

# TOTAL JOINT REPLACEMENT

## PATIENT GUIDEBOOK



Medicine

# TOTAL JOINT REPLACEMENT PATIENT GUIDEBOOK

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## Mission Statement

At OU Medicine, our mission is leading health care. We strive to improve the lives of all people.

OU Medicine believes that caring for our patients must be at the center of all we do. We do this with honesty and integrity. We magnify our effectiveness through teamwork, by open communication and respect among colleagues and co-workers. We seek to continually improve by innovation and high performance. We are committed to providing outstanding educational programs. We will be the leader in the advancement of great patient care.

OU Medicine offers enhanced resources and programs to serve our multicultural and diverse patient population. We embrace excellence in inclusion and value staff and faculty with unique experiences and backgrounds. We realize that our diverse workforce is critical to the success of our commitment to advancing and leading health care.





## Welcome

On behalf of OU Medicine and our orthopedic staff, we welcome you and extend our thanks for choosing us to be your total joint replacement provider. We recognize you have a choice when deciding where to receive care. Our goals are to ensure the highest standards of medicine and to provide a high quality experience for you. We are committed to keeping you informed and helping you become an active participant in your health care. We will do everything possible to make your stay with us a pleasant as possible. This guide is your workbook. It discusses:

- Help you to prepare for your upcoming surgery
- Know what to expect before, during and after surgery
- What to expect when you are at home
- Learn how to support your own recovery

## Purpose of this patient guide book

Preparation for surgery, recovery and a pre-planned discharge are important to your care. We are providing this booklet along with Joint Camp to communicate important information to help you prepare for your surgery. Please remember this book is only a guide with recommendations. Be sure to follow your physician's orders first

and ask questions if you are unsure of any information.

Bring this book with you to:

- Joint Camp
- Office visits with your surgeon
- To the hospital admission.



## OU Medical Center Downtown

**Main number:**

405-271-4700

**Pre-admission:**

405-271-5533, option 1

**Orthopedic services coordinator:**

405-271-6784

**Outpatient physical therapy:**

405-271-4152

**OU Physicians Office:**

405-271-2663

**OU Resident Clinic:**

405-271-4906



## OU Medical Center Edmond

**Main number:** 405-341-6100

**Pre-admission:** 405-359-5514

**Orthopedic services coordinator:**

405-513-1380

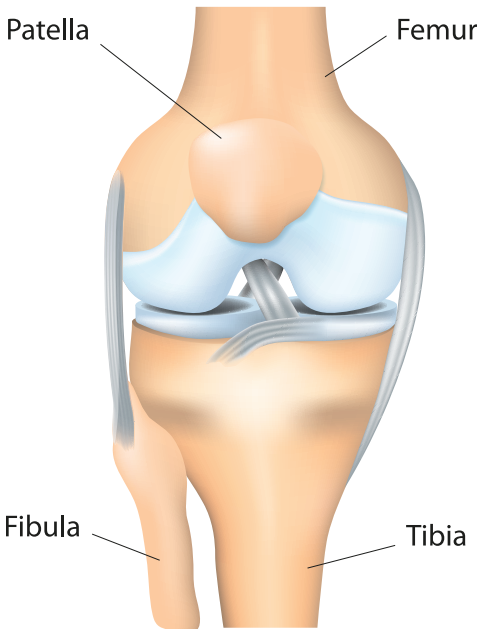
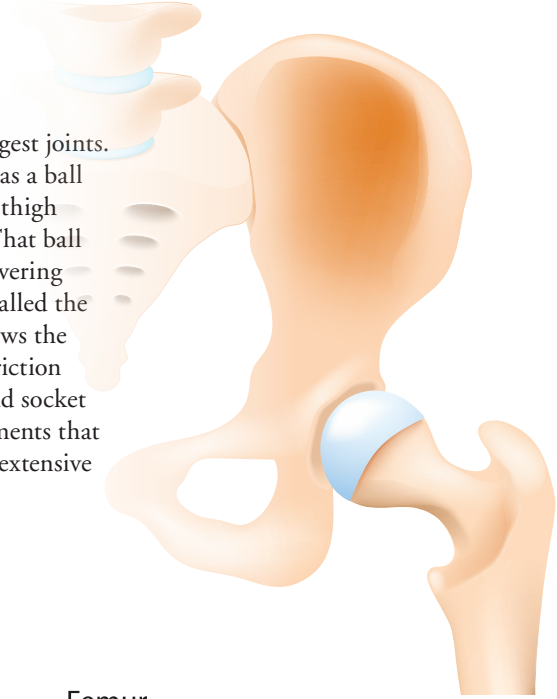
**Outpatient physical therapy:**

405-340-2019

# REVIEW OF ANATOMY

## Hip Joint

The hip is one of the body's largest joints. The hip joint can be described as a ball and joint socket. The femur or thigh bone has ball at the end of it. That ball fits into a socket in the hip. Covering the ball and socket is a lining called the synovial membrane, which allows the two surfaces to glide without friction during movement. This ball and socket joint is held together with ligaments that act like rubber bands allowing extensive movement of the joint.



