in six to 12 weeks.**

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## Your Joint Care Team

Our interdisciplinary team meets daily to round on each patient to ensure all your needs are met. Patient safety and comfort are of the utmost importance to us. Please advise the staff if you have any special needs or concerns.



**Orthopedic Surgeon:** Will complete your surgery, round on you to check on your progress, and determine when you are stable for discharge.

**Anesthesia Care Team:** They will work closely with your surgeon to ensure your comfort and safety during your peri-operative experience. They will meet with you the morning of surgery to review your health history, discuss the best type of anesthesia for you and answer any questions you may have regarding your care. They closely monitor you during your surgery and oversee your care in the Post-Anesthesia Care Unit (PACU).

**Anesthesia APRN:** This specialized group of APRN's will be seeing patient's during Pre-Admission Testing in the Gibson Perioperative Surgical Home for a preop anesthesia evaluation. They will confirm your medical/surgical history along with your list of medications. Together, you will work on a postoperative pain management plan. They may also follow your care to the inpatient unit if needed.

**Physician Assistant:** A Physician Assistant (PA) is a healthcare profession licensed to practice medicine at the direction of your surgeon. The PA will assist your surgeon in the operating room during your joint replacement as part of the surgical team and will follow your progress during your hospital stay. You will be seen daily in order to assess your condition, monitor your surgical incision and change your dressing if needed. The PA can adjust your medication and is able to evaluate any changes in your medical condition. The PA is in constant communication with your surgeon.

**Surgical PA:** Hospital based PAs provide unit coverage and will round with your surgeon/PA to stay abreast of your progress.

**Registered Nurse:** The Registered Nurse is an integral member of your health care team and will be involved in your care throughout your entire stay. Your daily plan is coordinated with the team through the nurse assigned to your care. Your nurse is a valued resource for you and your family. The nurses at The Joint Replacement and Spine Center have advanced training in orthopedics.

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**Certified Nursing Assistant:** The Certified Nursing Assistant (CNA) will be available to assist you in your everyday activities, such as bathing, dressing, setting up meals and toileting. The CNA works closely with the nurse assigned to your care. Our aides receive additional training in orthopedics and they are skilled in caring for you.

**Physical Therapist:** A Physical Therapist (PT) will work with you daily to improve your functional mobility and instruct you on exercises and any precautions associated with your joint replacement. Your PT will teach you how to use a walker or crutches properly. Your PT will communicate your progress to the rest of the team in order to determine a discharge plan appropriate to your needs. Our therapists have advanced orthopedic training.

**Occupational Therapist:** An Occupational Therapist (OT) will work with you to complete your activities of daily living while maintaining any postoperative precautions you may have.

**Care Coordinators:** Care Coordinators are specially trained registered nurses and social workers who assist with discharge planning to meet your needs after you leave the hospital. A case manager will visit you and your family after your surgery. They will ensure that your discharge needs are met in a timely and efficient manner by communicating with all members of your health care team, including your insurance company.

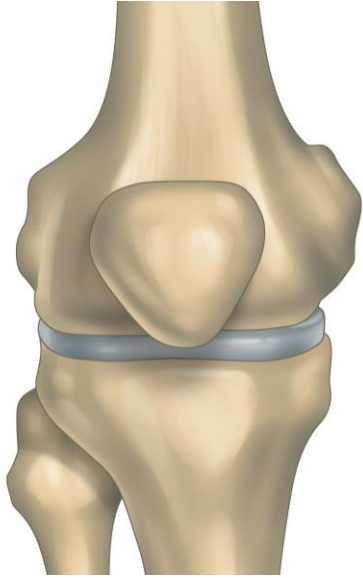
**Hospitalist:** The Hospitalist is a licensed medical doctor, trained in internal medicine, whose practice is devoted to the unique needs of hospitalized patients. They work with your private medical doctor, your surgeon and the rest of your health care team to deliver the right care at the right time, and they are able to respond quickly and efficiently to changes in your condition that may require a new medication, test or procedure. If your surgeon feels a Hospitalist will be helpful, they will consult with one.

**Orthopedic Program Manager will:**

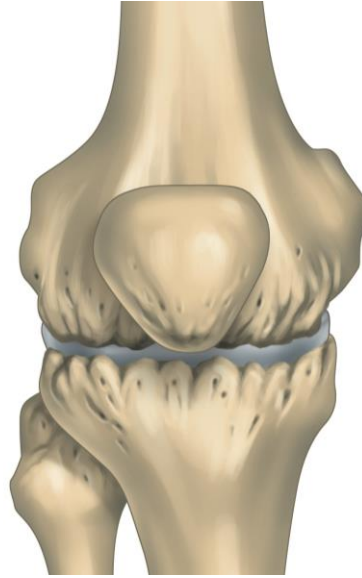
- Act as navigator throughout preop process.
- Coordinate discharge plan.
- Act as your advocate throughout treatment.
- Answer questions and coordinate hospital care.

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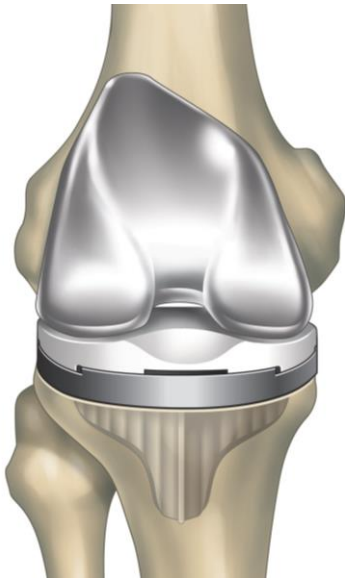
## Knee Anatomy and Arthritis



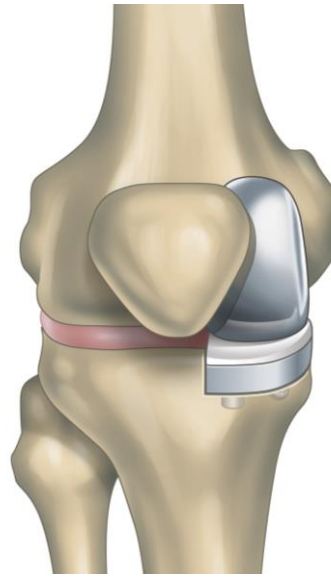
**Healthy Knee**



**Arthritic Knee**



**Total Knee Replacement**



**Partial Knee Replacement**

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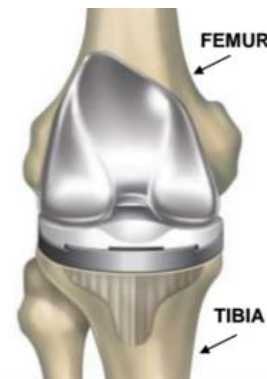
## Frequently Asked Total and Partial Knee Questions

### What is osteoarthritis and why does my knee hurt?

Osteoarthritis, the most common form of arthritis, is a wear and tear condition that destroys joint cartilage. Joint cartilage is durable, smooth tissue that covers the ends of bones where joints are located. It cushions the bones during movement, and because it is smooth and slippery, it allows for motion with minimal friction. Trauma, repetitive movement, or for no apparent reason, the cartilage wears down exposing the bone ends. Over time, cartilage destruction can result in painful bone-on-bone contact, swelling, and loss of motion.

### What is total knee replacement?

The term total knee replacement is misleading. The knee is not replaced, but rather an implant is used to re-cap the worn ends of the bone. This is done with a metal alloy on the femur (bone between the hip and knee) and a plastic spacer on the tibia (large bone between your knee and ankle) and patella (kneecap). This creates a new, smooth cushion and a functional joint that can reduce or eliminate pain



### What is partial knee replacement?

During a partial knee replacement, the deteriorated cartilage between the tibia and femur is replaced. Patients who have disease restricted to one side of the knee are typically candidates for the procedure. Because a partial knee implant is smaller than a total knee implant, the surgical incision can be significantly smaller. A partial knee implant consists of a metal component that is attached to the femur, and a plastic cap that covers the worn area of the tibia. This creates a new, smooth cushion and a functional joint that can reduce or eliminate pain.



### How long will my new knee last and can a second replacement be done?

All implants have a limited life depending on an individual's age, weight, activity level, and medical condition(s). How long a joint implant lasts will vary by patient. An implant is a medical device subject to wear that may lead to mechanical failure. There is no guarantee that your implant will last for any specified length of time.

### What are the major risks?

Most surgeries go well, without complications. However, infection and blood clots are two serious complications. To avoid these complications, your surgeon may use antibiotics and blood thinners.

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## What happens during knee surgery?

Typically, the hospital will reserve approximately one to two hours for surgery. Some of the time will be taken by operating room staff to prepare you for surgery. Choice of anesthetic for hip replacement is spinal anesthetic-which numbs the legs. You may also get a light sedative. If you cannot have a spinal due to a medical reason or based upon your preference, you may get a general anesthetic. The final decision will be made by you in consultation with the anesthesiologist on the day of surgery.



## Will surgery be painful?

You will have discomfort following surgery, but we keep you comfortable with appropriate medication. Most patients will receive oral pain medication and may receive some additional IV medication for “breakthrough” pain if needed.

## How long and where will my scar be?

Surgical scars will vary in length, but most surgeons make it as small as possible. It will be straight down center of your knee, unless you have previous scars, in which case your surgeon may use an existing scar. There may be lasting numbness around the scar.

## Will I need a walker or a cane?

You will progress at your own rate. Often patients use a walker immediately after surgery. **You should plan on obtaining a walker prior to surgery.**



## How long will I be in the hospital?

Patients are generally discharged to home once they are able to sit, stand, and walk safely with a walker or other assistive device. Most patients will be out of bed the day of surgery. The next morning most patients get up, sit in a chair, and should be walking with a walker.

## Appointments:

- **PCP Clearance:** Must be within 30 days from your surgery date
- **Specialists:** Any doctors who prescribe you medication or who you see regularly should be made aware that you are having surgery.
- **Dentist:** If you are due for your annual cleaning, please complete this PRIOR to surgery. It is important to know that your oral health is taken care of prior to surgery.
- **Outpatient PT:** If you can, make your Outpatient PT appointments PRIOR to surgery. If you are anticipating beginning Outpatient PT right after hospitalization, your first appointment should be scheduled for no more than 5 days after surgery. If you anticipate that you will require Homecare PT at first, work with the Homecare PT to know timing of scheduling your first Outpatient PT appt. Keep in mind Homecare PT is typically for no longer than 2 week’s time, (4 visits). It is important to know if there are any insurance coverage limitations to which office you will use.

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## Include Your Personal Coach

**Involving a friend or relative as your coach is very important.**

- We ask that you select a “coach”.
- Your coach can be anyone you are comfortable with – a spouse/significant other, family member or friend. He/she will participate in preoperative visits and attend sessions with the therapists and nurses while you are in the hospital.
- Arrange for someone to pick you up from the hospital. Discharge time is typically by noon. Please plan accordingly. You will need someone at home for the first few days to assist you with routine activities of daily living, meal preparation and house cleaning.

Your coach should plan to come with you to attend the preoperative class, visit during your hospital stay, provide support during physical therapy, and keep you focused on healing. They will also be a valuable extra set of eyes and ears to help keep you on track with all of the information you will be receiving over the next several weeks. **Please be sure your coach is available to assist in your physical therapy session in the hospital the day after surgery. This is critical in the discharge planning process so both you and your coach are as prepared as possible.**



## Attend a Preoperative Class

**Attend a class for joint surgery patients. Bring your coach. If you cannot attend, inform the Orthopedic Program Manager.**

Preoperative education class helps you and your coach prepare for your upcoming surgery and postoperative needs. The class provides an understanding of what will happen before, during and after surgery, provides an opportunity to meet the staff that will be caring for you, and



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allows an opportunity for questions and answers. It is important all patients and their coach attend a class 2-3 weeks prior to surgery.

