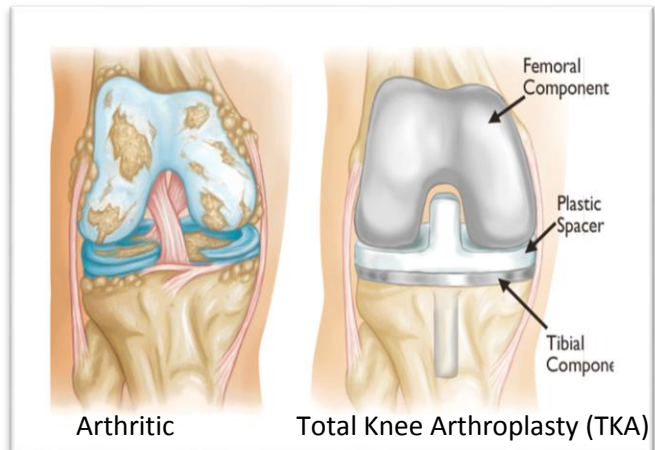
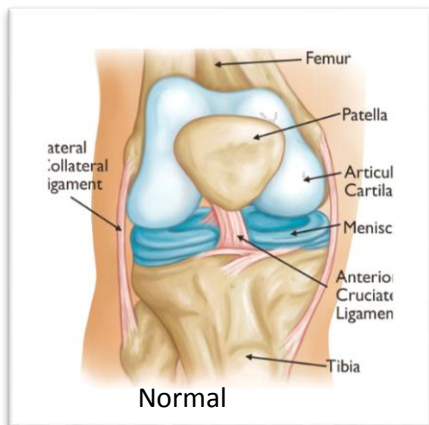


# UCSF Orthopaedic Surgery

## Knee Surgery: What to Expect

Welcome to the UCSF Adult Joint Reconstruction Division of the UCSF Orthopaedic Institute. This pamphlet will guide you through your total knee replacement surgery. The goals of your surgery are to reduce pain and return you to a more active lifestyle. If you have any questions or concerns, please call (415) 353-2808 to contact your surgeon.



# Overview

Phone Contact Sheet for Arthroplasty Team  
Notes Page  
Pre-Surgery Checklist - Knee  
Anatomy and Basics of the Knee  
Total Knee Replacement Surgery and Implant  
Preparing for Surgery (Pre Surgery Appointments)  
Your Hospital Stay - Pain Management  
Post Surgery Medications  
Discharge Planning  
Early Postoperative Exercises  
Complications of Surgery  
Wound (Incision) Care at Home  
Normal Expectations after Surgery  
Parking and Transportation  
Maps and Directions  
Frequently Asked Questions

*This pamphlet will be useful during each of your hospital visits.  
Please bring it with you.*

# Arthroplasty Contact Information

For life-threatening emergencies, please call 911 or visit the nearest Emergency Room.

## Main Line and After Hours

Main Line After Business Hours Holidays	Normal clinic hours are Mon-Fri 8:30 am to 5:30 pm. If you need after-hours assistance, please call and you will be directed to the on-call provider.	<b>(415) 353-2808</b>
---	---	-----------------------

## Practice Assistants

Each surgeon has an administrative practice assistant to coordinate your care, which includes making your pre- and post-surgical appointments, scheduling your surgery date, and completing any documents (i.e. disability forms).

Thomas Vail, MD	Practice Assistant: Carmen Aguilar	(415) 353-2509
Erik Hansen, MD	Practice Assistant: Maria Delgado	(415) 353-2508
Stefano Bini, MD	Practice Assistant: Josselyn Riturban	(415) 514-6098
Derek Ward, MD	Practice Assistant: Wendy Jackson	(415) 885-3832

## Clinical Providers

To answer any of your medical-related questions, please contact your surgeon's clinical provider.

Thomas Vail, MD	Certified Physician Assistant: Carlotta Cavazos, PA-C	(415) 353-2888 Carlotta.Cavazos@ucsf.edu
Erik Hansen, MD	Nurse Practitioner: Brenda Stengele, NP	(415) 353-4979
Stefano Bini, MD	Certified Physician Assistant: Julie Cragholm, PA-C	(415) 514-8437
Derek Ward, MD	Certified Physician Assistant: Julie Cragholm, PA-C	(415) 514-8437

## Patient Navigator

If you are unable to contact either your surgeon's practice assistant or clinical provider, please contact the practice's patient navigator.

Rachael Wynne, RN	UCSF Adult Joint Reconstruction Division Patient Navigator	(415) 514-8421 Rachael.Wynne@ucsf.edu
-------------------	---	--

# Notes Page

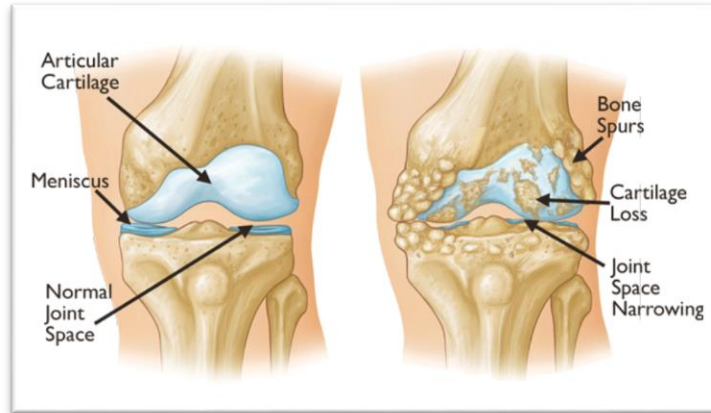
## Pre-Surgery Checklist - Knee

- \_\_\_ 1. PRIMARY CARE PROVIDER (PCP) – If directed by your surgeon, make an appointment with your PCP for a History and Physical to optimize your health prior to surgery (Fax any records or test(s) to 415-353-2956).
- \_\_\_ 2. DENTAL HEALTH – Make sure all dental work is completed prior to surgery by ~6 weeks, no routine dental work allowed 6-12 weeks post-surgery, contact your surgeon if you have dental concerns.
- \_\_\_ 3. QUIT SMOKING – if you smoke, it is MANDATORY to quit 1 month prior and for 2 months after. Smoking impacts your blood vessels and lungs, which can therefore delay healing and slow recovery.
- \_\_\_ 4. EAT HEALTHY and EXERCISE – Do regular low impact exercise 3 days/week or muscle strengthening.
- \_\_\_ 5. **CONFIRM 2 PRE-OP APPOINTMENTS** with surgeon's practice assistant (typically on the same day).
  - PREPARE/Anesthesia appointment (bring medication list, medical history, and advanced directive). This appointment will be at one of two locations:
    - Parnassus Campus:** UCSF Moffitt-Long Hospital, 505 Parnassus Ave., 1st floor, Room L-171, San Francisco, CA 94143 (415-353-1480)
    - Mission Bay Campus:** UCSF Medical Center at Mission Bay, 1825 4<sup>th</sup> St., 3<sup>rd</sup> floor, Registration desk 3B, San Francisco, CA 94158 (415-514-5590)
  - KNEE SURGERY CLASS - Please bring a list of questions regarding your upcoming surgery and in-patient hospital stay. This class is only held on the **Parnassus Campus:** UCSF Moffitt-Long Hospital, 505 Parnassus Ave., 7 floor, Room M-715
- \_\_\_ 6. Sign up for communication tools, so you have access to your orthopaedic team
  - My Chart/E-mail – call 415-514-6000 to set up
  - HealthLoop/Texting – automatic registration 6 weeks prior to surgery; you will be sent an email that will direct you to downloading the app to your smart phone or computer
- \_\_\_ 7. Confirm Surgery Date (Arrival Time will be confirmed 1 business day before surgery)
  - Location: **Parnassus Campus:** UCSF Moffitt-Long Hospital, 505 Parnassus Ave., 1<sup>st</sup> floor
- \_\_\_ 8. **Register for 'Meds to Beds' program**, Walgreens @UCSF for discharge medications. Log on and register your insurance and payment information: [www.walgreens.com/login.jsp](http://www.walgreens.com/login.jsp) (**Very Important - ask for help**).
- \_\_\_ 9. Plan your ride home from hospital; plan the support person who will care for you during your recovery.
- \_\_\_ 10. Home supplies for post-surgery: large ice pack, **walker/crutches (provided at hospital)**, cane, (hospital may or may not have equipment available for purchase). Pre-packaged meals.
- \_\_\_ 11. Establish an outpatient PT facility that is convenient for you to start 2-3 weeks after surgery.

