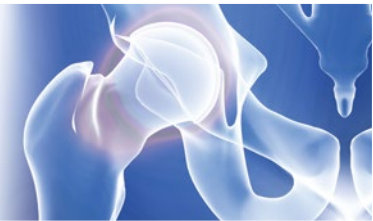


# TOTAL JOINT REPLACEMENT

## AT PENN ORTHOPAEDICS

▶ PATIENT INFORMATION



## LETTER FROM THE CHAIR



On behalf of Penn Orthopaedics, I would like to thank you for choosing our team of experts for your joint replacement surgery.

The Department of Orthopaedic Surgery at Penn Medicine is ranked among the best in the nation by *US News & World Report*, making it a top program in the Philadelphia region. The country's first department of orthopaedic surgery and a national leader in National Institutes of Health (NIH) funding, we offer advanced, personally-tailored care and the latest treatment options for a variety of injuries and disorders.

Highly skilled and highly specialized, our joint replacement team not only treats complex conditions—they are uniquely qualified to treat each condition individually with a personalized approach. Our physicians strive to provide excellent patient care today and perform the breakthrough research necessary to discover the treatments of tomorrow.

In this spirit, our clinical team is committed to you, no matter how severe your injury or condition. The joint replacement team at Penn Medicine offers you a wide range of diagnostic, medical and surgical treatment options only available at Penn Medicine. Our goal is to return you to a pain-free, active lifestyle. We believe your life, a life in motion, is worth Penn Medicine.

Sincerely,

A handwritten signature in white ink that reads "L. Scott Levin". The signature is fluid and cursive.

**L. SCOTT LEVIN, MD, FACS**

*Chair, Department of Orthopaedic Surgery*

# TOTAL JOINT REPLACEMENT

## AT PENN ORTHOPAEDICS

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# GENERAL INFORMATION



JOINT REPLACEMENT: THE BASICS

JOINT REPLACEMENT AT PENN ORTHOPAEDICS

PENN JOINT SPECIALIST SURGERY LOCATIONS

## ▶ JOINT REPLACEMENT: THE BASICS

### Knee Replacement Surgery

Knee replacement is a procedure to replace the damaged areas of the knee. It was first performed in 1968. There are more than 600,000 knee replacement surgeries in the United States annually.

The knee is made up of the bottom of the femur (thigh), top of the tibia (shin), patella (kneecap), cartilage and numerous tendons and ligaments around the joint. The cartilage acts as a cushion between the bones, but can become inflamed, damaged or wear away causing pain. Sometimes nonoperative care and arthroscopic surgery is successful in alleviating the pain. If pain persists, knee replacement surgery is recommended.

There are two different types of knee replacements—partial knee replacement and total knee replacement. If the damage is only in one area of the knee, a partial knee replacement may be performed by your surgeon. In a partial knee replacement, either the inner or outer side of the knee is replaced with an artificial component made from metal and plastic. Alternatively, the surface of the kneecap and the groove in which it sits can be replaced.

Many times the damage is in several areas of the knee. For this, a total knee replacement is required. In a total knee replacement, the top of the shin and bottom of the thigh are resurfaced with artificial components made from plastic, metal or ceramic.

### Hip Replacement Surgery

Hip replacement is a procedure to replace the damaged areas of the hip. It was first performed in 1960. There are more than 285,000 hip replacement surgeries in the United States annually.

The hip is made up of the femoral head (ball), acetabular region of the pelvis (socket), cartilage and numerous tendons and ligaments. The cartilage acts as a cushion between the ball and socket, but can become inflamed, damaged or wear away causing pain. Sometimes nonoperative care and arthroscopic surgery is successful in alleviating the pain. If pain persists, hip replacement surgery is recommended.

There are two different types of hip replacements—partial hip replacement and total hip replacement. If the damage is only to the ball of the joint, a partial

hip replacement may be performed. In this procedure, the ball is replaced with an artificial implant made from plastic, metal or ceramic, but the socket remains unchanged.

If the damage includes both the ball and socket a total hip replacement is required. In a total hip replacement, the top of the ball and part of the socket are replaced with artificial implants made from plastic, metal or ceramic.

## ▶ JOINT REPLACEMENT AT PENN ORTHOPAEDICS

At Penn Orthopaedics, your joint replacement is treated as unique and we develop a personalized treatment plan specifically for you. Our team of experts assists you every step of the way, from the time surgery is scheduled through your rehab. Based upon your treatment plan, your Penn team may consist of:

- Joint Replacement Surgeon
- Advanced Practitioners (Physician Assistant and/or Nurse Practitioner)
- Anesthesiologists
- Nurses
- Physical Therapists
- Occupational Therapists
- Social Workers
- Family/Friends

## ▶ PENN JOINT SPECIALIST SURGERY LOCATIONS

### Penn Presbyterian Medical Center\*

51 North 39th Street  
Philadelphia, PA 19104

### Pennsylvania Hospital\*

800 Spruce Street  
Philadelphia, PA 19107

### Chester County Hospital\*

701 East Marshall Street  
West Chester, PA 19380

\*Please see inserts for hospital maps, directions and parking instructions for the location of your surgery.

