4. Your Surgery and Hospital Stay

Arriving for Surgery

On the day of surgery please arrive at the front desk of Surgery Intake **2 hours** before your scheduled surgery time.

Alta Bates Campus
2450 Ashby Ave, Berkeley
Refer to maps
(1st Floor Surgical Services)

Summit Campus
350 Hawthorne Ave, Oakland
(3rd Floor East, Merritt Pavilion Surgery Intake)

Your Orthopedic Healthcare Team:

Your hospital care involves a number of specialists, each with a unique role in your recovery process. All will work together to ensure safety and provide "The Very Best Care".

Nursing
The pre-operative, operating room (OR) and floor nurses will provide valuable education and care for you during your stay in the hospital. They will monitor blood tests, give you your medication and support you as you begin your recovery. They will teach you and your family how to care for your incision, apply dressings, and care for yourself as you recover from surgery. Your nurse will be checking pulses, sensation and functioning of the operative extremity. They will be monitoring your progress and assuring that you are prepared for discharge.

Surgeon and Assistant Staff
The orthopedic surgical staff will check on you daily at the hospital, watching your overall progress. Your surgeon will discharge you from the hospital when he/she feels you are ready and safe to go, typically 2 to 3 days.

Anesthesia
Anesthesia services will be provided by East Bay Anesthesia Medical Group and you will be billed separately for these services. Questions related to services provided, options and billing may be directed to:

East Bay Anesthesia Medical Group
3000 Colby St., Suite 205
Berkeley, CA 94705
(510) 666-0854 phone
(510) 666-1192 fax
ebaymg.com

Physical Therapist (PT)
The physical therapist will work with you in the hospital to strengthen your body for optimal success of your new joint. You will learn range-of-motion exercises and any precautions as directed by your surgeon. They will instruct you in the use of adaptive equipment and reinforce safety precautions for you to follow at home.

Occupational Therapist (OT)
The occupational therapist will teach you how to do your day to day activities, including how to dress, while you are recovering from surgery. They will instruct you in the use of adaptive equipment, and make sure you know how to use it properly and also reinforce safety precautions.

Case Manager/Social Worker
A case manager or social worker is in charge of overseeing your hospital stay and helping plan for your discharge needs and destination. They will ensure that you receive the necessary equipment and home health care services ordered by the physician and authorized by your insurance carrier.

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Surgery
Approximately 2 hours before your surgery, you will be taken to the Surgery Intake area or Pre-Operative Holding. A friend or family member may be able to remain with you until you proceed to the OR.

You will be asked many questions and some questions more than once. This is our system of checks to make sure that we have all the information we need to provide you with the very best care and to keep you safe.

An IV, (a small tube in your arm for delivering fluids) will be started before you go to the operating room. An anesthesiologist will greet you and explain anesthesia options available. He/she and a nurse will accompany you. Your family may wait in the surgical waiting room or the Family Resource Center. There the surgeon will explain what transpired in surgery and let them know how you are doing. The OR nurse will also keep family updated during the surgery.

After Surgery
After your procedure, you will be taken to the recovery room or Post Anesthesia Care Unit (PACU). You will have an IV in your arm, and a dressing with ice pack or machine on the surgical wound. You may have a urinary catheter or wound drain.

TED (support) hose and/or sequential compression devices (SCDs) will be on your legs. The SCDs intermittently fill with air and gently squeeze your legs to prevent blood from pooling in your legs and potentially causing clots. During your stay in the recovery room, you will be closely observed and monitored. The nurse will check your blood pressure, pulse and respirations frequently.

While in the recovery room, you will be encouraged to take deep breaths. You will receive oxygen to keep your blood oxygen level up while you wake up. You may feel very relaxed or slightly groggy immediately following your procedure. If you have any discomfort, ask your nurse for assistance. Medication is available to help reduce any pain or discomfort you may experience after surgery. Nurses will ask you to move your ankles, take deep breaths and cough to clear your lungs.

Following regional anesthesia, which may include spinals, epidurals or blocks, you will feel numbness and tingling in your operative leg. You may not be able to move your affected leg for a short time. During that time, you will be monitored and measures will be taken to ensure you are comfortable and safe.

The Orthopedic Floor
You may stay 2 to 3 days on the orthopedic specialty unit. This is where you will be recovering from surgery. You will have an IV at first but you will quickly progress to eating and drinking and it will be removed. Staff will help you sit, get out of bed, learn to dress, and walk. You should request pain medication frequently enough to be sure that you can participate well in therapy and accomplish these activities with reasonable comfort.