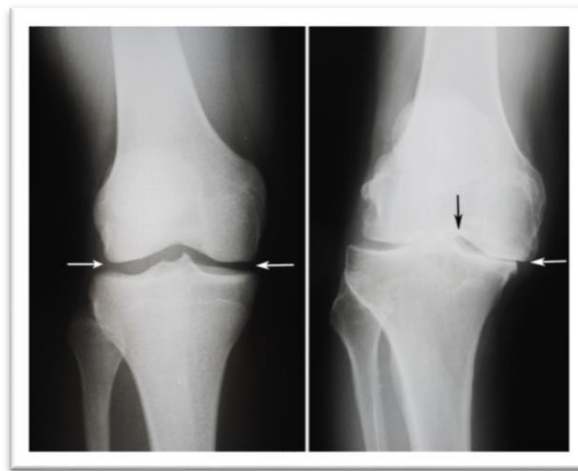
# Anatomy and Basics of the Knee

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

**Description of knee condition:** Osteoarthritis (OA), sometimes called "wear-and-tear" arthritis (loss of cartilage) - is the most common cause of joint destruction, therefore leading to a knee replacement. OA affects more than 28 million people in the United States. Other causes of OA include avascular necrosis (AVN), rheumatoid arthritis, and post-traumatic arthritis.



**Diagnosis:** Your surgeon will determine how much the osteoarthritis has progressed with X-RAY images, physical examination and your clinical history to help determine your treatment plan.



**Non-Surgical Treatment:** If you have early stages of osteoarthritis of the knee, the first treatments may include: activity modification, medications, physical therapy, steroid injections, regular low-impact conditioning, such as swimming, water aerobics, cycling, and elliptical machine and walking aids. For later stages of osteoarthritis/joint destruction, knee replacement surgery may be warranted.

# What is Total Knee Arthroplasty (“Knee Replacement”)?

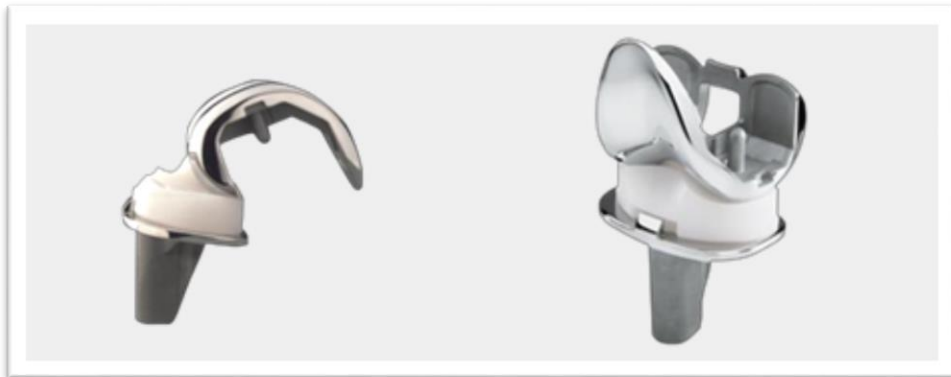
In a total knee replacement (also called “total knee arthroplasty”) procedure, the surgeon creates a new knee removing the damaged cartilage and bone and resurfacing the ends of the bones with implants. There are four basic steps to a knee replacement procedure.

- **Prepare the bone.** The damaged cartilage surfaces at the ends of the femur and tibia are removed along with a small amount of underlying bone.
- **Position the metal implants.** The removed cartilage and bone are replaced with metal components that recreate the surface of the joint. These metal parts are cemented into the bone with bone cement.
- **Resurface the patella.** The undersurface of the patella (kneecap) is cut and resurfaced with a plastic button.
- **Insert a spacer.** A medical-grade plastic spacer is inserted between the metal components to create a smooth gliding surface.

## Implant Information

When planning your knee surgery, you will discuss if a partial or a total knee replacement is appropriate. In general the total knee replacement is comprised of 4 components:

- The **femoral** component is made of cobalt chromium.
- The **tibia** component is usually made of cobalt, chromium, and titanium.
- The **patella** and the **liner** are made of highly cross-linked polyethylene (plastic).



The majority of knee replacements are projected to last several decades.

# Preparing for Surgery

If after undergoing an orthopaedic evaluation, you and your surgeon decide that knee replacement surgery is the best possible treatment for you, the UCSF team of medical experts will provide you with information on how to prepare for the procedure.

## Medical Preparations - In addition to the Pre-Surgery Checklist

1. **Way in on weight:** If you are overweight, work on weight loss techniques such as limiting your calories to help improve your long term outcome of your new knee and your short term recovery.
2. **Check in on blood sugar levels:** If you have **diabetes**, make sure to have your sugars under control and watch your diet.
3. **Infections:** If you develop any kind of infection prior to surgery, such as a cold or dental infection, notify your surgeon immediately.
4. **Heart healthy:** If you have a **cardiologist**, make an appointment as soon as you can to have a complete physical to rule out any medical problems that may interfere with your surgery.
5. **Make a list of all medications you take;** include prescriptions, over the counter, and also any herbs, supplements and vitamins.
6. **Get a disabled parking permit –** You can get a temporary disabled parking permit from the DMV to use while you recover from surgery.

## Home Preparations

1. **Assess the number of stairs and other impediments to get in and out of your home.** Your hospital therapist will train you in handling stairs.
2. **If you live in a two-story home, plan on creating a sleeping space downstairs for the first couple weeks.**
3. **Measure the width of doorways and hallways.** You should have about 30 inches of clearance to maneuver your walker.
4. **Remove all throw rugs, cords and other obstructions to allow a wide path through the rooms of your home.** You must avoid falling or slipping while your joint heals.
5. **Make sure you have a chair with sturdy arms that you can use to help stand up and sit down.**
6. **Measure your chair and/or couch and acquire cushions or firm pillows you can sit on to ensure your knees are always slightly lower than your hips.** You may also need a special - higher seat for the toilet seat and a shower chair.
7. **Place objects you will need frequently – clothing, cooking utensils, etc. – in new locations so you can reach them without bending down or reaching up.**
8. **Look into assistive devices.** They can be purchased new or used; the hospital might have an equipment service to buy products while you are at the hospital. UCSF hospital will provide you with a walker.



# Pre & Post Surgery Appointments

## Pre-operative appointment No. 1: PREPARE (90 minutes)

Your PREPARE appointment: In order for the UCSF team to ensure that you are in optimal health prior to your procedure, you will be assessed several weeks prior to your surgery by a nurse practitioner. The assessment will be held at one of the two UCSF PREPARE Clinics:

**Parnassus Campus:** UCSF Moffitt-Long Hospital, 505 Parnassus Ave., 1st floor, Room L-171, San Francisco, CA 94143 (415-353-1480)

**Mission Bay Campus:** UCSF Medical Center at Mission Bay, 1825 4<sup>th</sup> St., 3<sup>rd</sup> floor, Registration desk 3B, San Francisco, CA 94158 (415-514-5590)

1. **Fax (415-353-2956)** or email the patient navigator ([Rachael.Wynne@ucsf.edu](mailto:Rachael.Wynne@ucsf.edu)), any recent medical records, such as:
  - Clinic note from primary care provider
  - Recent blood work (e.g. within past 6 months)
  - Stress test, Echocardiogram, Electrocardiogram (EKG)
  - Pacemaker or ICD (Implantable defibrillator)
  - Clinic notes from any specialist in last 2 years (such as cardiologist, pulmonologist, hematologist, or nephrologist)
2. Plan to stop certain medications prior to surgery: At your PREPARE appointment, your provider will review all of your current medications, and develop a plan for you to potentially stop certain medications.

***IMPORTANT:*** NSAIDs - non-steroidal anti-inflammatory drugs. You must stop using NSAIDs seven (7) days prior to surgery. NSAIDs include Aleve, Motrin, Ibuprofen, Advil and Naproxen. Note: You may continue Tylenol, Celebrex or narcotics for pain management up until and on the morning of surgery. If you take any of the following blood thinner medications such as Plavix, Coumadin (Warfarin), Xarelto, Pradaxa, Eliquis or Aspirin, you will be given specific instructions on when and if you should stop prior to surgery.

## Pre-operative appt. No. 2: Knee Surgery Class (90 minutes)

You will need to attend a pre-operative knee surgery class that will prepare you for your hospital visit for your upcoming surgery. This class might be scheduled on the same day as your PREPARE appointment. Please bring any questions you might have about your inpatient stay.

