

Your Joint Replacement Surgery



Tripler Army Medical Center
Department of Orthopaedic Surgery

Your Joint Replacement Guidebook

The Purpose of This Guide

Preparation, education, and a carefully pre-planned discharge are essential for optimum results after your total joint replacement surgery. This booklet is meant to be used as a tool and reference to guide you through the following:

- What to expect every step of the way
- What you need to know
- Different stages of your total joint surgery

Remember this is just a guide...

- This booklet is yours to keep. Feel free to take notes and write down any questions you may have for your health care team.
- Please bring this booklet with you to all of your appointments.



Information and images in this guide were obtained from The American Academy of Orthopaedic Surgeons unless otherwise stated.

website: <http://orthoinfo.aaos.org>

Images contained in this guide have no copyright restrictions unless otherwise stated.

Information about Tripler Army Medical Center

1 Jarrett White Road
Honolulu, HI 96849

Information: (808) 433-6661

Helpful Phone Numbers

Orthopaedic Surgery Clinic

Orthopaedic Clinic Main Number (808) 433-2778

Option 4, 4, 2

Pre-Op/Surgery Scheduling (808) 433-5986

Total Joints Nurse Line (808) 433-5815

Please call the Total Joints Nurse for questions regarding medications, dental clearance, pre/post-operative concerns, and medication refills.

After Hours Orthopedic Patient Line (808) 433-9798

Tripler Army Medical Center

Surgical Admissions Center Reception (808) 433-5999

Inpatient Unit 6B2 (808) 433-6805

Tripler Trolley (808) 433-1200

Internal Medicine Clinic Front Desk (808) 433-1640

If you are experiencing a medical emergency, please dial 911 or go to your nearest emergency room.

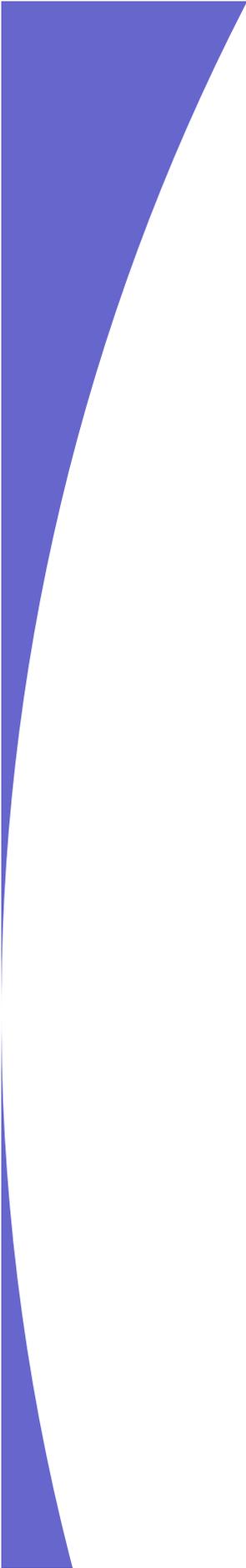
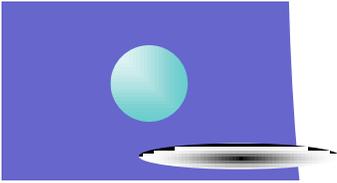


Table of Contents

Understanding Your Joint	5
Arthritis	6
Considering Joint Replacement Surgery	7
Your Health Care Team.....	8
Before Your Surgery	9
Your Health.....	10
Mandatory Pre-Operative Appointments.....	11
Preparing for Surgery.....	13
Preparing Your Home	14
Your Joint Replacement Surgery.....	16
What to Expect After Surgery	18
Equipment After Surgery.....	18
Inpatient Stay.....	20
Pain Management.....	20
Physical and Occupational Therapy	21
Complications of Joint Replacement Surgery	23
Discharge from the Hospital	27
Your Recovery at Home	28
Taking Care of Your New Joint.....	32



Understanding Your Joint

The Knee

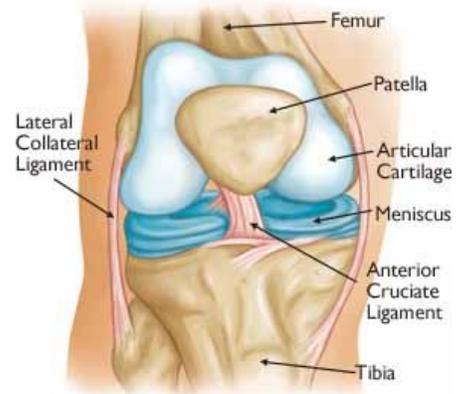
The knee is made up of the lower end of the thigh bone (**femur**), the upper end of the shin bone (**tibia**), and the knee cap (**patella**). Where the ends of these three bones touch are covered with **articular cartilage**, a smooth substance that protects bones and enables them to move easily.

The **meniscus** is a wedge of soft cartilage between the femur and tibia that serves to cushion the knee and helps to absorb shock during motion.

Ligaments hold the femur and tibia together and provide stability. The long thigh muscles give the knee strength.

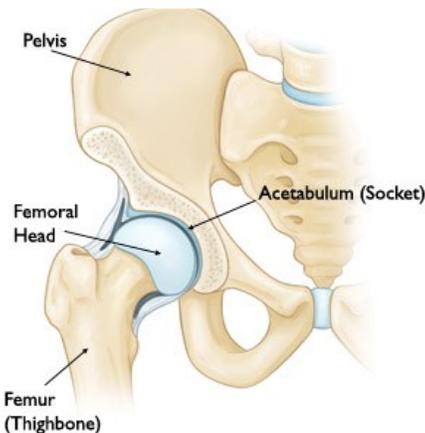
Remaining surfaces of the knee are covered by a thin lining (**synovium**) that releases synovial fluid that lubricates the cartilage. This lubrication reduces friction to nearly zero in a healthy knee.

Normally, all these components work together in harmony. However, disease or injury can disrupt this harmony and result in pain, muscle weakness, and reduced function.

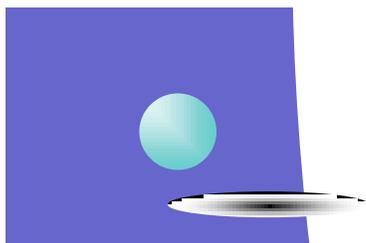


The Hip

The hip is a very stable ball-and-socket joint: a ball (**femoral head**) at the top of the thigh bone (**femur**) fits into a rounded socket or cup-like cavity (**acetabulum**) in your **pelvis**. Bands of tissues form a capsule connecting the ball to the socket and hold the bones in place.



A layer of smooth tissue called cartilage cushions the surface of the bones, helping the ball to rotate easily in the socket. Fluid-filled sacs (**bursae**) cushion the area where muscles or tendons glide across bone. The capsule surrounding the joint also has a lining (**synovium**) that secretes a liquid called synovial fluid. This fluid lubricates the joint, further reducing friction and making movement easier.



