

*a complete
guide to*

knee

R E P L A C E M E N T



Your Knee Replacement Program Guide

The intent of this program is to prepare patients for the knee replacement experience. Research indicates that individuals have comparable outcomes, shorter length of stay and enhanced satisfaction when they have the opportunity to learn what to expect and what is expected of them during their inpatient stay and beyond. The orthopedic team at Providence Alaska Medical Center has worked together on this program to ensure you feel well prepared for the journey.

This notebook is for you and your family to use before, during and after your total knee replacement surgery. Members of the orthopedic team have designed it to be your source of information about your surgical experience and to help you throughout the course of your recovery.

Each person's experience is unique, so recovery may take less time or may be longer than you expect. Your anticipated discharge date will be written on your bedside communication board. If you work hard and are able to complete your post-op goals early, you can win yourself a shorter hospital stay, reducing your risk of infection and getting you home to your own bed sooner. Challenge yourself!

If you or your family members have questions along the way, please ask any health care professional involved in your care. It is important to us that you have the information you need.

Attitude is everything!

"Our lives are not determined by what happens to us, but by how we react to what happens; not by what life brings to us, but by the attitude we bring to life.

A positive attitude causes a chain reaction of positive thoughts, events and outcomes.

It is a catalyst...a spark that creates extraordinary results."

—Unknown author

Speak up

Help to prevent errors in your care

Speak up if you have questions or concerns. Keeping you safe is our number one priority. If you feel unsafe at any time, speak up and ask questions. It's your body and you have the right to know.

Pay attention to the care you get. Always make sure you are getting the right treatments and medicines by the right professionals. Work with your health team to develop a plan that you all agree is best for you.

Educate yourself about your illness. Write down important facts your doctor tells you. Ask your health care team for written health sheets you can take with you during your hospital stay. Don't be afraid if you don't understand something, your health care team is there to answer your questions.

Ask a trusted family member or friend to be your supporter. Make sure this person knows your wishes about treatment in case you are unable to make that decision. If you wish, they can also stay with you over-night during your hospital stay.

Know what medicines you take. What you take and why you take them, even those that are not prescribed but purchased over-the counter. Medicine errors are the most common health care mistakes. To increase your feelings of safety, question new medicines you are getting in the hospital if you have not yet been informed about them.

Use a hospital or surgery center that has been carefully checked. For example, Providence Alaska Medical Center is visited regularly to ensure quality standards are met by the Joint Commission.

Participate in all decisions about your treatment. You have the right to know about treatment options, have a copy of your medical records and have all your concerns addressed. Your health care providers want you to be a part of your treatment plan and be comfortable with your care.

Providence Care Line – Ext. 26111

We at Providence Alaska Medical Center want our patients and families to feel safe in our hospital. We have set up a Care Line to offer you and your family another way to report your patient care concerns.

You and your family are encouraged to call the Care Line:

- If you notice a medical change in the patient and the health care team is not recognizing the concern.
- If there is a breakdown in how care is being given or confusion over what needs to be done for the patient.

How to call the Care Line:

- Dial 26111 from a hospital telephone
- The Care Line nurse will ask for the caller's name, room number, patient name and patient concern.
- The Care Line nurse will immediately activate a team of medical professionals who will respond to your call.
- Additional clinical support will be called in as needed.

Table of Contents

Section 1: Pre-surgery Before Hospitalization

- 6 Getting in shape for surgery;
Preparation exercises
- 7 Getting your family involved;
Your coach
- 8 Planning ahead for your homecoming;
Equipment to purchase, rent
or borrow
- 11 Pre-admission process
- 12 Autologous blood donation;
Last minute preparations
- 13 What to bring to the hospital
- 14 Checklist: preparing for surgery;
Internet resources

Section 2: The Day of Surgery

- 16 Check-in
- 17 Pre-op;
Anesthesia;
In the operating room
- 18 Recovery room
Surgery waiting lounge for family;
Tobacco-free hospital campus

Section 3: During Your Hospitalization

- 20 Team roles and functions
- 21 Managing your pain
- 23 Clinical guide and goals
- 26 Avoiding problems after surgery
- 29 Visitors
- 30 Staying connected;
Quality counts

Section 4: Physical and Occupational Therapy

- 32 Your exercise program
- 33 Regaining knee range of motion;
Working with your new knee
- 36 Discharge planning timeline

Section 5: Going Home

- 38 Medications;
Diet and fluids;
Postoperative leg swelling;
Showering
- 39 Positioning;
Care of your incision
- 40 Preventing future infection;
Your home exercise program;
More advanced exercises
- 42 Using cold therapy
- 43 Working;
Driving;
Follow-up;
Airports
- 44 Prevention of blood clots

Section 6: Insurance and Billing

- 46 Know your insurance benefits;
Price estimates;
Billing information

Section 7: Resources

- 50 Frequently asked questions
- 52 Glossary of terms
- 53 Hospital campus map

Section 1:
Pre-Surgery
Before Hospitalization

Getting in shape for surgery

The physical preparations you make can affect both the outcome of the surgery and your recovery time.

- Smoking changes blood flow patterns, delays healing and slows recovery. If you smoke, cut down or quit.
- If you drink, don't have any alcohol for at least 48 hours before surgery.
- If you use any other types of controlled substances, tell your doctor. Narcotics and other drugs can have an impact on your surgery.
- Eat well. If you are overweight, your doctor may recommend a weight loss program.
- Make time each day for preparation exercises discussed below.

Preparation exercises: why preparing for recovery helps

When it comes to preparing for recovery, much of the work is up to you. You can make your recovery quicker and more comfortable by:

- Strengthening the muscles that surround your knee joint to help keep your knee stable while you're healing. Learn the exercises that will be prescribed after surgery in Section 4 of this book. If you familiarize yourself with these postoperative exercises and practice them now, they will be easier to perform after the surgery.
- Doing exercises to build the muscles in your arms so it will be easier to use a walker or crutches after surgery. The arm push-up exercise below is ideal for this.

Seated Armchair Push-up

- Use a sturdy chair with armrests.
- While seated in the chair, grip armrests firmly.
- Press down, straighten your elbows and lift your buttocks from the chair — hold three seconds.
- Slowly lower yourself back into the chair. Repeat 10 to 20 times.



Getting your family involved

The support of family and friends before and after knee surgery can make a great deal of difference. You are encouraged to share this notebook with the people who will support you through this process.

Your coach

Because of their involvement in the care process and their partnership with the patient, coaches play an integral role in successful recovery. Your “coach” is usually a family member or friend, who can come with you to appointments and pre-surgery education sessions and who is committed to helping with recovery and rehabilitation.

For example, during therapy sessions, the importance of positioning and exercises will be explained. Your coach can help you remember important points, assist with your care, and encourage you with your exercises and recovery. When a patient has an extended support network, the coach can also act as the spokesperson to communicate between the hospital staff and all other family members.

Although you will be able to walk with crutches or a walker soon after surgery, you will need some help for several weeks with such tasks as cooking, shopping, bathing, and laundry. Prior to surgery you must arrange for someone to be with you for your first few days at home following your discharge from the hospital.

My coach is _____.

Most patients are discharged home two to three days after their operation, so it is prudent to make these arrangements prior to being admitted for your knee surgery.

If you live alone or have other special needs, talk to your surgeon or the staff at your Joint Camp class. Although most total joint replacement patients do not qualify, in certain circumstances, we may be able to help you make arrangements to have someone assist you at your home. A short stay in an extended-care facility during your recovery after surgery may also be an option in limited situations. If it is determined prior to surgery that you might be admitted to an extended care facility, you may want to visit it before your surgery, take a tour, and meet some of the staff. This can ease the transition process from the hospital to the rehabilitation facility.

Planning ahead for your homecoming

Planning ahead is key to minimizing stress and optimizing your outcome. Recovering from joint replacement surgery takes time. You can take steps now that will help make your recovery easier and faster.

- Arrange for someone to take you home from the hospital two to three days after surgery. Large two-door or four-door cars work better than vans, SUVs or trucks.
- Arrange for someone to stay with you for several days after your surgery. This is typically your coach.
- Acquire a walker. See below.
- If you do the cooking, make double batches of everything for a week or two before your surgery. Freeze half, and you'll have two weeks of ready-made meals when you get home or stock up on ready-made foods that you enjoy.
- Make plans for someone to help care for your pet(s) for a week or two.
- While you are in the kitchen (and in other rooms as well), place items you use regularly at arm level so you do not have to reach up or bend down.
- Remove any throw or area rugs that could cause you to slip. Securely fasten electrical cords around the perimeter of the room.
- Shop for things that will make your life easier after surgery. Your list might include a long-handled shoehorn, a long-handled sponge, a grabbing tool or reacher, a footstool, a big-pocket shirt or soft shoulder bag for carrying things around.
- If you do not already have a parking permit for a disabled person, apply for a temporary permit several weeks prior to your surgery. Contact the Department of Motor Vehicles, or your doctor's office may have an application form.

Equipment to purchase, rent or borrow

You will need a walker or a pair of crutches. This will be an out-of-pocket expense unless your insurance carrier will cover the cost. You will likely need a prescription from your surgeon's office for your insurance company. You will want to get the equipment ahead of time and see how well you can maneuver through your home using the walking aide. You may need to rearrange furniture or temporarily change rooms to ensure you can use your walking aide safely.