**Parnassus Campus:** UCSF Moffitt-Long Hospital, 505 Parnassus Ave., 7th floor, Room M-715, San Francisco, CA 94143

## Post-operative appointment

Your first post-operative appointment will be scheduled at 4-6 weeks after surgery or 2 weeks after surgery (if you have sutures or staples that require removal).

**Mission Bay Campus:** Orthopaedic Institute at Mission Bay, 1500 Owens St. 4<sup>th</sup> floor, San Francisco, CA 94158 (415-353-2808)

# Preparing for Surgery - the Week Before

## Packing for your Hospital Stay

Pack a small suitcase for your hospital stay that will include:

- A list of all medications you are taking. Do not bring your own medications as the hospital will provide you with your usual medications
- Personal hygiene items
- Important medical devices (i.e. hearing aids, eyeglasses, CPAP machine with settings)
- Comfortable and loose clothing
- Slip-on shoes, closed toe please (No flip flops or open-toed slippers)
- Two forms of identification to check in for surgery: one ID must have your picture and the second ID can be any other card that has your name on it
- You may bring your cell phone, if you wish. Please label your charger and phone with your name.
- Leave all of your valuables, including jewelry, wallet and watches, at home.
- Please do not bring your walker or assisted devices to the hospital; they will get lost. Please have your support person bring them back when you are ready for discharge. If you don't have a walker (or crutches), either will be provided for you to take home.

## Two Days Before Surgery

To assist in the prevention of a surgical site infection, Chlorhexidine (Hibiclens) soap will be provided at your doctor's visit and/or at the PREPARE visit. Please wash with the soap daily 2 nights before—in addition to the morning of your surgery—for a total of 3 washes. Avoid using the Chlorhexidine soap on your face and private genital area. You may also use any over-the-counter anti-bacterial soap, if you do not have the Chlorhexidine soap.

## The Day Before Surgery

- Your surgeon's office will call to confirm your surgery and scheduled admission time.
- Eat a light meal for dinner with no alcohol.
- Try to rest and go to bed early.

**DO NOT EAT OR DRINK ANYTHING AFTER MIDNIGHT THE EVENING BEFORE SURGERY!**

## Morning of Surgery

- Take your routine medication, as instructed by PREPARE staff, with a *small sip of water*.

# Your Hospital Stay

**Anesthesia Evaluation:** After admission, you will move into the pre-operative area where your anesthesiologist will evaluate you. The most commonly used anesthesia is spinal anesthesia, which is administered to block sensation below the waist during surgery. Nearly all of UCSF patients receive intravenous (IV) sedation along with spinal anesthesia. General anesthesia is the second most common type of anesthesia, which is to keep you in a "sleep" or unconscious state during surgery. **(You will discuss these options with your anesthesiologist before your surgery).**

Advances in anesthetic techniques (nerve blocks and regional anesthesia, less emphasis on narcotics) and rehabilitation make it possible to perform joint replacement procedures with less pain and physiological stress. The operating room time on average takes two hours depending on the severity of the arthritis in your knee. In the operating room, a urinary catheter will be inserted and left in place for one day.

**After surgery:** you will be moved into the recovery room, where you will stay for approximately 2 to 4 hours. During this time, you will be monitored until you recover from surgery at which time you will be taken to your hospital room.

## Your Room

Your room assignment is based on your medical condition and bed availability on the day of your admission. The UCSF team tries to honor each patient's preference whenever possible. A staff member will show you how to operate your hospital bed and the nurse call system (call button located at your bedside and on the wall in every bathroom).

- For your safety, always use your call button to request assistance getting out of bed, as unfamiliar surroundings and sleeping medications may contribute to confusion or a possible fall.
- **Leaving the nursing floor:** For your safety and protection, patients are not allowed to leave the hospital floor unless accompanied by a staff member.

## Pain Management (Hospital and Home)

Many patients are concerned about the pain that they will have after joint replacement surgery. Please be reassured that UCSF is committed to helping you manage your pain.

*\*\*\*Keep in mind, the pain after surgery is SHORT TERM and the majority of oral pain medication will be utilized in the first 2 weeks after surgery.*

**UCSF uses a MULTIMODAL PAIN MANAGEMENT approach, which combines 2 or more pain agents or techniques to optimize your pain control; and therefore uses less opioids (narcotics), which allows for better pain relief and faster recovery.** While you should expect to feel some discomfort, advancements in pain control now make it easier for your orthopaedic team to manage and relieve pain.

**PAIN SCALE AT THE HOSPITAL** - The UCSF team will ask you to rate your pain using a 0 to 10 scale:

- 0 = no pain
- 1-4 = uncomfortable pain
- 5-7 = significant amount of pain
- 8-9 = severe pain
- 10 = worst pain you can imagine

A **hospital pharmacist** will work with the orthopaedic team to develop your medication plan before being discharged. It is important to take the medications as prescribed - especially in the first 1-2 weeks; this is so you have less pain and can therefore be more active, regain strength quicker and recover faster overall.

## Post-Surgery Medications (most common):

Prescription (Rx)	Over The Counter (OTC)
<ol style="list-style-type: none"> <li>1. Oxycodone (hand written Rx – narcotic)</li> <li>2. Celebrex/Celecoxib) or Mobic/Meloxicam (NSAIDs/anti-inflammatory)</li> <li>3. Gabapentin/Neurontin (nerve pain relief)</li> </ol>	<ol style="list-style-type: none"> <li>1. Tylenol (acetaminophen/pain relief)</li> <li>2. Aspirin 81mg or Lovenox/enoxaparin(<b>Rx</b>)</li> <li>3. Colace (stool softener) &amp; Senna</li> <li>4. MiraLax (laxative)</li> </ol>

### **Important Information Regarding Your Narcotic Pain Medicine:**

- The hospital will provide you with a prescription for your pain pills upon discharge.
- If you have a pain management specialist, please see them for refills. Otherwise, your surgeon will provide you with refills up to 2-3 months after your surgery.
- Provide one-week notice for refills on your pain medications. All narcotic prescription refills must be picked up in the UCSF office during normal business hours, otherwise you will need to set up a FedEx account.
- Narcotics are highly controlled substances. Do not lose your prescription or the pills. Early refills will not be provided. **NO EXCEPTIONS WILL BE MADE.**

*Oral Opioid/Narcotic Pain Pills cannot be phoned into  
pharmacy*

**Oral Opioids/Narcotics** – Do not stop taking the narcotic pain pills abruptly to avoid experiencing withdrawal symptoms. You can wean off the narcotics by slowly increasing the time between each dose. Do not take pain pills with alcohol. **Most patients are able to decrease the daytime amount after 2-3 weeks and then primarily take them at night.**

**NSAIDs** – you can only take certain anti-inflammatory pills after surgery because the UCSF team will also be placing you on a blood thinner medication to prevent blood clots for approximately one month such as **Lovenox (enoxaparin) injections** or **Aspirin**. So no Advil (ibuprofen) or Aleve (Naproxen) until off the blood thinner.

## Post-Surgery Non-Medications:

**Ice/Cold Packs** applied to your knee can significantly help decrease the pain and swelling that occurs as a result of surgery. The UCSF team recommends that you continue icing once home at a minimum of 4-5 times a day for 20 minutes each. Be sure to place a barrier, such as a towel, between your skin and cold pack to prevent freezer burns. You may use ice in a bag or gel ice packs.

**Elevate** your surgical leg above the level of the heart several times a day, best to combine when icing and doing your ankle pumps.

**Be Active:** Get out of bed/off couch or chair several times a day for meals, restroom trips and just to stretch to get some circulation going in the body to promote blood flow and healing.

**Don't Over Do It.** Especially in first two weeks – allow soft tissues/wound to heal (decrease swelling so that new nutrient-rich blood can reach the tissues to promote healing). Swelling is a result of the surgery and part of healing process, however, the sooner the swelling subsides, the quicker the recovery.

# Discharge Planning

- **Most patients after joint surgery go home after leaving the hospital.** Insurance very rarely, if ever, will cover help at home for bathing, dressing, cooking, or cleaning. It is important for you to consider the kind of help you will need and mobilize your friends and family to assist you (with shopping, cleaning, errands, transportation, etc.). Decide ahead of time who will care for you after surgery.

The most HELP is needed in the first 2 weeks.