Arthritis

Arthritis

Arthritis means “inflammation of a joint.” It is the leading cause of disability in the United States. There are three basic types of arthritis that affect the knee and hip joint:

1. Osteoarthritis

- Osteoarthritis (OA) is the most common form of knee and hip arthritis. OA is usually a slow progressive degenerative disease in which the joint cartilage gradually wears away. It most often affects middle-aged and older people.

2. Rheumatoid Arthritis

- Rheumatoid arthritis (RA) is an inflammatory type of arthritis that can destroy the joint cartilage. RA can occur at any age and generally affects multiple joints.

3. Post-Traumatic Arthritis

- Post-traumatic arthritis can develop after an injury to the knee or hip joint. It is similar to osteoarthritis and can develop years after a fracture, ligament injury, or meniscus tear.

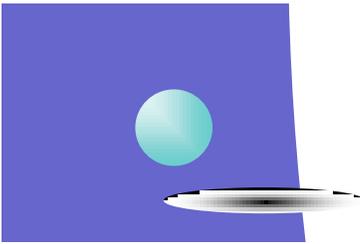
Symptoms

- Weakness (atrophy) in the muscles
- Tenderness to touch
- Stiffness
- A grating feeling or sound (crepitus) with movement
- Pain when pressure is placed on the joint or the joint is moved



Healthy Knee

Knee with Arthritis



Considering Joint Replacement Surgery

No matter what age you are, a joint problem can keep you from activities you enjoy. Pain and stiffness can limit your daily tasks. The decision to have joint replacement surgery should be a cooperative one made by you, your family, your primary care physician, and your Orthopaedic Surgeon.

You may benefit from joint replacement surgery if:

- Joint pain limits your everyday activities, such as walking or bending.
- Joint pain continues while resting, either day or night.
- Stiffness in a joint limits your ability to move or lift your leg.
- You have poor pain relief from anti-inflammatory drugs or other prescribed medications.
- You have harmful or unpleasant side effects from your pain medications.
- Other treatments such as physical therapy or the use of gait aids such as a cane do not relieve joint pain.

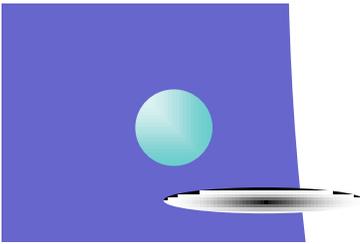


Realistic expectations following joint surgery:

More than 90% of individuals who undergo total joint replacement experience a dramatic reduction in joint pain and a significant improvement in the ability to perform common activities of daily living. Total joint replacement will not make you a super-athlete or allow you to do more than you could before you developed arthritis.

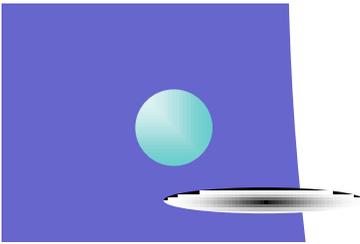
Goals of joint replacement surgery:

- Improve quality of life
- Decrease pain
- Increase muscle strength
- Increase independence



Your Health Care Team

- **Orthopaedic Surgeon** - A specialty trained doctor who will perform your surgery.
- **Resident** - A doctor who is completing his/her specialty training in orthopaedic surgery and has already completed an internship. He/she works very closely with the surgeon. You may see a resident during all phases of your experience.
- **Intern** - A doctor who has completed medical school and is now involved in the initial practical phase of medical training. You may see an intern during all phases of your experience.
- **Nurses** - You will encounter different nurses throughout the process. Registered nurses (RNs) in the Orthopaedic Clinic work closely with your surgeon and will be available to answer any of your questions. They will also assist you with your pre-operative process. There are RNs, licensed practical nurses (LPNs), medics, and certified nurse assistants (CNAs) who will be taking care of you while you are in the hospital, from the time you are admitted until you go home. They will assist you with your needs and concerns after surgery, including managing your pain, moving around, and personal care needs.
- **Orthopaedic Clinic Staff** - Many different types of people work in the clinic to assist you with your care. You may encounter cast technicians who may remove your staples, appointment clerks who assist with making appointments, administrative clerks who schedule surgery dates and pre-operative appointments, and reception clerks who answer telephones and check you in for appointments.
- **Physical Therapist (PT)** - Physical therapists will instruct you in muscle strengthening exercises and movement transfer techniques (getting in/out of bed or a chair, proper body mechanics). They may show you how to use mobility aids such as canes or walkers.
- **Occupational Therapist (OT)** - Occupational therapists will work with you on your everyday activities. These include grooming, dressing, bathing, doing housework, getting in and out of beds, bathtubs, and cars.
- **Social Workers and/or Case Managers** - Social workers and case managers work with you and your family to offer support and information regarding the resources available to you. They help you obtain equipment you may need at home and advise you on other home care issues. They also help coordinate your medical care needs to facilitate your return to duty.
- **Chaplain** - A chaplain is available for spiritual support. You may request this service or it may be requested on your behalf.



Before Your Surgery

If you and your Orthopaedic Surgeon have decided that you are a good candidate for joint replacement surgery, you will need several weeks to prepare. By planning ahead and following these recommendations, you can help ensure a smooth and speedy recovery.

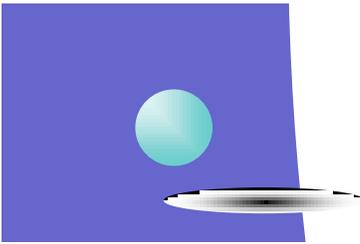


- ⇒ Dental clearance
- ⇒ Medical clearance from Internal Medicine or your Primary Care Provider
- ⇒ Attend the Total Joint Class
- ⇒ Meet with your Orthopaedic Surgeon for pre-operative counseling
- ⇒ Surgical Admission Center (SAC) appointment (Anesthesia, EKG, Lab, Admissions, Nursing)

Register for Pre-Operative Total Joint Replacement Education Class

Tripler Army Medical Center hosts an educational class about your total joint replacement surgery on the third Wednesday of every month. Please bring a friend and/or relative with you to the class. The class outline is as follows:

- ⇒ Appointments required before surgery.
- ⇒ Your Total Joint Replacement surgery, post-operative care, and therapy.
- ⇒ You will meet with the Clinic staff, Occupational Therapy (OT), Physical Therapy (PT), Social Work (SW) services, and the inpatient Orthopaedic Staff.
- ⇒ We will be working together with you to plan for your rehabilitation and return to your normal level of activities.



Your Health

Please be sure to tell your surgeon the following pieces of information prior to your surgery:

- **All Medications** (including over the counter)

- Bring a list of all medications you are taking to your surgeon. Don't forget to include vitamins, minerals, and over-the-counter medications.



- **STOP** taking all NSAIDs (Ibuprofen, Advil, Motrin, Aleve, Naprosyn, Celebrex, Mobic) 14 days before surgery.



- If you take Aspirin or other blood thinners (Coumadin, Plavix, etc.), **TELL** your surgeon prior to surgery.

- **Current or Past Medical Issues**

- This includes but is not limited to: diabetes, hypertension (high blood pressure), heart attack, stroke, cancer, or sleep apnea.