## Class Outline:

- Understanding Your Surgery
- What to Expect from Coach/Caregiver
- What to Expect During Hospitalization
- Review Preoperative Exercises
- Learn About Assistive Devices and Joint Protection
- Discharge Planning/Insurance/Equipment
- Complete Preoperative Forms



## Attend Your Pre-Admission Testing Appointment

- This is a 30-45 minute appointment in the **Gibson Perioperative Surgical Home** located in the Duracell Center. You will meet with a nurse who will review your past medical history as well as your current medications. The nurse will provide you with your Incentive Spirometer and will also complete a MRSA screen. You will then meet with an Anesthesia APRN. He/she will work with you to complete a post-operative pain management plan. They will also give you details of the anesthesia options on day of surgery. **If you have not done so already, please call 203-739-7141 to make this appointment as soon as possible.**

## Put Your Health Care Decisions in Writing

Advance Medical Directives are printed instructions that communicate your wishes regarding healthcare. As there are different directives, it is a good idea to consult your attorney concerning the legal implications of each. For example:

- A Living Will explains your wishes if you have a terminal condition, irreversible coma, and are unable to communicate.
- Appointment of a Healthcare Agent (sometimes called a Medical Power of Attorney) lets you name a person (your agent) to make medical decisions if you become unable to do so.
- Healthcare Instructions are your choices regarding use of



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life-sustaining equipment, hydration, nutrition, and pain medications.

- If you have an Advance Medical Directive, please bring a copy of the document with you to the hospital.

## Eating Right For Recovery

How you treat your body the weeks before and after surgery can have a direct effect on how well and how quickly you will heal. Now is the time to take a proactive approach and give your body the building blocks it needs for the best possible recovery. A little preparation now can make a big difference in your recuperation later. Rather than waiting until after your surgery, start the healing now! Simple steps you can take include:

- Begin your healthy eating plan at least 2 weeks prior to surgery and consider making it a lifetime commitment.
- Eat a well-balanced diet rich in iron, Vitamin C and calcium.
- **Avoid alcohol especially in the 48 hours prior to surgery. This is extremely important. Drinking even one drink every day can cause mild withdrawal effects for some people.**

**IMPORTANT NOTE: If you are diabetic or on any type of restricted diet, you should consult your doctor prior to starting any diet.**

### Why Iron and Vitamin C Are Important

Iron is needed to build healthy red blood cells. Vitamin C improves the absorption of iron – in other words, Vitamin C makes it easier for the iron to get into the body and work more efficiently.

During surgery, some blood loss is expected. Ample levels of iron and Vitamin C in your body prior to surgery will help in the replacement of red blood cells that are lost during your operation. Your surgeon may even prescribe iron supplements.



**IMPORTANT NOTE:**  
A sudden increase in your diet of green leafy vegetables can interact with certain blood thinning medications such as Coumadin (warfarin) and Plavix (clopidogrel). If green

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Here is a list of iron and Vitamin C rich foods you may want to add to your diet:

IRON RICH FOODS	Iron Content mg/serving	Serving Size	VITAMIN C RICH FOODS	Vitamin C Content mg/serving	Serving Size
<i>Beef, lean</i>	7	3 oz	<i>Green Peppers</i>	65	½ cup
<i>Spinach</i>	6	1 cup	<i>Strawberries</i>	95	1 cup
<i>Lima beans</i>	2	½ cup	<i>Cantaloupe</i>	60	½ melon
<i>Dried Peaches</i>	3	½ cup	<i>Kiwi</i>	75	1 whole
<i>Navy Beans</i>	3	½ cup	<i>Grapefruit</i>	40	½ whole
<i>Soy Beans</i>	5	½ cup	<i>Broccoli</i>	60	½ cup
<i>Bran Flakes</i>	20	3 oz	<i>Brussels Sprouts</i>	50	½ cup
<i>Prune Juice</i>	3	1 cup	<i>Tomato Juice</i>	35	¾ cup
<i>Baked Potato</i>	3	1 medium	<i>Spinach</i>	28	1 cup
<i>Cashews</i>	6	3 oz	<i>Kale</i>	120	½ cup
<i>Poultry (dark)</i>	2	3 oz	<i>Cabbage (raw)</i>	50	½ cup
<i>Eggs</i>	1	1 medium	<i>Oranges</i>	70	1 whole

## Why Calcium is Important

Calcium is an important mineral needed for building new bone as well as maintain existing bone strength. During joint replacement surgery, bone is removed and an implant is put in its place. Eventually, new bone will grow around parts of the implant and help make it more stable. A diet rich in calcium can help with this process.

Here is a list of calcium rich foods you may want to add to your diet:

CALCIUM RICH FOODS	Calcium Content mg/serving	Serving Size
<i>Yogurt (non-fat)</i>	452	1 cup
<i>Yogurt (low-fat)</i>	415	1 cup
<i>Cereal (fortified)</i>	300	1 cup
<i>Cheese - Swiss</i>	408	1 oz
<i>Cheese - Cheddar</i>	306	1 oz
<i>Tofu w/ calcium</i>	434	1 cup
<i>Almonds</i>	150	2 oz
<i>Waffle (fortified)</i>	150	1 each
<i>Orange Juice w/ calcium</i>	300	1 cup
<i>Milk – 2%</i>	297	1 cup
<i>Milk - Skim</i>	302	1 cup
<i>Broccoli</i>	89	1 cup
<i>Sardines</i>	321	3 oz



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## Stop Smoking Before Surgery

Smoking and vaping can affect your body's ability to heal by reducing the amount of oxygen circulating in your blood. Because oxygen is vital for healing, it is crucial that you quit smoking today!

### Smoking<sup>1</sup> and Vaping:

- Delay your healing process.
- Reduce the size of blood vessels and decreases the amount of oxygen circulating in your blood.
- Can increase clotting which can cause heart problems.
- Increase blood pressure and heart rate.

If you quit smoking before surgery, you will improve your ability to heal. If you need help quitting, please ask about hospital resources. For information on "Quit Now", a smoking cessation program at Danbury Hospital, please call 203-739-8161

### When you are ready:

- Decide to quit.
- Choose the date.
- Limit the area where you smoke; don't smoke at home.
- Throw away all cigarettes, electronic cigarettes and ashtrays.
- Don't put yourself in situations where others smoke.
- Reward yourself for each day without cigarettes.
- Remind yourself that this can be done – be positive!
- Take it one day at a time – if you slip, get back to your decision to quit.
- Check with your doctor if you need products like chewing gum, patches or prescription aids.



<sup>1</sup>Smoking Threatens Orthopedic Outcomes. Negative effects should prompt orthopedists to address the issue with patients. S. Terry Canale, MD; Frank B. Kelly, MD; and Kaye Daugherty

<http://www.aaos.org/news/aaosnow/jun12/cover2.asp> Motrin is a registered trademark of McNeil-PPC, Inc. All rights reserved by trademark owner.

## Practice Breathing Exercises

To help prevent problems such as pneumonia, it's important to practice breathing exercises using the muscles of your abdomen and chest. Techniques such as deep breathing, coughing, and using an Incentive Spirometer may help prevent respiratory complications after



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surgery. Practice your breathing exercises as directed by your surgeon or nurse.

## Deep Breathing

- Breathe in through your nose as deep as you can.
- Hold your breath for five to 10 seconds.
- Breathe out as if you were blowing out a candle. Notice your stomach going in. Breathe out for 10 to 20 seconds.
- Take a break and then repeat the exercise 10 times.

## Coughing

- Take a slow deep breath. Breathe in through your nose and fill your lungs completely.
- Breathe out through your mouth and concentrate on your chest emptying.
- Repeat.
- Take another breath, but hold your breath and then cough hard. When you cough, focus on emptying your lungs.
- Repeat all steps twice.

**Techniques such as deep breathing, coughing, and using an Incentive Spirometer may help prevent respiratory complications after surgery.**

## Incentive Spirometer

- Exhale normally.
- Put the mouthpiece in your mouth, wrapping your lips tightly around it.
- Inhale slowly and deeply to raise the indicator, working to keep the yellow marker in the 'Best' section.



## Prepare Your Home

Make sure everything you need is easy to get to and on the same floor where you will spend most of your time.

- Have a bed that is low enough so that your feet touch the floor when you sit on the edge of the bed. You may need a stool if your bed is taller.
- Have a bathroom or a portable commode on the same floor where you will spend most of your day.
- Stock up on canned or frozen food, toilet paper, shampoo, and other personal items.



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- Either buy or make single meals that can be frozen and reheated.
- Make sure you can reach everything you need without getting on your tiptoes or bending down low.
- Put food and other supplies in a cupboard that is between your waist and shoulder level.
- Place glasses, your teapot, and other items you use a lot on the kitchen counter.
- Place a chair with a firm back in the kitchen, bedroom, bathroom, and other rooms you will use. This way, you can sit when you do your daily tasks.
- If you will be using a walker, attach a sturdy bag or a small basket to it to hold your phone, a notepad, a pen, and any other things you will need to have close by.

## Items Needed Prior to Surgery

There are several items you will need to obtain prior to surgery. Please check with your insurance provider to see what might be covered and what location you can get them. If covered by insurance, you will need a prescription written by your physician so please plan accordingly. If you choose not to go through your insurance provider, these items can be purchased at low cost from Amazon, Walmart, pharmacies or medical supply stores. They can also often be borrowed or rented from your local senior center.

**Hip Kit**



**Raised Toilet Seat**



**Compression  
Stockings/Socks**



**Walker**

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- **Hip Kit** – This includes: A grabber, a long handled sponge, a long handled shoe horn, a sock aide. You do NOT need these items for a Knee Replacement, but some people find some of the items useful.
- **A raised toilet seat:** If your toilet is low, you will need to purchase a raised toilet seat. You may or may not need handles depending on the layout of your bathroom.
- **A standard walker with front wheels:** You will need to obtain a standard walker PRIOR to surgery. The hospital does have walkers in each patient room for you to use during your stay. If the walker you acquire has been used by you in the past, you do not need to bring it to the hospital. If it is brand new or borrowed, please bring it to the hospital on day of discharge for our staff to size for you.
- **Compression socks/stockings:** The staff will give you one pair of knee high compression stockings on day of discharge from the hospital. It is a good idea to obtain another pair so you can switch them out. To determine size, measure the largest circumference of your calf. The socks/stockings you purchase should be either 15-20mmHg or 20-30mmHg.

## Avoiding Falls

Reduce tripping hazards in your home.

- Remove loose wires or cords from areas you walk through to get from one room to another.
- Make a path wide enough for a walker to fit through.
- Pick up throw rugs and tack down loose carpeting.
- Cover slippery surfaces with carpets, be sure they are firmly attached to the floor or have non-skid backs.
- Fix any uneven flooring in doorways. Use good lighting.
- Have night lights placed in hallways and rooms that can be dark.

Arrange for someone to help you care for your pets. Place bells on small pets to alert you. DO NOT carry anything when you are walking around. You may need your hands to help you balance.

## Bathroom Set-up

Raising the toilet seat height will keep you from bending your knee too much. You can do this by adding a seat cover, elevated toilet seat or a toilet safety frame. You can also use a commode chair instead of a toilet.

You may need to have safety bars in your bathroom. Grab bars should be secured vertically or horizontally to the wall, not diagonally.

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- DO NOT use towel racks as grab bars. They cannot support your weight.
- You will need two grab bars. One helps you get in and out of the tub. The other helps you stand from a sitting position.

You can make several changes to protect yourself when you take a bath or shower:

- Put non-slip suction mats or rubber silicone decals in the tub to prevent falls.
- Use a non-skid bath mat outside the tub for firm footing.
- Keep the floor outside the tub or shower dry.
- Place soap and shampoo where you do not need to stand up, reach, or twist.



Sit on a bath or shower chair when taking a shower:

- Make sure it has rubber tips on the bottom.
- Buy a seat without arms if it is placed in a bathtub.