You are also likely to need a shower chair. This will be an out-of-pocket expense and can be bought at any medical supply store. Other resources for acquiring equipment include borrowing from friend or renting from "loaner closet." If you are thinking about borrowing equipment from a friend, please remember that borrowed equipment may not fit you correctly and may not adjust enough. See separate handout for Equipment Resources.

Insurance coverage for equipment

Your insurance plan may have policies about what equipment and which companies you may use. Insurance companies do not usually pay for raised toilet seats, sponges, sock aids and bathtub equipment. Most, however, will cover crutches, a walker or a cane. Some equipment companies request cash payment upon delivery. Please check with your insurance company before surgery if you have questions about equipment coverage policies.

Crutch and walker fitting instructions

Proper fitting helps you use your walking aide safely and effectively. If you don't have the opportunity to be fitted by a professional prior to your arrival at the hospital, you can use the instructions below to confirm that your walker or crutches are approximately the correct height for you. After your surgery, your physical therapist can check the fit.

When fitting your walking aide, stand up straight and wear the shoes you will normally use to walk.

Crutch fitting instructions:

- The crutch pads (tops of crutches) should be 1.5" to 2" (about two finger widths) below the armpits, when standing tall with your shoulders relaxed.
- Adjust the height of the crutches so that your wrists are even with the handgrips when your arms hang at your sides and your arms are slightly bent at the elbows when your hands are placed on the grips.



Walker fitting instructions:

- Stand in the center of the walker. Make sure that the walker is locked open and that all four legs are on a level floor.
- Adjust the height of the walker so that your wrists are even with the handgrips when your arms hang at your sides and your arms are slightly bent at the elbows when your hands are placed on the grips.



Continuous Passive Motion Machine (CPM)

Continuous passive motion or CPM for short, is a device that is used to gently flex and extend the knee joint following. The CPM machine can be used after surgery to allow the knee joint to slowly move. Use of a CPM may reduce stiffness and aid in return of your range of motion. Your provider may request use of a CPM while you are in the hospital. In addition, some surgeons recommend renting a CPM for use at home for a few weeks following surgery. Discuss CPM use with your surgeon.



Cold Therapy (Cryotherapy)

The RICE regimen (Rest, Ice, Compression, Elevation) has been used for decades to assist in post-operative rehabilitation. Your medical professionals may choose a commercially available device as a part of your RICE regimen. For example, Game Ready combines adjustable cold and intermittent compression to deliver two aspects of RICE in one treatment system. Arrangements for Game Ready are typically made through your surgeon's office. Instructions for use are available in a separate handout at the back of this booklet. Other Cryotherapy systems may be provided during your hospital stay. For information on cold therapy at home see page 40.

Pre-admission process

Telephone triage nurse

A week or two before surgery, you will be contacted by phone by a Providence nurse who will interview you to gather your medical history using our electronic record. This information is valuable in helping us determine what pre-op testing you might need ahead of time. This interview typically takes about 20 minutes to complete.

Admitting representative

Our admitting department will also contact you by phone to collect your insurance information.

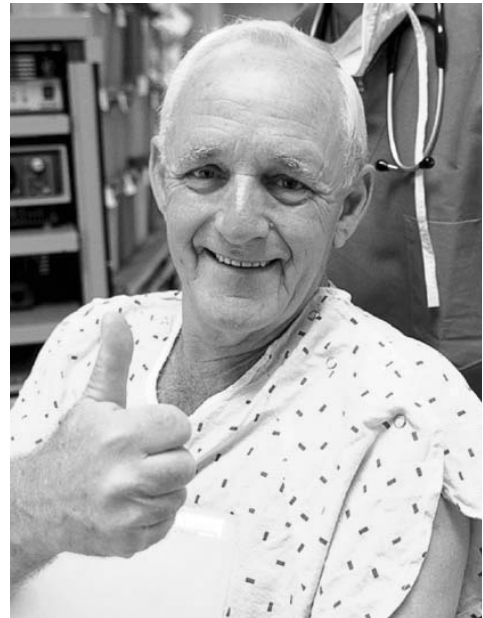
This information is important for pre-authorization with your insurance provider for your procedure. We work with you to secure insurance pre-authorization to help minimize the risk of any billing issues you might have following surgery. You can call admitting directly to pre-register Monday – Friday, 7 a.m. to 6 p.m. and Saturday 8 a.m. to 4 p.m. at 907-212-3149.

Pre-op clinic nurse

It is important to schedule time to stop by the Providence pre-op clinic three to four days prior to your surgery date. Appointments are not necessary and there is rarely more than a 15 minute wait to be seen. If you prefer to schedule an appointment, you can call 907-212-3149. The pre-op clinic is located on the main hospital campus inside and just to the right of the main entrance (entrance 3). You should plan on one to two hours for this visit if you need to complete your medical history and pre-registration also. If these have already been completed by phone as discussed above, you will be finished with the pre-op clinic faster.

During this visit, the pre-op clinic nurse will complete your pre-op testing, including blood work, EKGs and x-rays if needed. The pre-op testing is required to determine whether you are fit for surgery. Occasionally, testing results may indicate a condition that will require treatment before you are ready for surgery. By completing pre-op testing ahead of time, we may be able to work with your physician to get the condition treated, thus decreasing your risk of surgery cancellation.

The pre-op clinic nurse will also review your completed health history and answer questions you or your coach may have. The nurse can also help you with the paperwork regarding an Advance Directive if you don't already have one on file with the hospital. Notaries are available.



Autologous blood donation

An autologous blood donation is a procedure that allows you to donate blood to yourself prior to your upcoming operation, with your physician's approval. Autologous blood is for your use only. Your doctor will determine whether the type of surgery you are scheduled for requires a transfusion and if your health allows you to give blood safely. Autologous blood can be collected at all Blood Bank of Alaska donor centers.

Once your operation is scheduled, your doctor must complete a request form for autologous blood, and send the form to Blood Bank of Alaska. The Blood Bank will contact you for an appointment after they receive the information. All autologous donations must be completed at least three working days before your operation.

The autologous donation process is similar to the process for volunteer donations. Your hematocrit level will be tested before each donation to determine if it meets the minimum level required for blood donations. Please contact our Blood Bank of Alaska special collections staff at 907-222-5645 to discuss any questions you have.

<http://www.bloodbankofalaska.org>

Last minute preparations

The 24 hours before your surgery will be busy.

- Take a shower or bath the night before your surgery using the soap you have been provided. This will help reduce the risk of infection. Use clean sheets on your bed after your shower.
- Do not shave the area of the surgery. If this is necessary, the doctor will take care of it.
- Remove any finger or toe nail polish.
- Remove earrings, necklaces, bracelets and/or body piercing jewelry. Remove or minimize finger rings.

Eating or drinking before surgery

Patients scheduled for surgery in the morning should NOT eat or drink anything after midnight the night before except a sip of water for medications (see below). If you eat within eight hours of your scheduled surgery time, your surgery will be delayed or canceled. If your surgery is scheduled for after noon, talk to your surgeon regarding when you must begin fasting.

Medications before surgery

Please talk to your doctor's office to get specific instructions regarding continuing any prescription pain medication or medication you take for chronic conditions. You will likely take your usual cardiac or blood pressure medicine with a sip of water unless otherwise instructed by your doctor or anesthesiologist. Beta blockers, in particular, should be taken as prescribed. If you are diabetic or take any anti-coagulation medications, please check with your doctor as to when to take them. At admission, notify your pre-op nurse of any medications you have taken that morning.

What to bring to the hospital

Please leave your cash, credit cards and jewelry safely at home.

Some of the items you should bring with you to the hospital include:

- Medical insurance card(s) (Medicare and/or other).
- A list of the medications you take at home.
- A copy of your Living Will or Advance Directive.
- A list of important phone numbers, including friends you might want to call while in the hospital.
- Glasses or contact lens with case.
- Toiletries, including a razor, make-up kit (if desired).
- Sturdy shoes with non-skid soles and a firm heel cup.
- Tracksuits or loose, comfortable outfits to start wearing the day after surgery. Bottoms should allow for the added bulk of surgical dressings and ACE bandages; shorts are ideal. Drainage from your surgical site may end up on your clothes so we don't suggest bringing your favorite things.
- Reading material.
- iPod, CD player, cassette recorder, with headphones and tapes/CDs if you want music.
- Crutches or walker. Please mark them with your name.



Checklist: preparing for surgery

Check items when completed.

- If needed, make a pre-operative appointment with your orthopedic physician:
Date: _____
Time: _____
- If ordered by your surgeon, make an appointment with the Blood Bank of Alaska for an autologous blood donation. Ideally three weeks before surgery and no later than three days before surgery.
Date: _____
Time: _____
- Complete a pre-operative Providence Joint Camp class. For information on class schedule or to reserve space for you and your coach, call 907-212-6165 or toll-free 888-674-5465.
- Complete Providence pre-op clinic preadmission testing. For your convenience you can schedule this appointment before or after your Joint Camp class or call 907-212-3149 to schedule within a few days of scheduled surgery. The nurse will help you complete any pre-admission testing your doctor might require prior to surgery (blood tests, urine test, and/or EKG).

Internet resources

1. Providence Alaska Medical Center – Orthopedic Services
<http://alaska.providence.org/locations/pamc/services/ortho/Pages/default.aspx>
2. American Academy of Orthopaedic Surgeons (AAOS) Patient Education Website
<http://orthoinfo.aaos.org/topic.cfm?topic=A00385>
3. Virtual total knee replacement surgery interactive video
<http://www.edheads.org/activities/knee/>

Section 2:
**The Day
of Surgery**

Check-in

Report to the hospital according to the instructions received from your surgeon. If you are to be admitted the day of your surgery, please arrive two hours before your scheduled surgery time. The Ambulatory Procedures check-in desk is down the hall from the Emergency Dept in the E tower. When you arrive, enter through the entrance nearest the Emergency Department/Day Surgery of the hospital. This entrance is labeled 2 on the map and above the door outside. Once inside, turn left and make your way to the Ambulatory Procedures check-in desk.