- Tell your surgeon if you have any history of abnormal bleeding or clotting.

- **Tobacco Use**

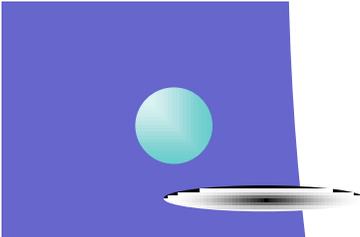
- The use of tobacco products reduces the amount of oxygen in your bloodstream and can impair your body's ability to heal after your surgery.
- Please notify your surgeon if you use tobacco products.

- **Sleep Apnea**

- Tell your surgeon if you have been diagnosed with sleep apnea and use a CPAP machine at home OR if you snore, wake suddenly in the night, or are excessively tired in the mornings.

- **History of MRSA (Methicillin-resistant Staphylococcus aureus)**

- A history of this type of infection may require you be placed on special precautions during your stay at the hospital.



Mandatory Pre-Operative Appointments

Orthopaedic Surgeon

You will see your Orthopaedic Surgeon multiple times before your surgery date.

- Please bring a family member or friend with you to your appointments.
- Write down any questions you may have prior to your appointments and bring your list with you to discuss with your surgeon.
- Your Orthopaedic Surgeon will provide you with an outline of necessary appointments and clearances that must be obtained prior to your surgery.
- Your surgery date will be scheduled.
- Prior to surgery, you will see your surgeon again for a pre-operative appointment. This is usually 1-2 weeks before your scheduled surgery date.

Medical Clearance

You will need to see Internal Medicine or your Primary Care Provider for an in-depth assessment of your health and your risk for anesthesia.

- Your Orthopaedic Surgeon will review the results of this evaluation in your electronic records.
- Based on your medical history, you may be required to see a specialist (Cardiologist, Pulmonologist, Endocrinologist, etc.) before being cleared for surgery.



Please keep your Orthopaedic Surgeon up-to-date on when your medical clearance appointment is scheduled and when it is completed.

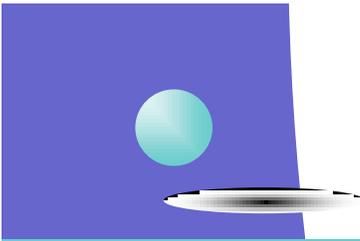
Dental Clearance and Screening

The mouth harbors bacteria that can cause post-operative infection. Therefore, you **must** obtain clearance from your dentist prior to your surgery.

- Any required dental work must be completed prior to your surgery.



After surgery, you will need to take antibiotics prior to **ANY** dental procedure. This is recommended for a minimum of 2 years after your surgery and possibly for the rest of your life.



Surgical Admissions Center (SAC) 6C1 Oceanside Phone: (808) 433-5999

- Plan to be at your appointment at the Surgical Admissions Center for 2-3 hours to complete all the necessary tests and paperwork.
- You will interview with Anesthesia, complete pre-operative lab tests, obtain a chest x-ray, obtain an EKG, undergo an admission interview with nursing staff, and the Admissions department will begin to assemble the necessary paperwork for your chart.

Please Let Us Know...

Call the Total Joints Clinic (808) 433-5815 or Surgery Scheduler (808) 433-5986 if there are any changes in your health prior to the surgery date. This includes but is not limited to:

- Cold, flu, or other health problems (chest pain, sore throat, or any new problem)
- Any serious cut, rash, or infection (ingrown toenail, skin abscess, cellulitis, burning urination)

Be Proactive

When preparing for your total joint replacement surgery, it is important to be proactive.

- Obtain clear communication from your medicine doctor that you are ready to proceed with the surgery.
- Medical clearance should be obtained 30 days prior to your scheduled surgery date.



If you are within 30 days of your surgery and have not yet received an appointment for your medical clearance, please call the Total Joints Clinic immediately at (808) 433-5815.

If there is a delay in obtaining medical and dental clearance for any reason, your surgery will be postponed.

Preparing for Surgery

Days Before Surgery



- ☑ **STOP** taking Naprosyn, Motrin, Daypro, and Celebrex **14 days** BEFORE your surgery.
- ☑ Complete all final lab work.
- ☑ Ensure all personal business is in order.

The Day Before Surgery

- ☑ Call SAC (808) 433-5999 after 4pm on the **business** day before your surgery to find out what time you need to be at TAMC to check in for your surgery.
- ☑ Complete 2 pre-operative showers.
- ☑ Hydrate the day before surgery. Drink lots of extra water and non-caffeinated beverages throughout the day.



- ☑ **Do not eat or drink anything after midnight** before your surgery. Your stomach needs to be empty to help prevent nausea and vomiting, a common and potentially dangerous side effect of anesthesia.

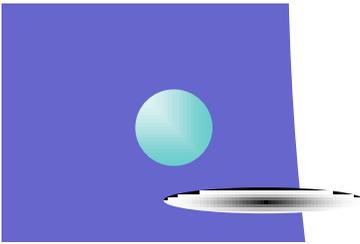
The Morning of Surgery

- Please leave money, credit cards, jewelry, and other valuables at home or with a family member.
- Take your morning medications with a sip of water or as instructed by your surgeon.
- You may brush your teeth, just do not swallow anything.
- Report to the Surgical Admissions Center (6C1 Oceanside) at the instructed time. Here you will be prepped for your surgery.



- If you use a CPAP machine, please write down your settings so the respiratory team can provide you with the proper equipment while you are at TAMC.
- If you have an Advance Directive, bring it with you on the day of your surgery.

Family members may wait in the 6th floor waiting room while you are in surgery. They will be informed when you are out of surgery and directed to the hospital room to where you will be transferred. Most of our patients go to 6B2 ONV after surgery.

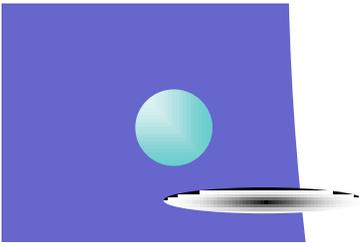


Preparing Your Home

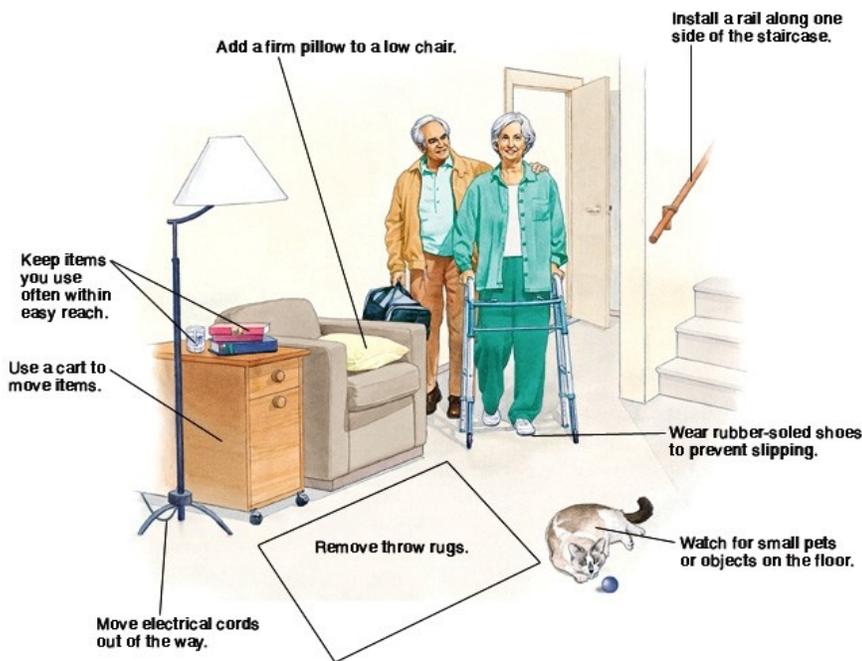


Use the following as a guide and checklist to prepare for discharge home after your joint replacement surgery.