Practice using a cane or walker. It is especially important to practice the correct ways to:

- Get in and out of the shower
- Use the shower chair
- Go up and down stairs
- Sit down to use the toilet and stand up after using the toilet



## Comfort Area

- Set up a firm arm chair to sit in. Keep a small stool nearby to elevate your legs. If you are having hip surgery, place a pillow or two on the chair.
- Have your phone nearby with a list of phone numbers.
- Set up a small table for your TV remote, books, laptop or tablet. Place a notepad and pen on it.



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- Leave room on the table for a water pitcher and glasses or place a small cooler nearby.

## References:

-Cabrera JA, Cabrera AL. Total hip replacement. In: Frontera, WR, Silver JK, Rizzo TD, eds. Essentials of Physical Medicine and Rehabilitation. 3rd ed. Philadelphia, PA: Elsevier Saunders; 2015: chap 61.

-Niska JA, Petrigliano FA, McAllister DR. Anterior cruciate ligament injuries (Including Revision). In: Miller MD, Thompson SR, eds. DeLee and Drez's Orthopaedic Sports Medicine. 4th ed. Philadelphia, PA: Elsevier Saunders; 2015: chap 98.

-Weinlein JC. Fractures and dislocations of the hip In: Canale ST, Beaty JH, eds. Campbell's Operative Orthopaedics. 12th ed. Philadelphia, PA: Elsevier Mosby; 2012: chap 55.

## Tone Up Before Knee Surgery

**It is important to be as flexible and strong as possible before having knee surgery.**

### Start Preoperative Exercise

Many patients with arthritis of the knee avoid using their painful leg. Muscles become weaker, making recovery slower and more difficult. Beginning an exercise program before surgery can help make recovery faster and easier. To get the best benefit start your exercises now.

### Exercising Before Surgery

Consult your doctor before starting preoperative exercises. A number of exercises are listed below that your doctor may instruct you to start doing and continue until your surgery. Take 20 to 30 minutes, twice a day to do your exercises. Perform exercises on both legs. It is also important to strengthen your entire body, not just your legs before surgery. Strengthen your arms by doing chair push-ups because you will be relying on your arms when walking with the walker; getting in/out of bed and chairs; and on/off the toilet. Perform light endurance activities for your heart and lungs such as walking for 10 to 15 minutes each day.

### Preoperative Knee Exercises

(Do not do any exercise that is too painful.) **Be sure not to do ANY exercises without assist if needed. Know your limits!**

1. Ankle Pumps
2. Quad Sets
3. Gluteal Sets
4. Outward Heel Slides
5. Hip Flexion Heel Slides
6. Short Arc Quads
7. Hamstring Stretch
8. Long Arc Quad

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## 9. Armchair Pushups

## 10. Seated Knee Flexion

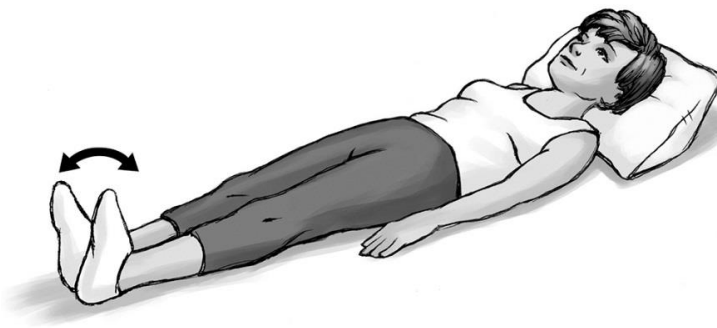
## 11. Knee Extension Stretch

### 1. Ankle Pumps

#### Instructions:

Gently point toes up towards your nose and down towards the surface. Do both ankles at the same time or alternating feet. Perform slowly.

**Perform 20 times.**

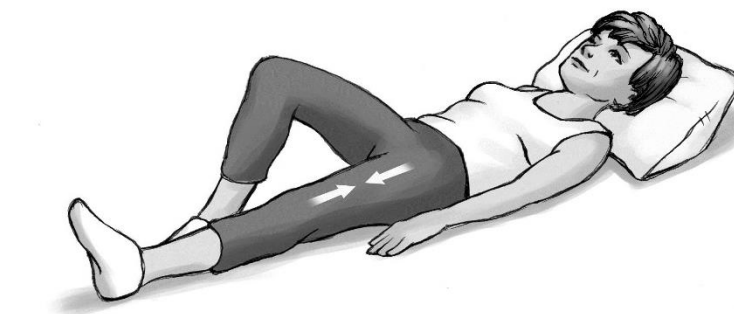


### 2. Quad Sets

#### Instructions:

Lie on your back, press knees into mat by tightening muscles on the front of the thigh (quadriceps). Hold for a 5 count. Do NOT hold breath. **Perform 20 times.**

***Coach's Note:*** Look and feel for the muscle above the knee to contract. Done correctly, the heel should come slightly off the surface. Be sure patients are not holding their breath during this and all other exercises.



### 3. Gluteal Sets

#### Instructions:

Squeeze bottom together. Hold for a 5 count. Do NOT hold breath. **Perform 20 times.**

***Coach's Note:*** Patient can place hands on right and left gluteal (buttocks) area and feel for equal muscle contractions. Be sure patients are not holding their breath during this and all other exercises.



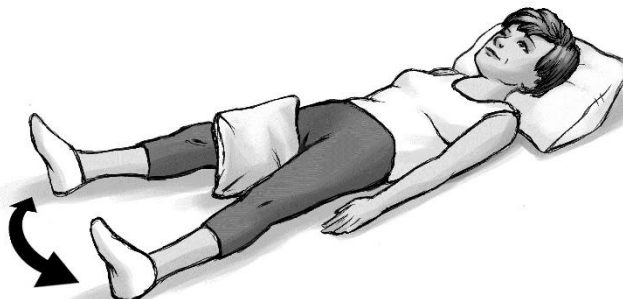
# Guidebook for Knees

## 4. Outward Heel Slides

### Instructions:

Lie on your back with toes pointing toward the ceiling and knees straight. Tighten quad muscles and slide leg out to side and back to starting position.

**Perform 20 times.**



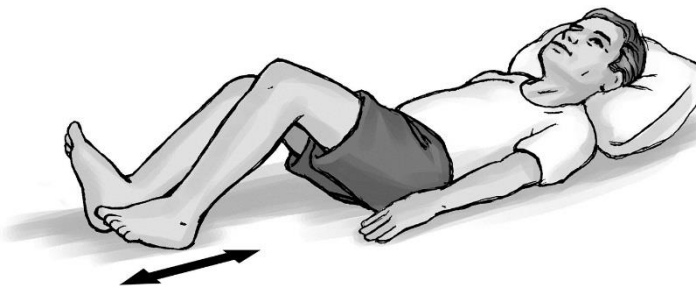
## 5. Hip Flexion Heel Slides

### Instructions:

Lie on your back and actively pull the heel up as far as possible. Once they have gone as far as they can, use a strap to assist with more knee bend.

**Perform 20 times.**

***Coach's Note:*** Patient should actively pull the heel up. Assist slide with strap.



## 6. Short Arc Quads

### Instructions:

Lie on your back and place a 6-8 inch rolled towel under knee. Lift foot from surface, straightening knee as far as possible. Do not raise thigh off rolled towel.

**Perform 20 times.**

***Coach's Note:*** Work for full extension (straightening) of the knee. Assist with band or hand if needed to get full terminal extension.



# Guidebook for Knees

## 7. Hamstring Stretch

### Instructions:

Sit on couch or bed with exercised leg extended and other leg dangling off side. Keeping exercised knee straight, gently lean forward until slight stretch is felt in back of thigh. As you become more flexible, use strap to pull up on foot. Hold for 20 to 30 seconds.

**Perform 5 times.**



## 8. Long Arc Quad

### Instructions:

In seated position, straighten leg and hold for 5 seconds. **Perform 20 times.**

***Coach's Note:*** *If able, the patient can add a small ankle weight to their leg to increase their strength prior to surgery.*



## 9. Armchair Push-ups

### Instructions:

Sitting in sturdy armchair with feet flat on floor, scoot to front of seat and place hands on armrests. Straighten arms raising bottom up from seat as far as possible. Use legs as needed to lift. Progress to using only arms and unaffected leg to perform push-up. Do not hold breath or strain too hard.

**Perform 20 times.**



# Guidebook for Knees

## 10. Seated Knee Flexion

### Instructions:

Sitting in straight-back chair, bend affected leg as far as possible under chair (can use opposite foot to help). When maximum bend is reached, plant foot and slide hips forward further bending knee. Hold for 20 to 30 seconds.

**Perform 20 times.**

***Coach's Note:*** Each time bend until a stretch is felt and then a little more, if possible. The patient can use their non-surgical leg to apply some overpressure to increase the stretch in their surgical leg. Be sure hips remain flat on the chair.



## 11. Knee Extension Stretch

### Instructions:

Sitting in comfortable chair, prop affected foot on chair or stool. Place towel roll under ankle so calf is unsupported, and apply an ice pack and 3 to 5 pound weight (or bag of rice) on top of knee. **Hold position for 15 minutes.**



# Guidebook for Knees

## Plan For the Day Before Surgery

Learn about what you need to do the day before surgery.

### Find Out Your Arrival Time at the Hospital

You will receive a call the day before surgery (or Friday if surgery is Monday) and will be given instructions, what time your procedure is scheduled, what time to arrive at the hospital, and where to come the day of surgery.

### Pack Your Bag - What to Bring to the Hospital

- Your insurance card(s) and one form of photo ID (such as driver's license)
- A current list of ALL your medication, including vitamins and supplements
- Please **do not** bring your medication with you. Your medications will be provided through the hospital pharmacy. Check with your provider on which medications you may need to bring with you if your medications CANNOT be substituted. If you do must bring your own medications, they will need to be verified by the hospital pharmacy prior to you taking them. They need to have clear prescription information on the bottle in order for the pharmacy to identify the medication.
- If you use a C-PAP machine to sleep or inhalers, please bring them.
- Other Assistive/Medical Devices: Glasses, contacts, hearing aids, dentures etc.
- **Bring the incentive spirometer you received at your pre-admission visit.**
- Pack a **small** bag with toiletries and things to help you pass the time during your stay. Pack some loose-fitting, comfortable clothing to wear during your stay (gym shorts and t-shirt). Leave the bag in the car and have a family member bring the bag to you once you are in your room.
- It is a good idea to bring Gatorade, Vitamin Water, Propel or similar to the hospital to sip on after surgery. While we can offer water, ginger ale and apple juice, an electrolyte-type drink can often make you feel a bit better.
- Please remember that any items you bring in also **must** leave with you. While flowers, balloons and other gift items are a very nice thought during hospitalization, they can be difficult to transport home along with your other items. Please arrange to have the majority of your belongings brought home **PRIOR** to discharge.
- Leave jewelry, valuables, and large amounts of money at home.
- Remove makeup before your procedure.
- Do not use deodorant, body lotion or essential oils.



# Guidebook for Knees

## Plan For Leaving the Hospital

Your care team will work with you and your family to develop a discharge plan that meets your needs.