Providence provides valet services at the main entrance between the hours of 8 a.m. and 6 p.m. This is available to all patients or visitors and is complementary. If you prefer the assistance of our valet parking, please drive to the main hospital entrance marked number 3 on the map and over the door outside. From there, parking attendants can direct you to the gallery and the check-in desk.

Our concierge team is available to assist you and/or your guests with mobility challenges throughout our campus. If you need wheelchair assistance or need any assistance navigating through our campus, please call extension 44666 or ask at our front information desk. The concierge team is also responsible for transporting you via wheelchair to the front door at discharge.



Pre-op

You will be admitted by a pre-op nurse who will:

- Get you ready for surgery.
- Give you any pre-surgery medications including antibiotics to minimize the risk of post-surgical infection.
- Start an intravenous line (IV) to give you fluids.
- Review your health history, allergies and the list of the medications you take at home.
- Apply support stockings ordered by your surgeon.
- Answer any questions you may have.
- Ensure you meet with the anesthesiologist to discuss the medications to be used and what you can expect.
- Introduce you to your OR nurse.

Anesthesia

Your anesthesiologist will meet with you in pre-op to discuss the medications that he will use during surgery and what you can expect. During surgery, you will receive general anesthesia for your comfort. The anesthesiologist can also talk to you about pain management options following surgery. For more information on pain management see page 21.

In the operating room

Total knee replacement

A single total knee replacement procedure takes approximately two hours.

Simultaneous bilateral knee replacement

Patients who have severe arthritis in both knees may be candidates to undergo bilateral total knee replacements at the same time. Patients who are appropriate candidates for simultaneous knee replacements can discuss the risks and benefits with their orthopedic surgeon. Your doctor may recommend against a simultaneous procedure if you have medical conditions that may place you in a higher risk category. Bilateral knee replacement surgery will typically take two to three hours.

Recovery room

When the operation is over, your surgeon will typically meet with your relatives or friends in the surgical waiting area to give them a progress report. The OR staff may apply the “foot pumps” to your feet that are used during your hospital stay to help with circulation in your legs.

During the first few hours after surgery, you will be cared for in the recovery room also known as the Post Anesthesia Care Unit (PACU). Nurses will check your blood pressure and pulse and watch you closely. Your family will not be able to visit you there. When you are more awake, you will be moved to your room on the orthopedic unit located on the third floor, west wing.

Surgery waiting lounge for family

During your surgery, your family may stay in the comfortable gallery area. Please have your family tell the receptionist at the check-in desk your name and let the receptionist know if they wish to talk to the doctor when your surgery is complete. Knee surgery patients spend approximately 2 hours in the operating room and another 2 hours in the PACU before being moved to the orthopedic floor (3 West).

We want to keep you informed. Surgical procedures may last longer or be completed more quickly than estimated. For your convenience, pagers are available at the check-in desk in the gallery. This allows your family and friends to walk around the hospital and not worry about missing the surgeon. Pagers only function in the hospital building and on the campus grounds outside. If you need to leave the campus, please talk to the attendant in the gallery to arrange another method of contacting you.

Elevator D is the primary connection between the main lobby (Level 1), the cafeteria (Level B) and 3 West, the orthopedic unit.

The gallery area desk closes at 6 p.m. Please use the beige phone on the desk to contact the recovery room after hours. beepers can be returned to the labeled box on the desk.

Tobacco-free hospital campus

Smoking is not allowed on the Providence campus. There are no designated smoking areas.

Section 3:
**During Your
Hospitalization**

Team roles and functions

The members of the orthopedic team work very closely with one another to provide the best individualized care to each patient. We are committed to this team approach and to your recovery. Our team members include:

- You, your coach, family and friends.
- Physician(s): One or more physicians oversee your care and treatment decisions. You will receive a regular visit from your physician or associate. If you have a question about your surgery or hospital course, this is the person to ask.
- Registered Nurses (RNs) and Orthopedic Care Technicians (OCTs) make up your primary nursing team. A specific RN and OCT will be assigned to provide your bedside care throughout their shift. A unit Charge Nurse will also make rounds to your room during each shift. If your doctor has ordered special ortho equipment as part of your care, the OCT will be the one to set it up, and then make rounds to check on you and your equipment.
- Physical Therapist (PT): Your PT will teach you proper and safe techniques for exercises, bed mobility, transfers in and out of chairs and automobiles, walking with crutches or walker and negotiating stairs. They will reinforce your knee range of motion goals and help you optimize the use of the walking aide you purchased. Please see Section 4 for details on physical therapy.
- Occupational Therapist (OT): Your OT will teach you proper and safe techniques for bathing, toileting and dressing. They will instruct you in the use of adaptive equipment. They will help you assess your bathroom and the durable medical equipment you purchased. Please see Section 4 for details on occupational therapy.
- A pharmacist responsible for the orthopedic unit patients will evaluate your medications for possible interactions and their impact on your disease or condition. The pharmacist is available to give drug information to staff and patients.
- A member of our spiritual care department is available to visit patients admitted to the hospital, 24-hours-a-day, seven-days-a-week. Providence Chaplains provide a confidential, listening presence for patients, family and staff. They minister to persons of all faiths and those with no faith tradition, honoring each individual's spiritual journey and values. We can also arrange for harp music with our Therapeutic Musician. Please ask your nurse to page any time at 88-4673.

Others involved in your care may include a dietitian, transporters, discharge planners, laboratory personnel, and depending on your individual needs, members of other departments, such as Diagnostic Imaging or EKG.

Managing your pain

In virtually all cases, knee replacement surgery will make a significant improvement in your pain and mobility long-term. Post-operatively however, both bone and tissue are undergoing a healing process that will not be complete for several weeks after the operation.

Post-surgical pain is a complex response to the tissue trauma experienced during surgery. After surgery, you should anticipate some pain. We will work closely with you to manage your pain and a reasonable comfort level can be reached in most cases. When pain is controlled, you recover faster. When patients take medications before the pain appears, the body does not over-react to the pain stimulus. Therefore, staying ahead of the pain is critical. Careful pain management will allow you to eat, sleep, move, and begin doing normal activities. Management of your post-surgical pain is a high priority. Don't be afraid to ask for pain medication when you need it.

Patients handle post-operative pain in individualized ways. Since pain perception is highly subjective, the health care team values each patient's self-report of pain assessment.

Using cold therapy

Cold can be used as many times throughout the day and night as needed to decrease pain and swelling. You must allow time between applications for the area to warm to normal temperature before repeating the ice. Use cold therapy for 15 to 20 minutes on the effected area. Remove when a numbing effect is achieved. Using ice after exercising can also help reduce swelling and pain.

Prolonged use of intense cold can lead to frostbite. Do not use ice for more than 20 minutes at a time.

- Do not apply ice directly to the skin; wrap ice in a thin, moist towel or cloth.
- Skin with frostbite appears white and does not turn to a healthy pink after being pressed by a fingertip. If skin is injured by cold; warm area SLOWLY with lukewarm water.
- Check skin during and after treatment for any signs of injury.
- Do not lie on the ice application, but place the ice on top of the affected area instead. Pressure increases the effect.
- DO NOT USE ice if you have extreme sensitivity to cold, decreased circulation, decreased sensation, or any cardiovascular problems including vasculitis.

Femoral Nerve Block (FNB)

A femoral nerve block can be combined with surgical anesthesia as an effective weapon against pain after total knee replacement surgery. Your anesthesiologist will use ultrasound imaging guidance and/or nerve stimulation in the groin area to locate your femoral nerve. A long-acting pain medication is then injected to numb the front of your leg. The numbness lasts an average of 16 hours with some studies showing pain-relieving properties lasting up to three days. FNB can decrease your need for intravenous or oral pain medication and help manage your pain when beginning your therapy sessions. As with any

anesthetic, there are risks and benefits to femoral nerve blocks. These particulars can be discussed with your anesthesiologist before your surgery.

Patient-Controlled Analgesia (PCA)



Some patients have a patient controlled analgesia (PCA) pump inserted following a total joint replacement. The surgeon will direct your nurse to program the device with the specific, safe dosage to deliver at each request made, as well as the total permitted safe dosage during the time for which the device is set. The patient administers the dose by pushing a button, and is encouraged to keep a steady supply of medication within his or her system. If the patient has pushed the button more times than allowed, the pump will not administer more medication than prescribed. The patient should notify the health care staff if a specific medication is ineffective. In some cases, the patient needs encouragement to use the pump more, if necessary. Only the patient should push the PCA button for pain medication.

Your physician may also prescribe intravenous (IV) or oral pain medication. Oral medications are frequently used after the PCA is discontinued and are also prescribed for use at home following discharge.

Alternative non-medical methods

Some non-medical methods can help reduce post-operative pain. Patient education about the surgical procedure and the aftermath can help reduce stress, which can affect the perception of pain. Education, like visualization, prepares the mind for surgery and recovery. The patient knows what to expect, thereby removing fear of the unknown.

Meditation and deep breathing techniques can also reduce stress. These techniques can lower blood pressure and increase oxygen levels, which are critical to a healthy recovery.