Pain Management

Pain control is very important to maximize your ability to participate in therapy and perform your daily activities following your surgery. Some pain after surgery is quite common and can be controlled. Various forms of pain management can be administered in pill form, by injection, or through your IV.

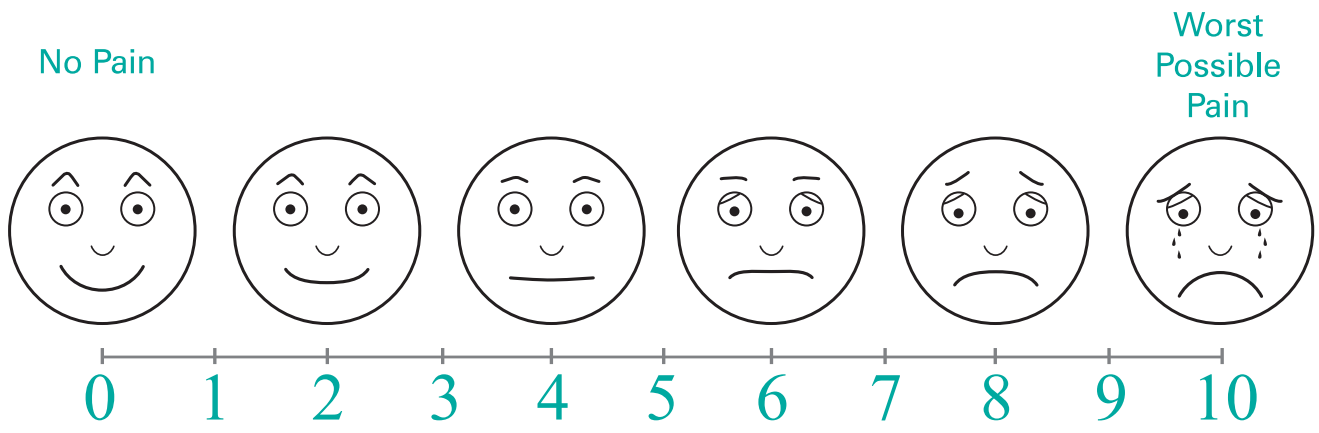
Your nurses will continue to ask you to rate your pain using the scale below. It is important to tell your nurse or a member of your care team if your pain is worsening. Rate your pain with 0 being no pain and 10 as the worst pain. This will help you and your care team know if your medication is working and how it is managing your pain most effectively.

It is very important to stay ahead of pain and take medication proactively or before pain becomes severe.

During Your Hospitalization, You Can Help By:

- Discussing your pain control options with your healthcare provider.
- Letting your healthcare providers know as soon as you begin having pain.
- **Taking your pain medication at regular times.** Most pain medication taken by mouth needs at least 20 to 30 minutes to take effect.
- Rating your pain using the 1 to 10 pain scale. A 0 on the scale means no pain, and a 10 on the scale means the worst pain you can imagine.
- Reporting your pain as a number helps the doctors and nurses know how well your treatment is working and whether or not to make any changes.

Pain Scale



Types of Pain Management:

- A PCA (patient controlled analgesia) is a form of pain control delivered through your IV via a monitoring device. You are able to push a button to deliver a specified dose of medication that will work quickly. Usually pain relief is experienced within minutes. The PCA is programmed according to your physician's orders. It will only allow the dose prescribed at a preset rate. The nursing staff will be monitoring you frequently for the effectiveness of the medication.
- A pain pump may be inserted at or near the surgical site during surgery by the surgeon. A small dose is trickled to the surgical site and the patient can press a button to receive a dose at set intervals. Typically this pump can be used for 1 to 2 days post operatively.
- A nerve block may be used. The anesthesiologists will discuss options and help you determine what is best for you. The anesthesiologist administers the nerve block prior to surgery. It can last from 12 to 18 hours post-operatively when used as a single injection. When used as a continuous block it can be effective for approximately 2 days. Some persons experience a mild burning type sensation in the extremity as it wears off.

  Please be sure you ask for assistance by nursing or therapy when you need to get out of bed. Your leg will NOT function normally and will not support you. Often persons feel pain at the back of their knee. The pathway of the block does not cover this area. Please let your nurse know if you experience pain.