- Arrange for transportation home from the hospital and to/from physical therapy sessions.
- Purchase enough groceries for approximately 4 weeks ahead of time.
- Prepare frozen meals and have ready-to-eat foods on hand to ease the burden of cooking during your recovery period.
- Place most commonly used items downstairs and at arms level to avoid reaching, bending, and going up/down stairs.
- Put frequently used items in your “recovery area.” This may include phone, remote control, radio, tissues, wastebasket, reading materials, and medications.
- Arrange your furniture to provide clear walkways for you AND your walker.
- Clean house, vacuum floors, and ensure all walkways are clear.
- Remove any loose rugs and ensure carpet is tacked down securely to prevent slipping.
- Remove all electric cords and extension cords from walkways.



A few simple changes in your home can make the transition back home after your joint replacement surgery easier and safer for you and your family. Becoming aware and removing hazards in your home allows for a safer and easier recovery.



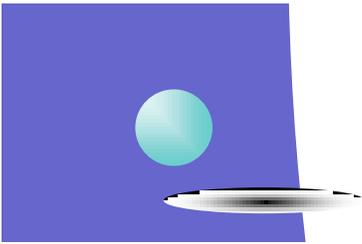
Living Area

- Consider moving your bedroom to the living level of your home to avoid frequent trips up and down the stairs in the immediate post-operative period.
- Remove loose rugs and secure cords.
- Make sure you have a firm chair with arm rests to ease getting up and down.

Bathrooms

- Consider modifying your bathroom to include a shower chair or gripping bar. It is not necessary but does improve safety.
- A commode or raised toilet seat may be necessary after surgery.



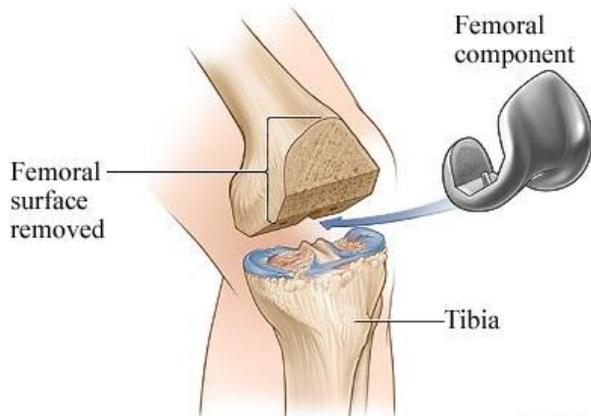


Your Joint Replacement Surgery

When the surgical team is ready, you will be taken to the operating room. The anesthesiologist will have spoken with you about your anesthesia options at your pre-operative SAC appointment. You will be given anesthesia to make you sleep through your surgery. How long a joint replacement surgery takes varies from person to person depending on the extent of damage to the joint and how the surgery is done.

Total Knee Arthroplasty

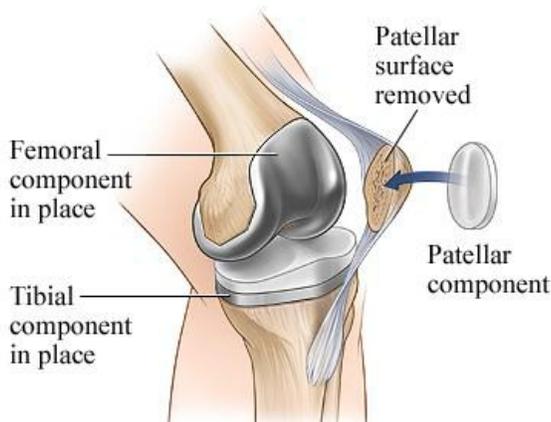
- 1** Removal of damaged cartilage from the lower end of the femur and placement of the femoral component.



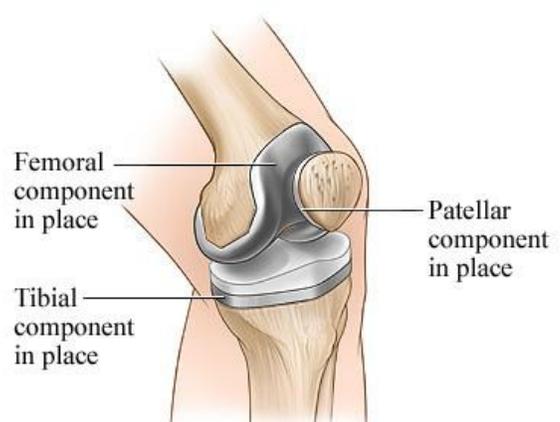
- 2** Removal of damaged cartilage from the upper end of the tibia and placement of the tibial component.

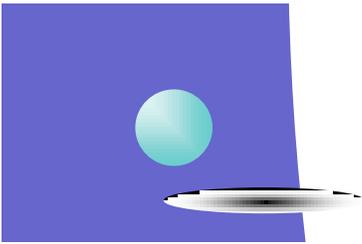


- 3** Removal of damaged cartilage from the patella and placement of the patellar component.



- 4** Completed knee replacement. A drain is placed and incision is closed with staples and bandaged.