Total knee replacement — clinical guide and goals

Surgery day – transfer from the recovery unit to the orthopedic unit (3West) __ / __ / __

GOAL #1: Time for action — you will get out of bed with assistance from ortho unit staff.

GOAL #2: Pain less than or equal to 4/10 to help you participate in your activities.

Activity	<ul style="list-style-type: none"> • Use your bed controls to raise your head and trunk until you are sitting upright as soon as you are able. • Do your ankle pumps, glut sets and quad sets twice an hour while you are awake (exercises 1, 2 and 3 in Section 4). • You will have your first physical therapy session today if you arrive on the ortho unit by 3 p.m. • Your leg may be in the Continuous Passive Motion (CPM) machine while you're in bed to assist you with regaining knee motion. • NO PILLOWS UNDER OPERATIVE KNEE. You may use a pillow under your heel or calf only to straighten your leg. A splint or brace may be ordered by your surgeon to protect your knee while you are out of bed today.
Pain Management	<p>Pain is to be expected following surgery. We want to be sensitive to your pain. It is very important to manage your pain proactively.</p> <ul style="list-style-type: none"> • A PCA (patient-controlled analgesia) pump will typically be attached to your IV line and you can choose when to take more pain medicine through the use of the PCA pump. The pump is programmed to only allow a safe dosage of medication at safe intervals. • Additional oral pain medication may be ordered by your surgeon as needed, especially a half hour before therapy and before sleep. Please talk to your nurse about your pain management.
Blood Clot Prevention	<ul style="list-style-type: none"> • Blood thinners and compression stockings (Ted hose) are often used to help prevent blood clots. Stockings should be worn day and night and are only removed for bathing and skin checks. • Foot pumps or a sequential compression device (SCDs) is used on your lower legs while you are in bed.
Medication	<ul style="list-style-type: none"> • You may start on a stool softener to avoid constipation. • You will typically receive antibiotics to prevent infection. • Let us know if you are nauseated, we have medication that can help with this.
Breathing	<ul style="list-style-type: none"> • Use your incentive spirometer every hour while awake; deep breathing is important to help prevent pneumonia.
Diet	<ul style="list-style-type: none"> • You will start a regular diet. Clear liquids or a special diet may be ordered in certain cases.
Self-care	<ul style="list-style-type: none"> • You can feed yourself. • You can bathe your face and upper body. The staff will assist you with your legs.
Discharge	<p>Your anticipated discharge date will be written on your bedside communication board. If you work hard and are able to complete your post-op GOALS early, you can win yourself a shorter hospital stay, reducing your risk of infection and getting you home to your own bed sooner. Challenge yourself!</p>

Post operative day one - __ / __ / __

GOAL #1: Walk 100 feet or more with walker or crutches.

GOAL #2: You will work on dressing techniques.

GOAL #3: You will get up and sit in a bedside chair for your meals.

GOAL #4: You will be out of bed to the bathroom with assistance.

Activity	<ul style="list-style-type: none"> Do your exercises every hour while you are awake (exercises 1, 2 and 3, Section 4). Physical therapy is twice today to practice exercises, transfer techniques and walking. It is important to work on regaining your knee range of motion. Occupational therapy will also take place today to assist you in the activities of daily living. You can expect to have your dressing changed today or tomorrow.
Pain Management	<ul style="list-style-type: none"> Typically, you will continue to manage your pain with the PCA pump. Oral medications may also be used to ensure you do not have breakthrough pain when your PCA is discontinued. Ice therapy (cryotherapy) will usually be used to also help manage your pain and swelling.
Blood Clot Prevention	<ul style="list-style-type: none"> Blood thinners and stockings continue to help prevent blood clots. Foot pumps or sequential compression device (SCDs). Ankle pump exercises hourly can improve lower leg circulation.
Breathing	<ul style="list-style-type: none"> Use your incentive spirometer every hour as deep breathing is important to help reduce the risk of pneumonia.
Diet	<ul style="list-style-type: none"> You will be on your regular or specified diet.

Post operative day two - __ / __ / __

GOAL #1: Walk 150 to 300 feet with assistive device.

GOAL #2: You will be able to get out of bed safely.

GOAL #3: You will practice ascending and descending a staircase.

GOAL #4: You will be able to bathe yourself with help for your legs.

Activity	<ul style="list-style-type: none"> Physical therapy continues twice today to work on knee range of motion, practice exercises, transfer techniques and walking. If you have stairs at home, the PT will instruct you on how to go up and come down on crutches or with a walker. Occupational therapy will work with you to practice dressing and self-care. REMEMBER NO PILLOWS UNDER YOUR OPERATIVE KNEE! You may use a pillow under your heel and calf only to straighten your leg.
Pain Management	<ul style="list-style-type: none"> Your pain will typically be managed with oral medication at this time. Please ask us for your pain medication as needed, especially a half hour before therapy and sleep. Ice therapy to your knee can still help with pain and swelling.
Breathing	<ul style="list-style-type: none"> Continue deep breathing and the incentive spirometer to prevent pneumonia.
Diet	<ul style="list-style-type: none"> You will be on your regular diet, but to help prevent constipation eat plenty of fresh fruits and vegetables and drink several glasses of liquid daily. Protein helps with healing.
Discharge	<ul style="list-style-type: none"> You should be discussing your discharge plans with your health team and your coach/family. Plan your transportation home from the hospital. As discussed in your pre-op class, make sure you have the equipment you need for use at home i.e. walker or crutches, raised toilet seat, shower chair. If you are transferring to another level or care, the case manager will help you make the arrangements.

Post operative day three - __ / __ / __ typical discharge day

- GOAL #1: Demonstrate proper technique for home exercise program.
- GOAL #2: Walk up to 1,000 feet with your assistive device.
- GOAL #3: Understand the sequence for using the stairs and practice safe technique.
- GOAL #4: Transfer safely into and out of bed, on and off the toilet and into and out of the tub or shower.
- GOAL #5: Review getting in and out of a car.

Pain Management	<ul style="list-style-type: none"> • It is important that you receive information on how to manage your pain after you leave the hospital. If you have any questions, please ask us. • Your pain will typically be managed with oral medication at this time.
Blood Clot Prevention	<ul style="list-style-type: none"> • Blood thinners and stockings continue to help prevent blood clots. • Frequent walks and hourly ankle pump exercises can improve lower leg circulation.
Medication	<ul style="list-style-type: none"> • A review of the medications you are going to take at home will be included with your verbal and written discharge instructions. Please let us know if you do not understand something about your discharge medications that you will be taking at home. • If you are going home on coumadin (blood thinner), you will receive specific education on this medication. Blood draws will be arranged for you for two to three times a week with the results called to your doctor.
Breathing	<ul style="list-style-type: none"> • Do your deep breathing exercises every two hours while you're awake.
Self-care	<ul style="list-style-type: none"> • You will be able to dress and bathe yourself with help for your operative leg(s).
Discharge	<p>We want you to feel prepared and ready for discharge. Please ask us if you have any questions before you go!</p> <ul style="list-style-type: none"> • You will receive verbal and written instructions for care at home. • Plan your transportation and review getting in and out of a car with your therapist. • Your discharge plans are finalized and will be discussed with you and your family.

First week post hospital

- If home care services have been arranged, a home health nurse will call you within 48 hours.
- Take your pain medication as needed. **DO NOT DRINK ALCOHOLIC BEVERAGES WHILE YOU ARE TAKING PAIN MEDICATIONS! DO NOT DRIVE WHILE TAKING PAIN MEDICATIONS.**
- If you are from out of town, your surgeon will typically request you plan to stay in the Anchorage area for one to two weeks. Please clarify this with your surgeon's office.

Avoiding problems after surgery

You are at risk to fall – call for help

A fall during the first few weeks after surgery can damage your new knee and may result in a need for more surgery. You may already have some risk factors for falling before entering the hospital. On the other hand, you might not be at high risk to fall prior to hospitalization, but you become a high fall risk following surgery. For example, medications or loss of blood during surgery may cause you to be light-headed. Procedures used to manage your pain often cause temporary loss of balance.

The nurses and therapists will assess your potential for falling and will implement processes to minimize your risk. It is important to work collaboratively with your team. Please do not attempt to use the restroom by yourself. **CALL – DON'T FALL!** Many falls occur when patients need to go to the bathroom **QUICKLY!** Don't wait to the last minute.

Preventing lung complications

- Use your incentive spirometer every hour while awake.
- Deep breathing is important to help prevent pneumonia.
- When breathing deeply, hold a deep breath for two to three seconds, repeat 10 times.
- Cough 10 times every hour or so using your large muscle groups, not just clearing your throat.

Blood clot prevention

Clots in your leg veins can form as a result of decreased movement of your leg after surgery, as well as from injury to the veins during surgery. Your doctor usually gives you blood-thinning medications after your surgery to try to prevent clots from forming. Blood clots in the legs can travel to the lungs and become a pulmonary embolism.

You can further reduce the potential risk of blood clots.

- Ankle pump exercises – see Section 4.
- Changing positions frequently – every hour or so while awake.
- Taking frequent short walks every few hours.
- Using the compression stockings and foot pumps provided.

Reduce risk of infection – wash, wash, wash

Infections occur in a small percentage of patients undergoing knee replacement surgery. Antibiotics given to you before, during and after the operation help to lower the rate of infection. Unfortunately, infections can occur even when every effort is made to prevent them. The following steps may help to minimize the risk of post-operative infections.