## Knee Joint

The knee is the largest joint in the body. Quite different from the hip, the knee joint is more like a door hinge. The femur or thigh bone meets the tibia and fibula, or lower leg bones, and is connected with ligaments that act like rubber bands allowing movement and provide stability of the knee joint. Between the two leg bones is a material called cartilage. This acts like a shock absorber and softens the impact of movement and weight bearing.

# Total Hip Replacement

In a total hip replacement, the damaged bone and cartilage is removed and replaced with prosthetic components.

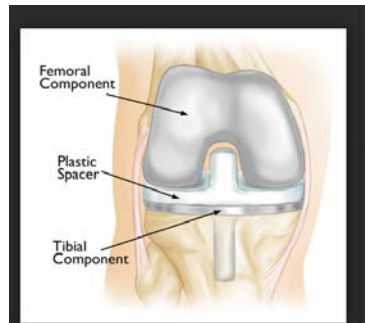
- The damaged femoral head is removed and replaced with a metal stem that is placed into the hollow center of the femur.
- A metal or ceramic ball is placed on the upper part of the stem. This ball replaces the damaged femoral head that was removed.
- The damaged cartilage surface of the socket is removed and replaced with a metal socket.



# Total Knee Replacement

In the total knee replacement, the damaged cartilage and bone will be removed and replaced with prosthetic components

- The damaged ends of the femur and tibia and any associated cartilage will be removed
- The ends of the bones will be capped with new metal and plastic implants
- This will restore alignment and function of the knee







## Common causes for joint replacement

There are many causes for joint replacement surgery. Some of the more common causes include:

- Osteoarthritis, a degenerative joint disease. Over time, the cartilage wears away, causing pain.
- The synovial membrane gets thickened and inflamed in rheumatoid arthritis which eventually causes pain, stiffness and leads to cartilage loss.
- Injury or trauma from a fall or accident involving the joint may require surgical intervention.
- Carrying excess body weight may cause more stress on the joint and wear away the lining and cartilage. This in turn may decrease mobility and lead to pain in the joints.
- Normal aging will cause wear and tear on the lining and cartilage in the joints.
- Infections can attack the joints causing pain that may be improved with joint replacement surgery.





# YOUR CARE TEAM

Our ultimate goal is to help you regain your ability to engage in life at the level that gives you the greatest satisfaction. While YOU are the most important member of your health care team, there are also a number of outstanding medical professionals serving on your team. We are a teaching facility and your team may include residents and students:

## **Orthopedic surgeon**

- Performs your surgery and directs your care
- Checks on you while you are in the hospital
- Evaluates you during follow-up appointments

## **Consulting physician**

- Responds to your orthopedic surgeon's request to assess and evaluate your

medical condition while you are in the hospital, and helps in your care as needed

## **Surgery team (RNs, surgical technicians and orthopedic assistants)**

- Plan and coordinate your care before, during and after your surgery
- Assists the surgeon and the anesthesia team during surgery

## **Anesthesia team (anesthesiologist, certified RN anesthetist)**

- Administers your anesthesia during your procedure in the operating room and constantly monitors your condition during surgery
- May help direct your pain management postoperatively



### **Postoperative inpatient team (RNs, technicians, and physicians)**

- Plans, coordinates/provides your care based upon physician orders
- Monitors your condition and communicates information about your condition to other team members
- Teaches you and your family about your health care needs
- Helps you with your personal care needs

### **Physical therapist/ Occupational therapist, who:**

- Teaches you exercises to increase your strength and range of motion
- Instructs and assists you with your exercise program after surgery
- Teaches you the correct way to perform your activities of daily living
- Helps you to adapt to the temporary lifestyle changes following joint replacement surgery

### **Lab personnel**

- May run various lab tests before and after surgery

### **Physician Assistants (PA's)**

- Specialty trained personnel
- Work side-by-side with your surgeon
- Help plan and coordinate your care

### **Radiology personnel**

- Performs any needed portable X-rays
- Performs any other radiological modalities such as MRIs, CT scans, ultrasounds and routine X-rays

### **RN case manager/ social worker**

- Arranges discharge planning, services and equipment for home as needed
- Helps arrange outpatient therapy, home health services or short-term rehabilitation as needed
- Interacts with insurance companies as needed

# PREPARING FOR SURGERY

## Contact your insurance company

Your physician's office will contact your insurance company to preauthorize your surgery; however, we recommend you follow up with your insurance company to get a better understanding of your coverage. We also recommend you know which outpatient physical therapy facilities, home health agencies and laboratories are in your preferred provider network.

## Pick a coach

We recommend that you identify a friend or family member as a "coach" to make sure your rehabilitation goals are met. The purpose of the coach is to assist you with your therapy during your hospital stay and learn how to assist you following your discharge.