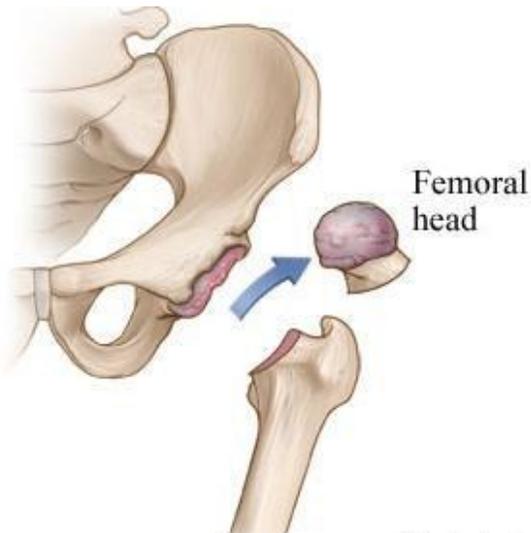




Total Hip Arthroplasty

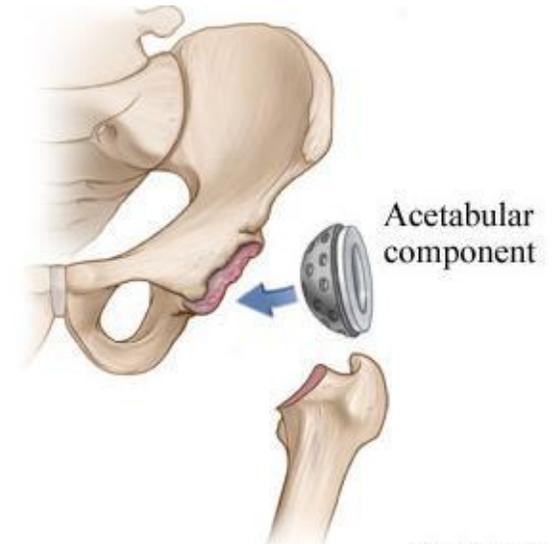
1

Removal of cartilage from the hip socket (acetabulum) and removal of the upper end of the femur.



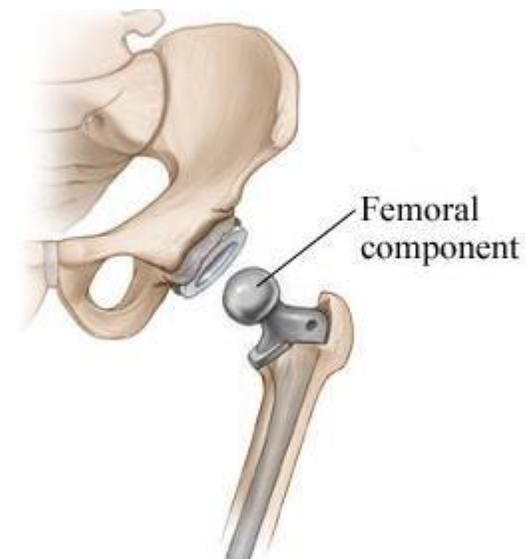
2

Placement of metal acetabular component. Usually held in place by screws.



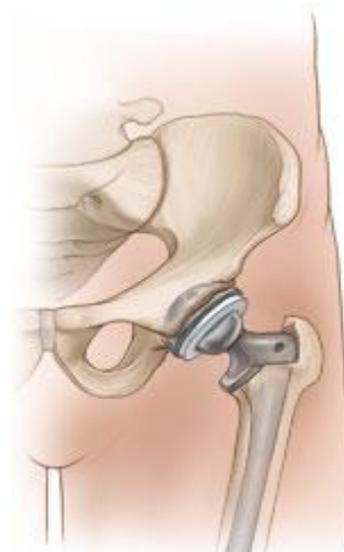
3

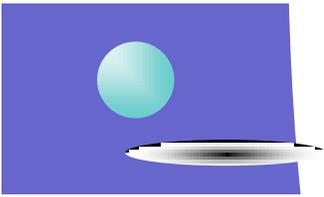
Placement of metal femoral component. After the stem is secure, the new ball and socket are joined.



4

Completed hip replacement. The incision is closed with staples and bandaged.





What to Expect After Surgery

After surgery you will be taken to the PACU (post-anesthesia care unit) where you will remain for 1-2 hours. You will be closely monitored while you wake up after anesthesia. During this time, pain medication and anti-nausea medication will be administered as needed. When stable, you will be transported to your room on 6B2 ONV. Family members will be informed of your status after surgery.

Equipment After Surgery

Oxygen

- While you are in the PACU, you will be placed on oxygen therapy to ensure you are receiving adequate amounts of oxygen following surgery.
- The oxygen will be delivered through flexible tubing placed behind your ears and two prongs that are placed in the nostrils (Figure 1).

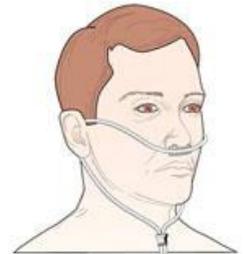


Figure 1

Infusion Pump

- After surgery, an IV and infusion pump are used together to deliver IV antibiotics, pain medications, and fluids (Figure 2).
- Once you are eating and drinking normally, IV fluids may be stopped by your surgeon.



Figure 2

Foley Catheter

- A tube inserted into your bladder to drain urine during and after your surgery (Figure 3).
- Typically, your Foley catheter will be removed the day after surgery.



Figure 3

Incisional Drain

- A drain may or may not be placed by your surgeon during your surgery to help drain fluids that build up in your joint after surgery (Figure 4).
- If you do have a drain, it is typically removed the day after surgery.



Figure 4

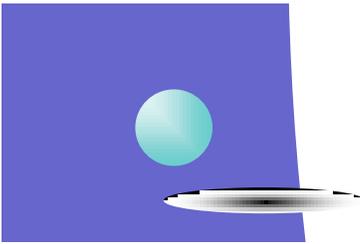


Figure 1

Incentive Spirometer

- Tool used to keep your lungs open and active after surgery (Figure 1).
- The incentive spirometer is to be used 10 times per hour while awake.



Figure 2

Sequential Compression Device (SCDs)

- Cuffs worn around the lower leg that gently squeeze and release (Figure 2).
- SCDs aid in pumping blood back up to the heart to prevent blood clots.
- Should be worn **at all times while in bed or for prolonged periods of sitting in chair** after your surgery.
- Worn on the non-operative leg only.



Figure 3

Bed Frame with Overhead Trapeze

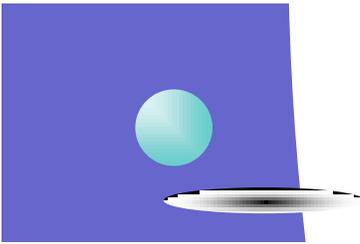
- Triangle shaped metal bar that hangs from the metal frame attached to your bed (Figure 3).
- Used to assist in moving in bed and getting in and out of bed after surgery.



Figure 4

Abduction Pillow (Hip ONLY)

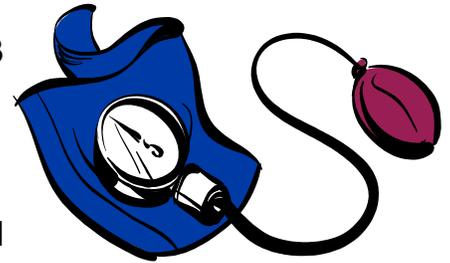
- Soft triangle shaped pillow placed between the legs after surgery (Figure 4).
- Used to keep your new joint in place and prevent crossing of the legs.



Your Inpatient Stay

You will remain in the hospital for 2-3 days after your surgery. During this time you will be closely monitored by the nursing staff. What you can expect:

- Vital signs will be taken every 4 hours.
- Blood work will be drawn every morning for a minimum of 3 days.
- An EKG will be performed every morning for 3 days.
- You will begin working with physical therapy (PT) and occupational therapy (OT) the first day after your surgery.