- Until the surgical site is closed, try not to touch your incision. You should expect your medical team to wash their hands and to wear gloves whenever they are changing your dressing or working around your incision. If you need to touch the incision, wash and wear gloves.
- Redness, pain and swelling of the surgical area are all to be expected following knee replacement. If you notice signs of infection such as increasing redness, increasing drainage, foul odor, or increasing pain, please talk to your physician or nurse about your concerns.

Important note to our Orthopedic patients – keep your bowels working

A topic that most people don't want to discuss but that is extremely important is bowel movements and constipation. Constipation is basically defined as "difficulty in having a bowel movement," and can even become an obstruction leading to no bowel movements at all.

Normally, you may have no problems with this in your daily home life; however, things change when you're in the hospital following surgery.

Three things that may quickly cause you to have constipation after your surgery are:

- Your immobility after your surgery.
- Anesthesia you received during your surgery can cause a slowing down of your intestinal mobility causing constipation.
- You will most likely receive narcotics for pain relief after your surgery. A common side effect of narcotics is constipation.

Some things to do BEFORE you come to the hospital on day of surgery:

Pay attention to your BMs at home. If you're already constipated, then treat accordingly with diet, over-the-counter products for constipation, or orders from your MD.

Some of the things you need to do while you're here with us on 3 West are:

- Please tell your nurse when your last BM was prior to admission.
- Tell your nurse if you normally have constipation or any other difficulties with BMs at home.

- Tell your nurse if you normally take any over-the-counter medication for constipation, such as Metamucil or stool softeners.
- We ask that you choose some foods on your menu that you know have helped you have regular bowel movements at home.
 - Select whole grain foods, green leafy vegetables, citrus fruits, dairy products and lean meat.
 - Drink several glasses of liquids each day unless instructed otherwise by your nurse or surgeon.
 - Your physician may order laxatives and stool softeners if needed.
 - Take frequent, short walks; exercise with therapy staff, nurses or your coach.

Some of the things we'll do while you're here with us on 3 West are:

- We'll ask you every day if you're having bowel movements.
- We'll start giving you stool softeners ordered by your physician as soon as he/she orders them.
- We'll be offering you warm prune juice 3 to 4 times per day (or cold prune juice if you prefer). Prune juice is not everyone's favorite beverage, but it's a great weapon against constipation. Warm prune juice tastes better than cold and also works better and quicker for constipation.



Visitors

Providence recognizes family-centered care in our approach to the planning, delivery, and evaluation of health care that is governed by mutually beneficial partnerships between health care providers, patients, and families. In keeping with the philosophy, Providence supports individualized patient visiting hours 24-hours-a-day, seven-days-a-week. The degree of family involvement is controlled by the patient provided he or she is competent to do so. Visitors are asked to consider a patient's need for rest and to be thoughtful as to how many visitors are in a room at one time. The 3 West atrium is always available to visitors taking turns going in to visit the patient.

Children visitor guidelines

Children under the age of 14 may visit; an adult visitor must accompany them at all times. The nurse will assess the emotional and physical state of the patient, and determine, in collaboration with the patient, their ability to visit with children under 14 years of age.

Special considerations

- In all instances when the patient has requested total privacy and confidentiality, "no information" requests will be honored.
- A member of the health care team may impose visitor restrictions when deemed necessary. For example, at the recommendation of the attending physician or when certain patient care activities are taking place.
- Persons with presence of infection or recent exposure to communicable diseases will be excluded from visiting.
- Condition of patient(s) in close proximity.
- All visitors with signs of illness, hostility, or unruliness will not be permitted visiting privileges.
- Semi-private rooms: Please be respectful of roommates. If the other bed in the semi-private room is vacant, please do not sit or lie on the empty bed, or place belongings on it. It must be kept "clean" for the next admission patient.

Staying the night

If a patient desires, we can usually accommodate an overnight visitor in the same room using a recliner or sleeper chair. Providence Joint Camp coaches are welcome.

- The person staying with the patient must be an adult over the age of 18.
- Only one person may stay overnight in the room with a patient.
- Nursing staff must be able to move around patient's bed and access both sides of the bed (in case of emergency, and for patient care needs).
- Overnight visitor cannot sleep in the bed with the patient.
- If patient is in a semi-private room, then visitor must be respectful of the roommate's need for "lights out" or "quiet" during the night.

Staying connected

thestatus.com

Providence subscribes to a web-based service called "thestatus.com." We recognize that your support community can include friends and family from other towns, states or countries. This website can be set up by you or your coach to help keep your support community up to date on your status. You can also post messages regarding when you are accepting calls or visitors. You determine what information is appropriate to post and you control the webpage. The site also allows people to leave encouraging messages for you. The site is easy to use and can be found at www.thestatus.com. Our code is 5039618.

Providence Guest Wireless Local Area Network

Free access to Providence's Wireless Local Area Network (WLAN) is provided to Providence guests and vendors. Users will need to find Prov-Guest or Prov.Guest on their wireless device to connect. Upon location and connection to the Providence Guest (WLAN):

- Launch your web browser of choice to display this page.
- Read the Welcome information before proceeding to access the Providence Guest Wireless Network after reading the welcome information.
- Click the check box stating you have read and accept the terms of service for the Providence Guest Wireless Network.

Quality counts

The satisfaction you feel in both the service and medical care you receive at Providence Alaska Medical Center is an important priority for us.

We strive to provide patients and guests with the very best possible experience. If for any reason you are not satisfied, we would consider it a compliment if you would make the time to tell us right away.

You are also invited to call the Patient Concern Line at extension 23615 from any hospital phone or call 907-212-3615 from any outside phone. A member of the service excellence team would be more than happy to talk to you and help facilitate a resolution.

We are continuously working to improve our service and you may receive a survey in the mail after you are discharged. We would greatly appreciate your honest feedback and your time to fill out this survey and mail it in. It is important to our success to share both positive compliments and constructive feedback with our clinical team and providers.

Section 4:
**Physical and
Occupational
Therapy**

Your exercise program

Now that you have your new knee replacement, you will start work right after surgery with a physical therapist to achieve three important goals:

- Independent walking with crutches or a walker.
- Increased strength of your operated leg.
- Functional range of motion of your operated knee.

Your therapist will tell you how often to do the following exercises. Continue your exercises after you leave the hospital, and ask your doctor about further therapy. Shown below are the most common exercises prescribed. Your physician or therapist may add more.

1. *Ankle pumps:*

Slowly move your ankles, pulling toes up towards your head. Then point your toes down. Repeat 30 times.



2. *Quad sets:*

With your legs straight, push the back of your knee down into the bed. Hold the contraction for a count of five. Repeat 10 to 15 times.



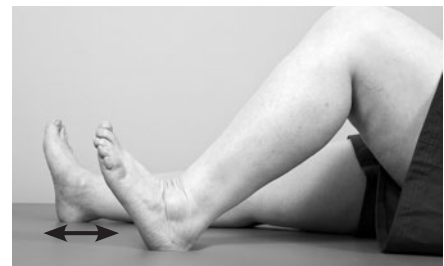
3. *Glut (gluteal) sets:*

Squeeze your buttocks together tightly. Your hips may rise slightly off the bed. Hold for a few seconds, then release. Repeat 10 to 15 times.



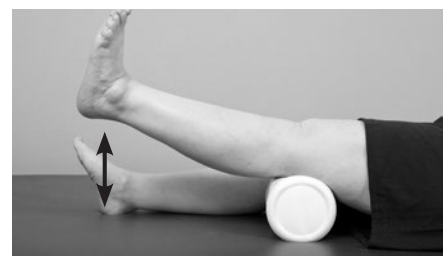
4. *Heel slides:*

Lie down with your legs stretched out in front of you. Slide your heel toward your buttocks while keeping it on the bed. Placing a plastic bag under the heel can help it slide more easily. Move it as far as you comfortably can. Hold for a few seconds, and then slide your heel back. Repeat five to 10 times.



5. *Short arc quads:*

Roll a towel or small pillow into a roll six to eight inches thick. Secure with elastic bands or tape. Lie down on a bed or sofa. Put the roll under your operated knee. Keeping your knee on the roll, lift your foot and ankle to straighten the knee. Hold for three to five seconds. Then slowly lower the foot. Repeat five to 10 times.



Regaining knee range of motion

Generally speaking, range of motion refers to the distance and direction a joint can move to its full potential. Each joint has a normal range of motion that is expressed in degrees after being measured with an instrument called a goniometer (measures angles from axis of the joint).

Normal knee range of motion is from fully straight (zero degrees) to fully bent (about 130 degrees). Chronic arthritis can reduce range of motion and many patients have less than full knee bending mobility prior to surgery. Early goals of knee rehabilitation in the hospital are to reduce knee stiffness and maximize post-operative range of motion.

The physical therapist will evaluate how much motion is present in your knee following surgery. Measurements will be taken with your knee as straight as possible (knee extension) and again with your knee bent as much as possible (flexion). The therapist will then work with you to increase your knee flexion and extension.

Regaining mobility of your knee following surgery is important and range of motion exercises are necessary. They are also uncomfortable. Talk to your therapist about this. It is important to understand the difference between acceptable post-operative discomfort and excessive pain. During range of motion activities, your discomfort should be tolerable and subside once the activity stops.

Working with your new knee

It is important to understand that your new knee will work somewhat differently from your natural knee. Be aware of any weight limitations for your leg. Your surgeon will provide specific weight-bearing instructions to you, your nurse and physical therapist.

