



**Total Hip
Replacement**
Patient Guidebook

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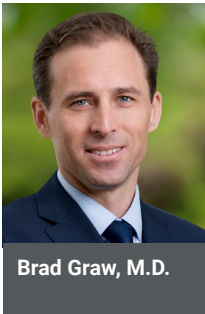
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About our Surgeons



Akira Yamamoto, M.D. received his medical degree from UCSF in 2011, after graduating from UC Berkeley. He then completed orthopedic surgery residency at UCSF. During his fellowship in orthopedic trauma at Cedars-Sinai Medical Center, he also performed over 400 complex primary and revision total joint replacement surgeries.

Dr. Yamamoto, joined PAMF in 2012 and is board certified in orthopedic surgery. He specializes in complex fracture care, total joint replacement surgeries, which include robotic knee replacement as well as anterior approach total hip surgeries. Dr. Yamamoto established Co-Management for Total Joint Replacement with local hospitals and same day Total Joint Programs. He is now serving as VP of Surgical Specialties for Palo Alto Foundation Medical group, leading all surgical specialties departments under PAMF.



Brad Graw, M.D., received his medical degree from Georgetown University School of Medicine in 2003 after graduating from Yale University. He completed his internship and orthopedic surgery residency at Georgetown University Medical Center. He then moved to California and completed a fellowship in adult reconstructive surgery at Stanford University Medical Center and a sports fellowship at the SOAR clinic. Dr. Graw joined PAMF in 2016 after working in private practice in Redwood City. He is board-certified in orthopedic surgery and his practice entirely focuses on hip and knee reconstructive surgery. His experience in sports medicine is helpful for patients considering joint preservation options. Recent advances in his practice include direct anterior total hip replacement, computer-assisted surgery and improving the patient digital experience. He has presented on these topics at national meetings and continues to collaborate with his colleagues at PAMF to improve patient safety, satisfaction and long-term outcomes.



James Hartford, M.D., received his medical degree from Dartmouth Medical School in 1989 after graduating from Princeton University. He completed general surgery preliminary residency at Harvard-New England Deaconess Hospital in Boston, an orthopedic surgery residency at Dartmouth-Hitchcock Medical Center in Lebanon, N.H., and a fellowship in adult reconstructive surgery at Stanford University Medical Center. Dr. Hartford served as assistant professor in the Division of Orthopedic Surgery at the University of Kentucky College of Medicine and was residency director for orthopedic surgery at the University of Kentucky Chandler Medical Center in Lexington, Ky. He was chief of orthopedic surgery at the Veterans Administration Medical Center in Lexington. He has substantial experience with hip and knee replacements, including many complex cases. Dr. Hartford has published and lectured extensively on joint replacement and orthopedic surgery. Together with Dr. Graw, he has published research papers on Direct Anterior Approach total hip replacement. He joined PAMF in 2002 and is board-certified in orthopedic surgery.

Introduction to Total Joint Replacement

Welcome to the Division of Ambulatory Surgery (DAS) at Palo Alto Medical Foundation (PAMF). DAS is a multispecialty ambulatory surgery center that offers hip replacement surgery. Our PAMF total joint replacement surgeons, Akira Yamamoto, M.D., Brad Graw, M.D., and James Hartford, M.D., together perform over 1,000 joint replacements per year.

The DAS have been multiple recipients of the California Ambulatory Surgery Association Award for ASC Excellence, ranked top 10 as the Best ASC in California by Newsweek in 2021 and are accredited by the Accreditation Association for Ambulatory Health Care. Our mission is to provide safe, dependable and expert care in an environment that is nurturing and supportive.

Getting Started

The first step in the total joint replacement process is to schedule a consultation with either Drs. Yamamoto, Graw or Hartford. You may call their Orthopedic Department to make an appointment with one of the surgeons. At the consultation, the surgeon will discuss your individual medical needs, conduct an examination, review imaging studies, make a recommendation for both operative and non-operative treatments and provide you with more information about surgery.

After your consultation, you should take time to evaluate whether having total joint replacement is right for you. When you are ready, our staff will work with you to schedule a time for surgery.

Scheduling Your Surgery

Once you have decided to have total joint replacement, you may contact the surgeon's Orthopedic Department to set a date for surgery. Once the date has been determined, you will be contacted by the Total Joint Nurse Navigator. Our dedicated Nurse Navigator will review and assist you on what needs to be completed before surgery (i.e., laboratory testing, medical evaluations, pre-operative visit and other necessary preoperative procedures).

Common Reasons To Have A Total Hip Replacement

Drs. Yamamoto, Graw, and Hartford may have already discussed with you the reasons why a total hip replacement may be a good option for your specific health needs. Patients find that hip replacements can ease pain and improve mobility and function. This allows patients to lead more active and fulfilling lives.

Joint replacement procedures are generally performed to address persistent pain that is not alleviated by non-surgical means, such as pain medications, injections, use of assistive devices/ braces and/or physical therapy.

Below are some common reasons for having a total hip replacement.

Osteoarthritis

The most common cause of arthritic pain is osteoarthritis, which occurs when the cartilage between bones wears away. Cartilage is the white substance at the end of bones that helps joints move with less friction. Cartilage thickness peaks between ages 18 and 20, and your body does not produce more after this time. As people age, cartilage wears away, bones rub against each other and joints become painful and stiff. When pain from this condition becomes severe, some patients find they avoid using the joint, which weakens surrounding muscles and makes it even more difficult to have full mobility.

Arthritis can be accelerated by having a family history of the condition, being overweight and having had previous surgeries and/or injuries to the joint, even if that injury occurred decades earlier. Injury may throw the joint slightly off balance, causing the cartilage to wear down faster over the years.