# PREPARING FOR SURGERY



PRE-ADMISSIONS TESTING AND MEDICAL CLEARANCE

JOINT REPLACEMENT CLASS

BLOOD DONATION

SMOKING CESSATION

ALCOHOL CONSUMPTION

DENTAL CARE

MEDICATIONS

PREPARING YOUR HOME

WEIGHT MANAGEMENT

EXERCISES BEFORE SURGERY

## ► PRE-ADMISSION TESTING AND MEDICAL CLEARANCES

Pre-admission testing is required within 30 days of your scheduled surgery. An appointment must be made to have your medical history reviewed and a physical completed. Depending on your health, this evaluation can be done by your surgeon or primary care physician. We offer pre-admission testing at the following locations:

- Chester County Hospital
- Pennsylvania Hospital
- Penn Medicine University City
- Perelman Center for Advanced Medicine
- Penn Medicine Radnor
- Penn Medicine Valley Forge

Your pre-admission testing appointment could require up to 3 hours. Be prepared to provide information on:

- Primary doctor and any specialist information
- Dietary restrictions or allergies
- Allergies to medications
- Prior surgeries
- Medical conditions
- Current medications
- Daily vitamins and herbal supplements
- Advance Directives (Living wills or health care proxy)

Blood tests are required and should be reviewed prior to the day of surgery. Depending on your health, you may also be required to have other tests such as an x-ray, electrocardiogram (ECG) and stress test. These tests may be required to be medically cleared for your surgery. Your surgeon will provide you with more information on which tests may be required for you. They may also recommend specialists for the testing.

**If you are unable to make your appointment, please contact your surgeon's office immediately to reschedule. Failure to complete pre-admission testing could result in cancellation of your surgery.**

## ► JOINT REPLACEMENT CLASS

Joint Replacement Surgery (and surgery, in general) can be an anxious time for you and your family. At Penn Orthopaedics, we want to help ease this anxiety and have you fully prepared for your surgery. We offer informational sessions for you and a family member on:

- Preparation
- Expectations
- Recovery
- Rehab after Surgery

Please join us for a one-hour session to get to know more information about joint replacement surgery.

**\*NOTE:** *Please attend the Joint Replacement Class that is held at the same hospital where your surgery will be done because some details and processes may differ.*

### Pennsylvania Hospital patients:

Zubrow Auditorium  
Preston Building, 1st Floor  
800 Spruce Street  
Philadelphia, PA 19107

### Penn Presbyterian Medical Center patients:

Penn Medicine University City  
3737 Market Street, 8th Floor  
Philadelphia, PA 19104

### Chester County Hospital patients:

4 Lasko Tower, Conference Room T488  
701 East Marshall Street  
West Chester, PA 19380

**For a detailed schedule of classes, please visit [PennMedicine.org/Joint-Class](http://PennMedicine.org/Joint-Class).**

## ► BLOOD DONATION

Some blood loss can happen during surgery. Talk to your surgeon before surgery about managing your blood. Taking iron supplements before surgery helps build your own blood and lessens the need for a blood transfusion. If taking iron supplements, you may also be given stool softeners to help with constipation. Your surgeon will discuss dosage information with you. You may also be able to donate your own blood for your surgery.

(Continued on page 6)



(Continued from page 5)

For those patients who do not want to accept blood products, Penn Medicine offers a safe and unique bloodless surgery program. In addition, there may be other options such as taking iron to replenish your blood.

### ▶ SMOKING CESSATION

If you currently smoke or take recreational drugs, you must stop immediately. If you require assistance in stopping, please ask your surgeon to direct you to a Penn Medicine program designed to help with cessation.

### ▶ ALCOHOL CONSUMPTION

You should avoid consuming alcoholic beverages during the days leading up to your surgery. Alcohol has effects on bleeding and dehydration that could cause complications during and after your surgery.

### ▶ DENTAL CARE

Dental procedures should be scheduled **at least six weeks before your surgery**. You should also not schedule any dentist appointment until **three months after surgery**. Germs in your mouth can enter the bloodstream, infecting your new joint. Antibiotics are recommended prior to dental procedures for all patients with an increased risk for infection, particularly during the first two years after joint replacement. Contact your surgeon if any infections occur prior to surgery.

### ▶ MEDICATIONS

Before your surgery, you should take only the medications directed by your surgeon. Insulin and diabetic medications should also be taken as instructed. To decrease complications, avoid medications that cause bleeding before and after surgery.

Ask your surgeon for a more detailed timeline on when to stop taking:

- Over-the-counter medications
- Vitamins and herbal supplements
- Blood thinners
- Aspirin
- NSAIDs (such as Ibuprofen, Naproxen and Advil)
- Pain Medications
- Medications that affect immune system (e.g. prednisone or biological medications for rheumatic diseases)

### ▶ PREPARING YOUR HOME

Before surgery, you should make sure your home is ready for you to successfully and safely return. Any specialty equipment to help you will be either provided before leaving the hospital or delivered by home care. These items may include walkers, crutches or canes.

To get the rest of your home ready:

- Pick-up small rugs or other items around the house that may be in your path
- Rearrange closet / dresser / kitchen / bathroom so most frequently used items are within easy reach (waist to chest height)
- Adjust your bed height to make it easier to get in and out
- Install a “grab bar” and anti-slip mat in your shower or bathtub
- Prepare meals and store in freezer to make meal prep easier

Arrange for a relative or friend to live with you three to seven days after surgery. You should plan for shopping, housekeeping and pet care help for four to six weeks after surgery.