Getting out of bed

- Getting out of bed on the side of your operated leg is the safest.
- Use your non-surgical leg to help you scoot to the edge of the bed.
- Sitting at the bedside with your operated leg extended in front of you, place your hands beside you and push up to stand. "Get your nose over your toes."
- Getting back into bed on the side of your non-surgical leg is the safer choice.
- A safety belt may be placed around your waist to help prevent a fall.

Using the toilet or commode

At first, you will be assisted to the bathroom. To seat yourself on the toilet or commode from a standing position, back up until you feel the toilet touch the back of your legs. Place your operated leg out in front of you. Be aware of any limitations on the weight you can place through your leg. Grasp the grab bar or rail and keeping your back as upright as possible, lower yourself gently onto the toilet.

Lower body dressing

- You may need to use a reacher or a dressing stick to bring your pants over your foot and lower leg if you cannot perform independently.
- Dress the operated side first. Undress the operated side last.
- If needed, use a sock aid for socks. Push socks off from the inside with a reacher or dressing stick.
- Wear shoes that slip on. Elastic shoelaces can turn shoes with ties into slip-ons. Use a long-handled shoehorn; place it on the inside of the heel to avoid turning your leg inward.

Reaching low objects

Use a reacher to pick up low items. When reaching from a standing position for low objects, hold onto something solid, like a counter, and slowly place your operated-side leg on the floor behind you. Do not hold onto walker handles.



Walking

- Stand up straight and look straight ahead.
- Use walker or crutches to assist with walking initially. Avoid uneven surfaces while using crutches and/or a walker.
- Try to keep the lengths of your steps equal/even for both feet.
- Bend your hip when you take a step. Then touch down on your heel first.
- Gradually increase the distance you walk. Walk at least four to six times daily for at least 10 to 15 minutes each time.
- Remember, your shoes can offer support and stability. Wear non-slip soles and no high heels.

Sequence for stairs: "Up with the good, down with the bad."

Use a handrail, if available, and have someone stand by for safety at first.



Upstairs:
Go up steps leading with your strong leg – up with the good. Step up first with your non-operated leg. Follow with your operated leg and crutches or walker.



Downstairs:
Step down with your crutches or walker and your operated leg first – down with the bad. Then your non-operated leg follows. In other words, go downstairs leading with your weaker leg and crutches.

Car transfers

Talk with your doctor before attempting to drive. Avoid small, low two-door compact cars or high recreational trucks or SUVs as they can be difficult to transfer in and out of. Don't force your knee to bend when transferring.

Two-door car transfer:

- Use the front passenger seat unless otherwise instructed by your therapist. Have someone slide the seat back as far as possible and recline it before you attempt to get in.
- A plastic bag on the seat can help you slide in and out more easily.
- Back up to the car seat and sit down. Use your arms to help support yourself while you lower yourself on to the seat. Someone may need to assist you with your operated leg(s).



Discharge planning timeline

Depending on the type of surgery and your progression through rehabilitation, you may be discharged as early as the day after surgery. Most patients are discharged home by the third day following surgery. Compare your discharge goals with your progress. Discuss these goals with your nurse, PT, OT and orthopedic physician.

To be discharged, you must:

- Be in stable physical and medical condition.
- Follow weight-bearing precautions.
- Demonstrate safe transfers using adaptive equipment (e.g., getting out of bed, off the toilet, out of a chair).
- Demonstrate independence with mobility or have sufficient help at home to ensure your safety.
- Be able to care for yourself (e.g., transferring, toileting, getting around) or have help in your home.
- Have arrangements finalized for getting equipment or services at home.
- If the team feels you would benefit from additional physical therapy, a PT referral will be discussed and given upon discharge.

Most patients go directly home from the hospital. If you need further therapy, your surgeon will order this in an outpatient setting or through home health care. If home health care is indicated, our case manager will assist you with these arrangements.

Occasionally, the orthopedic team determines a more intensive continuation of therapy is needed. A case manager will then discuss the option of transferring to an inpatient rehabilitation program or a skilled nursing facility with you.

Section 5: **Going Home**

Medications

Your doctor will order pain medication for you. To ensure a good night's rest, it may be helpful to take a pain pill before going to bed for the first three to four nights. After surgery, you should re-evaluate your need for pain medications; you may no longer need them.

Pain medication can cause the following side effects:

- Nausea and vomiting (notify your doctor).
- Itching and/or rash (notify your doctor).
- Dizziness, especially when first rising to a standing position. Stand up slowly to be sure you have your balance.
- Constipation (notify your doctor if laxatives do not offer relief).

Do not drink alcohol or drive when you are taking narcotic pain medications (Tylenol with codeine, Vicodin, Oxycodone, Percocet). They may cause drowsiness.

Diet and fluids

Eat a well balanced diet with good protein, calories and roughage. Drink six to eight glasses of liquids each day, excluding drinks with caffeine unless instructed to do otherwise by your physician. This is important to promote healing and recovery and to prevent constipation.

Postoperative leg swelling

You may notice swelling around your operated knee. This is expected. To reduce the swelling, lay flat on a couch or bed and elevate your operated leg using four to five pillows under your foot and ankle. Your knee should be higher than your heart. Your stockings should still be on. Ankle pump exercises help reduce swelling and improve circulation. After one hour, the swelling should be greatly diminished. If the swelling continues and or gets worse, please call your doctor.

Showering

You may shower 24 hours after there has been no drainage from either the incision(s) or the drain site. This is typically four to five days after surgery. Pat the incision dry after showering. Do not take a bath or swim for four weeks.

Positioning

- When resting, place a rolled towel under your ankle to help straighten your knee.
- Don't force your knee into position, avoid bending your knee too far.
- Don't twist your knee; turn your body in small steps.
- Sit in chairs with arms; the arms make it easier for you to stand up or sit down.
- Don't sit for more than 30 to 45 minutes at one time.
- Sleep with a pillow under your ankle, not your knee. Be sure to change the position of your leg during the night.
- Keep your hands free by using a backpack, fanny pack, apron, or pockets to carry things.

Care of your incision

Dressing supplies can be bought at most pharmacies and major grocery or drug stores.

Home dressing change instructions

Follow your surgeon's instructions regarding care of your incision. Typically you will change the dressing every other day unless it becomes soiled. After there has been no drainage for 24 hours, you may leave incision(s) uncovered. Inspect the incision every other day.

Dressing supplies:

- Bar or bottle of pH-balanced soap (not antibiotic or antimicrobial)
- Dressings
- Clean towel and washcloths
- Clean gloves (optional)
- Adhesive skin tape (if not allergic)
- ACE bandage
- Adhesive solvent pads (optional)

Directions:

- Wash hands before and after dressing change.
- Remove the ace bandage if you have one.
- Carefully remove all exterior adhesive tape. Moisten tape around the edges of the dressing with water to loosen. Use adhesive solvent pads as needed.
- Remove the old dressing. Leave the paper tape (steri-strips) on over the incision. They will fall off in approximately two weeks.
- Clean area around incision with pH-balanced cleanser, being careful not to touch the wound. Pat dry with a clean towel. Do not put any lotions or creams on incision.
- Cover incision(s) and drain site with a clean dressing.
- Use an ACE bandage to secure clean dressing. If not using ACE, tape all four sides of dressing with adhesive skin tape.

Risk of infection

Slight swelling and bruising around the incision is normal. Call your doctor if you notice any of the following signs of potential infection:

- Warmth, redness, increased pain or increased swelling around the incision
- An increase in clear drainage
- Any thick, green or foul-smelling drainage
- Separation of wound edges
- Temperature above 101 degrees

Preventing future infection

An infection elsewhere in your body could cause an infection in the area of your total knee replacement. If you are treated for any type of infection, please notify your orthopedic surgeon. If you develop symptoms of a bladder infection (frequent urination, pain or burning with urination, cloudy urine), please consult with your medical doctor for treatment and be sure to state that you have had a total knee replacement.

If you plan on having dental work done, please consult your surgeon concerning the need for antibiotics.

Your home exercise program

Initially, your exercise program at home will consist of the same exercises and activities you learned in the hospital. Continuing with moderate exercise every day will help you achieve the best functional outcome with your new knee and help you return to an active life sooner. Until your balance, flexibility, and strength improve, use a cane, crutches, a walker, handrails, or someone to help you.

Refer to Section 4 as a reminder of your daily knee range of motion exercises.

More advanced exercises

More than 90% of individuals who undergo total knee replacement experience a dramatic reduction of knee pain and a significant improvement in the ability to perform common activities of daily living. But total knee replacement will not make you a super-athlete or allow you to do more than you could before you developed arthritis. Following surgery, you will be advised to avoid some types of activity, including jogging and high-impact sports, for the rest of your life.

Exercise is the only way to regain the mobility and strength. Working with a physical therapist you can best determine when it is time to progress to more advanced exercises. On average, advanced strength and mobility exercises start about three weeks after surgery. Some mild to moderate discomfort is to be expected with exercise but you should not continue an activity that is causing intense pain.

1. Straight leg raises:

Sit or lie down on a bed or sofa (lying on your back is easier). Bend your un-operated leg, placing your foot flat on the bed. Tighten the muscles of your operated leg and keeping your knee as straight as possible, lift your foot and ankle off the bed. Hold for three to five seconds. Then slowly lower the foot.