Osteonecrosis

Osteonecrosis is a condition in which blood vessels gradually cut off nourishment to the hip joint, which leads to the destruction of the joint. Avascular necrosis is associated with long-term steroid use and drinking too much alcohol. It is most common in people between the ages of 30 and 60, and often affects the hip. Early stages may be symptom-free, but later stages are commonly associated with intractable pain.

Rheumatoid Arthritis

A small percentage of patients seen at PAMF for total joint replacement have rheumatoid arthritis, a chronic disease in which the body's immune system attacks and destroys articular cartilage.

Hip Dysplasia

A congenital condition in which the hip socket does not fully cover the ball portion of the thigh bone. This leads to an unstable joint and uneven wear of the hip cartilage, which can in turn lead to osteoarthritis.

Hip Fracture

Some patients may sustain falls or injury during a motor vehicle collision, skiing or biking accident, or for other reasons. A fracture of the femoral neck may be pinned or screwed, but if it fails to heal from these minimally invasive procedures, a total hip replacement may be needed to eliminate pain and return the patient to his or her pre-injury lifestyle.

Benefits And Risks Of Total Hip Replacement With The Direct Anterior Approach (DAA)

Below are some of the ways in which patients may **benefit** from having total hip replacement surgery:

- Increased comfort and reduced joint pain
- Increased activity level, allowing patients to live a more normal daily life
- Increased walking distance and speed
- Reduced stiffness

Potential Advantages with DAA

Direct Anterior Approach involves making an incision in the front, top portion of the thigh, just below the groin line. Using this technique allows for splitting the thigh muscles without having to cut them, which leads to a quicker and less painful recovery. DAA is also associated with a lower risk of post-surgical dislocation and has quickly gained popularity over the past 15-20 years. Using a specialized x-ray machine during surgery allows your surgeon to make precise measurements, which leads to lower likelihood of leg discrepancy.

Total hip replacement operations are successful and long-lasting for more than 85-90 percent of patients. Nevertheless, joint replacement is major surgery and, like any such procedure, carries **risks and potential complications**. Your surgeon will discuss these factors with you at your initial consultation. Complications from total hip replacement include, but are not limited to, the following:

- Blood clots in the legs or lungs
- Infection
- Nerve injury
- Blood vessel injury
- Persistent or unrelieved pain

- Perceived or actual leg length discrepancy
- Blood loss during surgery that may require transfusion
- Dislocation of the hip
- Mechanical failure of the implant
- Metal ion release/toxicity requiring additional surgery
- Risks associated with anesthesia during surgery
- Organ failure
- Heart attack, stroke or death

Potential Disadvantages with DAA

Disadvantages of the DAA include an increased risk of femoral fracture, damage to the sensory nerve on the outside of the thigh and difficulties with wound healing. Drs. Yamamoto, Graw and Hartford have mastered this surgical technique, reducing the potential for fracture, although it might still occur in some patients. Fracture during or after surgery may require fixation of the fracture and delayed rehabilitation due to the requirement of bone healing. A sensory nerve responsible for feeling along the side of the thigh may get injured during this approach, which may lead to permanent numbness (without motor damage) along the side of the thigh. Wound healing can also be an issue, especially in obese patients who have a large abdominal flap overhanging the incision. Applying a special negative pressure suction dressing may be necessary in some cases.

Preoperative Care

Preoperative Examination

Prior to your total hip replacement, you will need to have a check-up from your primary care physician to determine if you are healthy enough for surgery. This is best done 30 days before your scheduled surgical date. The check-up will generally include a physical examination, heart and blood tests, X-rays and urine analysis. During the exam, you should inform your doctor about any medical or surgical problems, as well as provide a list of medications you are currently taking and any allergies to medications. You may see your own doctor, or we can recommend a primary care physician at PAMF. If you choose to see a non-PAMF doctor, **a copy of your evaluation must be faxed** to the surgeon's Orthopedic Department 1-2 weeks prior to surgery.

Preoperative Laboratory Testing

Within 30 days prior to surgery, you must have blood tests, an electrocardiogram and a urine analysis done (if you have urinary symptoms) either at any of the Palo Alto Medical Foundation clinics or through your non-PAMF primary care doctor. The blood tests include, but are not limited to, complete blood count, metabolic panel and clotting factors. If you choose to have a non-PAMF doctor perform these tests, **please fax the test results** to the surgeon's Orthopedic Department 1-2 weeks prior to surgery.

Physical Therapy and Home Health

Once you have scheduled your surgery, you will have a dedicated Nurse Navigator to assist with physical therapy and home health arrangements.

Dental Care and Total Hip Replacement

Proper dental hygiene is essential for good health. We may ask you to see a dentist before surgery to check for tooth or gum problems, as bacteria in your mouth can travel through the bloodstream and infect the replaced joint. The dentist will help identify any dental issues or tooth decay that may develop into a dental infection. This must be treated before total hip replacement surgery. After total hip replacement, you will need to take antibiotics before any dental work, including routine cleanings, for as long as your surgeon recommends. We suggest delaying any routine dental work for at least 3 months after total hip replacement.

Blood Transfusion

A very small number of patients who undergo total hip replacement require blood transfusion. For those who require a blood transfusion, they will be transferred to El Camino Hospital. If a transfusion is needed, you have the right to refuse it for religious or safety reasons.

Preoperative Total Joint Replacement Virtual Seminars

PAMF offers a virtual total joint replacement educational seminar hosted by one of the surgeons or Nurse Navigator. The seminar provides information on the upcoming joint replacement procedure and an opportunity for patients and significant others to ask questions. The seminars are informal and patient interaction is highly encouraged. For more information, including dates and times, call the surgeon's Orthopedic Department or the Nurse Navigator.

Preoperative Gait Training Class

Prior to surgery, it may be a good idea to attend PAMF's Preoperative Gait Training Class. The one-on-one session is taught by staff from PAMF's Physical Therapy Department. The session is designed to prepare you for physical therapy after surgery and to get you acquainted and comfortable with the equipment you will be using. The Physical Therapy Department work with you to make arrangements on appointments and class registration.