### ▶ WEIGHT MANAGEMENT

Excess weight can add to your joint pain. It can also increase the risk of infection, and other complications. If you are overweight, losing excess weight can help prepare for your surgery and improve overall health.

**A healthy weight loss program consists of:**

- A reasonable, realistic weight loss goal
- A reduced calorie, healthy meal plan
- Regular physical activity

**Some tips for weight loss include:**

- Look at the calories you are eating
- Do not drink your calories, eat them
- Eat at regular times of the day
- Drink enough water
- Eat slowly and control portions

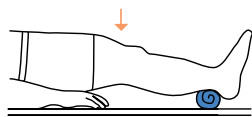


## ▶ EXERCISES BEFORE SURGERY

Increasing fitness before surgery may lead to a quicker recovery. Some helpful exercises include quad sets, ankle pumps, gluteal sets, heel slides, abduction and straight leg raise.

### QUAD SETS

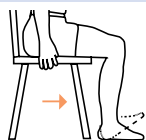
This exercise will tighten the muscles on top of your thigh



- Lie on your back with a towel roll under your ankle.
- Press the back of your knee down.

### SEATED ANKLE PUMPS

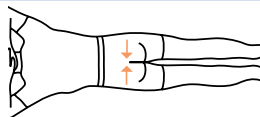
This exercise will help tighten the calf muscle on the back of the lower leg



- Sit with your feet flat on the floor.
- Bend your ankles up and down as if you are pumping a gas pedal.

### GLUTEAL SETS

This exercise will strengthen and tighten the muscles in your buttocks



- Squeeze your buttocks together as tightly as possible.

### HEEL SLIDES

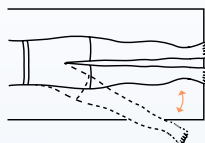
This exercise will tighten your hamstrings on the bottom of your thigh



- Lie on your back.
- Bend your knee and slide your heel towards your body.

### HIP ABDUCTION

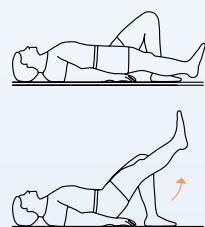
This exercise will strengthen the abductor muscles in your hips



- Slide one leg out to the side while keeping your kneecap pointing towards the ceiling.
- Gently bring your leg back to the middle and repeat with your other leg.

### STRAIGHT LEG RAISE

This exercise will strengthen and tighten the muscles on top of your thigh



- Lie on your back and bend one leg.
- Raise the other leg six to eight inches with your knee straight.
- Exhale and tighten your thigh muscles while raising leg.
- Repeat with your other leg.

Ask your surgeon if there are other exercises that they would recommend to help you prepare for your joint replacement surgery.

# PREPARING FOR SURGERY DAY & NIGHT BEFORE



PLANNING YOUR ARRIVAL  
SHOWERING AND SKIN PREP  
FOOD AND DRINK  
WHAT TO PACK

The time has come and you are having your joint replaced. In preparation for your surgery and hospital stay, there are a few things to consider and remember.

## ▶ PLANNING YOUR ARRIVAL

Operating room schedules change on a daily basis. To avoid confusion, you will receive a phone call after 2 pm on the day before surgery to confirm your arrival time. If your surgery is on a Monday, you will receive your phone call on Friday. If you do not receive a call by 3 pm, please contact your surgeon's office immediately.

**Penn Orthopaedics:**  
215.662.3340

**Penn Orthopaedics Chester County:**  
610.280.9999

*The arrival time that you receive will be one and a half to two hours before your scheduled surgery. Please arrive at this time so you can be prepared to enter the operating room on time.*

## ▶ SHOWERING AND SKIN PREP

To reduce the risk of potential complications and infections, please follow your surgeon's instructions on how to clean your skin the night before surgery with the provided Chlorhexidine wipes. You should refrain from showering or bathing the morning of surgery. Please avoid:

- Using lotion, deodorant, aftershave and perfume
- Shaving or clipping surgical area prior to surgery

## ▶ FOOD & DRINK

Please stop eating and drinking at midnight of the night before surgery. Please also do not chew gum or eat hard candy. You may brush your teeth and rinse, but do not swallow. You may drink only water after midnight the day before surgery and you are to stop drinking water two hours before your arrival time. For example, if you are to arrive at 8 am, please stop drinking water at 6 am. If you are

currently on any medication that has been allowed to be continued, your surgeon may have given you permission to take it with a small sip of water on the morning of surgery.

**\*NOTE:** *Be sure to mention any dietary restrictions or allergies during pre-admission testing and again at arrival.*

## ▶ WHAT TO PACK

### Please DO Bring:

- Photo ID
- Insurance card
- Any custom fitted prosthesis or braces
- Any respiratory machines, if you use one at home
- Personal toiletries
- Shoes with non-skid soles that can easily be put on
- Loose fitting clothes
- Pajamas or gown
- Comfortable, low-heeled shoes or sneakers
- Family member or friend

### Please DO NOT Bring:

- Valuables
- Cash
- Jewelry (including wedding rings)
- Medications

Before surgery all cell phones, hearing aids, contact lenses, glasses, dentures, wigs and nail polish will be removed and placed with your other belongings. These items will be returned to you in your hospital room.