Immediately following surgery, you may not remember many of the instructions told to you due to the effects of pain medication and anesthesia. Having someone designated to help you with your exercises and your mobility and to provide general moral support is very important.

The coach will learn the exercises with you and make sure you are doing them correctly. He or she will also learn how to properly assist you with getting in and out of bed and with walking. Ideally, your coach will be with you in the hospital during your daily rehabilitation sessions and help in your transition following discharge from the hospital.

## Diet and nutrition

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

- Drink plenty of fluids and stay hydrated.
- Eat more fiber to help avoid constipation (often caused by pain medications). Foods that contain fiber include corn, peas, beans, avocados, whole wheat pasta and breads, broccoli and almonds.
- Eat foods rich in iron, such as lean red meat, dark green leafy vegetables, raisins and prunes.
- Eat foods high in vitamin C to help your body absorb iron. These foods include oranges, cantaloupe and tomatoes.
- Make sure you are getting enough calcium, which is needed to keep your bones strong. Foods high in calcium include milk, cheese, yogurt, dark leafy greens and fortified cereal.
- Eat light meals, especially the day before surgery. The combined effects of anesthesia and medication may slow down your bowel function. This can cause constipation after surgery.

## Dietary supplements

Your anesthesia provider will want to know about any vitamins or supplements you are taking. Please bring a list of these to your pre-operative visit.

# Smoking and alcohol use

## Smoking

Smoking causes breathing problems, increases the risk of medical complications and slows recovery. Smoking also increases the risk of infection and blood clots after surgery. If you smoke, we encourage you to quit at least a few weeks before surgery and two weeks post-surgery to help appropriate wound healing. Nicotine patches or gum may be helpful during this period of time. Ask your surgeon or primary care provider.

## Alcohol use

Before surgery, it is important to be honest with your health care providers about your alcohol use. Tell your health care provider how many drinks you have per day (or per week). We are here to help you prepare and recover from your surgery as quickly and safely as possible.

## Diabetes guidelines and blood glucose management

Managing your blood glucose is always important, but it is extremely important before surgery. In fact, managing your blood glucose before surgery can help reduce the risk of problems after surgery, such as infection and other complications. Surgery can affect your blood glucose control in many ways. Stress before and after surgery can cause your body to release hormones that may make it more difficult to manage blood glucose levels. Surgery can also affect your normal diet,

and may change your usual medication routine. Your diabetes will be managed throughout the entire surgical process, starting with a thorough review during the preoperative testing and continuing through the postoperative period.

## Medications

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

## Dental work

If you need dental work, it is a good idea to get it done before your surgery. Tell your dentist you will be having a total joint replacement so the information can be placed in your dental record. Your surgeon may want you to take antibiotics before any future dental work.



# PREPARE YOUR HOME

## Prepare your home for your return after surgery

Falls can lead to a tragic loss of independence and mobility. Simple modifications to the interior of your house can reduce your risk of falling. Install safety devices where necessary. Changes in furniture arrangement, housekeeping and lighting will help reduce the risk of falls. While correcting these common errors will decrease your risk of falling, it is also recommended that you have a safety network of friends, family or neighbors to check in with you daily, either by phone or in person, should you fall and be unable to call for help.

Use the following checklist as a guide to prepare your home for your return after surgery.

## Stairs and steps

- ☐ Provide enough light to see each step and landing.
- ☐ Install handrails on both sides of the stairway (if possible) and use them.
- ☐ Do not leave objects on stairs.
- ☐ Do not place loose rugs at the bottom or top of stairs.
- ☐ Prepare temporary living space on the ground floor (if possible) because walking up and down steps may be slightly difficult in early recovery.

## Kitchen

- ☐ Remove throw rugs.
- ☐ Immediately clean up any liquid, grease or food spilled on the floor.
- ☐ Store food, dishes and cooking equipment at easy-to-reach waist level.



- ☐ Prepare extra meals prior to your surgery and freeze them for easier meal preparation when arriving home.
- ☐ Sit to prepare your meals.

## Bathroom

- ☐ Install grab bars on bathroom walls of the shower or bathtub if you are able to do so.
- ☐ Use a sturdy plastic seat in the bathtub/shower to avoid standing and decreasing your chances of falling while bathing.
- ☐ Use a long-handled sponge and attach a handheld shower head to make bathing easier.
- ☐ Use a bedside commode or commode extender to make standing up easier and safer.
- ☐ When cleaning the bathroom, do not get on your hands and knees to scrub. Use a long-handled sponge or mop.



## Bedroom

- ☐ Clear clutter from the floor to provide a clear path wide enough for a walker or other assistive device.
- ☐ Place a lamp and flashlight near your bed.
- ☐ Install night lights along the route between the bathroom and the bedroom.
- ☐ Sleep in a bed that is high enough to easily enter and exit.
- ☐ Keep a telephone near your bed.