1. Arranging meals that can be stored and frozen, and stocking up on prepared foods will eliminate extra work for your caregiver.
  2. Plan ahead and arrange for family or friends to drive you home from the hospital. You will be most comfortable in a sedan-type car. Establish someone to stay overnight and be close during the day for the first few days. In addition, you will not be allowed to drive for 2-6 weeks or longer, so you may want to plan transportation to and from your post-surgery appointments.
- On average most of UCSF patients stay one night in the hospital. The hospital discharges patients at anytime during the day, 7 days a week.
  - The staff can help you pack up your belongings. Please send your ride to bring the car to the horseshoe driveway in front of the main hospital entrance 10 minutes before you are ready to leave the hospital. Our Hospitality Service will assist you downstairs in a wheelchair along with your belongings.

## Physical Therapy & Occupational Therapy Evaluation

The Physical and Occupational Therapists (also known as PT & OT) will evaluate you post-surgery while you are in the hospital and help the providers to determine what level of therapy, if any, you will need after you leave the hospital. While in the hospital, PT and OT will work with you to achieve the goals necessary in order to discharge you to home safely. **In general, for the first 2 weeks, you want to rest and allow the wound and soft tissues to heal and avoid any falls.**

There are three options for physical therapy after you leave the hospital:

- **Home Physical Therapy:** If needed, after you return home, a nurse case manager in the hospital will arrange for a PT to see you at home 2 to 3 times a week for 2 -3 weeks. Your first visit will be within a couple of days after you return home. The home PT will see you until you are no longer home bound and potentially help you wean off the walker to a cane.
- **Outpatient Physical Therapy:** Some patients start outpatient physical therapy at 2-3 weeks after they return home from the hospital. Others have in home PT then transition to outpatient PT if needed. Contact your surgeon's office with the fax number to the PT clinic you have chosen. The UCSF team will fax your prescription to the clinic, and you can call to schedule your first post-operative visit. You will see an outpatient PT for 2 times per week for approximately 6 weeks. They can help you wean off your walker to a cane if you have not already done so.
- **No Physical Therapy:** Some patients after surgery are able to progress on their own - walking and working on a couple motion exercises is the best therapy after knee surgery. Gradually returning to activities of daily living will also help to regain your strength and function.

An Occupational Therapist (OT) will address activities of daily living during your hospital stay. To be independent in performing activities of lower body self care skills, you may need to use adaptive equipment (long handled sponge, long handled shoehorn, sock aid, reacher, elastic shoelaces); and the OT can help determine what you need. You may or may not have an OT come to your home after discharge.

# Post-Surgery – EQUIPMENT

Walking aid (walker or crutches will be provided), cane, raised toilet seat, shower chair, reacher, dressing stick, sock aid, long handled shoe horn, long handled sponge - These items may be wise to purchase prior to your hospital stay – most insurance companies do not pay for these (AMAZON.COM or LARGE PHARMACY).

- If you have any questions regarding discharge planning, please contact UCSF RN Patient Navigator at 415-514-8421

## Knee Surgery Rehabilitation

- During your surgery, the surrounding muscles were stretched to insert the prosthesis. It will take approximately 6 – 12 weeks for these muscles and surrounding soft tissues to significantly improve. The hospital PT will give an instructional sheet. In general, it is best to be cautious and avoid any falls.
- Best practice involves getting you up out of bed on the same or next day of your surgery. The UCSF staff will assist you with being active. It is beneficial for you to get out of bed and walk several times a day to help decrease the risk of blood clots and increase your quality of life.

## Milestones for Discharge Home

Together UCSF and you will create a plan to meet your goals for a safe discharge home. This plan will include assisting you in obtaining any equipment or other support you may need.

The majority of patients return home on the first or second day after surgery – this is based on UCSF's many years of experience working with patients who have had this type of surgery. Below are some goals to consider when preparing for your discharge:

- ✓ I understand any surgical precautions I may have after my surgery
- ✓ I know how to manage my post-operative symptoms (e.g. pain, nausea, dizziness)
- ✓ I can get into and out of bed with minimal assistance
- ✓ I am walking the minimum distance for my home setting (with walker/crutches if needed)
- ✓ I can manage stairs with assistance
- ✓ I understand the use of blood thinner medication prescribed to me
- ✓ I have arranged for support upon arrival home
- ✓ I know how to manage many of my regular daily activities such as bathing, grooming, and dressing

# Early Postoperative Exercises

Walking is the best exercise following surgery; make sure to get up 3-4 times a day to go for a short walk around the house. Goal is to walk 1 minute longer than you did the previous day.

## Ankle Pumps

Slowly push your foot up and down. Do this exercise several times as often as every 30 minutes. This exercise can begin immediately after surgery and continue until you are fully recovered.



## Bed-Supported Knee Bends/Heel Slides

Slide your heel toward your buttocks, bending your knee and keeping your heel on the bed. Do not let your knee roll inward. Repeat 10 times, 3 or 4 times a day



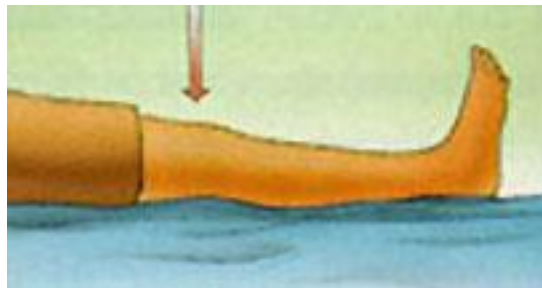
## Buttock Contractions

Tighten buttock muscles and hold to a count of 5. Repeat 10 times, 3 or 4 times a day



## Quadriceps Set

Tighten your thigh muscle. Try to straighten your knee. Hold for 5 to 10 seconds. Repeat this exercise 10 times during a 10-minute period. Continue until your thigh feels fatigued.



# Possible Complications of Surgery

The complication rate following knee replacement is low. Serious complications such as knee infection occur in less than 1-2% of patients. Major medical complications such as heart attack, stroke and death occur even less frequently. Although uncommon, when these complications occur, they can prolong or limit full recovery.

- **Infection** – may occur superficially in the wound or deep around the implant. It may happen while in the hospital or after you go home--and can even occur years later. Minor infection in the wound is generally treated with antibiotics; for deep infections, removal of the implant may be necessary. Any infection in your body can spread to your knee replacement.

## Knee Infection signs include:

- New fluid leaking from the wound
  - Opening of the wound
  - Flu-like symptoms, including chills & fever greater than 101.3F
- **Blood Clot (DVT-deep vein thrombosis)** – blood clots in the leg veins or pelvis can occur after surgery

## Blood Clot signs include:

For blood clot in the leg – aka Deep Vein Thrombosis (DVT)

- New increased swelling of the operative leg, that does not go down in the morning or after 1 hour of true elevation
- Unexplained pain of the operative leg and pain medicine is not as effective as before

For blood clot in the lungs – aka Pulmonary Embolism (PE)

- Unexplained shortness of breath
- You are suddenly very sweaty
- Your heart rate is increased
- Chest pain

## Preventing Blood Clots:

Be Active! Walking promotes blood circulation, which helps to decrease your risk for getting a blood clot. During the daytime, be sure to get up every 2 to 3 hours and walk across the room; do ankle pumps; wear compression stockings (no longer used in hospital, but okay to use at home); avoid flying 6 weeks if possible; and take your prescribed blood thinner medications.

- **Other complications include:**
  - **Loosening and implant wear** – over years; this can occur and need implant replacing.
  - **Nerve and blood vessel injury (skin numbness near incision site), bleeding, fracture (broken bone), and stiffness.** In a small number of patients, some pain can continue or new pain can occur after surgery.