Medication

You may take your regular prescription medication up to the day of surgery. However, you should stop taking aspirin and anti-inflammatories, such as ibuprofen, naproxen or Celebrex, 1 week prior to surgery. If you are taking a blood thinner, such as warfarin, Eliquis or Xarelto, your surgical team will tell you when to stop taking this medication. Bridging with Lovenox injections may be necessary. Please check with your primary care physician and/or cardiologist. Vitamins and herbal medications should be discontinued 1 week prior to surgery. These include, but are not limited to, vitamin E, turmeric and fish oil, which have blood thinning properties. You may resume taking vitamins and herbal medications 6 weeks after surgery.

Diet

It is important to maintain a healthy, well-balanced diet prior to surgery. You may NOT eat solid food after midnight prior to surgery but may have regular meals until that time. You may drink clear liquids (water, Propel, Gatorade, tea or black coffee without cream or milk) up to 2 hours before ARRIVAL at the surgery center. You may be instructed to drink a carbohydrate drink, such as Clear Ensure, 2 hours before your arrival time. You may take your morning medications with a sip of water. Good nutrition before and after surgery is important. Because constipation is common following surgery, patients are advised to add extra fiber, such as bran, to their diet or to take an over-the-counter laxative like MiraLAX for 5 days prior to surgery.

Diabetes Care

It is important to keep your glucose levels under control both before and after surgery, which will help with wound healing and infection prevention. We strongly recommend hemoglobin A1C levels below 7.0. Please consult your primary care physician and/or endocrinologist for help with diabetes management.

Tobacco Use and Smoking Cessation

If you smoke cigarettes or use other tobacco products, it is imperative to stop these behaviors as soon as possible before surgery and to avoid resuming smoking after surgery. Tobacco not only can lead to mouth, throat and lung cancer, but to COPD, heart disease and wound healing issues, which can then lead to infection.

Preoperative Checklist

| MEDICAL CLEARANCE / PRE-OPERATIVE PREPARATION | TIME BEFORE SURGERY |
|--|----------------------------------|
| Will be contacted by Nurse Navigator | At the time surgery is confirmed |
| Begin Pre-op Gait Training Class with physical therapy | 4 - 6 weeks |
| Attend virtual Anterior Total Hip Replacement Seminar | 4 - 6 weeks |
| Visit Primary Care Provider and get medical clearance (if necessary) | at least 30 days |
| Electrocardiogram (EKG) completed | at least 30 days |
| Blood work completed | at least 30 days |
| Visit specialist(s) if necessary (discuss with PCP or surgeon) | at least 30 days |
| Dental exam completed and address any dental issues (if necessary) | at least 30 days |
| Confirm family or friend to drive you to and from surgery and to assist you when you go home | 30 days |
| Planning for post-op medications, durable medical equipment, DMV handicap parking placard | 2 weeks |
| Confirm post-op physical therapy and home health (if necessary) appointments | 2 weeks |
| Complete MRSA swab screening | 2 weeks |
| Complete pre-op assessment with physical therapy (virtual training, home assessment, post-surgical exercises) | 2 weeks |
| Prepare home for your return from surgery: help at home, clean linens, prepared meals available, evaluate home for fall hazards (remove loose carpets, throw rugs), shop for groceries, purchase equipment such as raised toilet seat, reacher, dressing supplies or hip kit, etc. | 2 weeks |
| Stop taking blood thinners | 7 days |
| Start taking prescribed laxative | 5 days |
| Stop shaving legs | 5 days |
| If diabetic, follow diabetic regimen instructions provided by surgeon | night before surgery |
| Do not take any blood pressure medications with names ending in "-pril" (i.e. lisinopril, captopril, benazepril) or names ending in "-sartan" (ie. Losartan, valsartan) | night before surgery |
| Wash body with chlorhexidine soap according to instructions | night before surgery |
| Put on clean pajamas | night before surgery |
| Put clean sheets on your bed (no pets on bed) | night before surgery |
| No food, gum, mints after midnight | night before surgery |
| Carbohydrate Drink (Clear Ensure) | 2 hours before ARRIVAL time |
| STOP drinking all liquids | 2 hours before ARRIVAL time |
| Wash body with chlorhexidine soap according to instructions | morning of surgery |
| Do not use make-up, hair products, nail polish, moisturizer, contact lenses, jewelry, valuables | morning of surgery |

Day Of Surgery

Preoperative Area

After you have checked in at front desk, you will be called in by the admitting nurse and escorted to your preoperative room. Your personal belongings, such as glasses or dentures, will be collected for safekeeping during surgery. Your admitting nurse will be asking you questions as part of the admission process. In an effort to prevent post-operative infections, you will be given an oral rinse and nasal swab. In addition, any hair near the surgical site will be clipped away and your body from the chin down will be cleaned with antimicrobial wipes (chlorhexidine). During this time, you will be visited by your surgeon, the anesthesiologist and your operating room nurse. Your surgical site will be confirmed and marked by your surgeon. The anesthesiologist will discuss your options of receiving a spinal (regional) block and/or general (total) anesthesia. Lastly, you will have an IV inserted before leaving the preoperative room.

During Surgery

Because infection of the joint replacement site can cause serious complications, special precautions are taken to ensure the operating room is sterile. You will receive antibiotics to prevent infection. The surgical team will wear special suits to prevent the spread of bacteria from their bodies. Your surgery will take about 2-3 hours, including time for anesthesia. Following your procedure, you will be transported to the post anesthesia care unit to recover from your surgery.

Anesthesia

About Anesthesia

PAMF board-certified anesthesiologists provide care for patients having procedures at the Division of Ambulatory Surgery. Prior to your surgery, your anesthesiologist will discuss your specific medical conditions and help determine the appropriate anesthetic care. If you have any history of complications or nausea with anesthesia, please inform your anesthesiologist and Nurse Navigator.