## Living area

- ☐ Arrange furniture to create clear pathways between rooms.
- ☐ Remove all throw rugs.
- ☐ Do not sit in a low chair or sofa that would make it difficult for you to stand from a sitting position.
- ☐ Remove or secure all cords.

## Additional duties prior to surgery

- ☐ Do laundry and have comfortable clothes available to wear after surgery.
- ☐ Schedule a haircut/styling prior to surgery to make you feel more comfortable.
- ☐ Arrange for someone to help care for your pets.
- ☐ Arrange for someone to get your mail while you're in the hospital.
- ☐ Pay your bills prior to your surgery.
- ☐ Have an ice pack ready to use at home. Store bought bags of peas work well as ice packs and can be refrozen to use again.

# BEFORE YOUR SURGERY

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

## To complete before surgery.

### I have:

- ☐ Verified with my insurance company that I have coverage for my surgery.
- ☐ Attended the total joint replacement education class.
- ☐ Received my pre-admission testing appointment.
- ☐ Talked to my case manager, surgeon, or orthopedic services coordinator about discharge options.
- ☐ Completed a living will or health care power-of-attorney to have in my chart.
- ☐ A list of my medications and supplements
- ☐ Arranged for someone to drive me home when I'm discharged from the hospital.
- ☐ Arranged for someone to drive me to my follow-up appointments.

## To improve my health before surgery:

- ☐ I quit smoking to improve healing and reduce the risk of infection after surgery.
- ☐ I had a dental checkup to ensure my dental needs are taken care of before surgery.
- ☐ I received a flu vaccination (if during flu season – October through March).
- ☐ I am eating lightly the week before my surgery to help reduce the risk of constipation. I have increased fluids and fiber in my diet as well.

- ☐ I had my diabetes checked and it is under control, HbA1c N > 8 (if applicable).
- ☐ I have not shaved my legs 3 days before my surgery.

## What to bring to the hospital:

- ☐ Current list of medications and supplements, noting which ones have been stopped
- ☐ Clean, loose pajamas or short nightgown and shorts; robe if desired
- ☐ Undergarments
- ☐ Loose shorts, jogging suit, sweats, tops
- ☐ Slippers with backs and rubberized sole or walking sneakers/shoes with Velcro closures or elastic shoe laces
- ☐ Socks
- ☐ Personal toiletries (toothbrush, toothpaste, denture cleanser/cup, deodorant, electric or other razor, shaving cream, comb, NO powders)
- ☐ Eyeglasses
- ☐ Hearing aid and batteries
- ☐ CPAP machine settings, tubing, and machine
- ☐ Cell phone or calling card
- ☐ Driver's license or photo ID, insurance card, Medicare or Medicaid card
- ☐ Copy of your advanced directives
- ☐ Important telephone numbers (include person bringing you home)
- ☐ Any adaptive equipment you may have, such as a reacher, sock aid, long-handled shoe horn
- ☐ This guide booklet so you can review items with your health care team
- ☐ Bring a walker if you have one. Make sure it is well labeled with your name.

## What not to bring:

- ☐ Jewelry
- ☐ Credit cards
- ☐ Large sums of money
- ☐ Keys
- ☐ Expensive clothing

## Pre-admission testing locations

**What to expect:** A preoperative work-up is **mandatory for all joint replacement patients**. During your visit, a nurse will take your medical history, including previous surgeries, illnesses and current state of health. You will undergo a series of tests such as lab (including blood and urine), X-ray and EKG. You will also be given prescriptions and special soap to shower with prior to surgery. This appointment will take 60-90 minutes. Referrals may be made for additional testing if the provider deems necessary. Please bring a current list of all medications with dosages to your appointment.

### OU Medical Center *Edmond*

**Location:** Medical Office Building (MOB), suite 301, 105 S Bryant, Edmond, Oklahoma.

**Appointments:** Available 8 a.m. to 4 p.m. and may be scheduled by calling 405-359-5514. And can be scheduled on the day of your Joint Camp

### OU Medical Center Downtown

**Location:** OUMC Preoperative assessment unit (PAU) is located in the outpatient surgery department of OUMC. Entrance and parking is located on Stanton L. Young between Lincoln Boulevard and Children's Avenue.

**Appointments:** Available 8:30 a.m. to 5 p.m. and may be scheduled by calling 405-271-5533, option 1.

## The day before surgery

You should receive a call to confirm your procedure and the time you need to arrive at the hospital. If you do not receive a call by 3 p.m. the day before surgery, please call: OUMC *Edmond* at 405-359-5512 or OUMC Downtown at 405-271-5533, option 1 depending on location of your surgery. For Monday surgery, call Friday afternoon. You will be told which medications to take the morning of surgery with a small sip of water.