# DAY OF SURGERY



ARRIVAL

SURGERY PREP

PENN MP3 PAIN PROTOCOL

YOUR JOINT REPLACEMENT SURGERY

## ▶ ARRIVAL

### Pennsylvania Hospital

When you arrive at the hospital, please go directly to the Admissions Department to be checked in and given more directions. You will be directed to the Day Stay Unit, where you will be prepped for surgery. Family is welcome to stay with you while you wait for surgery. During your surgery, family and friends can stay in the waiting area and receive updates on your surgery.

### Penn Presbyterian Medical Center

When you arrive, please enter through the Cupp Building entrance. When inside, check-in with security. You will be directed down the hall towards a spiral staircase. Take the elevator to the second floor, where you will be met by Admissions, who will check you in for surgery. Family is welcome to stay with you while you wait for surgery. During your surgery, family and friends can stay in the waiting area and receive updates on your surgery.

### Chester County Hospital

When you arrive at the hospital, please go directly to the Chester County Hospital Ambulatory Surgery Center to be checked in and given more instructions. From there you will be prepped for surgery. Family is welcome to stay with you while you wait for surgery. During surgery, family and friends can stay in the waiting area and receive updates on your surgery.

## ▶ SURGERY PREP

Staff will make sure all nail polish, jewelry, hearing aids, wigs, etc. are removed. A highly skilled team of nurses, your anesthesiologist and nurse anesthetists will:

- ❑ Review your chart
- ❑ Prepare you for surgery
- ❑ Answer questions

The anesthesiologist will also discuss options for anesthesia. Your surgeon will greet you and mark the surgical site. Some surgeons may recommend spinal blocks, epidurals or nerve blocks to help reduce pain after surgery.

During preparation, fluid and antibiotics are delivered through an IV tube. Antibiotics will also be given after surgery to reduce the risk of complications and infections.

## ▶ PENN MP3 PAIN PROTOCOL

When it comes to the management of postoperative pain, your joint surgeon utilizes a multimodal analgesia approach developed at Penn Medicine, The Penn Multimodal Perioperative Pain Protocol (MP3). Your surgeon will approach your pain by utilizing multiple analgesic medications to ensure you experience as little pain as necessary. A personalized dose of pain killers and anesthesia are delivered before, during and after surgery. The combination makes each medication work more efficiently and reduces pain more quickly.

The smaller doses help reduce unpleasant side effects, while also reducing the risk of dependence to pain killers during recovery. Your surgeon will discuss your personalized pain plan with you prior to surgery.

## ▶ YOUR JOINT REPLACEMENT SURGERY

When you are ready for surgery, you will be moved to the operating room. In the operating room, there will be state-of-the-art equipment to assist in your surgery. Your surgical team will also be present and dressed in surgical attire.

A highly specialized operating room nurse will assist in your comfort and safety throughout your procedure. Compression stockings will be placed on your legs to help avoid deep vein thrombosis (DVT) or blood clots. The anesthesia team will place a blood pressure cuff, oxygen and heart monitors on you to keep track of your vital signs. They will provide your anesthesia, while other team members prepare the surgical site. You are now ready to receive your new joint.

For more information about your anesthesia, please visit [PennMedicine.org/anesthesia/joint-replacement\\_anesthesia.html](https://www.pennmedicine.org/anesthesia/joint-replacement_anesthesia.html). This information is meant to provide general best practices. We always tailor your care precisely to your individual needs.

**Depending upon the type of replacement, surgery can last from less than one hour to three hours. Your surgeon will contact the Surgical Waiting Suite to talk with your family regarding the surgery.**

# RECOVERY



RECOVERY FROM ANESTHESIA

MEDICATIONS

FOOD AND DRINK

HIP REPLACEMENT PRECAUTIONS

DAY ONE AFTER SURGERY

DAY TWO AFTER SURGERY

USING A WALKER AND CRUTCHES

PREPARING TO GO HOME



## ▶ RECOVERY FROM ANESTHESIA

After surgery, you will be moved to the recovery room. Everyone responds differently to surgery and anesthesia. Your time in the recovery room can be between another one to three hours, depending on your status and bed availability. Your vital signs and pain will be closely watched by nurses until you are ready to be moved to a hospital room.

You may be connected to several machines that were not there before surgery, including pain pumps, drains and urinary catheters. When present, catheters will drain your bladder and surgical drains will remove blood from your incision to help lessen bruising. Pain medication pumps help reduce pain after surgery. You will also get an incentive spirometer to reduce lung complications such as pneumonia after surgery. Nurses will encourage you to sit up in bed, take deep breaths and cough.

**Depending on your condition and when you will be moved to a hospital room, you may work with a therapist or nurse to get up and walk in the recovery room.**

## ▶ MEDICATIONS

Special medication will be given after surgery as directed by your surgeon. You may be given antibiotics, stool softeners, sleeping aids, anti-inflammatories, pain medication and/or nausea medication. Your surgeon might also prescribe blood thinners to help reduce the risk of blood clots.

Your other medications may be resumed while in the hospital **ONLY** as directed by your surgeon. You should continue to refrain from taking over-the-counter medications that cause bleeding, such as herbal supplements, aspirin and NSAIDs (including Ibuprofen, Naproxen and Advil).

## ▶ FOOD AND DRINK

You may not be able to eat and/or drink until you have fully recovered from anesthesia. To avoid nausea after surgery, start slowly on a clear liquid diet. Once a clear liquid diet is tolerated, you will be offered solid foods.