About Spinal Anesthesia

Your anesthesiologist will discuss your options for anesthesia depending on your health needs and other concerns. Spinal anesthesia is recommended during total hip replacement to diminish pain, lessen blood loss, and limit the amount of general anesthetic required during surgery. A spinal anesthetic will be accompanied by sedation such that you do not have memory of the operation. If an adequate spinal anesthetic cannot be achieved, you will have a general anesthetic.

Spinal anesthesia is administered in the operating room prior to surgery. You will be asked to either sit or lie in a position that best exposes the curve in your lower back. After cleaning your skin with an antiseptic, a small amount of local anesthetic is injected into the skin. Your anesthesiologist will then insert a spinal needle through the numb skin until it reaches the column of fluid surrounding the spinal cord, where the anesthetic will be injected. The medication acts on the spinal cord nerves to decrease or stop pain and prevent leg movement during surgery.

After the injection of the anesthetic into the spinal cord, your legs may feel warm and heavy, and you may have difficulty with movement.

Advantages and Disadvantages of Spinal Anesthesia

There are several advantages in using spinal anesthesia for total hip replacement surgery, including postoperative pain relief, especially in the first 12-24 hours after surgery; decreased blood loss during surgery; and decreased risk of deep vein thrombosis (blood clots) following surgery. However, your anesthesiologist may not use spinal anesthesia in some circumstances, including cases in which health concerns make spinal anesthesia unsafe. Talk to your surgeon and anesthesiologist about the best anesthesia option for you.

About General Anesthesia

General anesthesia is used to put a patient in a state of deep sleep during surgery, instead of, or in addition to, spinal anesthesia. An endotracheal tube is inserted – sometimes using camera assistance – and a breathing machine (ventilator) is used to help the patient breathe.

Postoperative Care

Postoperative Recovery

As total hip replacement has become a routine surgical procedure with reliable and predictable results, the stay after surgery has become well-defined. While recovery time varies from patient to patient depending on his or her individual circumstances, the basic process remains the same.

Immediately after your surgery, you will be transferred to the post anesthesia care unit (PACU). During this time, your vital signs, such as oxygen saturation, respirations and heart rate, will be closely monitored. Your doctor will work with you to provide the best pain medication. Once your vital signs have remained stable, you will be transported to your private recovery room. Due to privacy concerns and to ensure your recovery is safe, we ask that family members refrain from visiting the post anesthesia care unit.

Physical Therapy

Typically, you may begin working with a physical therapist 90 minutes after arrival in recovery. The physical therapist will make their initial assessments of your condition and begin rehabilitation protocols. This will include walking with the walker, various exercises and going up and down the stairs.

Discharge Home

Your surgeon may ask to have your labs checked. This will be done before you are discharged home. It is important to know that you will need a responsible adult to drive you home. These arrangements should be made a few weeks prior to surgery.

When you are sent home, your surgeon will have you take a form of blood thinner medication. If your surgeon prescribes an injectable blood thinning medication, you will receive instructions on how to self-administer the medication for 8-20 days following your surgery, The Nurse Navigator will coordinate

home physical therapy, as well as home nurse visits, if necessary. Your initial physical therapy appointment may occur virtually. You may continue with virtual or in-person or combination appointments depending on your safety and needs. You also will be provided with any necessary medication prescriptions.

Diet

After surgery, many patients find they are not quite ready to eat a full meal. Your doctor may put you on a clear liquid diet to prevent nausea. Once you are able to tolerate clear liquids, your doctor will put you on a regular diet.

Medication

You may begin taking your regular medications following surgery unless otherwise directed by your surgeon. Your surgeon may choose to delay certain medications that are not essential in the postoperative period, such as blood pressure medications, if your blood pressure is low. You will also be prescribed opioid pain medication, anti-inflammatory medication, blood thinners and stool softeners. Some patients may be prescribed a short course of antibiotics as a precaution after their hip replacement.

Pain

Following surgery, you should expect to experience some discomfort and pain, despite taking a number of different pain medications. The goal of these medications is to decrease the amount of pain, not to take all the pain away.

Pain Medication After Surgery

Most patients will be discharged from the surgery center with different types of pain medications, including opioid medications like Oxycodone, Oxycontin, Norco and/or Tramadol. Very important: If refills are needed, please call at least 2 days before you run out so we can send refill prescriptions electronically to your pharmacy. No refills are made over weekends or holidays.

Deep Vein Thrombosis (DVT) and Pulmonary Embolus (PE)

The risk of complications from total hip replacement is very low. However, deep vein thrombosis, a blood clot that begins in the veins of your legs or pelvis during or after surgery, remains an infrequent complication for approximately 1 to 3 percent of individuals who have had total hip replacement surgery.

When a blood clot develops in the veins, the condition is called deep vein thrombosis. When the blood clot in the leg breaks off and travels to the lungs, the condition is called pulmonary embolus. Blood clots may occur because of tissue trauma and compression of veins in the leg during surgery. In addition, the period of inactivity that follows the surgery may put patients at risk for developing a blood clot.

Symptoms of a blood clot in the leg include calf pain, leg swelling, tenderness, warmth and fever. The symptoms of a pulmonary embolus include chest discomfort or pain, shortness of breath, rapid breathing, coughing or fainting. However, many patients who develop these conditions may not experience any symptoms.

Because of these conditions, all patients are given either an oral or injectable anticoagulant (blood thinning) medication after surgery. Your doctor may keep you on the anticoagulant for 8-20 days, depending on your specific medical history. Other preventive measures also will be taken, including early mobilization of the legs, elastic compression stockings and a sequential compression device to help reduce the risk of deep vein thrombosis.