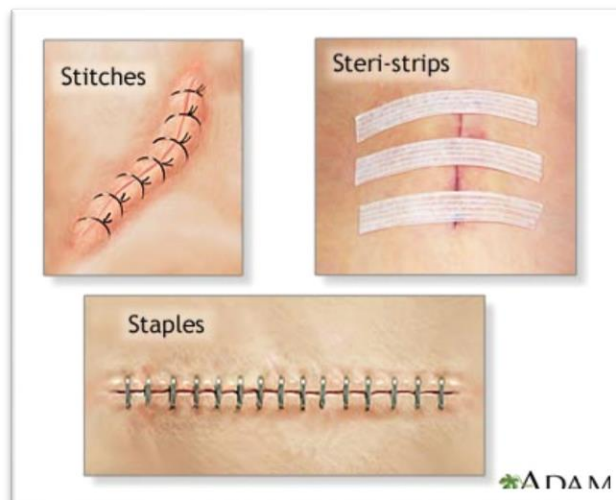


# Your Recovery at Home - Care of Your Wound

## Most Patients:

- It is normal to see some (slight) drainage at the top of the dressing.
  - If the dressing appears completely wet from drainage or if there is an increasing amount of drainage from the wound over time, contact your surgeon's office.
  - Do not remove hospital discharge dressing (Tegaderm) for 5 days.
  - Dressing is sealed (Tegaderm dressing) and you can shower as tolerated (no soaking or bath for several weeks).
  - After 5 days, you may remove your dressing (Tegaderm), then (follow one of three options depending on wound):
    1. If you have Steri-Strips only (sutures under skin): ok to shower without dressing if no drainage
    2. If you have Steri-Strips over stitches (on top of skin): replace Tegaderm dressing, then ok to shower
    3. If you have stitches or staples: follow same instructions as #2, above.
- \* DO NOT apply any Bacitracin or antibiotic ointment of any kind to the wound; this will disrupt the Steri-Strips adhesive.
- If you do change your dressing:
1. Wash your hands well with soap and water before touching the dressing.
  2. Remove the dressing carefully. If you need to, soak the dressing with sterile water or saline to help loosen it. Then dry the incision with clean dry gauze. Wipe or pat dry.
  3. Apply a new dressing the way your hospital provider showed you.
- After wound has healed: You may apply creams, lotions or ointments on the knee once the staples or stitches are removed and there are no openings of your wound. The following tips can help decrease the scar of your incision:
    - Manually massage out the scar tissue – your physical therapist can show you how
    - Apply Vitamin E
    - Avoid sun exposure for 1 year

**PETS:** Do not allow pets to sleep with you until your wound is completely healed and the sutures/staples are removed. Do not allow pets to lick you or your wounds.



# Normal Expectations After Surgery

- Recovering from a total knee replacement varies from person to person.
- You will see the most rapid improvements within the first 3 months after surgery.
- However, improvements can still be seen up to 1-2 years after surgery.

- **Swelling:** blood circulation in the operated leg is sluggish after surgery, gravity will pool swelling down into the calf and ankle. As you walk more and elevate this will improve. (Swelling in the knee on average lasts 12-16 weeks, lower leg swelling should improve each week, lasting 6-8 weeks).
- However, any swelling that comes with significant changes in your level of pain should be reported to your surgeon's office as you could be experiencing a blood clot.

The following are some suggestions on how you can minimize the swelling of your operated leg:

- Walk frequently to promote blood circulation.
  - Wear knee-high compression stockings or TED hoses or knee-high cotton socks. They can be purchased at a medical store or for non-medical a department store.
  - Keep your operated leg above your heart frequently when you are sitting or lying in bed.
  - Apply a cold pack minimum 4-5 times a day for 15-20 minutes. Be sure to place a thin barrier, such as a towel or T-shirt, between your skin and the cold pack to prevent freezer burns. You may use ice in a bag (be sure to double bag to avoid leakage) or gel ice packs.
- **Limping:** It is normal to have a limp while in the recovery phase. Strengthening the leg muscles is important to correct your limp. Walking and reducing the swelling are the best therapy treatments.
  - **Sleeping:** It is common to have difficulty sleeping for the first few months after surgery. You may find it difficult to sleep in your usual favorite sleeping position or that you wake up frequently during the night due to the pain or to take pain medicine. You will return to your normal sleeping patterns as the pain improves. The UCSF team does not recommend sleeping pills once you are home as they can cause dependency.

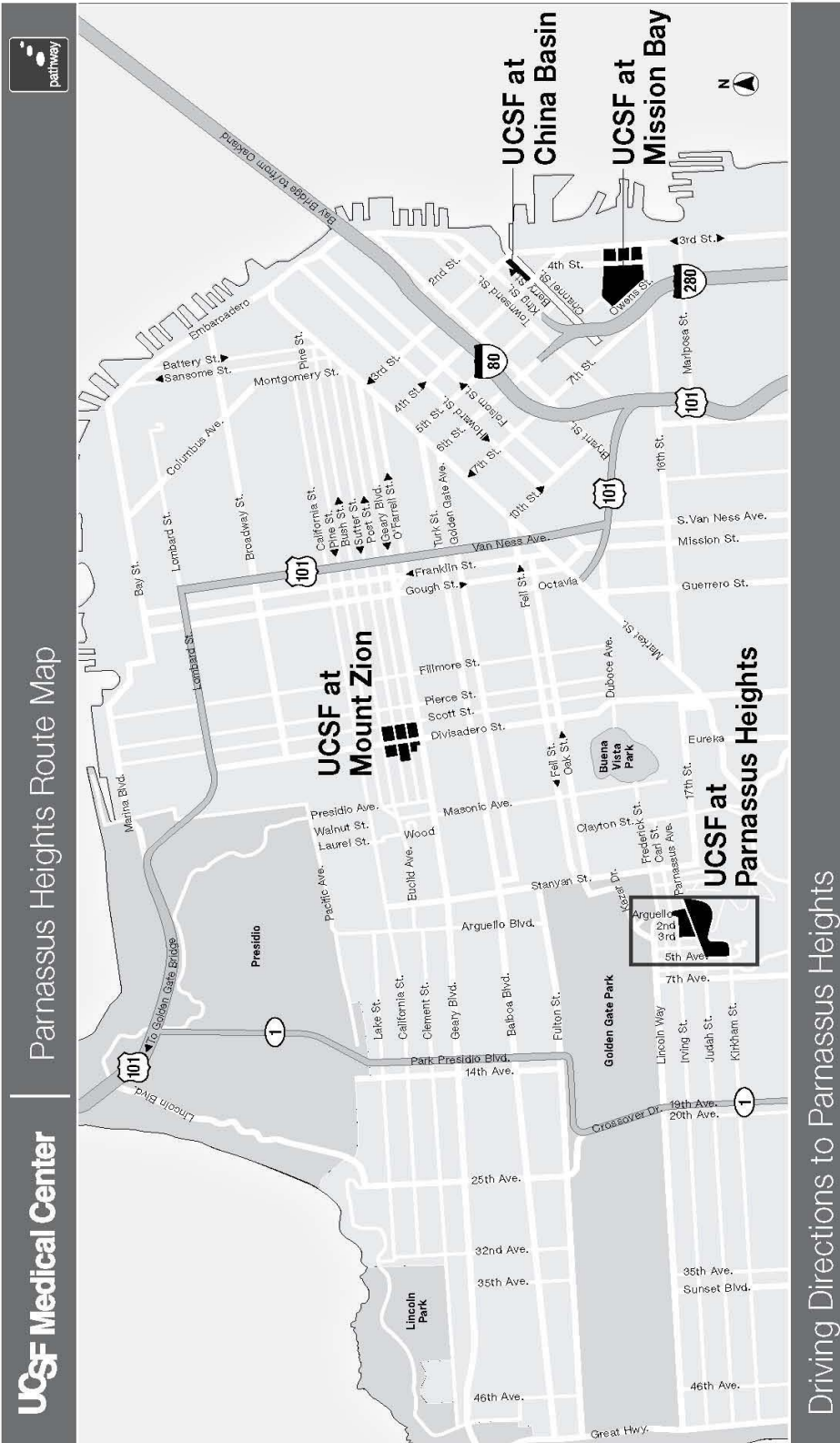
Please speak to your primary care provider if you feel you need a sleeping pill. For better sleep:

- Avoid daytime naps.
- Establish routine hours for bedtime at night and waking up in the morning.
- Avoid caffeine and drinking fluids at least 3 hours before bedtime. Avoid alcohol.
- Ask your pharmacist if over the counter Benadryl or melatonin/sleepy time tea may help.

# Map/Directions to 505 Parnassus Ave.

You may also call (415) 476-2999 for telephone directions in several languages.

Maps are also available online: <http://pathway.ucsfmedicalcenter.org/>



## Driving Directions to Parnassus Heights

From the East Bay and Oakland Airport

1. Cross Bay Bridge (I-80 West), stay in 2nd lane from right
2. Exit right on 101 North/Golden Gate Bridge
3. Get in left lane and exit to Octavia Blvd. / Fell St.
4. Turn left on Fell St.
5. From far right lane, turn left on Stanyan St.
6. Turn right on Carl St., which becomes Irving St.
7. Turn right into UCSF Parking Garage on Irving St.