- Intra-articular joint injections may also be used. They are injected into the joint capsule prior to implantation of the new joint. They often provide pain relief for 12 or more hours. If you receive an intra-articular injection, your leg will feel as though it was "asleep." This method is often used on at least one extremity when both knee joints are done simultaneously.
- Oral medication is prescribed by your physician and will also be administered by the nursing staff. Anticipate taking oral medications 30 to 60 minutes before therapy sessions to get the best pain relief and to fully participate in each therapy session.
- Non-medicine methods of pain control are also very effective. These methods include; deep breathing exercises, guided imagery, ice or heat, repositioning, relaxation techniques, acupuncture or acupressure, meditation, music, massage, or diversional activities such as reading or watching a favorite movie. Please consider trying some of these methods before coming to the hospital.

Questions About Pain:

- **Could I become addicted to the pain medication?**
  - It is rare to become addicted to medicine used for pain control when taken properly.
  - Addiction means a person is taking a medicine to satisfy emotional or psychological needs rather than for medical reasons. Addiction is often confused with physical dependence. Physical dependence occurs after you have been using a narcotic for prolonged periods of time (more than two weeks). Physical dependence is a chemical change your body undergoes which causes withdrawal symptoms if the medicine is abruptly stopped. This is a normal response and can be avoided by gradually reducing the medicine over several days. **Physical dependence is not addiction.**

- **Could I build up a tolerance to the pain medication so it stops working?**
  - For some medicines, after a person takes the same amount for a long period of time, the body doesn't respond as well to the same amount. Larger or more frequent doses of medicine are needed to obtain the same effect. This is called "tolerance" and it sometimes happens in people who take narcotics for pain control over a long period of time. This should not be an issue following your surgery, as you will only be taking pain medication for a short period of time. However if you have taken narcotics for a long period of time prior to joint replacement surgery you will want to discuss this with your surgeon.
- **What if I have side effects from the pain medication?**
  - All drugs have potential side effects. Not everyone who takes a medicine will experience side effects. Some of the more common side effects of prescription pain medications are drowsiness, constipation, and nausea. You should always discuss any side effects with your healthcare provider.
- **What if I don't take my pain medication?**
  - You may not recover as quickly. Pain medication allows you to stay mobile and helps you get the most out of your exercises. Pain causes increased fatigue which also slows recovery. Pain adds stress to yourself and your caregivers.

Patient information from East Bay Anesthesia Medical Group

Peripheral Nerve Block Information Sheet – Lumbar Plexus Nerve Block For Hip and Knee Replacement Surgery

Your surgeon and anesthesiology pain management team have determined that continuous peripheral nerve block is an option following your surgical procedure. The following information is provided to introduce you to the concept of peripheral nerve blocks.

Lumbar Plexus Nerve Block is one option for sustained postoperative pain relief for hip, knee and upper leg surgery. After numbing the skin on the lower back, a plastic catheter is placed adjacent to the lumbar plexus (the nerves innervating your hip, thigh and knee). The catheter is connected to a pump that coats the nerves with local anesthetic and blocks painful sensation from the hip, knee and thigh region.

This provides significant total pain relief after extensive hip, knee or thigh surgical procedures. It can be especially helpful for total hip replacement. Potential health benefits include decreased need for systemic/intravenous and oral ("by mouth") pain medication, less post-operative sedation, decreased likelihood of post-operative nausea and vomiting, and possible earlier discharge home.

Numbness of hip, thigh, or knee usually lasts 6 to 8 hours after the catheter infusion is discontinued. It is important to start your oral pain medication prior to resolution of the numbness. This will allow for a smooth transition from pain relief supplied by the catheter to pain relief supplied by an oral pain medication.

Risks may include inadequate pain relief, bleeding, infection, reaction to local anesthetic, or nerve injury. Kinking of the catheter tubing and inadvertent discontinuation of the catheter can also occur. Please discuss any concerns with your anesthesiologist.

Please keep the operative hip/leg well protected for the duration of the numbness. Walk only with assistance or crutches since leg strength may be reduced until the block wears off.

The peripheral nerve block is offered as an optional addition to the main anesthetic. Please discuss all concerns regarding this procedure and anesthetic care with your anesthesiologist on the day of surgery. The above information is not intended as a substitute for a complete discussion with your anesthesiologist. It is intended for your education and to enhance your ability to ask informed questions.