## DO

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

## DO NOT

- Eat or drink anything after the time you were instructed. Ice chips, gum or mints are NOT allowed.
- Use lotions or powders.
- Shave surgery site before surgery.
- Shower the morning of your surgery.





# THE DAY OF SURGERY

## Where to go:

**OUMC Downtown outpatient surgery**  
(see page 17 for directions).

**OUMC Edmond ambulatory care pavilion** (see page 17 for directions).

## When you arrive:

- You will be taken to a room and asked to undress and put on a hospital gown.
- Your family/friends will be asked to wait in the waiting area while the nurse prepares you for surgery.
- Your preoperative nurse will start your IV, ask questions and check your vital signs (your pulse, breathing rate, body temperature and blood pressure) and administer medications.
- Your family/friends will be allowed

to join you while you wait to go to surgery.

- Your surgical site will be identified and marked prior to your surgery.
- For your safety, you will be asked several times prior to your surgery to repeat your name, date of birth, physician and allergies, and to confirm what type of or surgery you are having performed. Hospital staff is required to ask you these questions to ensure that all members of your health care team have accurate and up-to-date information on you and your procedure.
- Any glasses, contacts, hearing aids or dentures will be removed before surgery and returned after surgery.
- Advance directives will be noted.



## Family waiting area:

When you are transferred to the operating room, your family/friends may wait in the surgical waiting area. We obtain a contact phone number and call every 45-60 minutes with updates. Give your family your PIN# to watch progression on the patient information board in the waiting area. If your family/friends plans on leaving the hospital, they should notify the nurse and provide contact information.

OUMC Downtown: Family waiting Area: second floor.

OUMC Edmond: Surgery waiting area: first floor

## Anesthesia

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

**General anesthesia** puts you to sleep following an injection of medications into your IV.

You will not feel pain and will be completely asleep throughout your surgery.

**Regional anesthesia** numbs a part of your body with an injection of local anesthetic. For total joint replacement surgery of the knee and hip, regional anesthesia may involve injections into your back or around the nerves in your leg or hip. You will be awake but will not feel any pain. You may receive a single shot block versus catheter depending on physicians' and anesthesiologists' suggestions. You will make the final decision.



# THE SURGERY

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

## Right after surgery

You will recover in the post-anesthesia care unit (PACU) and be cared for by a nurse before being taken to your hospital room. The average time in this unit is one to two hours.

### While here:

- Your vital signs will be checked.
- You will be asked questions to determine if anesthesia is wearing off.
- Your pain medications will be started.
- You will be warmed with blankets if you are cold.

- You will be given oxygen to help you breathe (if needed).
- You will wear compression sleeves on your lower legs to help prevent blood clots.
- Your surgical site will be wrapped with a cold pack to reduce swelling and pain.
- You might have a urinary catheter placed to empty your bladder.
- You may have an X-ray taken of your joint replacement.
- Your family will be updated while you are in the PACU.
- Hip replacement patients may have a positioning pillow in place between their legs.

## Your hospital stay

After your stay in the PACU, you will be moved to a nursing unit. It is normal to drift in and out of sleep until the anesthesia completely wears off. Because it's important to rest as much as possible, we encourage friends and family to limit their visits.

### While in your hospital room, your nurse will:

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

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

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

- Your surgeon, resident, fellow or physician assistant
- An anesthesiologist or nurse anesthetist
- Your orthopedic services coordinator

- Your RN case manager/social worker

A therapist or nurse will help with bedside activities. Remember to perform the ankle pump/circulation exercises at the end of this guide.

## Pain control

Your therapy may not begin the day of surgery. It is best to take your pain medication prior to your therapy session. It allows better participation.

There is always pain associated with a surgical procedure. To help us minimize your pain after surgery you will be asked to rate the intensity of your pain through the use of a pain scale of 0-10 (0 is no pain, 10 is worst pain). Knowing that after surgery 0 is not attainable, a score between 2-3 is an attainable and acceptable score for most patients. It is best if you obtain medication when your pain level starts to rise. Do not allow your pain to get severe. If you help to maintain pain control, it takes less medication and less time to manage the pain.

### Pain medication is available:

Oral pain medication: If taking oral pain medication, it is best to request it when your pain level starts to increase. Remember not to wait until the pain is severe. Keep in mind that it could take up to 40-60 minutes for oral pain medication to start working and it also takes time for the nurse to check your chart and obtain the medication. The sooner you request pain medication when your pain starts to increase, the better you will manage your pain. Pain medicine will usually be available to you as often as every four hours. Relaxation and diversion are also helpful in decreasing pain. It is important to tell your care providers if you have had any problems with any pain medications in the past. Knowing this will help us better manage your pain.



## Nausea

Nausea is a common side effect after surgery, resulting from anesthesia as well as other medications. There are many anti-nausea medications available. It is important for you to communicate with your nurse and surgeon if you experience nausea during your hospital stay.