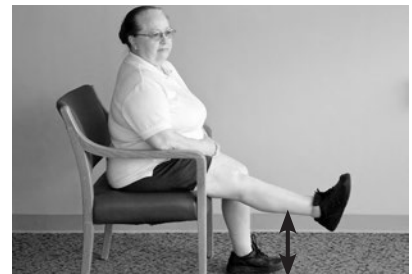
2. Seated knee extension stretch:

Sit on a sturdy chair, couch or bed with your operated leg extended in front of you resting on a low footstool. Slowly lean forward and reach toward your toes, keeping your leg as straight as possible. When you reach the point that you feel pulling in the back of your leg, hold the stretch for 30 seconds.



3. Long arc quads:

Sit in a sturdy chair with your back against the chair. Tighten the muscles in the front of your thigh on the operated side and straighten your knee, lifting the foot off the floor. Hold three seconds and lower slowly.



4. Seated knee flexion:

Sitting on a straight-back chair, cross your un-operated ankle over top of your operated ankle. Using your good leg to push, gently try to slide your feet underneath the chair. Keep your hips down. Once you have bent your knees as far as you can without significantly increasing your discomfort, hold that position for ten seconds. Then try to bend a little more and hold for another ten seconds. You can also try holding your feet in place under the chair and scooting your bottom forward. Slide feet back out from under chair and relax.

The vast majority of patients report good to excellent results following total knee arthroplasty. Talk to your surgeon about your expectations for the mobility and function you hope to maintain or regain with surgery.



Using cold therapy

Cold can be used as many times throughout the day and night as needed to decrease pain and swelling. You must allow time between applications for the area to warm to normal temperature before repeating the ice. Use cold therapy for 15 to 20 minutes on the effected area. Remove when a numbing effect is achieved. Using ice after exercising can also help reduce swelling and pain.

Prolonged use of intense cold can lead to frostbite. Do not use ice for more than 20 minutes at a time.

- Do not apply ice directly to the skin; wrap ice in a thin, moist towel or cloth.
- Skin with frostbite appears white and does not turn to a healthy pink after being pressed by a fingertip. If skin is injured by cold; warm area SLOWLY with lukewarm water.
- Check skin during and after treatment for any signs of injury.
- Do not lie on the ice application, but place the ice on top of the affected area instead. Pressure increases the effect.
- DO NOT USE ice if you have extreme sensitivity to cold, decreased circulation, decreased sensation, or any cardiovascular problems including vasculitis.

Plastic bag cold pack

- Fill doubled plastic Ziploc-type bags with ice cubes or, if available, crushed ice.
- Place the bag in a pillowcase.
- Place the ice pack on the affected area until numb. If you have trouble initially adjusting to the cold, you may place a warm, damp towel against your skin and put the ice pack on top of the towel.
- Remove the pack and dry your skin thoroughly after approximately 20 minutes.

Slush pack

- Line a bowl with a double-heavy plastic Ziploc-style bag.
- Fill with two to three cups of water and one cup of denatured alcohol. More water will make a firmer slush. Seal the bags.
- Place the bowl in the freezer until slush forms.
- Remove bag; place in a pillowcase.
- Place the ice pack on the affected area until numb. If you have trouble initially adjusting to the cold, you may place a warm, damp towel against your skin and put the ice pack on top of the towel.
- Remove the pack and dry your skin thoroughly after approximately 20 minutes. Return the slush pack to the bowl in the freezer for storage and future use.

Commercial gel packs

A variety of ice therapy options are also available in drugstores and medical supply outlets. Use and store as directed by the manufacturers. Game Ready, Iceman and Cryocuff are three other commercial products available for providing cold therapy.

Working

Within a few months after surgery, you will likely be back to your normal routine. It is recommended that most people take a month off from work, unless their job is sedentary and they can return to work using their walking aide. Returning to work is very patient-dependent. Please discuss the specifics with your doctor prior to surgery.

Driving

While you recover from surgery, your reaction time while driving is delayed. Doctors typically advise waiting six to eight weeks before driving. This gives the soft tissues a chance to heal. However, returning to driving is highly individualized and it is recommended that you talk to your surgeon about this. The following guidelines are proposed for driving after a knee replacement:

- Patients may resume driving an automatic car after two weeks when the left knee has been replaced (provided they drive a vehicle with the steering wheel on the left).
- Patients who have the right knee replaced should wait six to eight weeks to resume driving.
- A reaction time of 0.50 seconds after a right total knee replacement may be a good goal.

Follow-up

It is very important to keep all appointments with your doctor. You will need ongoing medical supervision until healing is complete, which is usually two to three months. Remember, rehabilitation and recovery may take longer than you initially thought. Follow-up appointments may still be necessary one year after your surgery.

Airports

The materials used to make your new knee may set off metal detectors in airports. Please get an identification card from your surgeon's office before flying. However, because these cards and other materials we can provide can be easily counterfeited, most officials will disregard these and use the metal detecting wand over the site of the arthroplasty and to pat the area to ensure that there is no other metallic device in that area other than the knee replacement.

Prevention of blood clots

Blood clots can develop in either leg after surgery. Wear your elastic stockings daily for four to six weeks or as prescribed by your doctor. Squeeze your calves each day to assess for any pain. If you notice pain or swelling that does not lessen when you elevate the leg, please call your doctor.

The following may be signs of a blood clot. Report them to your doctor immediately:

- Pain and/or cramping in the calf of either leg
- Unusual warmth, redness or tenderness in the calf
- Increased or new swelling in the foot and/or leg
- Numbness in the leg

Call 911 if you notice the following signs as they could indicate a blood clot in your lungs:

- Difficulty breathing
- Chest pain
- Coughing up blood

To recover fully and to prevent blood clots from forming, it is important that you continue leg and ankle exercises and gradually increase your activity.

Section 6:
**Insurance
and Billing**

Know your insurance benefits

- We encourage you to review your insurance booklet and read through the benefit coverage. If you have questions, contact your insurance company to see what your policy covers and what out-of-pocket expenses you may have.
- Make sure your surgeon's office has your current insurance information. This information is easily obtained from your insurance card.
- Have your insurance information handy. The hospital admitting clerk will call you to ensure your insurance information is correct and complete in our system.
- The hospital will call your insurance carrier to verify that you are eligible for coverage. If pre-authorization is required, the hospital will work with you and your physician to get it.
- You are invited to contact a financial counselor at the hospital at any time to discuss issues regarding insurance coverage. Financial Counselors can be reached at 907-212-3161.
- If you believe you may need home care, a home care consultant will talk to you about your insurance coverage.
- If you do not have insurance or if you are paying the bill yourself, the hospital will call you to discuss payment options.

Price estimates

We can provide you with estimates of charges for our services. The actual charge may be more or less than the estimate depending on the type and extent of care that you and your provider determine is needed. All of our usual and customary charges for our services are contained in our "charge master." Your charges will depend on the actual services rendered, not the estimate.

Billing information

Thank you for choosing Providence Alaska Medical Center for your health care services. We are providing this information to help answer questions you may have about your statement and the billing process. When you receive medical care from one of our locations, you may receive more than one statement. In many instances, services must be divided between providers (MD, DO, PA, ARNP, NP, etc.), supplies and/or staff resources used in order to meet federal and state billing regulations. This may result in two separate billings for a single date of service, which may also lead to two explanations of benefits from your payer and/or two statements forwarded to you for service.

What is my account number?

Each time you are a patient, you are assigned a new account number. Please refer to this number on all your correspondence, payments or questions. You will receive a separate billing statement for each account number. Billing Customer Service can be reached at 800-916-2126.

Did the hospital bill my insurance?

The hospital will bill your insurance carriers. If, for any reason, the insurance does not make timely payment, the account is then billed to the patient.

What if I believe my insurance company improperly denied payments for services I received?

Please call your insurance company first. Your insurer has details about your policy that may not be available to us. You have the right to appeal any decision made by your insurance company.

How do I make financial arrangements?

If you need help paying your medical bills, we have financial counselors available to assist you. Please check your statement and call the appropriate phone number to make financial arrangements for your account balance. Different options are available. We will be glad to help you select your best option. Financial Counselors can be reached at 907-212-3161.

How do I know my account status?

Patient Accounts will use statements to inform you of your account status. Please read the messages on those statements. We may ask you for help with insurance information or payment arrangements. On self-pay balances, a representative may call you about financial arrangements.

Will I receive other bills for services?

The hospital does not bill for the services of the radiologist, anesthesiologist, pathologist and emergency consultant physicians. You will receive separate billings from the offices of these specialists. Please contact their offices directly regarding balances and payments.

Questions? Call us!

For insurance-related questions, call Patient Accounts at the number listed on your statement. For questions after insurance payment, please call the number listed on your statement. Some areas have voice mail where a recorded message may be left. If you reach a voice mail number, please give us your name, account number and phone number. We will return your call.