**You should expect to go directly home to recover in the privacy and comfort of your own surroundings. During hospitalization, you will be kept separate from the “sick patient” population. We will make every effort to discharge you home in order to continue to keep your risk for infection low. There must be a MEDICAL reason in order to qualify for discharge to a Nursing Facility.**



### Going Directly Home

- Have someone pick you up. Discharge is typically before noon unless an alternative plan has been made with your team. Please plan accordingly.
- Receive discharge instructions concerning medications, physical therapy, activity, etc.
- Most patients going home will begin therapy at an outpatient PT facility. Be sure to either have these appointments scheduled ahead of time, or know which office you will be using. If a script is required to schedule your appointments, contact your surgeons office.
- If Home Health services are needed, a member of your care team will make arrangements for you.
- **Medications:** Danbury Hospital provides a service called "Med to Bed". We work with the Walgreen's Pharmacy located in the Strook Lobby to fill your prescriptions prior to your discharge home. If your insurance company has a contract with a different pharmacy, you may not be eligible for this service. Once your nurse has access to your prescriptions, they will be faxed to our Walgreen's Pharmacy. When they are ready, the pharmacist will call your hospital room phone and inform you of any issues or if there is a co pay. **If this is a service you would like to use on discharge, please either bring payment with you to the hospital, or be sure that the person picking you up on discharge day has payment.** Once payment has been settled between you and the pharmacy, the prescriptions will be delivered to your room. You may also choose to have the pharmacist include any over the counter medications you may need for discharge such as stool softeners, aspirin, etc. if you do not have them already. We strongly encourage every patient to utilize this service to avoid any insurance coverage issues with private pharmacies. Please notify your nurse if you do **NOT** want this service. Often times, narcotic prescriptions written in CT cannot be filled in NY.

# Guidebook for Knees

## Going to a Nursing Home

- Someone needs to drive you, or you can ask a member of your care team to arrange for transportation. You may incur a fee from the transportation company if not covered by insurance.
- Transfer papers will be completed by nursing staff.
- Your doctor or a doctor from the nursing home or rehab center will care for you in consultation with your surgeon.
- Nursing home or rehab center stays must be approved by your insurance company. In order to transfer to one of these settings, you must meet admission criteria established by the facility.

### **IMPORTANT NOTE:**

**If the nursing home or rehab stay is not approved, you may still choose to go there; however, you will need to pay privately.**



## Day Before Surgery

- A nurse from Ambulatory Surgery will call you the day before surgery. If your surgery is on a Monday, the nurse will call you on Friday. They will tell you what time you should arrive for your surgery.
- The nurse will ask you about your medications and tell you which medications you can take the morning of surgery.
- **DO NOT EAT ANYTHING AFTER MIDNIGHT.** We encourage you to drink plenty of CLEAR liquids in the days leading up to surgery. **We encourage you to drink CLEAR liquids up until 2 hours before CHECK IN to the hospital.** You will receive specific instructions for this during Pre-Op Class.
- The nurse will also review your preoperative instructions and answer any last minute questions.

Please note: If you are not home when the nurse from the Duracell Center for Ambulatory Surgery calls, she will leave a message on your machine. Please call back to receive your instructions and arrival time for surgery. If it is after hours and you have an **immediate** concern, call your surgeons office.



# Guidebook for Knees

## Preoperative Skin Cleansing

Antiseptic skin wipes are part of our hospital's program to reduce the risk of infection after surgery. An antiseptic solution reduces the bacteria on your skin.

\*\*These wipes will be given in Pre-Admission Testing. If you are unable to schedule a Pre-Admission testing appointment, the wipes will be given morning of surgery upon check in to the hospital. \*\*

What are Chlorhexidine Gluconate (CHG) wipes?

2% chlorhexidine gluconate (CHG) wipes are antiseptic (germ killing) cloths used to wash the skin. CHG kills 99% of the germs on the skin to help prevent germs from getting into an open wound or your bloodstream and causing serious infections.

### The night before surgery:

- Take an evening shower
- Dry completely with a clean towel before using the CHG cloths. Cool, dry skin is less likely to get irritated by the clothes.
- If you experience redness or itching, rinse the area with cool water.
- Let your skin air dry for a few minutes.
- Dress in clean pajamas; sleep on clean sheets after use.
- ***Do not shave your operative leg for 5 days prior to surgery.***
- ***Do not shave your underarms or non-operative leg for 3 days prior to surgery.***



When should you use these wipes?

1. Use them the night before surgery (see the instructions at right).
2. Use them again the day of surgery before you go to the hospital.

How should you use these wipes?

1. Wash your hands well with warm soapy water or use hand sanitizer.
2. Wipe your skin using a circular or back and forth motion. Wipe each area thoroughly but do not scrub. Do not use the cloths on your face, head, neck, eyes, ears, mouth, or genital area.

# Guidebook for Knees

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3. Use three packages (six cloths) of CHG prep wipes in this order:

Cloth 1) Wipe your chest and abdomen

Cloth 2) Wipe both arms, starting with the shoulder and ending at the fingertips. Then thoroughly wipe the armpit areas.

Cloth 3) Wipe both legs, starting at the thigh and ending at the toes. Be sure to thoroughly wipe behind your knees.

Cloth 4) Wipe your back starting at the base of your neck to your waistline. Help may be required.

Cloth 5) Wipe your right and left hip. Be sure to wipe the folds in the groin and buttock area, avoiding your genital and rectal area.

Cloth 6) Wipe the buttocks.

4. Wash hands or use hand sanitizer.

5. Do not rinse, towel dry or wipe off the skin after using CHG wipes. Do not shower or wash again until after your surgery. Do not apply lotions or moisturizers.

6. Let your skin air dry for two minutes before putting on clean pajamas. Bed sheets should be clean. Skin may feel sticky for a short time as it dries.

7. Throw all cleaning cloths in the garbage. Do not flush in the toilet.

Please note: The cloths are for cleaning external parts of the skin only. The cloths should be stored and disposed of out of the reach of children. Treat the cloths as if they are a medication. If redness, irritation or rash appears discontinue use of the cloth and contact your healthcare provider.

# Guidebook for Knees

## Section Two:

## At the Hospital

### Special Needs or Interpreters

We do have several rooms close to the nurse's station designed for close monitoring for patients with dementia or other special needs. We do have access to equipment for sign language as well as interpreter phones that can be placed in the patient's room. It is required by law for the hospital to provide you or your family member with an interpreter phone to provide the best communication between the patient and health care providers. If the patient is unable to use the interpreter phone, please make other arrangements prior to admission. We will make every effort to accommodate each patient with specific needs. Please be sure to let your surgeon know any special needs the patient may have during hospitalization.

### Admission

- Arrive at the requested time.
- The receptionist will greet you and ask to see your insurance card(s) and photo ID. At that time, you will receive your HIPAA form and Patient Bill of Rights to sign.
- You will receive your hospital ID band. This ID band has important information about you. Please check to make sure that your name is spelled correctly, and your date of birth is correct. All staff members you come in contact with will be checking your ID band in order to properly identify you.

### Assessment

- A nurse will bring you to an "assessment room" (a family member/friend may accompany you). They will review your health information and medication list with you and complete any information still needed.
- The doctors and staff of Western Connecticut Health Network take your safety very seriously. Throughout your hospital stay several staff members may ask you the same questions. These repetitive questions may be bothersome, but please be assured that the staff is following procedures put in place for your safety.
- You will be given a hospital gown and slippers to change into. Your clothes will be placed in a bag and labeled.
  - **Please give all belongings to your Coach to bring to your hospital room after surgery. You can also choose to have your belongings placed in security.**
- The nurse will then start an intravenous (IV) line and give any "pre-surgery" medications the doctor has ordered.
- The nurse will take your family's contact information for your surgeon. Whenever possible please leave a cell phone number.
- Please do not hesitate to ask questions you or your family may have.

# Guidebook for Knees

## Preoperative Area

- Your family will be directed to the waiting room when you are moved into the pre-operative area.
- The nurse in this area will review your health information.
- Your surgeon will meet with you. He will verify the type of surgery you are having, and he will initial a spot close to the area of your surgery. This is part of a national effort to ensure “correct site surgery”. This means that the right type of operation is performed at the correct place on the body of the correct patient. Endorsed by the American Academy of Orthopedic Surgeons, this process promotes communication and ensures patient safety. The marker will come off with alcohol after your procedure.

## Anesthesia Options

### Anesthesiologist/Nurse Anesthetist

The Operating Room, Post Anesthesia Care Unit (PACU), and Intensive Care Unit at the hospital are staffed by board certified and board eligible anesthesiologists and/or anesthetists.

### Types of Anesthesia

- **General anesthesia** - produces temporary unconsciousness.
- **Regional/Spinal anesthesia** - involves the injection of a local anesthetic providing numbness, loss of pain, or loss of sensation to the body.

### Side Effects

Your anesthesiologist/nurse anesthetist will discuss the risks and benefits associated with each anesthetic option, as well as complications or side effects that can occur.

You will be given medications to treat nausea and vomiting which sometimes occurs with the anesthesia. The amount of discomfort you experience will depend on several factors, especially the type of surgery. Your discomfort should be minimal, but do not expect to be totally pain free. Staff will teach you the pain scale to assess your pain level.

## Operating Room/Recovery

### Operating Room

Once you have had medication for sedation, you will go to the operating room and assist onto the operating table. You will then receive the pre-determined anesthesia option chosen by you and your team. The surgery itself will be between 45 minutes -1.5 hrs. This does not include prep or recovery time. Once your surgery is complete, the surgeon will notify your emergency contact via the phone number on record.

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## Recovery Room

You will then be moved to your hospital bed and transferred to the recovery room. You will remain in recovery until your vital signs are stable, pain is managed, and anesthesia has worn off. Once you have met criteria, the anesthesiologist will clear you to be transferred to your private room on 8 Buck Pavilion.



## 8 Buck Pavilion

The Total Joint Program patients will recover in one of 12 private rooms on 8 Buck Pavilion. Each room is equipped with a recliner, walker, television and couch that can be converted to a twin bed if a family member chooses to spend the night. Our Joint Replacement patients are kept completely separate from the “sick patient” population. We believe strongly in a well-patient model since patients coming in for elective joint replacement surgery are not sick. This well-patient model will promote healing in the most comfortable environment possible. There are many helpful forms you and your coach will find in the orange folder in your room when you arrive.

## Day of Surgery

Once you have arrived to your hospital room, a nurse and nursing assistant will do a complete admission evaluation. You will work with a physical therapist within 2 hours of arrival to the unit. It is very important to be up and moving as soon as possible in order to prevent pain, pneumonia, blood clots and to aide in peristalsis. You will likely be assisted to the recliner chair for dinner. Depending on the time you have arrived to the unit, you may be assisted into your own clothes for the evening. You will be asked to place your order for breakfast the following morning. The staff will also inform you of your physical therapy time for the following day so that you can arrange for your coach to be present.

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## Day After Surgery

Your morning will begin between 5:30-6AM. The lab will come to draw any bloodwork your surgeon has ordered. The nursing staff will complete morning vital signs and then assist you to dress and settle into the recliner chair for breakfast. We want to be sure your body has time to acclimate to an upright position well before your physical therapy session. The staff will remind you of your scheduled physical and occupational therapy times so that you can confirm your coach will be present.

**\*\*As stated earlier; this is crucial in home recovery. Both you and your coach need to be proficient in understanding your exercises as well as any post-operative precautions you may have. They will also need to be fully confident in assisting you with stairs and car transfers.**

You will complete Group Physical Therapy as well as one on one individual occupational therapy. If it has been decided by your surgeon, you and your physical therapist that you are cleared for discharge at this point, the nurse will begin working on the discharge paperwork. If the team feels that you would benefit from another night in the hospital, you will receive an additional one on one physical therapy session before dinner. You will then repeat the process tomorrow!

## Ways to Manage Pain

Pain control during and after surgery is likely to be one of the most common concerns of joint replacement patients. With today's medications and pain management techniques, you should remain relatively comfortable throughout your recovery.

Your doctor will choose the method right for you based upon your medical history, the amount of pain you are having and your phase of recovery.

Along with your surgeon, anesthesiologist or nurse anesthetist and your nursing staff, you are a key member of your pain management team. Be sure to review "Understanding the Pain Scale" and the information that follows. Regardless of the pain management protocol being used, it is important for you to communicate with your care team if the pain medication is not sufficient, if you are feeling nauseous, or if you are not as alert as you feel you should be. Adjustments can be made to make your pain management program as effective as possible

### Prevent the Pain Cycle

Pain has a cycle. It begins and increases until medication interrupts it. The aim of good pain control is to stop pain before it becomes intolerable. It's especially important to request additional medication



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30-45 minutes prior to an exercise session so that you can achieve your goals more comfortably.