## Incentive spirometer



While in the hospital and following surgery, you are taking decreased breaths and lying flat versus sitting upright. This increases your risk for developing pneumonia. Therefore, deep breathing exercises with your incentive spirometer will help open the air sacs in your lungs and may reduce future problems. You should use this incentive spirometer on your own and take an active part in your recovery.

- The spirometer will be set by your respiratory therapist for your appropriate volume.
- Hold the spirometer upright.
- Breathe out normally. Place your lips tightly around the mouthpiece.
- Breathe in through your mouth slowly until the piston reaches the pointer.
- Hold your breath in for three seconds.
- Remove the mouthpiece and breathe out through your nose.
- Repeat steps two through five 15 times.
- Remember to cough when you have finished all your breaths.

## Recovery/ rehabilitation process

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

### Your physical therapist will teach you how to:

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

**Your occupational therapist will teach you how to:**

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

Together with your therapists, you will choose the best device to use for walking. You will be instructed on how to go up and down a set of stairs or a curb as needed for your personal home situation. You will also be instructed in a home exercise program. The case manager/ social worker will order the equipment you need and the durable medical equipment company will work directly with your insurance provider to obtain approval.



## Adaptive equipment

Your therapist's evaluation may recommend the need for adaptive equipment once you are discharged home. We will assist you in acquiring any special equipment needed to facilitate your rehabilitation, but we cannot provide this equipment to you. Please make arrangements prior to your surgery to have this equipment available to you upon discharge.

**The most common adaptive equipment are:**

- Walker
- Cane

**Additional adaptive equipment ( not covered by insurance companies) are:**

- Long-handled bath sponge
- Long-handled shoe horn
- Sock aid



- Reacher
- Elastic shoe laces (for slipping on laced shoes)
- Shower chair/bath bench
- Bedside commode
- Toilet seat riser

If you would like information about adaptive medical equipment suppliers in our area, please ask your care manager/ social worker.

## Total joint precautions

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

### Knee

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

### Hip

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

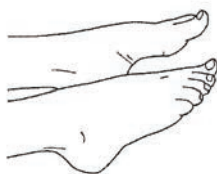
- Do not bend your operated hip beyond a 90-degree angle.
- Do not pivot or twist your operated hip.
- Do not cross your operated leg or ankle.

# POSTOPERATIVE

## Total knee joint replacement

Your goal is to perform repetitions of all the exercises listed below. Repetitions should be increasing each day.

- Ankle pumps/circulation exercises
- Quad sets
- Hamstring sets
- Straight leg raises
- Hip abduction/adduction
- Sitting long arc quad extensions/knee flexion
- Standing hip flexion



## Total hip joint replacement

Your goal is to perform repetitions of all the exercises listed below. In addition, you should perform repetitions of the quad sets, glut sets and ankle pumps every hour. Additional exercises may be added by your therapist as needed.

- Ankle pumps/circulation exercises
- Quad sets
- Glut sets
- Straight leg raises
- Hip abduction/adduction
- Sitting long arc quad extensions/knee flexion
- Short arc quads

## Ankle Pumps

Lying on your back or sitting.

Bend and straighten your ankles briskly. If you keep your knees straight during the exercise you will stretch your calf muscles.

Repeat 10 times. Every hour after surgery.

## Quadriceps Sets

Lying on your back with legs straight.

Bend your ankles and push your knees down firmly against the bed.

Hold 5 seconds – relax.

Repeat 10 times. Two sets per day.



## Gluteal Sets

Lying on your back.

Squeeze buttocks firmly together.

Hold approx. 3 seconds Do not hold your breath. Relax, and repeat.

Repeat 10 times. Two sets per day.



## Short Arc Quads

Lying on your back. Bend one leg and put your foot on the bed and put a cushion or towel under the bad knee.

Exercise your straight leg by pulling your foot and toes up, tightening your thigh muscle and straighten the knee (keep knee on the cushion.)

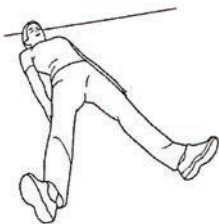
Hold approximately 5 seconds and slowly relax. You will progress to adding weight to the ankle to increase your strength.

Repeat 10 times. Two sets per day.



## Heel Slides

1. Lie flat to back
2. Slide the operated heel toward your buttocks, bending the knee.
3. Hold 3 seconds and slowly lower
4. 10 repetitions. Two times per day.



## Hip Abduction/Adduction

Lying on your back

Bring your operated leg out to the side and then back to mid position.

Repeat 10 times. Do two sets per day.



## Sitting Knee Flexion

Sit on a chair with your feet on the floor.

Bend you knee as much as possible.

Repeat 10 times. Do two sets per day.





## Seated Knee Extension

Sit on a chair.

Pull your toes up, tighten your thigh muscle and straighten your knee.

Hold approximately 5 seconds and slowly relax your leg.

Repeat 10 times. Do two sets per day.