Section 7: **Resources**

Frequently asked questions

1. **Where is the incision for total knee arthroplasty?** In the traditional method, the incision averages eight to 10 inches in length. In minimally invasive knee surgery, the incision is four to six inches long.
2. **How long does it take to heal after total knee replacement surgery?** The incision will heal in about a two weeks. The soft tissues around the knee will take about six to eight weeks to heal. The return to normal gait can take between two to four months.
3. **I have difficulty putting on a sock and tying my shoe (before surgery). Will I be able to do this after surgery?** Frequently, patients with significant arthritis in their knee will have significant limitation in their range of motion. This will commonly result in difficulty tying shoes, putting socks on the foot, and clipping their toenails on the involved leg. After the surgery, the range of motion is typically improved. Commonly, patients will not get a normal range of motion, but will have a significant improvement in range of motion after the surgery.
4. **What materials are used for the total knee arthroplasty?** There are many designs of knee implants available to the surgeon. There is no universal agreement as to which design is best and each surgeon selects what he or she believes is the best option for each patient. The metal parts of the implant are manufactured of Cobalt-chrome or Titanium. The plastic parts of the implant are made of high-density polyethylene. The knee implant weights between 15 and 20 ounces, depending on the size selected for you.
5. **Will my body reject the artificial parts?** To date, there is little evidence suggesting any allergic reaction to the materials used in a total knee replacement.
6. **Will I need to use a cane long term after surgery?** No. Many patients are able to walk with a completely normal gait after knee replacement surgery. Very few patients require a cane for long term use after surgery. Normally, the reasons for needing a cane in that setting are due to problems with balance, arthritis or other disabling conditions in other joints on their lower extremities.
7. **Do I need to take antibiotics after dental and other procedures for the remainder of my life?** Your total joint replacement is an immunocompromised area in your body. Your immune system and white blood cells have a very difficult time clearing bacteria from joint replacements. Therefore, it is best to avoid and reduce the risk of any possible infection. To do this, it is commonly recommended that for dental procedures, particularly those involving a dental abscess, and for other procedures that are at risk for putting bacteria into the blood stream, that a patient be given antibiotics around the time of these procedures. The greatest risk for infection to occur after these procedures is within the first two years.
8. **When can I resume driving?** While you recover from surgery, your reaction time while driving is delayed. Doctors typically advise waiting six to eight weeks before driving. This gives the soft tissues a chance to heal. However, returning to driving is highly individualized and it is recommended that you talk to your surgeon about this.

9. **Can I obtain a handicap parking permit for the period of limited mobility after the surgery?** Yes. You will need to file an Application for Disabled Parking Identification, signed by a physician, physician assistant, nurse practitioner or chiropractor licensed in Alaska. You can obtain this form from the Department of Motor Vehicles. There is no fee. Most commonly, these are temporary forms that will be filled out for approximately six months after the time of surgery. If you qualify, the AK DMV will issue you two copies of the hanging placards. Due to arthritis in other joints or impaired mobility from other causes, you may wish to request a permanent handicap parking license tag. You should notify your surgeon of this, and he/she can help you in completing the appropriate paperwork and providing any additional documentation that may be necessary.
10. **How long will the knee replacement last?** Much can depend on the physical demands you place on your new knee. With normal use and activity, every knee replacement develops some wear in its plastic cushion. Excessive activity or weight may accelerate this normal wear and cause the knee replacement to loosen and become painful. With appropriate, moderate activity, knee replacements can last for many years. If your prosthesis wears out you may be a candidate for a second knee replacement.
11. **How will I know if I am having a problem with my knee replacement after surgery?** The most common symptom a patient will notice after knee replacement surgery that may indicate a problem would be pain. However, there are many things such as wear and osteolysis which may be without symptoms. To identify these, it is important to maintain follow up and to have x-rays taken of your knee replacement at least every other year. If a patient delays follow up until a knee replacement is painful, occasionally this can result in significant loss of bone and a greatly increased complexity to any re-operation that may be necessary.
12. **If I have one knee replaced does this indicate I will definitely be in need of replacing the other?** No. Often only one knee is affected and the other completely normal. Sometimes the other knee is also affected either as severely or not as badly. The surgeon can inform you of the likelihood if the other knee will need to be replaced in the future.
13. **Will I lose a great deal of motion if I discontinue my exercise program given to me in physical therapy?** How high at risk you are for losing range of motion will depend how active you are with your new knee. If you are relatively active with bending and straightening you probably will not lose a significant amount if any. However, if you lead a sedentary lifestyle it is best to continue with all of the flexibility and strengthening exercises at least three times per week to maintain range of motion and strength.

Glossary of terms

Advance Directive: Alaska law allows you to use a legal document so you can retain control over the medical care you receive when you are unable to express your wishes. This document is called an Advance Directive.

Antibiotics: Medicine to help prevent an infection

Anticoagulant: Medicine to help prevent blood clots

Autologous Blood Donation: Donation of your own blood, which is stored in case you need it during or after surgery.

Compression Stockings/Teds/Ted Hose: Elastic stockings used after surgery to help prevent blood clots from forming in the legs.

CPM: The CPM or Continuous Passive Motion machine is designed to move the knee joint passively through a pre-programmed arc of movement. The operative leg lies suspended on the machine's padding and is slowly bent and straightened to help decrease swelling and stiffness.

Deep Vein Thrombosis (DVT) refers to a blood clot embedded in one of the major deep veins of the lower legs, thighs, or pelvis. A blood clot blocks the circulation through these veins, which carry blood from the lower body back to the heart. Signs and symptoms include calf pain in either leg, warmth, redness or tenderness of calf, difficulty breathing or chest pain.

Foley Catheter: A tube temporarily placed into your bladder to drain your urine.

Foot Pumps: Cloth booties placed on your feet before and after surgery, which fill with air and then relax to promote circulation and help prevent blood clots in legs.

Incentive Spirometer: A device used after surgery to promote deep breathing and prevent pneumonia.

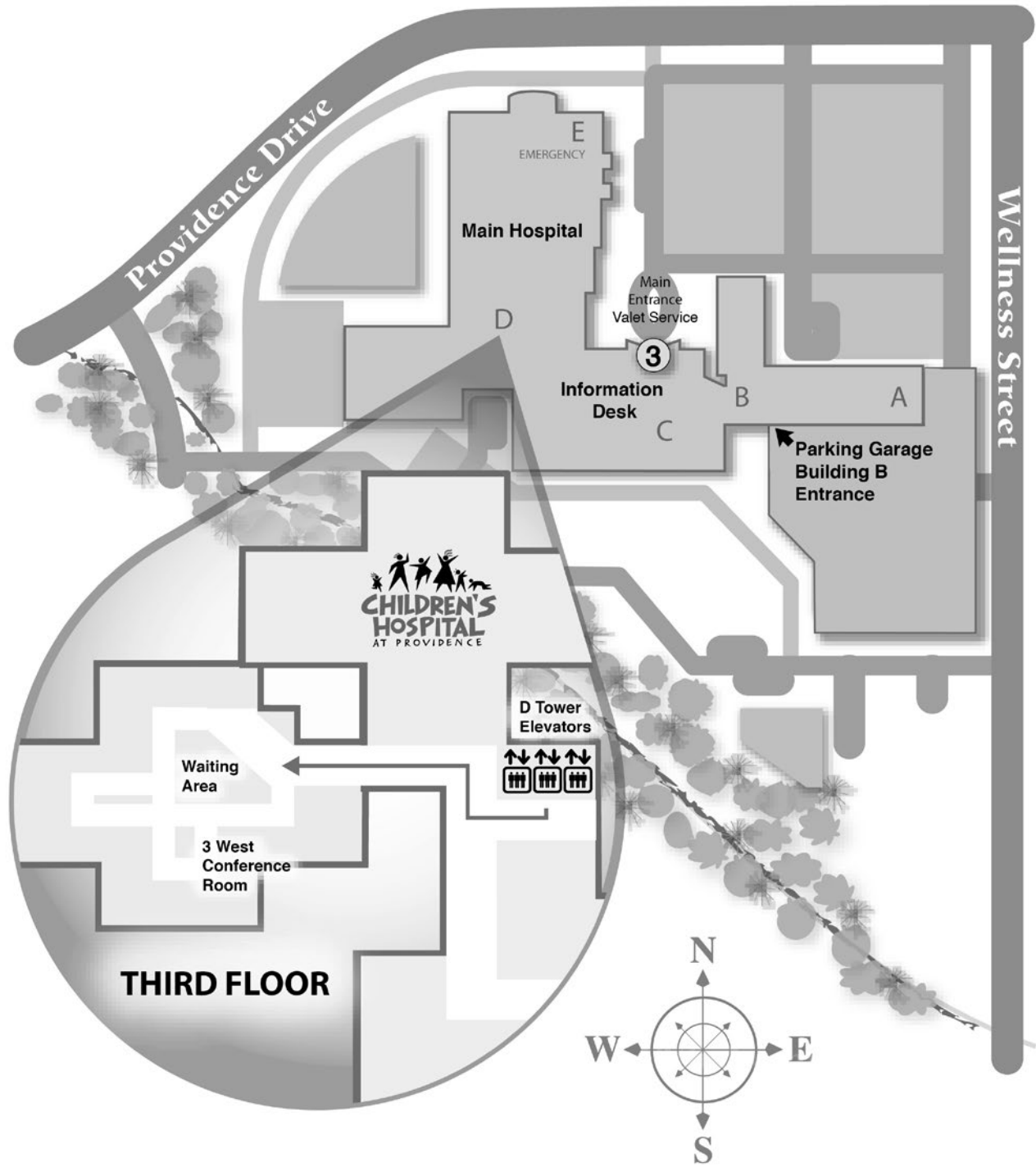
IV: Short for intravenous, a plastic tube placed in your arm to give you fluids and medicines.

Osteolysis: Bone growth away from the knee implant that can cause the implant to loosen.

ROM: Range of motion is the distance measured in degrees starting from one end of a joint's arc of motion and finishing at the other end of the joint's arc of motion.

SCD: An SCD or sequential compression device consists of plastic cuffs that are applied to the lower legs and a machine that intermittently inflates and deflates the cuffs to help reduce the risk of blood clots.

Skilled Nursing Facility (SNF): A place for short-term care after hospital discharge if you need extra physical or occupational therapies before going home.





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