Some individuals are more likely than others to develop blood clots. Some risk factors include smoking, cancer, congestive heart failure, obesity, previous deep vein thrombosis or family history of DVT/PE or taking oral contraceptives or hormone replacement

therapy. Patients who have had a previous stroke, prolonged inactivity, a history of trauma or previous pelvic surgery are also at greater risk for developing deep vein thrombosis. Please tell your surgical team if you have any of these risk factors!

After surgery, patients should avoid long periods of inactivity, including long car rides or airplane flights. If long travel is unavoidable, you may be prescribed a short course of Lovenox (injectable blood thinner) for your flight. Patients should get out of their seats every hour to walk around and move their legs. Ankle pump exercises are also helpful while sitting for extended periods. Patients should drink plenty of water and avoid alcohol. If you develop symptoms, please seek immediate medical attention.

Heparin-Induced Thrombocytopenia

In rare cases, a patient may develop heparin-induced thrombocytopenia (HIT), which is a life-threatening medical emergency. Some signs include new or suddenly worsening leg swelling (from a blood clot), chest pain or shortness of breath (from a pulmonary embolus) and/or large red skin welts or black scabs (skin necrosis) at the heparin injection site. Immediately stop using injectable blood thinner and call 911 to be taken to a hospital.

Nausea

You may experience nausea from the anesthesia or from pain medication you take following surgery. Notify your care provider if you experience nausea with vomiting. A clear liquid diet or anti-nausea medication may offer relief.

Constipation After Surgery

Taking opioid pain medication can lead to constipation. You will be discharged with different stool softeners, but you might still become constipated. Please make sure to drink enough water, eat fiber rich foods and avoid caffeine and alcohol. We encourage you to walk frequently. We recommend docusate (Colace), MiraLAX, Milk of Magnesia and/or Dulcolax suppositories, all of which can be purchased over the counter at most drug stores. Please call us if you are still constipated after trying these medications, and if you are experiencing bloating, nausea or vomiting. These symptoms could require a visit to the emergency department or hospitalization.

Swelling After Surgery

Some swelling in the surgical extremity is normal after surgery. Most patients notice leg swelling when they arrive home from the hospital. If approved by your surgeon, remember to elevate your operated leg above the heart and place ice on your hip/thigh when swelling is present. Make sure that your leg is secure and does not bend more than 90 degrees at the waist. You may continue to use the compression stockings given to you at the hospital or you can buy different ones at a local drug store or online. If you notice increased redness, warmth or worsening pain with weight bearing, please call the office.

Leg Lengths After Surgery

Some patients may feel that their operated leg is longer after hip replacement surgery, especially if a major deformity was corrected. This feeling is normal, and your body may take several months to adjust.

Immediate Help

Use call button for the nurse immediately if you experience any of the following symptoms during your stay: difficulty breathing or shortness of breath, chest pain/heart palpitations, sudden numbness or lightheadedness, dislocation or fracture of the joint – severe leg pain, fainting, loss of consciousness or any falls. If you experience any of these symptoms while recovering at home, immediately dial 911.

Hip Precautions

Although your new artificial hip should feel and act like a normal hip after rehabilitation, it is still a prosthesis and may dislocate if placed in an awkward position. Hip dislocation is very painful and requires immediate medical attention at a hospital. To prevent hip dislocation, you must follow certain precautions when moving your hip.

Anterior hip precautions for the first 6 weeks after surgery

- No bending forward at the waist beyond a 90-degree angle or bringing your knees to your chest.
- No external rotation of lower extremity beyond a 30-degree angle.
- No abduction or moving your lower extremity away from midline.
- No hyperextension of lower extremity.
- No sleeping on the operated side.

Physical Therapy

Physical therapy is vital for a successful recovery from joint replacement surgery. Your physical therapy will begin at the surgery center after your surgery and will continue on an outpatient basis only if necessary. Recovery time depends on the complexity of the surgery and the physical condition of the patient. Most patients attain recovery within 8-12 weeks.

Movements

When you return home after surgery, you should return to your normal activities, such as bathing, using the bathroom and preparing meals. At first, limit your activities and slowly progress as you feel comfortable. You may find you need to schedule several rest periods during the day, which is normal. Rest, ice and elevate the leg during these breaks. The duration of walker/crutch use is variable and may vary from a few days to a few weeks. Please consult with your surgeon/physical therapist postoperatively to determine the best time to transition away from use of assistive devices.

If approved by your surgeon, keep your operated leg elevated above the heart for 20 minutes at least 4 times a day to help reduce your swelling. Make sure that your leg is secure and does not bend more than 90 degrees at the waist. Swelling and worsening pain may be an indication of a deep vein thrombosis. If you have been wearing compression stockings after the surgery, you may stop wearing them when the swelling in the leg subsides.

Exercise

Exercise is important for your general physical and mental health. The purpose of the total hip replacement is to return you to an active and healthy lifestyle. Since the hip replacement is mechanical, it is subject to wear and deterioration over time. In this regard, exercise should be vigorous, but not strenuous. In addition, you should permanently avoid high-impact sports, such as full-court basketball, running or jumping. Walking, hiking, biking, swimming, doubles tennis, cross-country skiing and golf are safe activities.

Home And Personal Safety

Guidelines for general safety and avoiding falls

- Remove throw rugs to prevent tripping.
- Remove or tape down long telephone, electrical or extension cords to prevent tripping.
- Clear all walkways to allow for easy access for your walker (26-30 inches wide), cane or crutches.
- Exercise caution around bedspreads to prevent tripping.
- Exercise caution around water, clothing or objects spilled or dropped on the floor.
- Make sure all walkways, especially the pathway to the bathroom at night, are well lit.
- Place commonly used items within easy reach to prevent over-reaching or bending.
- Do not stand on a stool or step ladder.
- Be cautious when walking on uneven terrain, such as sidewalks, asphalt, grass or dirt areas.
- Place an end table next to an armchair to store your glasses, medications, books, etc.
- Keep a pitcher of water and a glass at your bedside table.
- Sit in a sturdy chair with armrests. Avoid low couches and chairs, or chairs on wheels.
- Place the telephone within close reach for easy access. Cordless phones are useful.
- Exercise caution around animals.