## Hip Abduction, Standing

Stand straight holding on to a support.

Lift your leg sideways and bring it back keeping your trunk straight throughout the exercise.

Repeat 10 times. Do two sets per day.



## Hip Extension, Standing

Stand straight holding on to a chair.

Bring your leg backwards keeping your knee straight. Do not lean forwards.

Repeat 10 times. Do two sets per day.



## Single Leg Stance

Stand on one foot, close to your walker or a counter to help maintain your balance.

Repeat 10 times. Do two sets per day.



## Straight Leg Raise

Lying on your back with one leg straight and the other leg bent. (You can vary the exercise by having your foot pointing either upward, inward or outward.)

Exercise your straight leg by pulling the toes up, straightening the knee and lifting the leg off the bed. Hold approximately three seconds. Slowly relax.

Repeat 10 times with both legs. Do two sets per day.

## The days following surgery

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

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

Pain is an expected part of recovery, and pain levels vary for each person. We will give you cold packs or wraps to manage your pain and reduce swelling. Oral pain medication will be prescribed for you and available at discharge.

## Medication

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

TED stockings may also be used as supplement to lessen the chance of clots in your blood vessels and reduce post-op swelling.

## Your hospital discharge

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

- Your medical condition is stable

- You are able to eat and urinate
- Your pain is controlled with oral pain medication
- Your home is prepared for your safety
- You successfully met physical and occupational therapy goals

## Discharging directly to home

Most patients will receive outpatient physical therapy after discharge from the hospital. If you need home health physical therapy for a period of time before attending an outpatient facility, the hospital case manager/social worker will assist in making those arrangements.

You may also require the services of a home health care nurse to visit you to continue any medical treatments that your physician or surgeon deem necessary. This also can be arranged for you upon discharge by your hospital case manager/social worker.

## Discharging to a rehabilitation facility

The decision for you to be discharged to a rehabilitation facility is made by you, therapy, your surgeon and your insurance provider. If it is determined that this is the best course of action for you, depending on your medical and insurance qualifications, you may be discharged to an acute rehabilitation facility or a skilled nursing facility with a rehabilitation program. This can be arranged for you upon discharge by your hospital case manager/social worker.



## AT HOME INSTRUCTIONS

After surgery you can expect gradual improvement during the coming months. You should expect less pain, stiffness and swelling, and a more independent lifestyle. Returning to work depends on how quickly you heal and how demanding your job may be on a new joint. After you are discharged from the hospital or rehab facility, there will be a few weeks before you return for a follow-up visit with your surgeon. This period of time is critical in your rehabilitation and for positive long-term results. In general, patients do very well after discharge; however, it's important that you contact the surgeon's office (weekdays, 8 a.m. to 4:30 p.m. at 271-2663, or after hours call the page operator at 271-5656 and ask for the ortho resident on call) if any of the following occur:

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

**If you experience increase in calf pain, swelling, racing pulse, shortness of breath, chest pain/chest discomfort, feeling faint, report to the nearest emergency room.**

## Managing pain & discomfort

- It is important to take scheduled pain medications to prevent the need for stronger medications. Be sure and take your medications as scheduled.
- We encourage you to take your pain medication as soon as you begin to feel pain. Do not wait until the pain becomes severe. Follow the instructions on the prescription label. Remember to take your pain medication before activity and at bedtime.
- If you need to have stitches or staples removed and you are still taking pain medications, be sure to have a friend or family member drive you to your surgeon's appointment.
- Pain medication may cause nausea. If this happens, decrease the amount you are taking or stop and contact your surgeon's office.
- If you need additional pain medication, please contact your surgeon's office. You must give a three-day notice before you run out. Plan ahead, especially for holiday weekends.
- Typically, your surgeon will provide pain medications for four to eight weeks after surgery. If you need pain medication beyond this time period, your primary care physician (PCP) or pain specialist may be consulted.

### Also remember:

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

## Incision care

- Most likely you will have a special dressing on your incision which can be left undisturbed until your first follow up visit.
- Your incision should remain dry and clean. Do not get your incision wet until after your staples are removed, or approved by your surgeon. Most patients have staples in place for approximately 10 to 14 days.
- Do not apply creams, lotions or powders to your incision while the staples are in or drainage is present.
- Do not remove the steri-strips. They will fall off on their own.

## Showering/bathing

- You may shower when your physician instructs you to, usually after your staples are removed. When you are able to shower, do not rub the incision.
- No tub baths, hot tubs or spas.

## Tips for using a walker

- While you are in the hospital, do not put more weight on your surgical leg than is specified.
- Do not pull up on the walker when rising from a sitting position. Use an armchair so you can use the arms to push up from the chair.
- Do not take a step until your walker is flat on the floor.
- Make sure a folding walker is locked in the open position before using it.
- The walker height should allow your arms to slightly bend at the elbows (20 to 30 degrees).
- Do not lean over the walker. Always stand up straight.