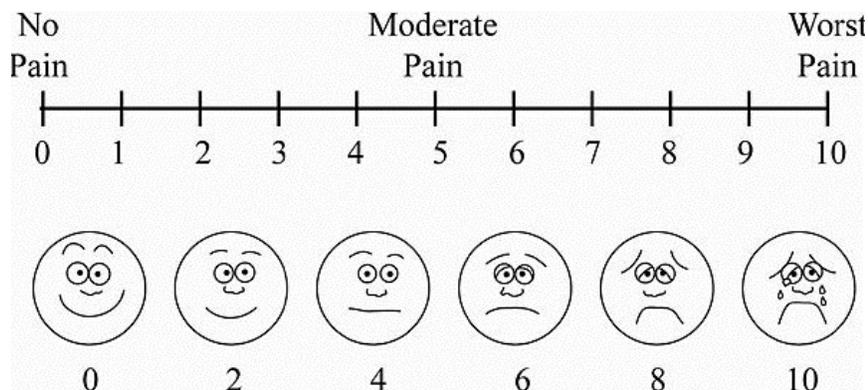


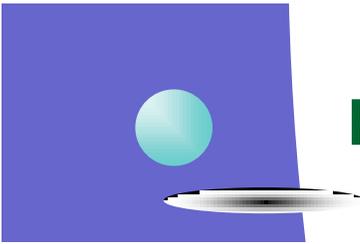
Pain Management

At TAMC, we recognize that every patient experiences pain differently. Nurses will continuously monitor your pain levels.

- We do expect that you feel some pain, even with medication. This is **normal**.
- Our goal is to keep your pain at a tolerable level that is comfortable for you and allows you to participate in PT/OT treatment.
- If your medication does not reduce your pain to a comfortable level, please be sure to tell your nurse.

Your nurse will ask you rate your pain on a scale of 0 - 10. A rating of “0” indicates no pain at all. A rating of “10” indicates the worst pain possible and is completely unbearable.





Physical and Occupational Therapy

After Your Surgery



Although you will want to rest after your surgery, **early movement and walking** is important for a safe and quick recovery. A physical therapist will visit you on the first morning after your surgery. They will begin teaching you about how to safely use your new joint.

Day #1

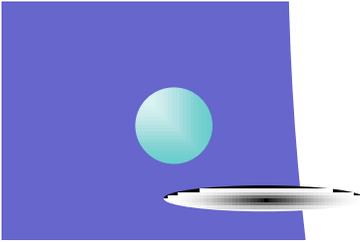
- Learn how to transfer in/out of bed and chair
- Learn how to transfer to/from toilet and shower chair
- Walk as tolerated with a walker and assistance from a physical therapist
- Learn how to use assistive devices such as a leg lifter to assist with activities of daily living (ADLs)
- Learn and perform bed exercises
- Hip: Review hip precautions
- Knee: Sit at bedside or in a chair for range of motion exercises



Throughout the Rest of Your Inpatient Stay

- It is best to be out of bed as much as possible after your surgery. You will be encouraged to sit in a chair and walk frequently.
- Continue walking daily, increasing distance as tolerated
- Practice stairs with a physical therapist
- Continue day #1 exercises and add new exercises as instructed
- Hip: Review hip precautions
- Knee: Continue working on range of motion, focusing on full extension and full flexion





Bed Exercises

Below are bed exercises that help prevent circulation problems, strengthen muscles, and improve range of motion. Complete the exercises below while in bed. Do them as often as your healthcare team recommends.

These exercises can also be performed and practiced before joint replacement surgery to strengthen the muscles surrounding your joint.



Ankle Pumps: Bend ankles to move feet up and down, alternating feet.



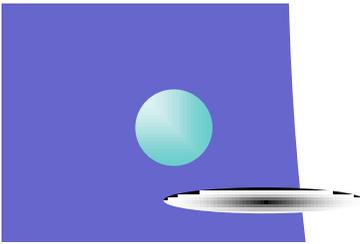
Gluteal Squeezes: Squeeze buttock muscles as tightly as possible and release.



Quad Sets: Slowly tighten muscles on thigh of the straight leg and release.

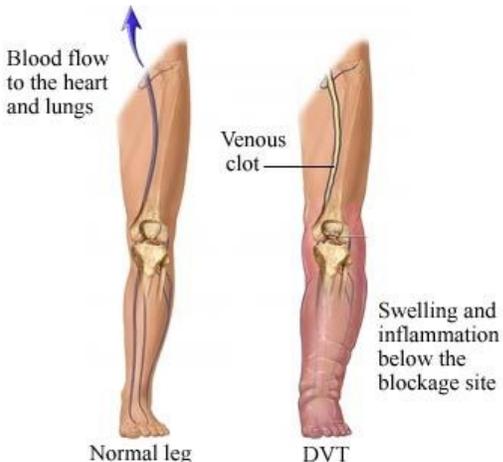
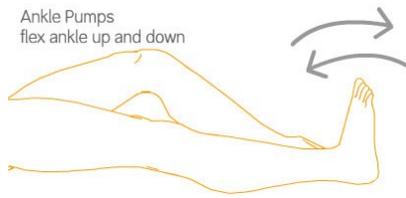


Heel Slides: Bend knee and pull heel toward buttocks. **Hip:** Do NOT bend hip more than 90 degrees.



Complications of Joint Replacement Surgery

In general, total joint replacement is a highly successful procedure. However, complications, although relatively rare, can sometimes occur. Your surgeon and the Total Joints Team have measures in place to prevent these complications, but as a patient it is important to know the potential risks.

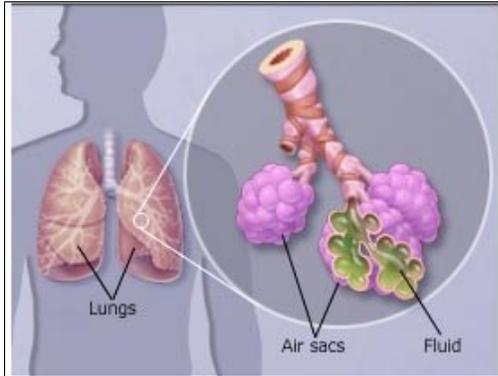
Complication	Prevention
<p>Clotting</p> <p>Deep vein thrombosis (DVT) refers to the formation of a thrombus (blood clot) within a deep vein, most commonly in the thigh or calf. Although these clots can develop after any major surgery, those having surgery on the lower extremities are especially vulnerable. Physicians focus on prevention by using mechanical and/or drug therapies.</p> <p><u>Symptoms of DVT</u></p> <ul style="list-style-type: none"> • Pain in your leg - This can include pain in the ankle and foot. This pain often starts in your calf and can feel like cramping or a “charley horse.” • Redness and warmth over the affected area. <p>If the clot is not dissolved, it may break free and travel to other parts of the body and cause additional complications.</p> 	<p>Be sure to tell your doctor if you have any history of abnormal bleeding/clotting.</p> <p><u>Medication</u></p> <p>Coumadin (Warfarin) is an anticoagulant to thin blood and reduce the risk of developing DVT blood clots. Taken every evening beginning on the day of surgery for 30 days. May be adjusted based on the individual patient.</p> <p><u>Compression Devices</u></p> <p>Sequential compression devices (SCDs) gently squeeze and release lower legs to pump blood back to the heart and should remain on at all times while in bed.</p>  <p><u>Therapy</u></p> <p>Early activity and rehabilitation are vital to preventing the formation of blood clots. Movement of the lower extremities prevents blood from pooling and clotting.</p> <p><u>Ankle Pump Exercise</u></p> 

Complication

Prevention

Pneumonia

Pneumonia is the inflammation and infection of the small air sacs of the lungs (alveoli) and the surrounding tissue.