## Other Methods to Decrease Pain

It is important to try to relax after your surgery and one way that may help is to listen to your favorite relaxing music. Frequent position changes and applying ice or cold for 15-20 minutes at a time on a regular schedule can also help in minimizing your discomfort.

## Using the Pain Scale

Using a number to rate your pain level can help your care team understand and help manage it.

<b>0</b>	<b>No Pain</b>	
<b>1</b>	<b>Minimal</b>	Pain is hardly noticeable
<b>2</b>	<b>Mild</b>	Low level of pain
<b>3</b>	<b>Uncomfortable</b>	Pain bothers me but I can ignore it
<b>4</b>	<b>Moderate</b>	Aware of pain but can continue most activities
<b>5</b>	<b>Distracting</b>	Think about the pain most of the time and it interferes with some activities
<b>6</b>	<b>Distressing</b>	Think about the pain all the time and had to give up many activities
<b>7</b>	<b>Unmanageable</b>	In pain all the time, keeps from most activities
<b>8</b>	<b>Intense</b>	So severe can think of hardly anything else, talking and listening are difficult
<b>9</b>	<b>Severe</b>	Can barely talk or move because of the pain
<b>10</b>	<b>Unable to Move</b>	In bed, can't move due to the pain, need to go to the emergency room

Your physicians, nurses and therapists will be frequently asking you for your pain level and with good communication, the team can make adjustments to make you more comfortable.

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## Why Group Exercise?

Mobility is very important after Joint Replacement to help ensure a successful recovery. Typically, patients receive two Physical Therapy sessions each day in the hospital immediately after surgery. At our Joint Replacement Center, we have developed a program to encourage mobility, and make it an even more effective and enjoyable experience for our patients!

“Group Exercise Class” is offered daily and allows us to bring all our Joint Patients and their Coaches together for the session. You will be an active part of this important and fun part of your recovery experience. We will have members of our Physical Therapy Department leading each class and helping you learn and perform your exercises. In addition, we encourage your “Coach” to participate, as well. This will make them more comfortable and better able to help you continue progress after you return to your own home.

We believe the group experience is important for several other reasons. Sharing your exercise and mobility experiences with other patients helps create an atmosphere of support and camaraderie. Seeing other patients and their families experience these first few steps in the recovery process will give you confidence that “you can do it, too!”

The group experience is also a great way to enhance learning. Other patients may ask questions during the session, that you had not considered; and, so the entire group benefits from the conversation. Group Exercise Class is a stimulating social experience, as well. You will be able to meet fellow patients and their families from the community while sharing this important activity in your rehabilitation and recovery. Hopefully, you will even make new friends and stay in touch after you leave the hospital.

Group Exercise Class is a great way to provide important therapy and exercise in a unique and enjoyable atmosphere. Our goal is to increase your mobility, while making you an informed and well-prepared patient. We are looking forward to meeting you!

## Mobility Instructions

This is a good time to review some of the things you learned during your hospital stay.

### Walking and Using Stairs

#### Using Your Walker

- Move your walker forward.
- Step forward placing the foot of your surgical leg in the middle of the walker area.



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- Step forward with your non-surgical leg. Do NOT step past the front wheels or feet of the walker.



## Reminders:

- Take small steps. Keep the walker in contact with the floor, pushing it forward like a shopping cart.
- If using a rolling walker, advance from basic technique to a normal walking pattern. Holding onto the walker, step forward with your surgical leg, pushing the walker as you go. Try to alternate with an equal step forward using your non-surgical leg. Continue to push your walker forward. When you first start, this may not be possible, but you will find this gets easier. Make sure that your foot does not go past the front of the walker when taking a step. Ideally, the foot should land in the center of the walker.

## Using Stairs

A simple way to remember the correct sequence for stair climbing is “up with the good, down with the bad.”

What this means is that when you are climbing up the stairs, you lead with your unaffected leg, followed by the operative leg. To descend, begin down with your operative leg, followed by the unaffected leg. And always hold on to the railing!

## Getting In and Out of a Chair

### Standing up from a chair

**Do NOT pull up on your walker to stand! Choose to sit in chairs with armrests.**

1. Extended your surgical leg so your knee is lower than your hips.
2. Scoot your hips to the front edge of the chair.
3. Push up with both hands on the armrests. If a chair doesn't have an armrest, place one hand on the walker while pushing off the side of chair with the other hand. Balance yourself before grabbing for the walker.



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## Sitting down

1. Back up to center of chair until you feel the chair on back of your legs.
2. Slide the foot of your surgical leg out, keeping your stronger leg close to chair for sitting.
3. Reach back for the armrests one at a time.
4. Slowly lower your body to the chair, keeping your surgical leg forward as you sit.



## Getting In and Out of Bed

### Getting into bed

1. Back up to the bed until you feel it on the back of your legs (you need to be midway between the foot and the head of bed).
2. Reaching back with both hands, sit down on the edge of the bed and scoot back towards the center of the mattress.
3. Move your walker out of way, but keep it within reach.
4. Scoot your hips around so you are facing the foot of the bed.
5. Lift your leg into bed while scooting around (if this is your surgical leg, you may use your other leg, a cane, rolled bed sheet, belt, or elastic band to assist with lifting the leg into bed).
6. Keep scooting and lift your other leg into bed.
7. Scoot hips toward center of bed.

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Back up until you feel your leg on the bed.



Stay in a sitting position.



Scoot back on the bed lifting your leg onto the bed.

## Getting out of bed

1. Scoot your hips to the edge of the bed.
2. Sit up while lowering your non-surgical leg to the floor.
3. If necessary, use a leg-lifter to lower your surgical leg to the floor.
4. Scoot to the edge of the bed.
5. Use both hands to push off the bed. If your bed is low, place one hand in the center of the walker while pushing off the bed with your other hand.
6. Balance yourself before reaching for your walker.

## Lying in bed



Keep a pillow between your legs when lying on your back. Position your leg so that your toes are pointing to the ceiling – not inward or outward. Remember NOT to place a pillow under your surgical knee.



To roll from your back to your side, bend your knees slightly, and then place a pillow between your legs so that your surgical leg does not cross midline. Then simply roll onto your side.

# Guidebook for Knees

## Section Three: At Home After Surgery

### Stay Positive!

We hope that you find each day easier than the last, but it is helpful to realize that recovering from any surgery can be a little like “two steps forward and one step back.”

On those days when you feel things aren't coming along as well as you'd like, remember to concentrate on what IS improving rather than what symptoms remain. By focusing on the progress you have already made and combining it with a constant effort to improve, you can maintain the positive attitude so essential for the best possible outcome!



## Home Care Instructions/Transitioning Home

How to care for yourself at home after surgery.

Things you need to know for safety, recovery and comfort as you return home.

### Be Comfortable

- Take your pain medicine at least 30 minutes before physical therapy or exercise sessions.
- Taper yourself off prescription medication to non-prescription pain reliever.
- Change position frequently (every 45 minutes – 1 hour) to help prevent stiffness.
- Use ice for pain control 20-30 minutes at a time on a regular schedule. Use before and after your exercise or therapy sessions.
- Avoid napping during the day to help you sleep better at night.



### Body Changes

- Your appetite may be poor initially, but your desire for solid food will return.

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- **It is a good idea to pick up some Ensure or Boost to have on hand at home. Protein is very important in the healing process.**
- Drink plenty of fluids. **Dehydration is a risk after surgery.** A good rule of thumb is to drink half of your body weight in ounces daily. Example: If you weigh 150 lbs, you should be drinking 75 oz of liquid daily. This may seem like a lot but your body needs to stay hydrated to keep up with the recovery process.
- You may have difficulty sleeping for a short time after you return home – this is normal.
- Your energy level may be low, and this may last for up to four weeks.
- Pain medication that contains narcotics may make you constipated. Use stool softeners or laxatives, if necessary.

## Sleep Problems

Having trouble sleeping since your surgery? You're certainly not alone. Many people complain of difficulty sleeping from the lingering effects of anesthesia, the body's stress response to the surgery, as well as changes in your daily routine. Here are a few tips for a better night's sleep:

- Avoid day-time naps, try to remain active, and exercise throughout the day.
- Avoid caffeine in the evenings (coffee, tea, chocolate, and colas).
- Listen to relaxing music in the evenings.
- Take a nice warm shower, if permitted.

**Your normal sleeping patterns should return within a few weeks, but please notify your doctor if:**

- You notice changes in your behavior.
- A lack of sleep is causing problems in your life.
- Normal sleeping patterns do not return within two to three weeks.

## Preventing Constipation

Having joint replacement surgery, or any surgery for that matter, can lead to constipation. Changes in daily routine, short-term reductions in appetite and mobility, as well as narcotic pain medication can contribute to an increased risk for constipation. The best approach is to take measures to prevent it before it becomes a problem:

- Eat fiber rich foods like whole grains, fresh fruits and vegetables to help keep your system moving. Consider a fiber additive.



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- Drink plenty of water. This adds fluid to the colon and bulk to the stools, making bowel movements easier to pass. Stool softeners may also be helpful.
- Avoid caffeine – coffee and colas. Caffeine flushes your colon of fluids and causes dehydration making stools dryer and harder to pass.
- Avoid alcohol – it also causes dehydration. Do not drink alcohol while taking narcotics.
- Keep up with your exercises – daily walks help to keep things moving.
- **Be sure to take some kind of over the counter stool softener to prevent constipation. Take daily as directed until you have normal bowel movements.**
- Wean yourself from narcotic pain medications as soon as possible.

**In the event that you do become constipated, start with a gentle laxative prior to trying a more aggressive measure, such as a suppository or an enema.**

## Appetite Changes

After surgery, it's not unusual for your appetite to "disappear" for a while. Your favorite foods may not taste as good as usual, or you are just not hungry. Here are a few suggestions to try until your appetite returns:

- Eat 5-6 small meals a day. Rather than 3 larger meals, try eating smaller meals and snacks to make sure you get enough nutrition. Good snacks include cheese and crackers, glass of milk, cottage cheese, peanut butter on crackers or celery, or some of the protein shakes that are available.
- If you are experiencing taste changes, try a variety of foods to find out what works best for you. For example, you may find that cold foods with little odor work best. Cottage cheese, cereals, macaroni and cheese and chicken salad may be tastier than beef.
- Some foods that may taste good during your recovery may not be the most nutritious. Try replacing them with foods that are higher in protein, vitamins and minerals.



Rather than	Eat this
Broth	Vegetable beef soup
Plain Jell-O	Fruited Jell-O
Carbonated beverages	Milk, fruit smoothie, protein shake
Italian ice/popsicles	Frozen yogurt, frozen fruit bar

# Guidebook for Knees

## Symptoms to Watch For After Surgery

### Blood Clots

Surgery may cause the blood to slow and clot in veins of the legs. If a clot occurs, you may need to be admitted to the hospital to receive blood thinning medication.

### Signs

- Swelling in your thigh, calf, or ankle that does not go down with elevation.
- Pain, heat, and tenderness in your calf, back of your knee, or groin area.
- Blood clots can form in either of your legs.

### Prevention

- Adhere to your daily exercise routine and perform ankle pumps.
- Walk several times a day.
- Wear compression stockings, as directed by your doctor, remove daily to inspect your skin.
- Take an anticoagulant or blood thinning medication as directed by your doctor.



### Pulmonary Embolism

An unrecognized blood clot could break away from the vein and travel to the lungs. This is an emergency — CALL 911.