Guidelines for kitchen safety

- Use a cart on wheels to transport items in the kitchen and around the house.
- Sit on a high stool at the counter when cooking.
- Reorganize your kitchen so you have easy access to items you use regularly. Place items within easy reach, such as on low shelves or countertops.
- Attach a bag or basket to your walker to carry items. Or use a knapsack, an apron or a housecoat with pockets to carry lightweight items.
- When shopping, purchase smaller items that will be easy to carry.
- Carry plates of food or drinks in closed containers such as Tupperware or a small thermos. Place these containers in a bag or basket on your walker.
- Move your table close to the counter, sit at the counter or use a pull-out cutting board when eating meals.
- Put bowls and pots and pans on a dish towel and slide them across the counter instead of carrying them.
- Do not get down on your knees to scrub the floors.

Guidelines for bathroom safety

- Place non-slip strips or a rubber mat on the floor of your bathtub or shower to prevent slipping.
- Place shampoo, washcloths or other items within easy reach. A shower caddy may be helpful to organize these items.
- Use a hand-held shower hose, shower seat or tub transfer bench, if recommended.
- Have grab bars installed in your shower or by the toilet to increase safety, if recommended.
- Use liquid soap or soap on a rope. Have two bars of soap available in case one is dropped.
- Use a raised toilet seat with grab bars to increase your safety and independence.
- Do not get down on your knees to scrub the bathtub. Use a long-handled brush or mop.

Guidelines for clothing and footwear

- Bathrobes and gowns should not be longer than ankle length.
- Do not wear pants that are too long.
- Shoes and slippers should go around the heel and have non-slip soles.
- Slip-on shoes are easier than shoes with ties.
- Do not walk around the house in stockings; wear shoes or slippers to prevent falls.

During postoperative daily life, DO:

- Use a reacher.
- Scoot to the edge of a chair and use the arms of a chair to get up.
- Put a pillow between your legs while sleeping on your non-operated side, after being cleared to do so by your surgeon.

During postoperative daily life, DO NOT:

- Sleep on your operated side until cleared to do so by your surgeon.
- Drive until your surgeon tells you it is OK to do so.
- Take more than the prescribed amount of pain medication. Please call your surgeon's office if your pain is not being adequately managed.
- Bathe, swim or use a hot tub until your surgeon tells you it is OK to do so.

Consider buying the following items before your surgery:

- Hip kit (reacher, leg lifter, long handled shoehorn, sock/stocking aid).
- Walker (generally provided by the hospital).
- Shower chair/bench.
- Elevated toilet seat.

Follow-Up Visits

Within 10-14 days of discharge from the surgery center, your wound needs to be inspected and any stitches removed. Follow-up visits within the first year following surgery should be at 6 weeks, 3 months, 6 months, 1 and 2 years. It will then be every 3 to 5 years after. Annual or biannual visits, along with X-rays, are important to monitor the wear of the artificial joint. Early intervention will prevent serious damage to the hip replacement. If you start to develop pain at any point, please call the Orthopedic Department to see your surgeon immediately.

Wound Care

Keep your surgical incision covered, clean and dry until seen in the office by your surgeon or one of their assistants. Contact us immediately if you have any of the following symptoms: bleeding, drainage, redness or foul smells from the wound or a fever of 101.5 or greater.

Make sure to keep the wound clean and dry. Change the dressing as needed, using a sterile bandage until the wound is healed. The steri-strips may begin to peel 7-14 days after surgery. Always wash your hands before and after touching your incision.

Once they begin to curl up, you may either trim or remove them. Expect occasional spotting or blood on the wound for at least 2 weeks.

It is essential that the healing wound is kept dry during showering. For the first 10-14 days, cover the wound with a waterproof bandage or plastic wrap to keep it dry, and do not take a bath until you have your surgeon's approval.

What to Expect

In the days following your surgery, expect the unexpected. It may be normal to experience pain, spotting of the incision, pustule (a pus-filled blister) in the incision and/or a stitch appearing from the incision. Clicking and other mechanical noises may also be heard. Please let us know if you have any concerns.

Returning to Work

Patients' ability to return to work depends primarily on two factors: the job to which they are returning and their physical rehabilitation. Patients with sedentary jobs may return to work 4-6 weeks following surgery. For those with a more physically demanding job, patients may require 3-4 months of rehabilitation before they are ready to return to work.

About our Facilities

Palo Alto Medical Foundation

The Division of Ambulatory Surgery is a department within Palo Alto Medical Foundation. Each campus houses doctors in many primary care and specialty areas, as well laboratory and radiology departments, urgent care centers and outpatient surgery centers. The Mountain View location also houses a full-service pharmacy and our Community Health Resource Center, where patients can get educational materials about different medical conditions. With all these services in one place, we can easily provide patients with other medical care they may require as part of the joint replacement process.