After surgery, there is an increased risk of developing pneumonia due to the resulting shallow breathing, impaired ability to cough, and the retention of mucus.

Infection

Infection is always possible after any kind of surgery. Having an artificial device in your body such as a new knee or hip joint makes an infection more concerning. **Be sure to report any of the symptoms below to your surgeon.**

- **Fever** - Any fever greater than 101° F.
- **Hot/hardened incision site** - This results from the body sending infection fighting cells to the site of infection.
- **Increased redness** around the incision site.
- **Drainage from the incision** - Foul-smelling drainage or pus. It can range in color from green, white, or yellow.

Coughing and **deep breathing** are important parts of your recovery and help to prevent pneumonia.

Incentive Spirometry

This tool is used to keep your lungs open and active after your surgery. Your nurse will show you how to use this device. It is to be used 10x/hour while you are awake.



Therapy Activity promotes the opening of the air sacs of the lungs, decreasing the risk for pneumonia and other pulmonary complications.

Antibiotics - In the hospital, you will be given antibiotics before, during, and after surgery through your IV line.

Sterile Procedure - Your surgery will be performed using strict sterile technique.

Be sure to tell your dentist that you have had a joint replacement before any kind of dental procedure after your surgery.

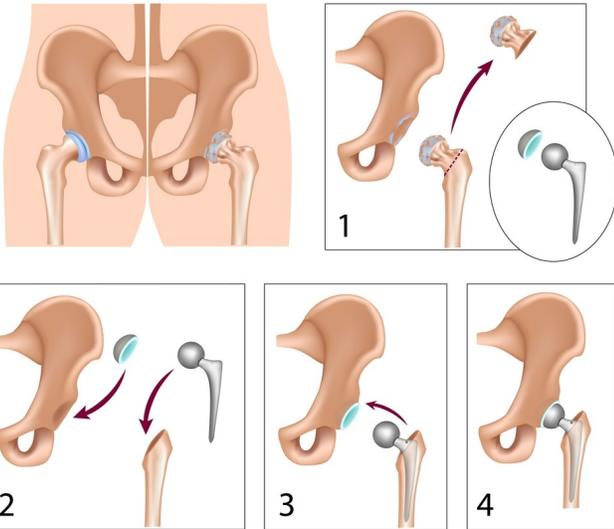
Cleaning your teeth and gums can allow bacteria to enter your bloodstream and travel to your artificial joint. Your dentist will prescribe an antibiotic to be taken before dental work.

Complication

Prevention

Dislocation of the Hip

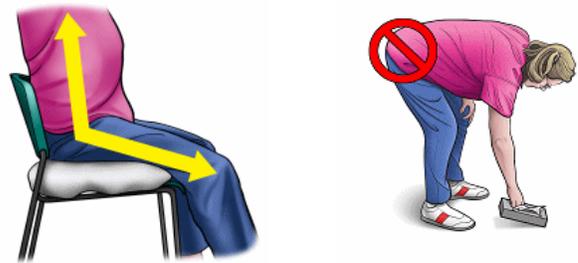
Dislocation of your joint replacement means that the metal ball slips out of the plastic socket. After hip replacement surgery, the ball is only held in the socket by muscle tension. During this time, before scar tissue forms around the ball and muscle strength returns, the hip is more likely to dislocate.



Hip Precautions

The following activity restrictions are put in place to prevent dislocation following hip replacement surgery. Please **strictly** follow the precautions below.

NO bending of the operative hip greater than **90 degrees** for **6 weeks** after the surgery. As tolerated after 6 weeks.



NO crossing of the operative leg or ankle for **6 months** after surgery. **Avoid** crossing after 6 months.



NO turning of your operative leg inward (pigeon toe) for **6 months** after surgery. **Avoid** turning inward after 6 months.



Hip Abduction Pillow You will be given this pillow after surgery. You will wear this at all times while in bed to prevent your legs from crossing.



Complication	Prevention
--------------	------------

Bowel Obstruction/Ileus

Ileus is a type of bowel obstruction that sometimes occurs after general anesthesia. It results when the wave-like contractions that help push stool through the colon (peristalsis) stops.

Symptoms of an Ileus

- Abdominal discomfort
- Bloating
- Nausea/vomiting, especially after meals
- Lack of bowel movement and/or gas
- Excessive belching

Medication

Your doctor will order a medication called Colace (Docusate Sodium) after surgery to help prevent post-operative ileus.

Therapy

Walking and activity stimulates bowel function and decreases the risk of post-operative ileus.



Nausea

A variety of medications may be used to put you to sleep or prevent pain during your surgery. A side effect of these medications is nausea.

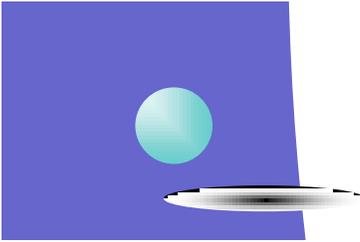


Medication

Scopolamine Patch - An anti-nausea patch will be placed behind your ear prior to surgery when you are in the Surgical Admissions Center (SAC).

Zofran - Your doctor will order you an anti-nausea medication called Zofran following your surgery. If you are feeling nauseated, let your nurse know so he/she can administer the medication.

Tell your anesthesiologist if you have had problems with nausea following general anesthesia in the past.



Discharge from the Hospital

Make plans for your discharge from the hospital after your Total Joint Replacement surgery as it is a very important part of your recovery. Most patients are able to return home after surgery while some will require additional help and services than what is available at home. Based on your recovery after surgery, the safety of your living space, and the availability of help when you go home, you and your health care team will determine the best option for your discharge.

Goals for Hospital Discharge

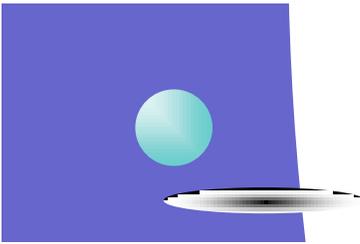
- Independent with transfers and walking with use of a walker or crutches on level surfaces and stairs
- Pain is well controlled with oral pain medications
- Independently perform activities of daily living (ADLs) safely and effectively
- Surgical incision site is clean, dry, and free from signs of infection
- Clear understanding of joint precautions
- Outpatient PT appointment arranged
- Safe home environment for discharge

Discharge Medications

You will be discharged home with the following medications. Please keep in mind some medications may vary based on the individual patient.