### Signs

- Sudden chest pain
- Difficult and/or rapid breathing
- Shortness of breath
- Sweating
- Confusion

# Guidebook for Knees

## Preventing Blood Clots – Working With Your Blood Thinner

Blood clots after surgery can cause serious problems. However, there are steps that can be taken to help prevent them, as mentioned on the previous page.

There are many different types of blood thinning medications. Some are oral (by mouth) while others require injections. Your doctor will select the type of medication that is best for you.

When taken according to your surgeon's instructions, blood thinners are generally safe and effective. However, in some cases, there may be warning signs that prompt treatment is needed.

If you fall, have a traumatic injury, or if you experience any of the following, call your surgeon immediately. **DO NOT WAIT AND HOPE THE SYMPTOMS GO AWAY.**

- Bleeding or oozing from the surgical wound
- Nosebleeds
- Blood in your urine
- Coughing or vomiting blood
- Excessive bleeding when brushing your teeth
- Spontaneous bruising (a bruise not caused by a blow or any apparent reason)
- Dizziness, numbness or tingling
- Rapid or unusual heartbeat
- Chest pain or shortness of breath



**Report any anticoagulant-related side effects such as large amount of bleeding and/or bruising, immediately!**

## Things to Avoid While on Blood Thinners

Certain medications, foods and activities can interfere with blood thinners. It is important to take proper steps to avoid any potential complications.

- Check with your surgeon before taking any over-the-counter drugs like aspirin, aspirin containing compounds, non-steroidal medications and even vitamins, except those prescribed when leaving the hospital. Your surgeon will provide additional information based on the specific blood thinner you will be taking.





# Guidebook for Knees

- Be consistent in the amount of dark green leafy vegetables you eat each day – they are high in Vitamin K and this can counteract the action of some blood thinners.
- Avoid drinking alcohol while on blood thinners.
- Postpone any procedures that may cause bleeding such as dental work, minor or major surgical procedures etc. If it is not possible to postpone, be sure that the dentist or doctor is aware of the fact that you are taking blood thinners and that you have had a recent joint replacement.
- Avoid any activity that may result in injury such as hobbies that use power-tools or sharp instruments.

## Infection

### Signs

- Increased swelling and redness at your incision site
- Change in the color, amount, and odor of drainage
- Increased pain at your surgery site
- Fever greater than 101.5 degrees

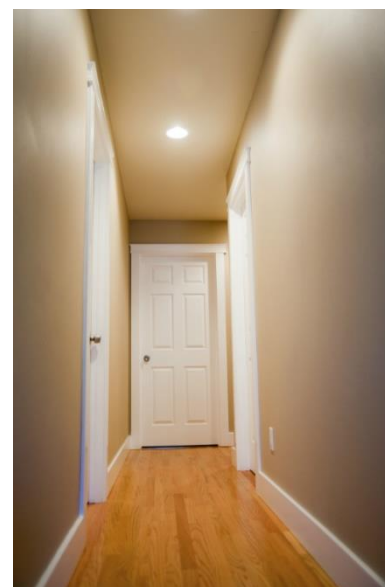
### Prevention

- Take proper care of your incision. Wash your hands frequently, especially after using the bathroom and after contact with pets.



## Safety Tips and Fall Prevention

- Pick up throw rugs and tack down loose carpeting.
- Cover slippery surfaces with carpets, be sure they are firmly attached to the floor or have non-skid backs.
- Be aware of floor hazards such as pets, small objects, or uneven surfaces.
- Provide good lighting throughout. Install nightlights in bathrooms, bedrooms, and hallways.
- Keep extension cords and telephone cords out of pathways. Do NOT run wires under rugs; this is a fire hazard.
- **Do NOT wear open-toe slippers or shoes without backs. They do not provide adequate support and can lead to slips and falls.**



# Guidebook for Knees

- Sit in chairs with arms to make it easier to get up.
- Rise slowly from either sitting or lying position to avoid getting light-headed.
- Do not lift heavy objects for first three months and then only with surgeon's permission.

## Protecting Your Joints Around the House

### Around the house: saving energy and protecting your joints

- Do NOT get on your knees to scrub floors or your bathtub. Use a mop and long-handled brushes.
- Plan ahead! Gather all cooking supplies at one time. Sit to prepare your meal.
- Place frequently-used cooking supplies and utensils where they can be reached without much bending or stretching.
- To provide better working height, use a high stool or put cushions on a chair when preparing meals.



## Equipment to Help With Dressing

### Using a reacher:

A reacher or dressing stick can help remove pants from your feet and off the floor.

### Putting on pants and underwear:

1. Sit down and put your surgical leg in first, followed by your non-surgical leg. Use a reacher or dressing stick to guide your waistband over your foot.
2. Pull your pants up over your knees.
3. Stand with the walker in front to pull your pants up.



### Taking off pants and underwear:

1. Back up to a chair or bed.
2. Unfasten your pants and let them drop to the floor. Push your underwear down to your knees.
3. Lower yourself down, keeping your surgical leg out straight. Take your non-surgical leg out first followed by your surgical leg.

# Guidebook for Knees

## Using a sock aid:

- Slide your sock onto the sock aid.
- Hold the cord and drop the sock aid in front of your foot. This is easier to do if your knee is bent.
- Slip your foot into the sock aid.
- Straighten your knee, point your toe, and pull the sock on. Keep pulling until the sock aid pulls itself out.



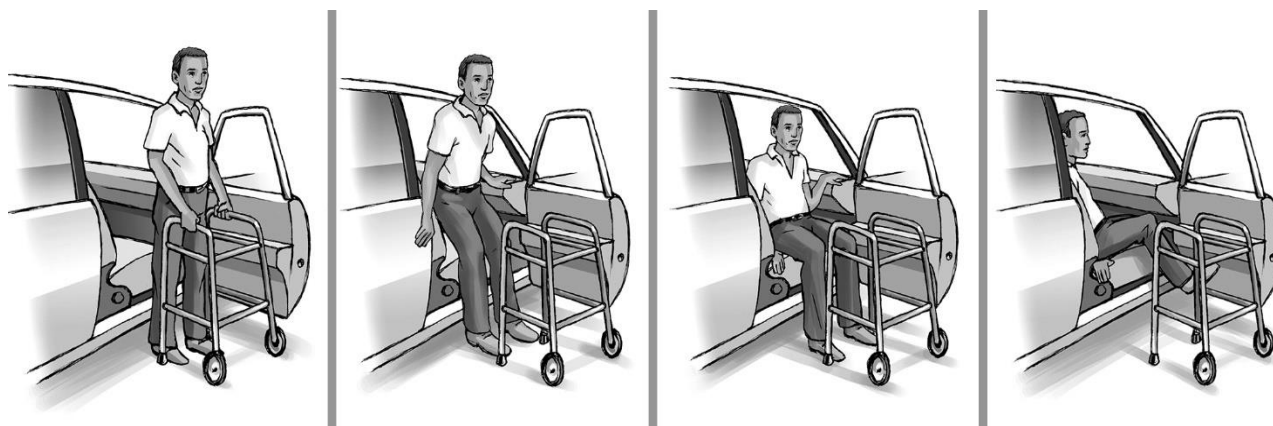
## Using a long-handled shoehorn:

1. Use your reacher, dressing stick, or long-handled shoehorn to slide your shoe in front of your foot.
2. Place the shoehorn inside your shoe and against the back of your heel.
3. Lean back as you lift your leg and place your toes into the shoe.
4. Step down into the shoe, sliding your heel down the shoehorn.

This can be performed sitting or standing. Wear sturdy slip-on shoes or shoes with Velcro closures or elastic shoelaces. Do NOT wear high-heeled shoes or shoes without backs.

## Getting In and Out of the Car

1. Move your car seat all the way back and recline the seat back to allow for adequate room to get in and out, but remember to always have it upright for travel.
2. Back up to the car until you feel it touch back of your leg.
3. Hold on to the car seat or dashboard and slide your surgical foot out straight. Watch your head as you sit down. Slowly lower yourself into the car seat.
4. Lean back as you lift your surgical leg into the car. You may find it helpful to use a cane, leg lifter, or other device to assist.



# Guidebook for Knees

## Bathing Tips

### Getting into the bathtub (using a bath seat)

1. Place the bath seat in tub facing the faucet.
2. Back up to tub until you feel it at back of your knees. Make sure you are in line with the bath seat.
3. Reach back with one hand for the bath seat. Keep other hand in center of walker.
4. Slowly lower yourself onto the bath seat, keeping your surgical leg out straight.
5. Move walker out of the way, but within reach.
6. Lift your legs over edge of tub, using a leg lifter for surgical leg, if necessary. Hold onto the shower seat or railing.



### Getting out of the bathtub (using a bath seat)

1. Lift your legs over outside of the tub.
2. Scoot to edge of the bath seat.
3. Push up with one hand on the back of bath seat while holding on to center of walker with your other hand.
4. Balance yourself before grabbing the walker.

### Tips:

1. Although bath seats, grab bars, long-handled bath brushes, and hand-held showers make bathing easier and safer, they are typically not covered by insurance.
2. Use rubber mat or non-skid adhesive on bottom of tub or shower.
3. To keep soap within reach, make soap-on-a-rope by placing bar of soap in toe of old pair of pantyhose and attach it to bath seat.

# Guidebook for Knees

## Knee Recovery Goals – Weeks 1-2

Now that you are one to two weeks after your surgery, let's do a quick check up on your status. Our goal is for most patients to go directly home after a short stay in the hospital, but some patients may need to go to a nursing home or rehabilitation center for a short stay before this is possible. Most patients at this phase of their recovery should be able to:

- Continue with a walker unless you are otherwise instructed.
- Walk at least 300 feet with a walker or support.
- Climb and descend a small flight of stairs with a handrail, **once** a day.
- Straighten your knee completely.
- Sponge bathe or shower when approved by your surgeon, and get dressed.
- Gradually resume simple homemaking tasks.
- Do 20 minutes of your home exercises twice a day.

**Remember, all patients recover at different speeds, so don't be discouraged if you feel a little "behind" in the process. If you feel that you are seriously behind, or are experiencing other problems, don't hesitate to contact your physician with your concerns.**

## Continue Your Knee Exercises

Exercise is important to help you achieve the best results from your knee replacement. You will already have learned many of these exercises prior to your surgery or while you were in the hospital. These basic exercises can be done at home and will also be part of your recovery exercise program. **Be sure not to do ANY exercises without assist. Know your limits!**

1. **Ankle Pumps**
2. **Quad Sets**
3. **Gluteal Sets**
4. **Outward Heel Slides**
5. **Hip Flexion Heel Slides**
6. **Short Arc Quads**
7. **Hamstring Stretch**
8. **Long Arc Quad**
9. **Seated Knee Flexion**
10. **Armchair Pushups**

# Guidebook for Knees

## 11. Standing Knee Bends

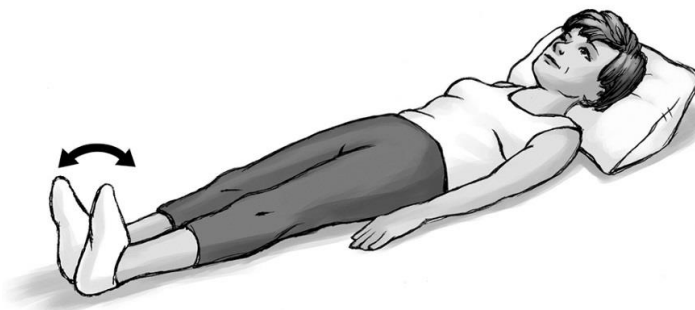
## 12. Knee Extension Stretch

### 1. Ankle Pumps

#### Instructions:

Gently point toes up towards your nose and down towards the surface. Do both ankles at the same time or alternating feet. Perform slowly.