**Be sure to tell the hospital staff about any dietary restrictions or allergies before surgery.**

## ▶ HIP REPLACEMENT PRECAUTIONS

After hip replacement, you may have a soft, foam pillow between your legs to help maintain your hip precautions. Motions to prevent dislocating your new hip include:

### PLEASE DO NOT:

- Flex your hip more than 90 degrees
- Cross your legs
- Allow your toes to point inward
- Extend your leg far behind you. If backing up, lead with leg that was not operated on
- Lie on your stomach
- Rotate your foot and toes excessively outward with your leg behind you

Your nurse or physical therapist will review these precautions with you before you are discharged. You will need to maintain these precautions for **six weeks** after surgery.



## ▶ DAY OF SURGERY

Once you have been moved to your hospital room, your nurses will work with you to get you moving. This may include:

- Sitting on the side of the bed
- Moving to a chair
- Walking in your room

It is our goal to get you moving on your new joint as soon as possible, many times within hours of your surgery.

Most patients will stay at the hospital on Day One, but occasionally a patient may be able to return home. These patients are doing very well medically and with rehabilitation, as well as having their pain well controlled.

For those staying at the hospital, make sure you get a good night sleep to be ready for more therapy during Day Two. If you have pain or discomfort during the night, let your nurse know.

## ▶ DAY ONE AFTER SURGERY

Your first day after surgery may include visits from several members of your care team including your surgeon, a nurse practitioner, physician assistant, resident, physical therapists and possibly occupational therapists and a social worker. You will also be continuously monitored by your nursing team. Therapists will do an initial evaluation to help build your therapy plan. You will receive education regarding topics such as exercises, precautions, restrictions, medications, etc.

Physical activity will begin with simple tasks. Family and friends are encouraged to attend your physical therapy sessions with you. Some of the tasks that you will complete include:

- Getting out of bed
- Walking
- Initial exercises from rehab plan, including:
  - Ankle pumps
  - Straight leg raises
  - Heel slides
  - Knee range of motion (for knee replacement patients)
- Sitting out of bed for meals

You may meet with a social worker to start to discuss your plan for returning home. You may want a family member or caretaker there for these discussions. It is good to have someone else who knows your plan. They will also be able to give insight for the plan.

## ▶ DAY TWO AFTER SURGERY

Day Two is an important day in your recovery. Today, you will continue to increase your physical activity and add more exercises and activities to your rehab plan. Goals for Day Two include:

- Increased tolerance for sitting in a chair
- Increased sitting exercises
- Increased walking with appropriate assistive equipment like a walker, crutches or cane
- Stairs, as appropriate and tolerated

You may work with your occupational therapist to learn ways to do activities of daily living (ADLs) like dressing and going to the bathroom. You may also learn about special equipment, as needed, to help with daily tasks when you go home. This includes items like handheld grabbers, dressing sticks and long handled shoehorns. Today, you will also continue to finalize your discharge plan with your social worker.

If your care team and surgeon feel that you are ready to go home, you may be discharged. If more time in the hospital is needed, you will be re-evaluated during a third day.

## ▶ USING A WALKER

As you start to increase walking, you will use a walker. Your physical therapist will help you learn the correct way to use your walker. It is important to always remember:



- Push the walker a few inches in front of you.
- Make your first step with your operative leg.
- Walk smoothly, taking even steps.

## ▶ USING CRUTCHES

When your balance improves, you may start using crutches. It is important to make sure you are properly using your crutches. Improper use can be uncomfortable and hazardous. It is important to always remember:



- Crutches should be placed three inches below your armpit when standing at full height.
- The bottom of the crutch should be two inches to the side and six inches in front of your foot.
- The handle should not allow your elbow to flex past 30°.
- The top of the crutch should not be used as the primary support. Body weight should be supported by the handle.

Your therapist will teach you the correct way to perform tasks like walking up and down steps to make sure you are properly using your crutches.

## ▶ PREPARING TO RETURN HOME

On the day you are going home, you will receive specific instructions from your surgeon regarding:

- Activity restrictions (including driving, working and showering)
- Medications
- Incision and wound care
- Warning signs
- Required check-up visits

You will also receive instructions for activities of daily living (ADLs) from your occupational therapist. Your occupational therapist will also show you the best way to get in and out of a car. You may receive extra bandages or they may be delivered by home care. Any specialized equipment will also be delivered to you by home care.





# RETURNING HOME



DISCHARGE FROM HOSPITAL

MEDICATIONS

CHECK-UP VISITS

INCISION CARE

SHOWERING

REHAB THERAPY

HELPFUL EQUIPMENT

HOME EXERCISES

WORK

POSSIBLE COMPLICATIONS

LIFETIME PROCEDURE PRECAUTIONS

SEX AFTER JOINT REPLACEMENT

## ▶ DISCHARGE FROM HOSPITAL

Our goal at Penn Orthopaedics is to have you become independent and get you home safely after surgery. To make sure you have assistance at home, we can help you prepare. Care can be provided by registered nurses, physical therapists and occupational therapists in your home.

If your medical team has determined you are ready to go home, please make arrangements for a responsible adult to pick you up, since you will be unable to drive. The vehicle should be comfortable to get into and sit in. If you had hip replacement, have the driver bring you a pillow to sit on.