From Marin County (Highway 101 South and 1 South)

1. Cross Golden Gate Bridge, stay in far right lane
2. Exit 19th Ave./Golden Gate Park onto CA-1 South
3. Go through Golden Gate Park, where Park Presidio Dr. becomes 19th Ave.
4. Turn right on Judah St.
5. Turn right on 20th Ave.
6. Turn right on Irving St.
7. Turn right into UCSF Parking Garage on Irving St.

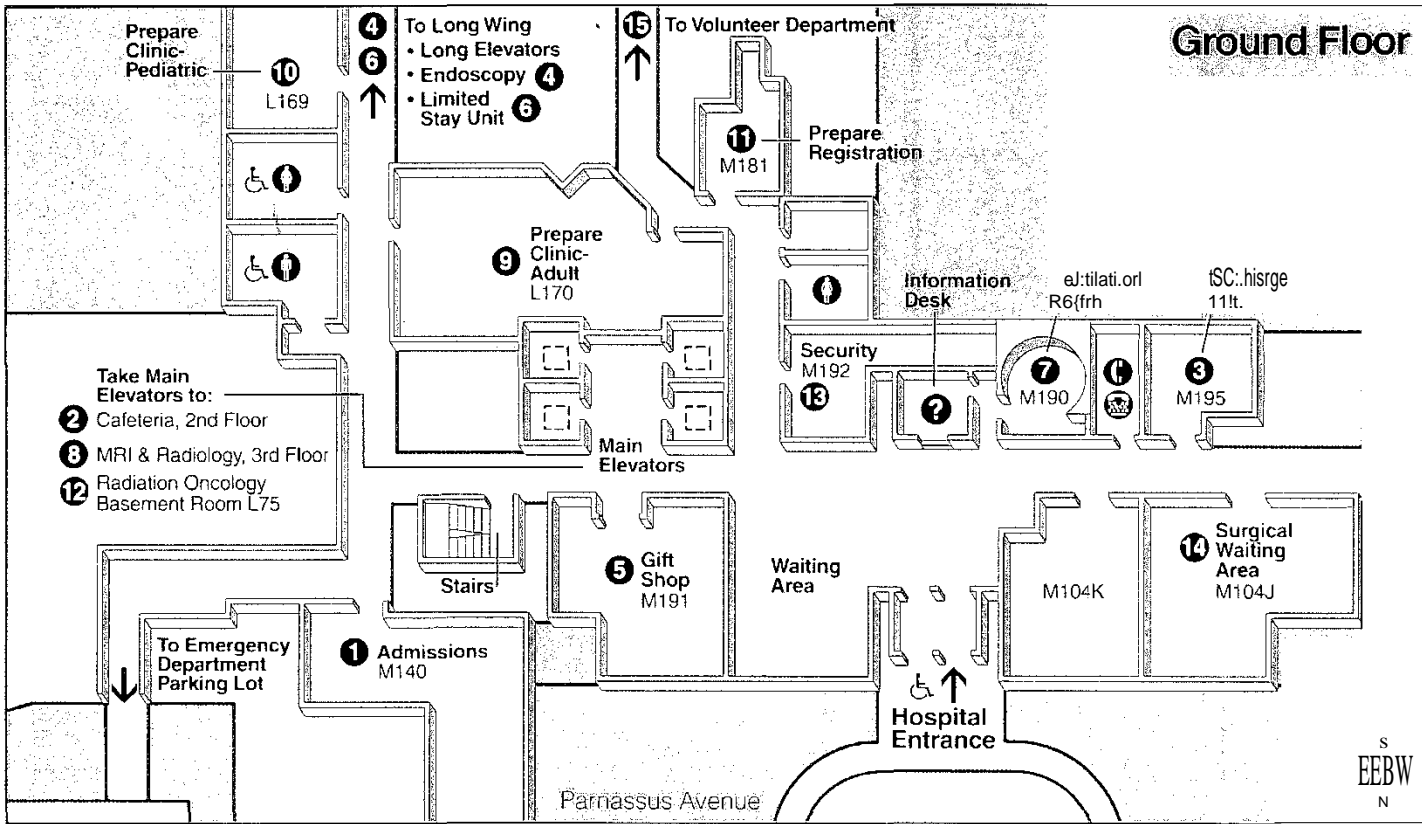
From San Francisco Airport and South Bay (Highway 101 North)

1. Approaching San Francisco, stay left
2. Exit left on 101 North / Golden Gate Bridge
3. From left lane, exit to Octavia Blvd. / Fell St.
4. Turn left on Fell St.
5. From far right lane, turn left on Stanyan St.
6. Turn right on Carl St., which becomes Irving St.
7. Turn left into UCSF Parking Garage on Irving St.

From the Peninsula (I-280 North)

1. Approaching San Francisco, stay left
2. Exit CA-1 North toward 19th Ave. / Golden Gate Bridge
3. Stay in the left lanes for 19th Ave.
4. Turn right on Irving St.
5. Turn right into UCSF Parking Garage on Irving St.

For customized maps and information visit: [pathway.ucsfmedicalcenter.org](http://pathway.ucsfmedicalcenter.org)



Form #500-0043 • 8/06

**0 Admissions**

1st floor, Room M140  
Tel: (415) 353-1553

**8 Cafeteria**

2nd floor  
Tel: (415) 353-1111  
Hours: Daily 6:45 am -11 pm

**Discharge Suite**

1st floor, Room M195  
Tel: (415) 353-1684

**0 Endoscopy**

1st floor, Room L103  
Tel: (415) 353-1702

**0 Gift Shop**

1st floor, Room M191  
Tel (415) 353-1845  
Hours: M-F 8 am-6pm  
Sat. Noon-3 pm

**0 Limited Stay Unit**

1st floor, Room L119  
Tel: (415) 353-9123

**@ Meditation Room**

1st floor, Room M190

**€ MRI & Radiology**

3rd Floor, Room M327/344  
Tel: (415) 353-2573

**0 Prepare Clinic - Adult**

1st floor, Room L170  
Tel (415) 353-1099

**@ Prepare Clinic - Pediatric**

1st floor, Room L169  
Tel: (415) 353-1150

**G> Prepare Registration**

1st floor, Room M181  
Tel: (415) 353-1099

**@ Radiation Oncology**

Basement, Room L75  
Tel: (415) 353-7175

**@ Security Office**

1st Floor, Room M192  
Tel: (415) 885-7890

**Surgical Waiting Area**

1st Floor, Room M104J  
Tel: (415) 353-1626 (adults)  
Tel: (415) 353-1231 (children)

**(I:) Volunteer Department**

1st floor, Room L167  
Tel: (415) 353-1196

More maps are available on the UCSF Web site at [www.ucsfhealth.org](http://www.ucsfhealth.org).

# PARKING/TRANSPORTATION

## Parnassus Campus - 505 Parnassus Ave.

Street parking at Parnassus Ave is very limited. Public parking is located across the street from main hospital building. Other public lots are available with shuttle service to 505 Parnassus Ave:

- Fifth Ave and Kirkham St.
- Stanyan St. and Kezar Way, near Kezar Stadium

Parking fees vary at each facility. For further information, call the Parking Office at (415) 476-2566. Anyone can request an escort to their car at the security desk located at the Emergency Department entrance.

Public Transportation - The Parnassus Campus is accessible via Muni lines:

- 6 Parnassus
- 43 Masonic
- N Judah

For more information regarding bus transportation, call SF Muni at (415) 673-6864.

Direct telephones for taxi service are located in the phone room in the hospital main lobby. The Information Desk staff can also assist with taxi and other transportation questions.

## Mission Bay Campus - 1500 Owens St. (Orthopaedic Institute)

Street Parking is limited. Public parking is available at the rear of the building - Pay in advance at pay station.

Public Transportation - The Orthopaedic Institute is directly accessible via Muni lines:

- T-line
- 22 Fillmore
- 48 Quintara

UCSF shuttles stops at 3<sup>rd</sup> St. & Gene Friend Lane and Mission Bay Community Circle. For further information regarding the shuttles, call the Parking Office at (415) 476-2566.