**Perform 20 times.**

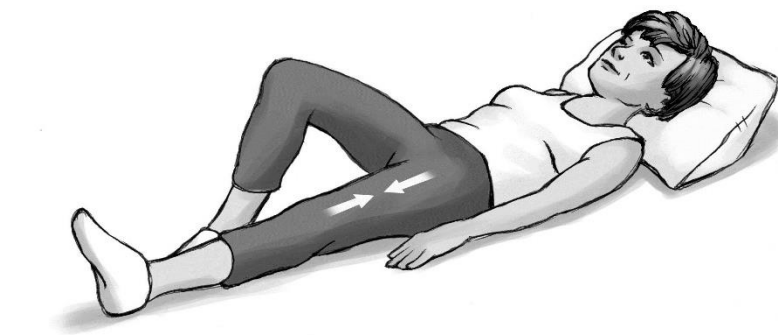


### 2. Quad Sets

#### Instructions:

Lie on your back, press knees into mat by tightening muscles on the front of the thigh (quadriceps). Hold for a 5 count. Do NOT hold breath. **Perform 20 times.**

**Coach's Note:** Look and feel for the muscle above the knee to contract. Done correctly, the heel should come slightly off the surface. Be sure patients are not holding their breath during this and all other exercises.



### 3. Gluteal Sets

#### Instructions:

Squeeze bottom together. Hold for a 5 count. Do NOT hold breath. **Perform 20 times.**

**Coach's Note:** Patient can place hands on right and left gluteal (buttocks) area and feel for equal muscle contractions. Be sure patients are not holding their breath during this and all other exercises.



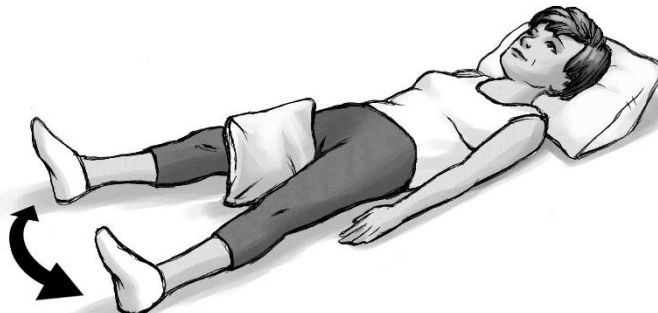
# Guidebook for Knees

## 4. Outward Heel Slides

### Instructions:

Lie on your back with toes pointing toward the ceiling and knees straight. Tighten quad muscles and slide leg out to side and back to starting position.

**Perform 20 times.**



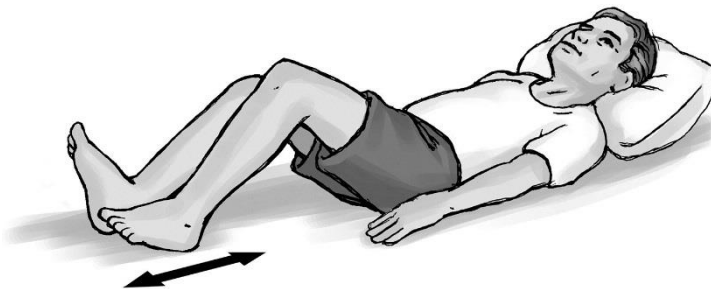
## 5. Hip Flexion Heel Slides

### Instructions:

Lie on your back and slide heel up a flat surface bending knee. Your therapist may have you use a strap around foot to assist gaining knee bend.

**Perform 20 times.**

***Coach's Note:*** Patient should actively pull the heel up as far as possible. Once they have gone as far as they can, use a strap to assist with more knee bend.



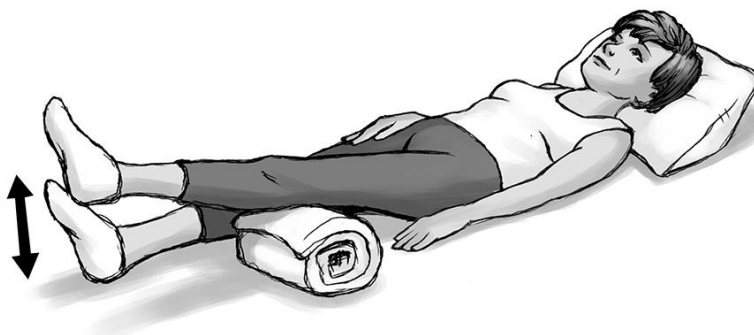
## 6. Short Arc Quads

### Instructions:

Lie on your back and place a 6-8 inch rolled towel under knee. Lift foot from surface, straightening knee as far as possible. Do not raise thigh off rolled towel.

**Perform 20 times.**

***Coach's Note:*** Work for full extension (straightening) of the knee. Assist with band or hand if needed to reach full terminal extension.



# Guidebook for Knees

## 7. Hamstring Stretch

### Instructions:

Sit on couch or bed with exercised leg extended and other leg dangling off side. Keeping exercised knee straight, gently lean forward until slight stretch is felt in back of thigh. As you become more flexible, use strap to pull up on foot. Hold for 20 to 30 seconds.

**Perform 5 times.**



## 8. Long Arc Quad

### Instructions:

While sitting, straighten leg and try to hold for 5 seconds. Move on to alternate leg.

**Perform 20 times.**



## 9. Seated Knee Flexion

### Instructions:

Sitting in straight-back chair, bend affected leg as far as possible under chair (can use opposite foot to help). When maximum bend is reached, plant foot and slide hips forward further bending knee. Hold for 20 to 30 seconds.

**Perform 20 times.**

***Coach's Note:*** Each time bend until a stretch is felt and then a little more, if possible. The patient can use their non-surgical leg to apply some overpressure to increase the stretch in their surgical leg. Be sure hips remain flat on the chair.





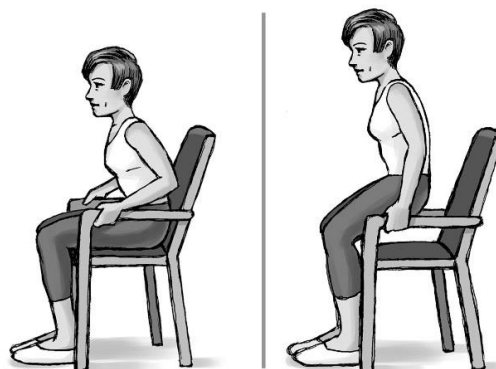
# Guidebook for Knees

## 10. Armchair Push-ups

### Instructions:

Sitting in sturdy armchair with feet flat on floor, scoot to front of seat and place hands on armrests. Straighten arms raising bottom up from seat as far as possible. Use legs as needed to lift. Progress to using only arms and unaffected leg to perform push-up. Do not hold breath or strain too hard.

**Perform 20 times**



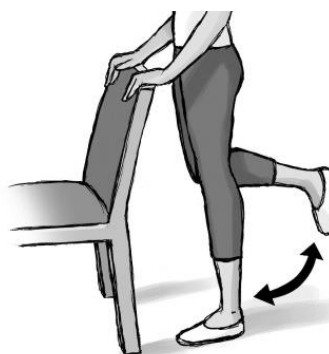
## 11. Standing Knee Bends

### Instructions:

Holding on to an immovable surface, bend the involved leg up behind you. Straighten to a full stand, with weight on both legs.

**Perform 20 times.**

***Coach's Note:*** The tendency is for the hip to come forward as the knee is bent. Encourage a straight line from the shoulder to knee.



## 12. Knee Extension Stretch

### Instructions:

Sitting in comfortable chair, prop affected foot on chair or stool. Place towel roll under ankle so calf is unsupported, and apply an ice pack and 3 to 5 pound weight (or bag of rice) on top of knee. **Hold position for 15 minutes.**



# Guidebook for Knees

## Knee Recovery Goals – Weeks 2-4

Congratulations! You are now almost one month after your surgery; hopefully you are making good progress at keeping up your home exercise program and achieving your recovery goals. This is very important in helping you gain independence and ensuring the best possible results. Most patients at this phase of their recovery:

- Have been able to achieve most/all of their 1-2 week recovery goals.
- Advance from the walker to a cane, as instructed by your Physical Therapist.
- Are able to walk at least one-quarter mile.
- Climb and descend a flight of stairs twice a day.
- Bend your knee more than 90 degrees
- Straighten your knee completely.
- Shower and dress.
- Resume homemaking tasks.
- Do 20 minutes of home exercises twice a day.
- Begin driving, if your “left” knee had surgery (with your Physician or Therapists approval).

**Remember, all patients recover at different speeds, so don't be discouraged if you feel a little “behind” in the process. If you feel that you are seriously behind, or are experiencing other problems, don't hesitate to contact your physician with your concerns.**

## Advanced Postoperative Knee Exercises

As you progress with your recovery, more advanced exercises may be added to your routine. Your therapist or physician will advise you when you are ready. **Be sure not to do ANY exercises without assist. Know your limits!**

1. Bridge Exercise
2. Straight Leg Raise
3. Straight Leg Raise Sidelying
4. Straight Leg Raise Prone
5. Quad Stretch
6. Heel Toe Raise Chair
7. Mini Squats
8. Standing Knee Extension

# Guidebook for Knees

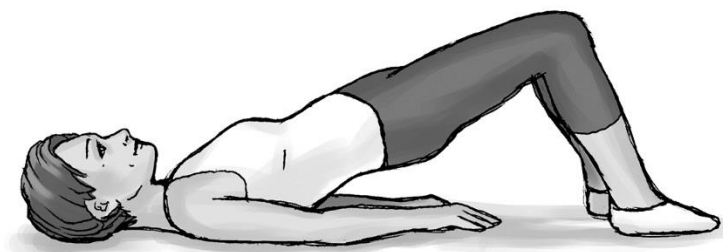
## 9. Wall Slide

### 1. Bridge Exercise

**Instructions:**

Lie on your back with knees bent and feet flat on surface; push down on feet as you tighten buttocks and hamstring muscles and lift hips from surface. Concentrate on pushing equally through both feet. Hold for 5 count then return to start position

**Perform 20 times.**

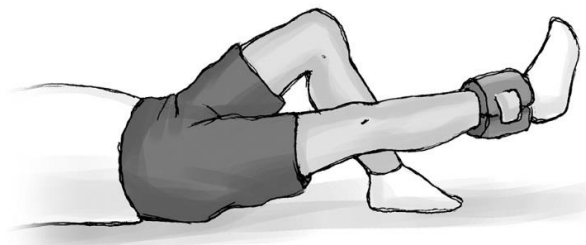


### 2. Straight Leg Raise

**Instructions:**

Lie on your back with unaffected knee bent and foot flat, tighten quad on affected leg and lift leg 12 inches from surface. Keep knee straight and toes pointed toward your head. **Perform 20 times.**

***Coach's Note:*** If able, the patient can add a small ankle weight to their leg to progressively increase their strength.



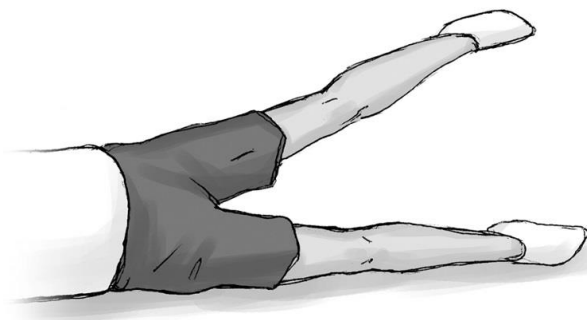
### 3. Straight Leg Raise Knees Sidelying

**Instructions:**

Lie on your nonsurgical side. Lift your surgical leg toward the ceiling then slowly lower your leg to the starting position. Keep knee straight and toes pointed forwards.

**Perform 20 times.**

***Coach's Note:*** If able, the patient can add a small ankle weight to their leg to progressively increase their strength.



### 4. Straight Leg Raise Knees Prone

# Guidebook for Knees

## Instructions:

Lie on your stomach and lift your surgical leg toward the ceiling then slowly lower your leg to the starting position.