If your medical team determines that it is best for you to recover at an inpatient rehabilitation center, please check with your insurance company on coverage and the center on bed availability prior to discharge.

## ▶ MEDICATIONS

You will receive instructions for taking aspirin or another blood thinner. If you are prescribed other medications, your home health nurse will give details on your dosage each day. You will also continue to take a stool softener until you are no longer taking pain medication. All other prescriptions that you need after surgery will be given to you before you go home. These medications may include:

- **Long-acting narcotic**  
(MS Contin, Oxycontin, etc)
- **Short-acting narcotic**  
(Oxycodone, Hydrocodone, etc)
- **Anti-inflammatory medicine**  
(Celecoxib, Ibuprofen, etc)
- **Gabapentin or Pregabalin**

If you have questions after surgery regarding your medications, please contact Penn Orthopaedics.

## ▶ CHECK-UP VISITS

After surgery, you will need to periodically be evaluated to make sure that your new joint is functioning correctly and your wound is healing properly. Typically, you will be required to visit your surgeon at:

- Four to Six Weeks
- Three Months
- Six Months
- One Year

**Full recovery from surgery normally happens within three to six months. You may continue to experience increases in strength and endurance for up to a year.**

## ▶ INCISION CARE

Your incision should be kept dry until your surgeon takes out the sutures or staples. This typically will be 10 to 14 days after surgery. Your surgeon will give you more instructions on how to care for your incision and change the bandage before you go home. Be sure to always wash your hands before touching your incision.

Do not apply any lotions, oils or ointments to your incision until it has healed. When it heals, you may use sunscreen, as appropriate.

**If you notice any increased redness, swelling or leaking from your incision, contact Penn Orthopaedics immediately.**

## ▶ SHOWERING

You can shower when you return home, but you must keep the incision clean and dry. Bathing and swimming is not recommended for at least **three weeks** after surgery, and only if incision has fully healed. If your surgeon used a bandage called Aquacel, you can shower with it in place. If you have a soft bandage, you can place a waterproof plastic wrap over the bandage while showering.

► **REHAB THERAPY**

**In-Home Therapy**

The planner at the hospital will make arrangement for you to have physical therapy and occupational therapy at your house. You will start the day after you leave the hospital. Your therapist will use their discretion based on need on how often you will need to participate in therapy. The frequency and duration of in-home therapy will vary from patient to patient.

**Outpatient Therapy**

You are responsible for setting up your visits for outpatient therapy. Your therapist will determine how often and for how long you will need to continue therapy following surgery. There will be set goals that you will need to reach before completing therapy. The location is at your discretion, but make sure they accept your insurance coverage.

**Penn Therapy and Fitness**

At Penn Orthopaedics, we have a close relationship with Penn Therapy and Fitness for the physical therapy of our joint replacement patients. Penn Therapy and Fitness offers locations in Philadelphia, the suburbs and South Jersey.

For locations and information about physical therapy at Penn Therapy and Fitness, visit [www.phillyrehab.com](http://www.phillyrehab.com).



*Chester County Hospital offers outpatient therapy services in West Chester, Kennett Square, Exton and West Grove.*

► **HELPFUL EQUIPMENT**

After surgery, some activities of daily living (ADLs) can be easier with the help of special equipment. Not all patients will need equipment to help with activities. Your therapist will help determine if they are needed. These items may include:

**Leg-Lifter**

This helps lift your legs into and out of bed and the tub. Do not rely strictly on the leg lifter for these tasks. You should use as much of your own leg strength as possible.

**Elastic Laces**

These laces replace standard shoelaces. Elastic laces allow you to slip on your shoes as if they were slippers.

**Long-Handled Shoe Horn**

This is used to limit the amount of bending needed to put on your shoes. It can also help take off your socks and shoes.

**Grabber / Reacher**

This acts as an extension of your arm. It should be used to help with any activity that requires you to reach or bend. It can be used to lift any item up to five pounds and grab your clothing.

**Long-Handled Sponge**

This helps wash your back and below your knees without leaning in an unsafe manner.

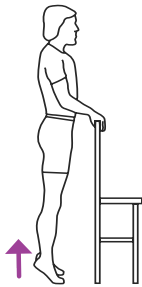


## ▶ HOME EXERCISES

There are simple exercises that you can do to help strengthen your leg muscles following surgery. Try these:

### STANDING EXERCISE 1

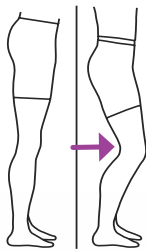
#### Heel Raises: For calf muscle strength



- Keep your weight evenly distributed between both legs
- Gently go up onto your toes, lifting your heels off the ground
- Keep your buttocks tight
- Slowly lower your heels back down to the floor
- Repeat 10X

### STANDING EXERCISE 2

#### Mini Squats: For hip and knee muscle strength and flexibility

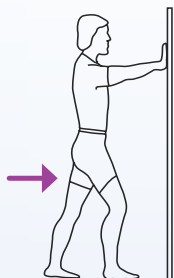


- “Unlock your knees” and gently bend your hips and knees
- Pretend you are sitting 1/4 of the way down on an imaginary chair, then return to standing
- Repeat 10X