## Walking

- Place the walker forward at a comfortable arm's length.
- Advance your surgical leg, resting it on the floor in the middle of the walker.
- Support your weight on your hands, while advancing your good foot. Move it forward and inside the walker.
- It is important to lift up your heel first before taking a step and then let your heel strike first when you take the step. This allows your knee to bend while walking.

## Stair climbing

Typically, stair steps are not wide enough to accommodate a walker, so it is important to have handrails to assist you in stair climbing.

- Ascending (up with the good leg): Good leg up first, followed by surgical leg, then your crutches or walker.
- Descending (down with the bad leg): Crutches or walker down first,

followed by the surgical leg, then your good leg.

## Getting into bed

- Back up toward the bed until you feel it behind your legs.
- Move your surgical leg out in front of you as you reach back and lower yourself to the bed. Then scoot yourself back onto the bed.
- Lift your surgical leg into bed, either without assistance as able or using your good leg, your arms, a cane or a belt.

## Getting out of bed

- Scoot your hips toward the edge of the bed.
- Sit up, lowering your surgical leg to the floor.
- Place the walker in front of you and push up from the bed with both arms. If the bed is too low, you may put one hand on the walker but the other hand needs to remain on the bed. This prevents the walker from tipping.





## Getting in and out of a car

The front passenger car seat should be pushed all the way back before you enter the car.

- Have the driver park on a flat surface and/or near the driveway ramp.
- Walk toward car using the appropriate walking device.
- When close to the car, turn and begin backing up to the front passenger car seat. Never step into the car!
- Placing a plastic bag on a fabric seat may make moving easier.
- Reach with your right hand and hold the door frame or headrest. Place your left hand on the car seat or dashboard.
- Slowly lower yourself to the car seat.
- Slide yourself back onto the car seat.
- Swing your legs into the car. Try to move one leg at a time. Keep your toes pointed upward.
- Do NOT cross your legs!
- Reverse these steps to get out of a car.

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

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

## Weeks 1 to 6 at home

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

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

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

## Icing and elevation

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

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

## Diet

Resume your diet as tolerated and include vegetables, fruits, and proteins (such as meats, fish, chicken, nuts and eggs) to promote healing. Remember to have adequate fluid intake (at least eight glasses a day). It is common after surgery to lack an appetite. This may be the result of anesthesia and the medications. Proper nutrition is needed for healing. During the healing process, the body needs increased amounts of calories, protein, vitamins A and C, and sometimes the mineral zinc. Eat a variety of foods to get all the calories, proteins, vitamins, and minerals you need. If you have been told to follow a specific diet, please follow it. What you eat can help heal your wounds and prevent infection and potential complications. If you're not eating well after surgery, contact your health care provider about nutritional supplements.



## WEEKS 6 TO 12 AT HOME

This period after joint replacement is a time of continued improvement. You will probably notice an increase in energy, a desire to do more activities and a noticeable improvement in your new joint. Please keep in mind that every patient is different and will improve at a different pace. Your first appointment will be two weeks after surgery to review the wound, remove sutures/staples and conduct an assessment and X-rays. The second appointment will occur four to six weeks after surgery, depending on the physician's preference.

### Walking

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

### Back to work

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

remember for returning to work include:

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

### Exercise programs

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



## Comply with all restrictions

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

## Three month follow-up

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

Helpful tips:

- Be realistic. Pace yourself and gradually resume activities.
- Increase your walking distance and activities, but not all at once.
- Keep a cane in the trunk of your car to aid with discomfort, or to use on uneven or icy ground.
- Enjoy the benefits of your total joint.

- Continue to call with any questions or concerns. Our staff is always available to assist you.

## Six months and future follow-up visits

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

## Lifelong fitness

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



## POTENTIAL COMPLICATIONS

### Blood clots

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

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

- Exercising and staying active.
- Taking blood thinners, such as aspirin, warfarin (Coumadin), Lovenox, or other drugs as prescribed by your physician.

- Wearing support stockings.

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

#### **Symptoms of a blood clot include:**

- Pain and/or redness in your calf and leg unrelated to your incision
- Increased swelling of your thigh, calf, ankle or foot
- Increased skin temperature at the site of the incision



- Shortness of breath and chest pain or pain when breathing
- Racing pulse, palpitations

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

## **Surgical site infection**

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

Some common symptoms of surgical site infection are:

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

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

## **Preventing infection**

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

**These procedures include:**

- Dental procedures
- Colonoscopy/sigmoidoscopy
- Cystoscopy/genitourinary instrumentation

- Prostate and/or bladder surgery
- Kidney surgery
- Cardiac catheterization
- Barium enema
- Endoscopy

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

**Thank you for choosing OU  
Medicine for your  
joint replacement surgery.  
For questions or inquiries,  
please call your surgeon  
or orthopedic service  
coordinator.**









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