**Office hours are 8 a.m. to 5:30 p.m.,
Monday through Friday.**

Contact Information

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Surgery Center Mountain View

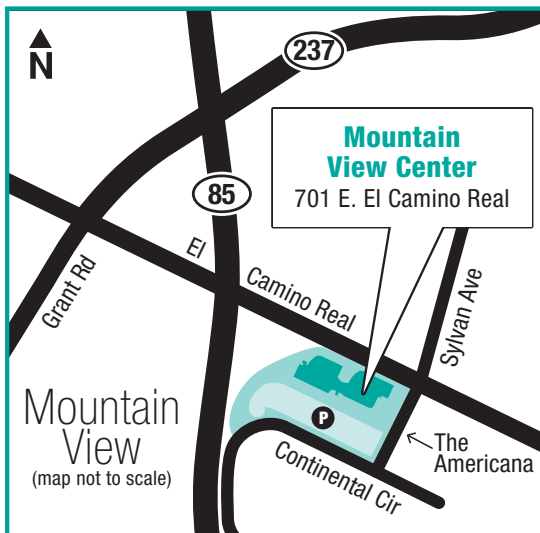
About Surgery Center Mountain View

At PAMF Surgery Center Mountain View, we pride ourselves in being industry leaders in every aspect of the care we deliver. The Surgery Center is accredited by the Accreditation Association for Ambulatory Health Care (AAAHC), demonstrating adherence to the highest standards of quality care. Our physicians, anesthesiologists, nurses and support staff are experts in their fields and dedicated to providing patients with excellent and compassionate care. Our facility offers state-of-the-art services, including the most sophisticated medical equipment.

Directions and Parking

Surgery Center Mountain View is located at 701 E. El Camino Real, Mountain View, on the corner of El Camino Real and Highway 85.

Parking is available in the spacious garage structure free of charge. Park in the lower level so that you will be on the same level as the Surgery Center.



Surgery Center Mountain View Contact Information

Telephone: 650-404-8444

Website: sutterhealth.org/mvsurgery

From 101 North or South

- Take the exit for CA-85 S towards Cupertino/Santa Cruz
- Continue on CA-85 S
- Merge onto CA-82 S/El Camino Real towards Mountain View
- Turn right onto The Americana
- Turn right onto Continental Circle
- The opening to the lower level of the parking garage will be to your right
- Park towards the left side of the garage for closer access to the Surgery Center entrance

From 280 North or South

- Take the exit for CA-85 N towards Mountain View
- Continue on CA-85 N
- Merge onto CA-82 S/El Camino Real towards Mountain View
- Turn right onto The Americana
- Turn right onto Continental Circle
- The opening to the lower level of the parking garage will be to your right Park towards the left side of the garage for closer access to the Surgery Center entrance

El Camino Real North or South

- Turn onto The Americana (turn left if heading N on El Camino Real / turn right if heading S on El Camino Real)
- Turn right onto Continental Circle
- The opening to the lower level of the parking garage will be to your right Park towards the left side of the garage for closer access to the Surgery Center entrance

Frequently Asked Questions

What is an artificial hip joint?

An artificial hip replaces your native deteriorated hip. In a hip replacement, the deteriorated portions of the femoral head (ball portion of thigh bone) and pelvic acetabulum (hip socket) are removed. A metal semilunar cup is positioned into the pelvis and is secured with 1-3 screws. A highly cross-linked polyethylene liner is securely inserted into the metal cup. A spike-like metal component (usually made of titanium) is anchored in the femoral canal and capped with a ceramic ball, which articulates with the acetabular polyethylene liner. Joint replacement procedures are generally performed to address persistent pain that is not alleviated by non-surgical methods, such as pain medication, injections, braces and/or physical therapy.

How do I know if it's the right time to have total hip replacement surgery?

It is a personal decision to have total hip replacement. However, if you are unable to perform daily activities due to pain or decreased mobility, it may be a good time to consider total hip replacement surgery. Most patients decide on joint replacement when they are unable to perform normal activities of daily life without pain or limitation.

Can I wait to have total hip replacement? If I wait, will I be unable to have the surgery at a later date?

You can wait to have total hip replacement until a later date and waiting typically will not impact your ability to have the surgery in the future. However, you do not want to wait so long that you become cardiovascularly unfit for surgery, or if you have a hip fracture or avascular necrosis.

Am I too old to have replacement surgery? Age is not a factor in hip replacement surgery, although being in good health is important.

The purpose of the surgery is to relieve pain and return you to an active, normal life. If you are suffering from pain that decreases your quality of life and it is determined that the joint replacement can be safely performed, then you are a candidate for the surgery.

Should I have physical therapy before surgery?

Physical therapy is encouraged – and often required by insurance companies – before joint replacement surgery, and many patients find it helpful. You may begin home hip exercises or consult a local physical therapist.

What are some of the risks of total hip replacement surgery?

Risk of infection and blood clots seen in patients are less than 1%. Blood thinners are used after surgery to reduce the risk of blood clots and antibiotics are given to prevent infection. Risks for heart attack, stroke or dying are even less common with 0.3% occurring in patients. These are very rare.

What type of prosthesis is right for me?

The best person to make this decision is your surgeon. Most orthopedic surgeons prefer a titanium, non-cemented hip replacement with a highly cross-linked polyethylene spacer between the metal and ceramic components. Other implant varieties do exist and may be chosen based on your specific needs.

Do I have to modify my movement? Can I perform daily activities, such as dressing myself?

There are several specific movements and positions that all patients after a hip replacement surgery should avoid for at least 6 weeks. Please refer to our Hip Precautions section on page 17.

How long will my joint replacement last?

Your hip replacement is expected to last between 15 and 20 years. For younger and heavier patients, this time may be reduced due to increased activity and demand. We are unable to guarantee the longevity of the replacement but are optimistic that today's components will last up to 20 years.

Why do hip replacements fail?

The primary reason for loosening of the hip replacement is a process called osteolysis. Wear on the bearing surfaces, primarily the plastic, creates particles. In an attempt to remove the particles, the body tries to digest them. In doing so, it loosens the bond between the implant and the bone. A hip replacement may also fail when the plastic spacer between the metal and ceramic components wears out. This is a gradual process that may occur over decades. The worst-case scenario of why hip replacements fail is an infection.

How long will the operation take?

The actual hip replacement operation will last from 60-90 minutes. The length of the surgery will depend on the complexity of the individual case, as well as the size of the patient. Larger patients require longer surgical time. The time spent in the operating room is usually 2-3 hours, which includes anesthesia, positioning, draping, surgery, placing bandages, waking the patient and transporting the patient to the recovery room.