**If you had hip replacement, remember your hip precautions!**

### STANDING EXERCISE 3

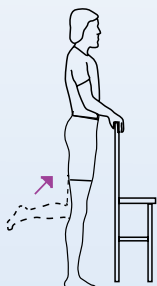
#### Standing Calf Stretch: For calf muscle flexibility



- Step back with the leg you are stretching
- Place your heel on the floor, keeping your toes facing forward
- Lean forward, keeping your back knee straight until you feel your calf stretch. Hold for 10 seconds.
- Repeat 3X

### STANDING EXERCISE 4

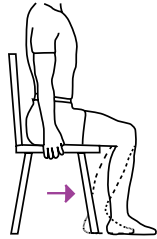
#### Hamstring Curls: For hamstring muscle strength



- Stand tall on your right leg
- Bend your left knee, bringing the heel towards your buttocks
- Return to the starting position
- Repeat 10X, then switch legs

### SEATED EXERCISE 1

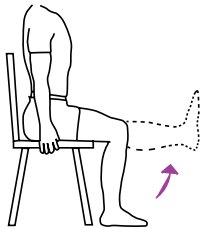
#### Seated Knee Flexion: For thigh muscle flexibility



- Begin with both knees bent
- Keeping your thigh on the chair, slide your foot as far under the chair as possible
- Hold for five seconds, then slowly return to the starting position
- Repeat 10X on each leg

### SEATED EXERCISE 2

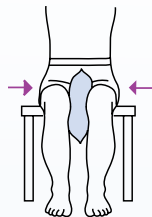
#### Seated Kicks: For thigh muscle strength



- Begin with both knees bent
- Keeping your thigh on the chair, straighten out your knee and slowly kick up
- Hold for five seconds, then slowly return knee to the starting position
- Repeat 10X on each leg

### SEATED EXERCISE 3

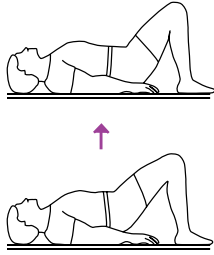
#### Seated Hip Squeezes: For hip adductor strength



- Begin with knees bent and place a pillow or towel roll between your thighs
- Squeeze the pillow or towel roll with both legs
- Hold for five seconds, then return to the starting position
- Repeat 10X

## SUPINE EXERCISES 1\*

### Bridging: For buttock and hip muscle strength

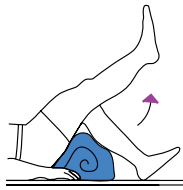


- Begin with knees bent to a comfortable position or using a towel roll under knees to support legs
- Squeeze buttock muscles and slowly lift your hips one to three inches off the bed.
- Slowly lower your hips to the starting position
- Repeat 10X

\* This exercise is not intended for patients who had anterior hip surgery. Please consult your physician for exercise guidelines.

## SUPINE EXERCISES 2

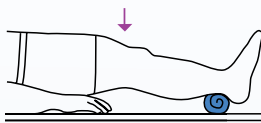
### Short Arc Quads: For thigh muscle strength



- Place a pillow or towel roll under your knees
- Keeping your thigh on the roll, straighten your knee and pull your toes towards the ceiling
- Hold for five seconds, then slowly return leg to the starting position
- Repeat 10X for each leg

## SUPINE EXERCISES 3

### Quad Sets: For tightening the muscles on top of your thigh



- Begin by placing a towel or blanket roll under your ankle so that your knee does not touch the bed
- Tighten your thigh muscles and press your knee as flat as possible (Imagine you are squashing a tennis ball behind your knee)
- If you are doing this exercise correctly, you should feel a stretch behind your knee
- Hold this position for 5 seconds
- Relax your thigh muscle
- Repeat 10X on each leg

For more exercises specifically designed for either hip or knee replacement, ask your physical therapist.

▶ **WORK**

Ask your surgeon when it is appropriate for you to return to work. Your timeline depends on the nature of your job, work conditions and overall recovery progression.

▶ **POSSIBLE COMPLICATIONS**

**Pain**

After going home, some discomfort is expected. Your pain medication should only be taken to manage pain. You should gradually lessen your dependence on this medication. Pain medication may cause nausea, constipation or light-headedness.

**Remember to take pain medication with food and plenty of water. If your pain does not lessen, call Penn Orthopaedics immediately.**

**Fever**

Your body temperature may be higher than normal for several days after surgery.

**If your fever continues over 101.5°F and you have chills, sweating, increased pain, redness or leaking at your incision, call Penn Orthopaedics immediately.**

**Swelling**

Swelling, bruising and redness around your incision are normal parts of the body’s healing process. Swelling can occur in your entire leg (including your foot) and bruising can travel from your groin to your toes. Swelling and bruising can be decreased using the RICE technique:



**If swelling increases and you have increased pain, call Penn Orthopaedics immediately.**

▶ **LIFETIME PROCEDURE PRECAUTIONS**

After surgery, you should take antibiotics before several medical procedures to reduce the risk of infection in your new joint. It is possible that an infection elsewhere could spread to your joint. Please refer to your surgeon for guidelines on these precautions.

▶ **SEX AFTER JOINT REPLACEMENT**

Before surgery, sex may have been uncomfortable and even painful. After surgery, sex may be easier, more comfortable and more enjoyable. You will need to protect your new joint during sex until it is fully healed. You should wait until your surgeon says it is OK to return to sexual relations with your partner. This is usually between four and six weeks after surgery.