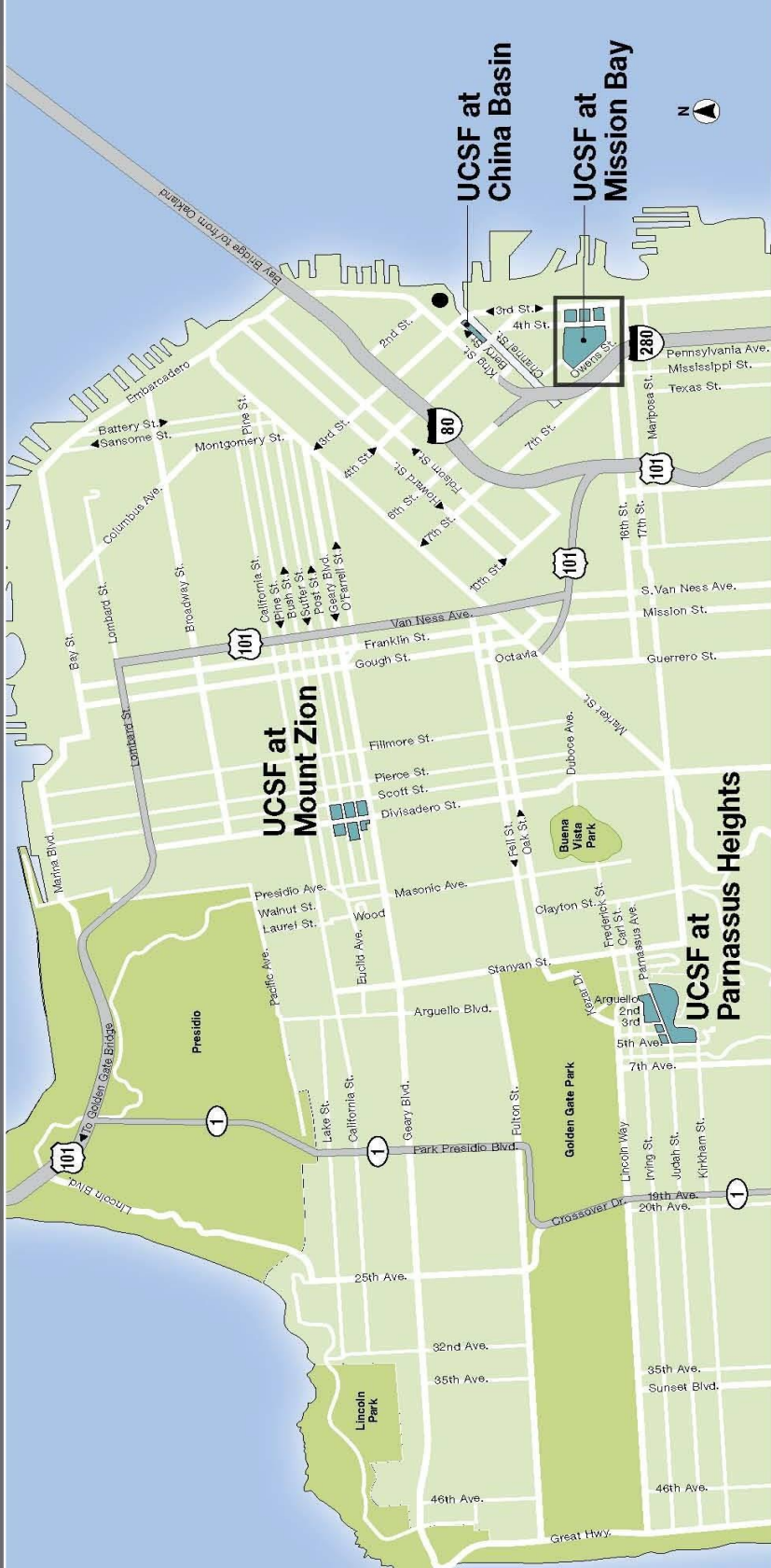
For patients requiring mobility assistance who utilize public transportation or the UCSF shuttle system, you may call (415) 514-6368 five minutes before arriving for a cart ride to the Orthopaedic Institute. The cart can pick you up at the following locations:

- Hearst Tower across from the T-line
- 4<sup>th</sup> St. UCSF shuttle stop
- Mission Bay Community Center

# Map/Directions to 1500 Owens St.

You may also call (415) 476-2999 for telephone directions in several languages.

Maps are also available online: <http://pathway.ucsfmedicalcenter.org/>



Site Locations

UCSF Medical Center

## Driving Directions to Mission Bay

### From the East Bay and Oakland Airport

1. Cross Bay Bridge (I-80 West)
2. Exit on left 2A / 5th St.
3. Turn left on 5th St.
4. Turn right on Townsend St.
5. Turn left on 7th St.
6. Turn left on 16th St. and refer to the map on the other side for parking information

### From Marin County (Highway 101 South and 1 South)

1. Cross Golden Gate Bridge
2. Follow signs to 101 South
3. Exit 101 South / Downtown / Lombard St.
4. Turn right on Van Ness Ave. / 101 South
5. Turn left on 16th St.
6. Continue to 7th St. and refer to the map on the other side for parking information

### From San Francisco Airport and South Bay (Highway 101 North)

1. Take 101 North / Golden Gate Bridge
2. Exit I-280 North toward Downtown San Francisco
3. Exit Mariposa St. toward 18th St. / Exit 56
4. Turn left on Mariposa St.
5. Turn right on Mississippi St.
6. Turn right on 16th St. and refer to the map on the other side for parking information

### From the Peninsula (I-280 North)

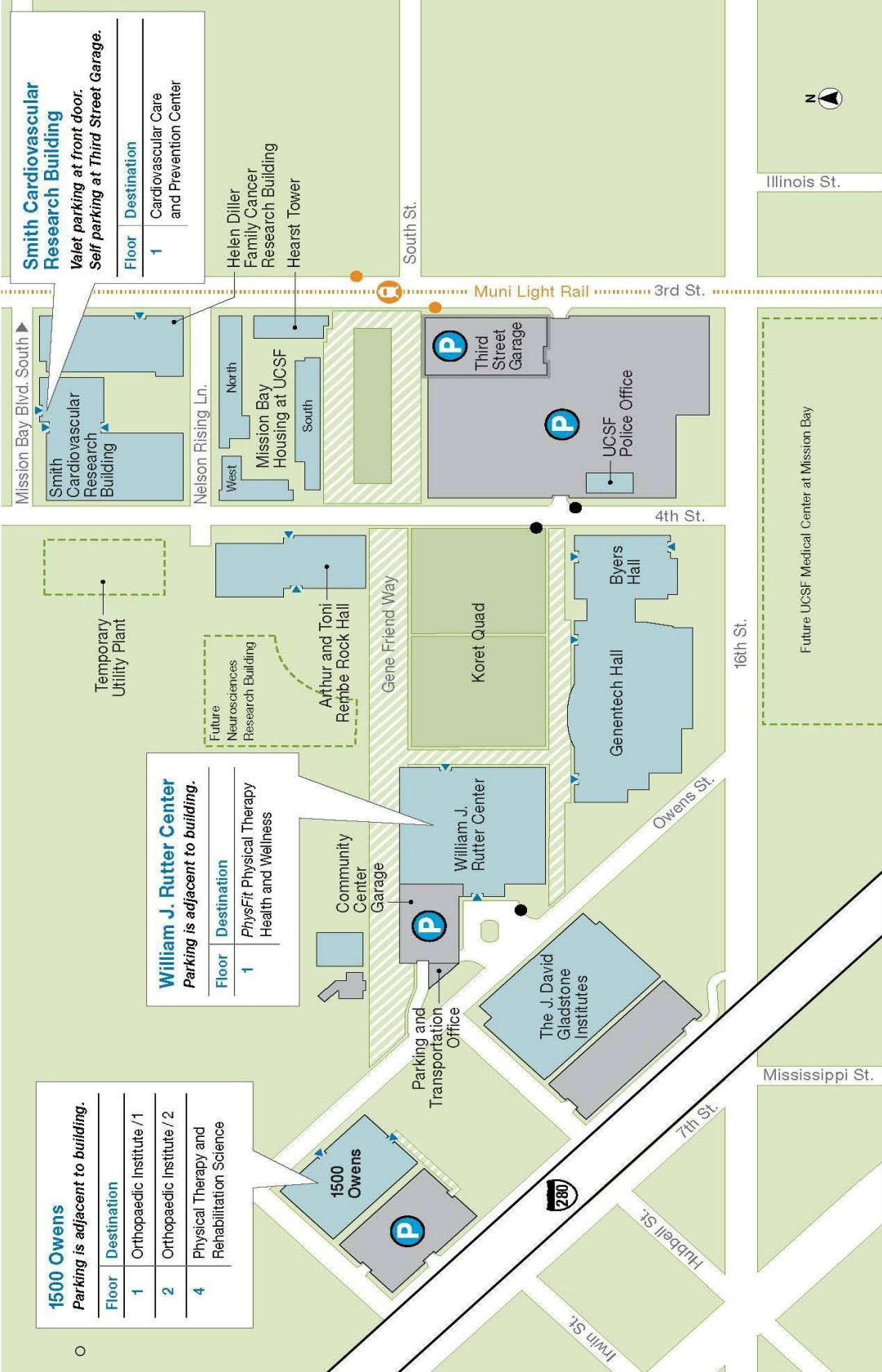
1. Take I-280 North toward Downtown San Francisco
2. Exit Mariposa St. toward 18th St. / Exit 56
3. Turn left on Mariposa St.
4. Turn right on Mississippi St.
5. Turn right on 16th St. and refer to the map on the other side for parking information

For customized maps and information visit:  
[pathway.ucsfmedicalcenter.org](http://pathway.ucsfmedicalcenter.org)

# Mission Bay Campus Map

You may also call (415) 476-2999 for telephone directions in several languages.