How long will I be in the surgery center?

This will be discussed with your surgeon. Some patients will stay overnight, and some may be discharged the day of surgery. Your discharge from the surgery center depends on your ability to eat, control your pain with oral pain medication and make progress with physical therapy.

Where will I go after I am discharged from the surgery center? What if I live alone?

Most patients are discharged home, but some may go to rehabilitation facilities, called skilled nursing facilities, after being discharged from the hospital, if medically necessary. Where you will go for recuperation depends on your age and physical and medical condition. If you live alone, it is important to prepare your home for your return before you leave for the hospital and make transportation arrangements.

Will I need help at home?

If you are discharged home after surgery, you may require some help for the first few days with meal preparation and daily activities, such as getting in and out of a chair. You should prepare your home for your return before you leave for the hospital, including cleaning the house, doing any necessary chores, washing laundry, etc. You may seek the help of a home health agency, and your physical and occupational therapists will come to your home up to 3 times per week for the first couple of weeks following surgery.

When will I walk again, and do I have to use assistance devices such as a walker or cane?

You will begin walking again immediately following your surgery, according to your physical therapy plan. You should expect to use a walker or cane for the first 2-4 weeks.

When can I drive and travel?

Most patients will start driving at around 4-6 weeks postoperatively with some patients starting earlier or later. Please consult your surgeon regarding the appropriate timing to return to driving.

Most surgeons recommend resuming transcontinental flights at 3 months postoperatively for most non-essential trips. However, there may be exceptions depending on the urgency of the trip. Please consult your surgeon for details.

When can I play golf?

You may play golf 3 months after your surgery.

When can I swim or submerge the wound under water (bathing, hot tubbing, etc.)?

Please do not soak the wound until a solid scar has formed and all of the scabs or stitch openings have healed completely. This usually takes 4-6 weeks. If you have any doubts, please contact us.

When am I allowed to resume having sexual intercourse?

You may resume intercourse 6 weeks after surgery.

Do I need to purchase any special equipment for my home, such as handrails, an elevated toilet seat or shower seat?

Your physical therapist may order an elevated toilet seat and any other adaptive equipment you may need prior to your discharge from the hospital.

Are there any exercises I can perform on my own to gain strength and mobility?

In general, walking and common exercises like biking/spinning, swimming and elliptical all help to build strength. Your physical therapist will prescribe exercises you can perform at home to gain strength and mobility. Being fit and strong before the surgery will help make your recovery easier and faster.

How do I know if there is a problem with my hip replacement?

If you experience worsening pain or swelling, new weakness or instability, fevers, chills, sweats or general weakness/malaise, please contact us immediately. Otherwise, we recommend routine follow-up with your surgeon every 3 years after your hip replacement.

Why does my hip make a sound when I move?

Your hip is a mechanical device and may make a clicking sound or other noises from time to time.

Do I need to continue taking my pain medications?

Your doctor will begin reducing your pain medications 2-6 weeks following surgery. You may still require pain medication during physical therapy. It is important to have good pain control during therapy to make sure you get the most out of the rehabilitative exercises.

For how long should I take prophylactic antibiotics when I go to my dentist?

Your surgeon will give you specific recommendations regarding the duration and type of antibiotic they recommend you take. We also can prescribe the antibiotic if your dentist does not have any available.

PAMF Contact Information

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701 E. El Camino Real
Mountain View, CA 94040
Main Phone: 650-934-7000

Department of Orthopedics (Mountain View)

Phone: 650-934-7111
Fax: 650-934-7120
Hours: Monday to Friday, 8 a.m. to 5 p.m.

Palo Alto Center

795 El Camino Real, Lee Building, Third Floor
Palo Alto, CA 94301
Main Phone: 650-321-4121

Department of Orthopedics (Palo Alto)

Phone: 650-853-2951
Fax: 650-853-6088
Hours: Monday to Friday, 8 a.m. to 5 p.m.

Laboratory Services

Mountain View Center

Phone: 650-934-7333
Hours: Monday to Friday, 6:30 a.m. to 6:30 p.m.
Saturdays and Sundays, 7 a.m. to 4 p.m.

Palo Alto Center

Phone: 650-853-2948
Hours: Monday to Friday, 6:30 a.m. to 5 p.m.
Saturdays, 8 a.m. to 12:30 p.m.

Fremont Center

Phone: 510-498-2813
Hours: Monday to Friday, 7 a.m. to 6 p.m.
Saturdays, 8 a.m. to 5 p.m.

Physical Therapy

Phone: 408-523-3060

Pharmacy – Camino Pharmacy

Phone: 650-967-3340
Hours: Monday to Friday, 10 a.m. to 6 p.m.

Radiology Department

Mountain View Center

Main Phone: 650-934-7700
Hours: Monday to Friday, 8 a.m. to 6 p.m.
Saturday to Sunday, By Appointment Only

Palo Alto Center

Main Phone: 650-853-2955
MRI Phone: 650-853-2956
Hours: Monday to Friday, 7:30 a.m. to 6 p.m.

Fremont Center

Main Phone: 510-498-2770
Hours: Monday to Friday, 8 a.m. to 5 p.m.

Community Health Resource Center

Mountain View Center

Phone: 650-934-7380
Hours: Monday to Friday, 9 a.m. to 4:30 p.m.

Palo Alto Center

Phone: 650-614-3200
Hours: Monday to Friday, 9 a.m. to 4:30 p.m.
Individual appointments are available

Fremont Center

Phone: 510-623-2231
Hours: Monday to Friday, 9 a.m. to 4:30 p.m.
Individual appointments are available

Clinical Services

Phone: 650-853-2026
Fax: 650-853-4887
Hours: Monday to Friday, 8 a.m. to 5:00 p.m.

Medical Records

Phone: 650-853-2963

Sutter Health Billing Information

Phone: 650-812-3838