**Perform 20 times.**

***Coach's Note:*** If able, the patient can add a small ankle weight to their leg to progressively increase their strength.

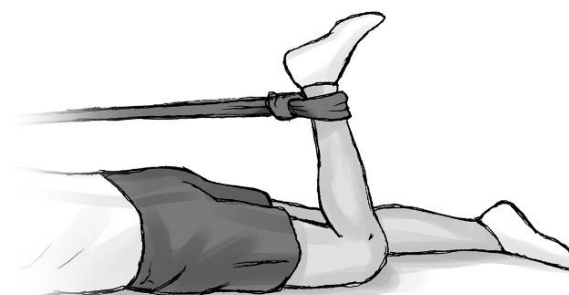


## 5. Quad Stretch

### Instructions:

Lie on your stomach. Bend up surgical knee, raising your foot from the bed as far up toward your buttocks as you can. If able, place a folded bed sheet or exercise band around your ankle and pull your foot toward your bottom until you feel a stretch. Hold for 20- 30 seconds. Lower foot back down to the bed. **Repeat 5 times.**

***Coach's Note:*** Be sure the thigh stays flat on the bed or floor during this exercise.

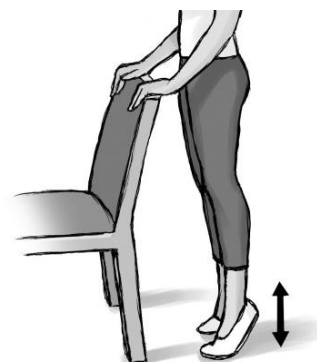


## 6. Heel Toe Raise Chair

### Instructions:

Stand, with a firm hold on to a stationary object. Rise up on toes then back on heels. Stand as straight as possible.

**Perform 20 times.**



# Guidebook for Knees

## 7. Mini Squats

### Instructions:

Stand, with feet shoulder width apart, and holding on to a stationary object. Keep heels on floor as you bend knees to slight squat. Make sure your knees do not go past your toes. Return to upright position tightening buttocks and quads. Keep body upright, heels on floor and do not squat past 90 degrees hip flexion.

**Perform 20 times.**



## 8. Standing Knee Extension

### Instructions:

Standing against wall, with feet about 4-6 inches out, place 6-8" ball behind knee. Push ball into wall by tightening hip and quadriceps muscle.

**Perform 20 times.**



## 9. Wall Slide Knees

# Guidebook for Knees

## Instructions:

With feet shoulder-width apart and back to wall, slide down wall as far as comfortable. Make sure your knees do not go past your toes. Your therapist will guide you on how far to slide down wall. Make sure you keep equal weight on both legs. Push back up equally through both legs and come to standing.

**Perform 20 times.**



## Knee Recovery Goals – Weeks 4-6

Now that you are more than one month after your surgery, you should be moving closer to recovery and full independence. Keeping up with your home exercise program and achieving goals is even more important, since, unless ordered by your surgeon, you will likely receive less supervised therapy from this point forward. Most patients at this phase of their recovery:

- Have achieved most/all of their 1-4 week recovery goals.
- Are able to walk with a cane.
- Are able to walk one-quarter to one-half mile.
- Progress from one foot stair climbing to regular (foot-over-foot) stair climbing.
- Are able to actively bend their knee 110 degrees.
- Straighten their knee completely.
- Drive a car if your surgeon has approved.
- Do your home exercise program twice a day.

**Remember, all patients recover at different speeds, so don't be discouraged if you feel a little "behind" in the process. If you feel that you are seriously behind, or are experiencing other problems, don't hesitate to contact your physician with your concerns.**

# Guidebook for Knees

## Knee Recovery Goals – Weeks 6-12

Congratulations! You should be moving into the “home stretch” in your recovery process over the next few weeks. During this time, your goal should be to move towards resuming most or all of your regular activities. Most patients at this phase of their recovery:

- Have achieved most/all of their 1-6 week recovery goals.
- Are able to walk without a cane.
- Are able to climb and descend stairs in normal (foot-over-foot) fashion.
- Can walk one-half to one mile.
- Have regained at least 80% of their strength.
- Have resumed many fun activities like dancing, bowling and golf.

**Remember, all patients recover at different speeds, so don't be discouraged if you feel a little “behind” in the process. If you feel that you are seriously behind, or are experiencing other problems, don't hesitate to contact your physician with your concerns.**



# Guidebook for Knees

## Advanced Knee Stair Exercises

Your physical therapist will instruct you on what step height with which to begin. These exercises are typically started 6-12 weeks after surgery. **Be sure not to do ANY exercises without assist. Know your limits!**

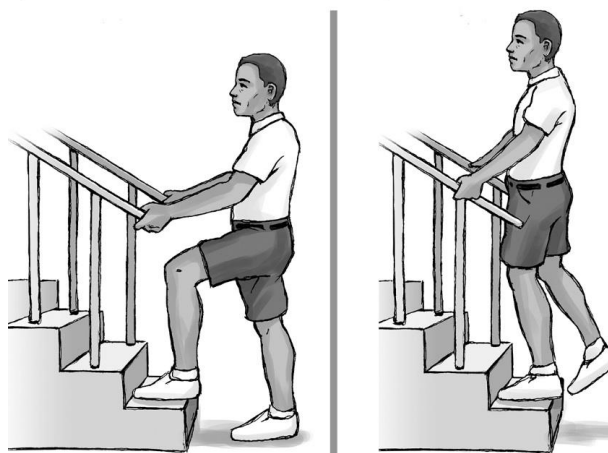
1. Single Leg Forward Stairs
2. Single Leg Lateral Stairs
3. Heel Toe Raise Stairs
4. Standing Knee Bend

### 1. Single Leg Forward Stairs

**Instructions:**

Hold onto stair railing – place affected foot on first step. Step up on stair with affected leg. Return to start position. May need to begin with 2-4” step (book/block) and progress to higher step as tolerated.

**Perform 20 times.**

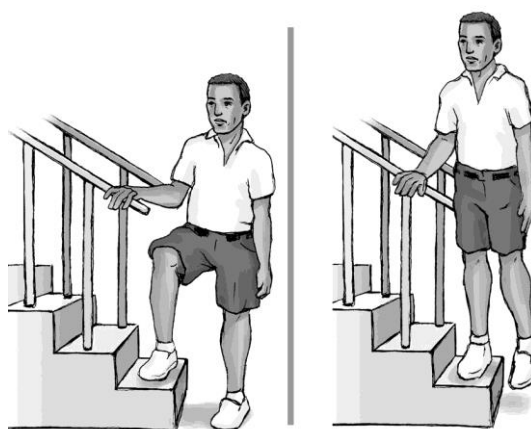


### 2. Single Leg Lateral Stairs

**Instructions:**

Face railing, with affected leg nearest step. Holding onto railing, place foot on step and slowly step up lifting unaffected leg from floor; slowly lower foot to start position. May need to begin with 2-4” step and progress to higher step as tolerated.

**Perform 20 times.**





# Guidebook for Knees

## 3. Heel Toe Raise Stairs

### Instructions:

Stand, holding onto railing, with toes on stair and over edge. Relax and let heels hang down. Hold for 20 seconds.

**Perform 5 times.**



## 4. Knee Heel Stretch

### Instructions:

Stand, holding onto railing and place surgical foot up on first or second step (Your therapist will instruct on which level to begin). Keeping non-surgical leg straight and on floor, stretch forward, bending surgical knee. Hold for 20 seconds.

**Repeat 5 times.**

**Then repeat with surgical foot on floor, and non-surgical foot on step.**

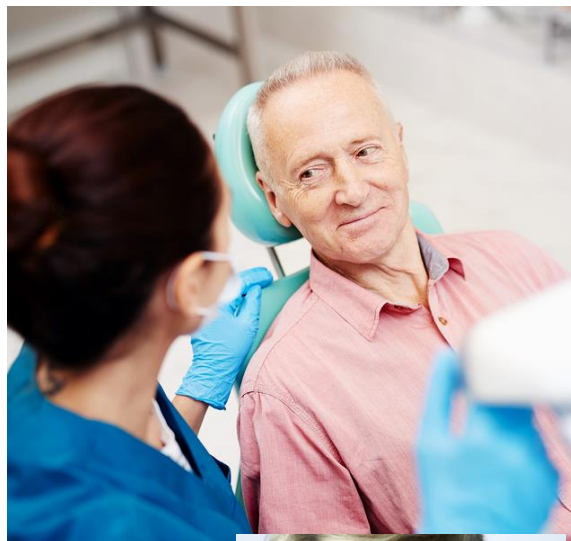
***Coach's Note:*** *Both heels should be flat on floor and the toes pointed straight ahead.*



# Guidebook for Knees

## Dental and Medical Procedures

- Notify your dentist or other doctor/surgeon in advance if you are having dental work or other invasive procedures.
- You may need to be on antibiotics preventively for any dental, endoscopy, colonoscopy or dermatology procedure.
- It is best not to have any kind of dental procedure for 6 months after your joint replacement.
- For further information, speak your primary care physician as this is based on a case by case basis.



## Preventing Infection After Surgery

Although risks are low for postoperative infections, the risk remains. A prosthetic joint could possibly attract bacteria from an infection located in another part of your body.

If you develop a fever of more than 100.5 degrees or sustain an injury such as a deep cut or puncture wound, you should clean it as best you can, put a dressing or adhesive bandage on it, and notify your doctor. The closer the injury is to your prosthesis, the greater the concern. Occasionally, antibiotics may be needed. Superficial scratches may be treated with topical antibiotic ointment. Notify your doctor if area is painful or reddened.



## Traveling After Surgery

When traveling, stop and change positions frequently to prevent your joint from getting stiff.

### Will my new joint set off security sensors when traveling?

Your joint replacement is made of metal alloy and may or may not be detected when going through some security devices. Inform the security agent you have a metal implant. The agent will direct you on the security screening procedure.



# Guidebook for Knees

## Long Term Exercise Guidelines

With permission from your surgeon and primary care doctor, you should be on a regular exercise program three to four times per week, lasting 20 to 30 minutes.

Impact activities such as running and singles tennis may put too much load on the joint and are generally not recommended.

High-risk activities such as downhill skiing are discouraged because of the risk of fractures around the prosthesis and damage to the prosthesis itself.

### Exercise Advice:

- Choose low impact activity.
- Attend recommended exercise classes.
- Follow the home program outlined by your care team.
- Walk one to three miles regularly.
- Use a home treadmill (for walking).
- Use a stationary bike.
- Complete regular aquatic exercises.
- Exercise regularly at a fitness center.
- Choose low-impact sports such as golf, bowling, gardening, dancing, swimming, etc.
- Consult your surgeon or physical therapist about specific sport activities.



### Activities to Avoid:

- Do not run or engage in high-impact activities or activities that require a lot of starts, stops, turns, and twisting motions.
- Do not participate in high-risk activities such as contact sports.
- Do not take up sports requiring strength and agility until you discuss it with your surgeon or physical therapist.



# Guidebook for Knees

## Importance of Lifetime Follow-ups

When should you follow-up with your surgeon?

- As directed by your surgeon
- Anytime you have mild pain for more than a week
- Anytime you have moderate or severe pain

There are reasons for routine follow-up visits with your surgeon.

Your implants could become loose and this could lead to discomfort and pain. Additionally, if your implant was secured with cement, the cement could crack and cause a reaction in the bone called osteolysis, which may cause the bone to thin out and cause loosening.

Another reason for follow-up is the plastic liner in your implant may wear. Tiny wear particles combine with white blood cells and may get in the bone and cause osteolysis (similar to what can happen with cement).

X-rays taken at follow-up visits can help detect problems. New x-rays can be compared with previous films to make these determinations. This will be done in your doctor's office.

If you are unsure how long it has been or when your next visit should be scheduled, please call your doctor.