Maps are also available online: <http://pathway.ucsfmedicalcenter.org/>



**1500 Owens**  
Parking is adjacent to building.

Floor	Destination
1	Orthopaedic Institute / 1
2	Orthopaedic Institute / 2
4	Physical Therapy and Rehabilitation Science

**William J. Rutter Center**  
Parking is adjacent to building.

Floor	Destination
1	PhysFit Physical Therapy Health and Wellness

**Smith Cardiovascular Research Building**  
Valet parking at front door. Self parking at Third Street Garage.

Floor	Destination
1	Cardiovascular Care and Prevention Center

**Accessibility**  
Please visit [access.ucsf.edu](http://access.ucsf.edu) for more information regarding accessibility features at UCSF at Mission Bay.

- Accessible Public Entrance
- Public Parking
- UCSF Shuttle Stop

- MUNI Light Rail Stops**  
UCSF at Mission Bay is accessible via these MUNI Light Rail routes:  
K and T – Balboa Park Station  
K and T – Visitacion Valley via Downtown  
For more information, visit MUNI's website at [sfmuni.com](http://sfmuni.com).



# Frequently Asked Questions

## Pre- Surgery

1. **Can my family visit me in the hospital? Stay overnight?** Yes, the UCSF team encourages family to participate (Visiting Hours 10am to 7pm). Rooms are generally private and can accommodate one person to stay.
2. **Do I need to donate blood before surgery?** The UCSF Adult Reconstruction Division no longer recommends donating your blood prior to surgery. Recent research shows that shorter surgical times, improved anesthesia techniques, and new medications to prevent bleeding have made needing a transfusion very rare. Further, blood donations before surgery have been shown to make the risk of needing a blood transfusion higher.
3. **Will my insurance cover the surgery?** Once your surgery has been scheduled, your surgeon's office will obtain insurance authorization for the surgery. Contact your insurance company for specific insurance coverage information, including copay and deductible costs, or access the following UCSF web link: [http://www.ucsfhealth.org/adult/patient\\_guide/health\\_insurance.html](http://www.ucsfhealth.org/adult/patient_guide/health_insurance.html). If you have any questions about your ability to pay or other financial concerns, call UCSF Financial Counseling at (415) 353-1966, Monday through Friday between 8am and 6pm. If you have questions about your bill, call the telephone number printed on the bottom portion of the statement.
4. **Should I get a flu shot before the surgery?** UCSF Adult Reconstruction Division recommends at least 1 week before surgery, as some patients feel under the weather after the shot (but it is up to you).
5. **What kind of assistance will be needed?** Initially, you may need help with cooking, housework, shopping, laundry, bathing, and transportation (especially first 1-2 weeks). Start recruiting family members, friends or neighbors to stock fridge with microwavable meals. Also, plan visits to help with chores, and help with medication management.
6. **How do I file my disability paperwork?** First, decide if your employer has forms or if you plan on filing for state disability. Second, provide the UCSF office with the paperwork to file (Possible fee).
7. **What do I do with my advance directive paperwork?** To request an advance directive form, contact the UCSF Social Work Department at (415) 353-1504 or Patient Relations at (415) 353-1936.

## Surgery

8. **How long is the surgery?** The average surgery time is 1-1.5 hours. The time you will be in the operating room is longer due to anesthesia and prep time.
9. **How long will I be in the hospital?** Most UCSF patients stay only 1 night in the hospital and then go home with family or friends; however, the stay could be longer depending on surgery and recovery. (It is rare for discharge to a skilled nursing facility (SNF).)The UCSF nurse case manager will work with you to determine best course for discharge.

## Post-Surgery

10. **Will I set off the metal detectors at the airport?** Yes, you will probably set off the security monitors; however, most airports have scanners that can visualize the implant and further inspection is not needed. Be proactive and let them know you have a knee replacement. No letters or documents are accepted or needed.
11. **What if I have trouble sleeping; is this normal?** This is a common complaint following surgery but tends to resolve quickly. Non-prescription remedies include Tylenol PM, Benadryl, or supplement such as melatonin – please consult your pharmacist or primary care provider.
12. **I feel depressed; is this normal?** It is not uncommon to have feelings of depression after surgery; this may be due to multiple factors such as limited mobility, discomfort, increased dependency on others, or medication side effects. These feelings tend to resolve as you begin to return to your normal routine. If these feelings persist, contact your primary care provider.



13. **If I feel constipated, what should I do?** This is a common problem following surgery, usually due to limited activity and side effects of narcotics. The UCSF team recommends taking stool softeners/laxatives such as Senna, Colace and MiraLax packets; decrease narcotic use; drink water; eat prunes or drink prune juice; walk regularly; increase fiber in diet; and avoid straining on the toilet as this can cause you to faint. Your bowel movements may be irregular at first, but they will gradually return to normal. You should have a bowel movement at least once every 3 days. If you go more than 3 days without having a bowel movement, try an over-the-counter laxative such as Milk of Magnesia, Fleets enema, or Dulcolax. Call your primary care provider if you are still unable to have a bowel movement after trying laxatives.
14. **Do I need Physical Therapy?** The UCSF team does not require physical therapy (PT), but most of UCSF patients find it helpful. PT can help transition you to a home exercise program and help with gait training – the most important therapy after knee replacement surgery is walking and motion exercises. If you want therapy, it is okay to start outpatient PT 2-3 weeks after surgery if the wound is healed.
15. **For OUTPATIENT PT, it is your responsibility to insure the facility you choose accepts your insurance.** The UCSF team suggests picking a location close to work or home.
16. **How long will it take to regain my leg strength?** Most patients will notice improvements throughout the rehabilitation process. However, if your arthritis was longstanding and your function was severely limited prior to surgery, it may take up to 1 year before you regain your full leg strength.
17. **Should I use ice or heat after surgery?** Ice is very helpful during recovery when there is swelling and warmth around the knee. Use the ice pack 15-20 minutes, 4-5 times a day; it is best to combine with elevation (prop pillow(s) under ankle while reclining to decrease swelling and therefore pain in the leg).
18. **What do I do if I live far away from UCSF?** For lodging information, contact 1 (888) 689-8273 or (415) 476-1765. The listing can also be accessed online at: [http://campuslifeservices.ucsf.edu/housing/off\\_campus/lodging/pdfs/STLG.pdf](http://campuslifeservices.ucsf.edu/housing/off_campus/lodging/pdfs/STLG.pdf)
19. **When can I drive?** On average, it is 2-4 weeks. Once you are off narcotics, ask the surgeon's permission if you have knee precautions, and you feel safe to react to hit the breaks to avoid an accident.
20. **How soon may I travel by airplane?** You should avoid travel on airplane for 6 weeks after surgery. If you cannot avoid airline travel, discuss your plans with your surgeon.
21. **Do I need prophylactic antibiotics before routine dental cleanings?**

UCSF Adult Reconstruction Division no longer requires antibiotics before routine dental work after a joint replacement, if 6-12 weeks have passed from surgery date; however, if dental procedure is due to infection or more involved, then discuss treatment with dentist and the UCSF office. Infections in the mouth can travel to the knee joint.
22. **When can I return to work?** In general for a desk job, anywhere from 2-6 weeks, for a more labor-intensive job, it could be 3-4 months.
23. **What other educational resources do you recommend?**
  - Emmi videos
  - UCSF website
  - AAOS website
24. **What equipment is needed after surgery?**
  - Ice pack (suggestion: large 12 x 18 ColPaC from Amazon.com)
  - Walker/Crutches (provided by Hospital)
  - Raised toilet seat / commode (large pharmacies carry most of these items)
  - Reacher (Amazon.com or large pharmacy)
  - Shoe horn, sock aid, long handle sponge