Peripheral Nerve Block Information Sheet – Femoral Nerve Block

Your surgeon and anesthesiology pain management team have determined that continuous peripheral nerve block is an option following your surgical procedure. The following information is provided to introduce you to the concept of peripheral nerve blocks.

Femoral Nerve Catheter is one option for sustained postoperative pain relief for knee and upper leg surgery.

After numbing the skin of the upper thigh, a plastic catheter is placed adjacent to the femoral nerve. The catheter is connected to a pump that coats the nerve with local anesthetic and blocks painful sensation from the knee and thigh region.

This provides significant total pain relief after extensive knee or thigh surgical procedures. It can be especially helpful for total knee replacement surgery and anterior cruciate ligament repairs. Potential benefits include decreased need for systemic/intravenous and oral ("by mouth") pain medication, less post-operative sedation, decreased likelihood of post-operative nausea and vomiting, and possible earlier discharge home.

Numbness of thigh and knee usually lasts 6 to 8 hours after the catheter infusion is discontinued. It is important to start your oral pain medication prior to resolution of the numbness. This will allow for a smooth transition from pain relief supplied by the catheter to pain relief supplied by an oral pain medication. For total knee replacement surgery, it is normal to feel mild to significant discomfort from the back of the knee for the first 24 to 36 hours, since this area is innervated by the sciatic nerve which does not get bathed in local anesthetics.

Possible risks include inadequate pain relief, bleeding, infection, reaction to local anesthetic, and nerve injury. Kinking of the catheter tubing and inadvertent discontinuation of the catheter can also occur. Please discuss any concerns with your anesthesiologist.

Please keep the operative leg well protected for the duration of the numbness. Walk only with assistance or crutches since leg strength may be reduced until the block wears off.

The peripheral nerve block is offered as an optional addition to the main anesthetic. Please discuss all concerns regarding this procedure and anesthetic care with your anesthesiologist on the day of surgery. The above information is not intended as a substitute for a complete discussion with your anesthesiologist. It is intended for your education and to enhance your ability to ask informed questions.

Daily Post-Operative Expectations

- A bulky dressing with daily dressing changes starting after 24 hours
- Ice machine or ice packs
- TED hose and SCDs on your legs
- Nurses taking vitals signs, assessing pain levels and checking on you often
- Nurses will assess your level of pain using the pain scale in your binder.
- Your caregivers' names and numbers, and your daily goals and therapy will be listed on the activities board in your room.
- Hourly rounding by one of your care team members (while awake)
- Early mobility; sitting at edge of bed, chair, bathroom, walking. Expect to increase activity and distance daily.
- A knee immobilizer may be ordered for use when out of bed walking and at night to help prevent falls
- Every 2 hours perform leg exercises to help prevent blood clots.

- Cough and deep breathing exercises and Incentive Spirometer every hour while awake
- IV fluids, possibly with PCA attached will be removed when taking fluids and pain pills.
- IV antibiotics will be completed within the first 24 hours after surgery.
- If a bladder catheter or wound drain is used, it will be removed post-operative day (POD) 1 or 2.
- If a nerve block catheter is in place, it will be removed by POD 2.
- Liquids and diet progression as tolerated. Your diet menu will be filled out at breakfast for the following day. Special requests may be accommodated, however it will take extra time to receive them.
- Up in chair for meals
- PT on surgical day if in room by 3 p.m. If not, nursing will assist you to sit at edge of bed, chair, or toilet. Then PT twice daily; morning and afternoon.
- Prepare by taking medications 30 minutes to 1 hour before scheduled sessions.
- OT will begin on POD 1.
- Lab blood draw daily
- Blood transfusion if necessary
- Case manager will begin planning for discharge needs POD 1.
- Discharge home when pain controlled, PT/OT goals, and self care needs are met.
- May dress in own clothes, shave, wear makeup.
- Laxative medications are available as needed.
- Anti nausea medication is available if needed.
- Consider taking pain medication at bedtime to get a good night sleep.
- You may want to limit visitors to get a short rest between therapy sessions.
- Orthopedic-related education materials are available on the TV system in each room.