**Getting in the Mood**

When the time comes, sex may feel a little awkward and may also take some planning. Here are some tips to getting in the mood:

- Take mild pain medication 20 to 30 minutes before to help prevent minor aches. Avoid taking anything too strong that will mask warning pains.
- Have extra pillows in the room to help support your body as you try different positions.
- Stretch. If your surgeon gave you any guidelines, make sure that you meet those guidelines.
- Do not push yourself. Your body is still recovering from a major surgery.

**Protecting Your New Joint**

You should make sure to protect your new joint until you are fully healed. Your surgeon may give you instructions, but generally:

**If you had knee replacement...**

- Any position on your back or standing should be safe. If you feel pain, stop.
- Put a pillow between your legs to support the new knee if on your side
- Avoid kneeling or squatting
- Avoid twisting your new knee

**If you had hip replacement...**

- Avoid turning your operated leg inward or crossing it over the center of your body
- Do not bend at the waist more than 90 degrees or raise your knee past hip level



## Safe Positions

### FACE TO FACE

Both men and women can try this position after having either knee or hip surgery:

- You should be on the bottom
- Keep your legs apart and turned out slightly
- Place pillows on the outside and inside of your legs for added support
- You may lie flat or prop yourself up with pillows, whichever is most comfortable

### SITTING IN A CHAIR

This position works for both men and women after having knee or hip surgery:

- Male should sit in a straight-backed chair with his feet flat on the floor
- Female sits on his lap, facing him

### WOMAN LYING AND MAN KNEELING

This position is suitable for a woman with a new knee or hip or a man with a new hip:

- Female lies on her back with her buttocks near the edge of the bed with feet supported or flat on the floor
- Male kneels in front of the bed with his hands on either side of his partner

### SIDE-LYING POSITION

This position is suitable for a woman with a new joint or a man with a new hip:

- Both female and male lie on their sides with the male lying behind the female
- Make sure that the new joint is on the bottom
- Use pillows as a form of support

### MAN PROPPED ON ELBOWS

This position is suitable for a woman with a new knee or hip or a man with a new hip:

- Male lies on top of his partner with legs stretched out behind him and a pillow between his knees
- Support weight with elbows

# FREQUENTLY ASKED QUESTIONS



### **How long will my joint replacement last? Will I need to get another?**

Research suggests that most hip and knee replacements should last for 15 to 20 years. New materials and techniques may allow even longer implant life. In general, if you treat your implant well, it will last a longer time. In the event an implant fails, a second surgery may be required.

### **Why is it important that I stop smoking before surgery?**

In any surgery, smoking is considered to be a co-morbidity. This means that smoking can increase the chance of complications during and after surgery. To make sure that you have the best results possible, we request that you stop smoking immediately.

### **My family is accompanying me for my surgery. Are there recommendations for places to stay, eat and visit while they are there?**

The Philadelphia region has a lot to offer visitors. For a detailed list of hotels, restaurants and attractions, please ask our desk staff and they will gladly provide you with recommendations.

### **Will I see my surgeon after surgery?**

Yes. You will see your surgeon before and after surgery. Your surgeon will be there to answer any questions and concerns throughout the entire process of joint replacement surgery at Penn Orthopaedics.

### **How will my medical team prevent the development of blood clots?**

First, your surgeon will prescribe blood thinners. In addition, early movement, specialized exercises and leg compression stockings will be part of your care to reduce the risk of blood clots.

### **How big will my scar be?**

The size of your scar depends on several factors including the surgeon's technique, complexity of surgery, the size of your joint and depth of your joint. Ask your surgeon for an estimate based on your unique surgery.

### **What should I do if I have difficulty sleeping?**

Make sure that your pain is well controlled during the day. Avoid taking naps and plan activities as near normal as possible. If sleeping difficulties continue, you can take sleeping aids, as prescribed, only if you are no longer taking MS Contin.

### **Can I kneel on my new knee?**

Yes. Generally, you can begin kneeling six to twelve weeks after surgery based on your comfort level. However for some patients it may take several months before they are comfortable kneeling. If you experience discomfort, your knee may not be quite ready.

### **Am I able to have an MRI with my new joint?**

Yes. The metals used in current joint implants are usually compatible with MRI machines. They are non-ferrous (non-iron) based materials. If you do need an MRI in the future, make sure you make it known that you have an artificial joint.

### **When will I be able to fly?**

The time prior to flying safely can vary from patient to patient. It is important to know that both flying and joint replacement increase the risk of blood clots in the legs and pulmonary embolism. Therefore, it is generally best to wait six weeks before flying. Consult your surgeon to determine when it is safe for you to fly.

### **Will my new joint set off security sensors?**

Your joint is made from varying amounts of metal alloy. There is a chance that it may be detected when going through security. Make sure to tell the security agent that you have an artificial joint. You may also be able to carry an alert card indicating you have an artificial joint. Ask your surgeon how you can obtain one.

### **Does Penn Orthopaedics offer an option for joint replacement outside of Philadelphia?**

Penn Orthopaedics performs joint replacement surgery at Pennsylvania Hospital, Penn Presbyterian Medical Center and Chester County Hospital. In addition, Penn Orthopaedics joint specialists offer follow-up evaluations in Cherry Hill, Exton, Philadelphia, Radnor, Valley Forge and West Grove.













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