- Roxicet/Oxycontin: Oral pain medication. If you require a **refill**, please call the Total Joints Clinic (808) 433-5815. Please call at least 2 days in advance to ensure you get additional medication before you run out.
- Docusate Sodium (Colace): A stool softener to help prevent constipation, a common side effect of pain medications.
- Warfarin (Coumadin): An anti-coagulant to prevent the formation of blood clots. This medication will typically be taken for 30 days. While taking Coumadin, you will need to have routine lab draws **every 3 days** in the Coumadin Clinic at TAMC.





Your Recovery at Home

YOU are the key to your recovery. The success of your surgery will depend on you and how closely you follow your health care team's instructions.

Wound Care

- You will have stitches or staples running along your surgical incision. You may be provided with dressings (bandages) and application instructions after discharge from the hospital.
- Your stitches or staples will be removed 10-14 days following your surgery at your follow-up appointment with your surgeon.
- Your surgical incision needs to remain dry without any exposure to water for 14 days.



- Do **NOT** immerse your wound in water until after your surgeon gives you instructions to do so. No bathing, swimming, or hot tubs.



- Do **NOT** apply anything directly on top of your incision. No lotions, powders, oils, etc.

Activity

Activity is a critical part of home care and your recovery, particularly in the first few weeks after surgery. You should be able to resume most of your normal daily living activities within 3-6 weeks after your surgery. Some pain with activity and at night is common after this surgery.

- Outpatient Physical Therapy (PT)

An outpatient PT appointment will be arranged for you prior to discharge **OR** you may be contacted within 1 day after your discharge to schedule your outpatient PT appointment.



If you are **NOT** contacted within 2 days, please call the Total Joints Clinic at (808) 433-5815. Beginning your physical therapy program immediately is vital to the success of your new joint.

Driving

You can usually resume driving when you can safely enter your car independently, sit comfortably, and when your muscle control provides adequate reaction time for braking and accelerating. Most individuals resume driving 6-12 weeks following surgery.

Before driving:

- Inform your insurance company you had surgery and plan to resume driving.
- Practice using the brake while parked to ensure you are able to exert enough force.
- **Do NOT drive while taking narcotic pain medication.**
- Ask your surgeon if you have any questions.



Preventing Infection

The most common causes of infection following total joint replacement surgery are from bacteria that enter the bloodstream during dental procedures, urinary tract infections, or skin infections. These bacteria can lodge around your joint replacement and cause an infection.

Warning signs of a possible joint replacement infection are:

- Persistent fever (greater than 101° F)
- Shaking or chills
- Increasing redness, tenderness, or swelling of the wound
- Pus-like drainage from the wound
- Increasing joint pain with both activity and rest



Notify your doctor **immediately** if you develop any of these signs/symptoms.

Preventing Blood Clots

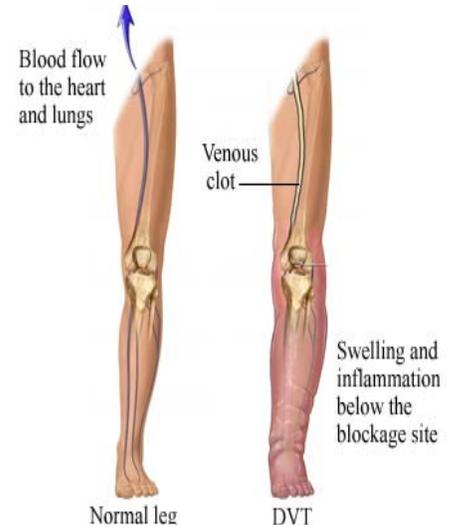
Carefully follow your Orthopaedic Surgeon's instructions to minimize the potential of blood clots that can occur during the first several weeks of your recovery.

Warning signs of a possible blood clot in your leg include:

- Increasing pain in your calf
- Tenderness or redness above or below your knee
- Increasing swelling in your calf, ankle, or foot

Warning signs that a blood clot has traveled to your lung include:

- Sudden increased shortness of breath
- Sudden onset of chest pain
- Localized chest pain with coughing

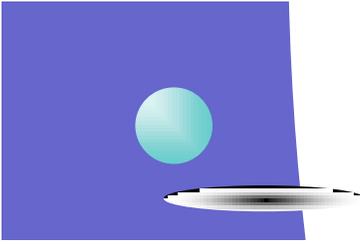


Notify your doctor **immediately** if you develop any of these signs and symptoms.

Avoiding Falls

A fall during the first few weeks after your surgery can damage your new joint and may result in a need for further surgery. Stairs are a particular hazard until your joint is strong and mobile. You should use an assistive device (cane, crutches, walker, hand rails) or have someone to help you until you have improved balance, flexibility, and strength.

All instructions given to you by your health care team should be followed precisely to ensure you have a safe and healthy recovery.



You should call or come to the Orthopaedic Clinic during weekday business hours (Monday through Friday, 0730 to 1600) for any of the following:

- Fever greater than 101° F
- Severe pain not responding to pain medication
- Inability to urinate
- Signs of infection
- You experience a fall



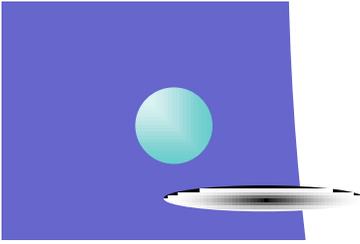
Outside of weekday business hours, go to the Emergency Room or call 911 for emergencies.



After hours or on the weekend, if you have an urgent question for your surgeon call the Patient Line at **(808) 433-9798** and ask to be connected to the on-call Orthopaedic Surgical Resident.



For non-urgent questions, medication information, and medication refills, please call the Total Joints Clinic during weekday business hours at **(808) 433-5815**.



Taking Care of Your New Joint

Setting off Metal Detectors

Your new joint may activate metal detectors required for security in airports and some buildings.

- Tell the security agents about your joint replacement prior to proceeding through the metal detectors.
- A wand check and possible pat down will be done to verify your statement. You will then be allowed to pass.

Follow-Up Appointments

Your Orthopaedic Surgeon will see you for routine follow-up examinations and x-rays.

- Your first follow-up appointment will be within 10-14 days after surgery.

Other Things to Remember

- Participate in a regular light exercise program to maintain proper strength and mobility of your new joint.
- Take special precautions to avoid falls and injuries. Individuals who have undergone joint replacement surgery and experience a fracture may require more surgery.
- **Notify your dentist that you have had a joint replacement.** You will need to take antibiotics before every dental procedure. Your dentist or surgeon will prescribe you this medication.
- You may feel some numbness in the skin around your incision. You also may feel some stiffness, particularly with excessive bending. These differences often diminish with time and most patients find these are minor compared with the pain and limited function they experienced prior to surgery.



- Hip replacement patients should continue strict hip precautions 6 weeks after surgery. However, all patients should avoid deep bending, squatting, climbing ladders, and awkward positions.