Possible Complications

Here is a list to help you recognize and prevent any potential complications following your procedure:

Infection

- Signs of infection:
  - Increased swelling and redness at the site of the incision.
  - Change in color, amount, and odor of drainage.
  - Increased pain in the knee.
  - Fever greater than 101° F.
- Prevention of infection:
  - Take proper care of your incision as explained.
  - Good consistent hand washing.
  - Notify your dentist that you have had a joint replacement. Take antibiotics when having dental work. **Some physicians feel taking antibiotics for 2 years before dental work after replacement is adequate. Others recommend to continue for your lifetime. Discuss this with your surgeon.**

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Blood Clots in Legs

- Surgery may cause the blood to slow in the veins of your legs, creating a blood clot. This is why you take blood thinners after surgery. Blood clots can form in either leg. Prompt treatment usually prevents the more serious complication of pulmonary embolus (blood clot to lung).
- Signs of blood clots in legs:
  - Swelling in the thigh, calf, or ankle that does not go down with elevation
  - Pain, heat, and tenderness in the calf, back of the knee, or groin area
- Prevention of blood clots:
  - Foot and ankle pump exercises
  - Walking
  - Compression stockings
  - Anti-coagulants (blood thinning medications)
  - Leg elevation
  - No pillows under knees

Pulmonary Embolus

- This is a blood clot that breaks away from the vein and travels to the lungs.
- Signs of a pulmonary embolus include:
  - Sudden chest pain
  - Shortness of breath
  - Difficulty breathing or rapid breathing
  - Sweating
  - Confusion

THIS IS AN EMERGENCY AND YOU SHOULD CALL 911!

- Prevention of pulmonary embolus:
  - Follow instructions of prevention of blood clots in legs listed above. Recognize a blood clot in leg and call your physician immediately.

Pneumonia

- This is a serious inflammation of one or both lungs and parts of the airway that commonly is caused by bacterial infection.
- Signs of pneumonia:
  - Production of phlegm
  - Shortness of breath
  - Fever
  - Coughing
  - Muscle pain and weakness
- Prevention of pneumonia:
  - Proper diet
  - Exercise
  - Good sleep
  - Sitting up in a chair daily for meals
  - Use of an incentive spirometer

Constipation:

Constipation is passage of small, hard stool usually fewer than three times weekly. It may be difficult and painful to have a bowel movement (BM). Other symptoms include feeling bloated, sluggish, headaches, and abdominal discomfort. At one time or another, most everyone experiences constipation. In most cases it is temporary. There is no correct number of daily or weekly BMs. Normal may be three daily or three weekly.

Causes include:

- Decreased activity
- Lack of fluids
- Not enough fiber
- Medications (anesthesia and narcotics)

Surgery has caused all four!

Prevention of Constipation:

- **Proper nutrition** (fruits, vegetables and fiber) Small frequent light meals and frequent fluids (water is best) are more easily tolerated after surgery.
- **Drink more water** Aim for drinking 64 ounces daily (unless fluids are restricted by a medical condition).
- **Increase Mobility,** walking (most helpful), coughing and deep breathing, use the incentive spirometer, leg exercises, sit in the chair for meals, even chewing gum (i.e. 1 hour three times daily) can help return normal intestinal motility or function.
- **Use pain meds only as needed and stop use as soon as able.**

Medications such as stool softeners, laxatives, suppositories or enemas are available as part of your bowel management program.

Medications that contribute to constipation include:

- Pain medications
- Anesthesia
- Antacids (containing aluminum/calcium)
- Anticonvulsants
- Antidepressants
- Antiparkinson drugs
- Antispasmodics
- Blood pressure meds (calcium channel blockers)
- Calcium supplements
- Diuretics
- Iron supplements

Talk to the nurse or physician if you experience a significant or prolonged change in bowel pattern.

Post-Operative Depression

Days and weeks leading up to surgery may have caused increased anxiety and stress. Now that surgery is finished, emotions may be heightened.

Some common reactions are:

- Frustration
- Irritability
- Anxiety
- Anger
- Fear
- Sadness or depression
- Change in eating, sleeping and elimination
- Emotional swings - crying/laughing

All are responses to the unknown, loss of control, dependence on others and desire for immediate improvement in health condition.

How to cope with changing emotions:

- Learn to talk to self in a positive way.
- Have patience.
- Find others who are supportive and understand (often your family and friends).
- Get enough **rest** and **exercise.**
- Find enjoyable activities.
- Give yourself credit for progress that you are making.
- Celebrate large and small gains.
- Set realistic goals with help of physicians, therapist and nurses.
- Let yourself cope without feeling guilty (a good cry can make you feel better).
- Ask your doctor for help or a support group if symptoms last more than 2 weeks.
- Talk with family and friends.