

Patient Guide to Knee Replacement

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Ready for Your Joint Replacement Surgery?

You will be attending a Pre-Operative Education Class especially designed to cover the following important topics:

- The joint replacement process
- Tips for home preparation
- Pain management
- Pre-operative exercises to give you a head start on your post-operative rehabilitation.

The more you know about what to expect, the better!

Your Aspire Orthopedics team is here to support you on the exciting journey to increased mobility and improved health.



Important Phone Numbers

Your Surgeon's Name:
Your Surgeon's Office Phone Number: ()
Your Primary Care Provider's Name:

Adventist Health Phone Directory

Adventist Health Medical Group – Cardiology	509-527-8154
Adventist Health Medical Group – Family Medicine	509-527-8151
Adventist Health Orthopedics (Outpatient Clinic)	509-525-4900
Aspire Orthopedics Program Coordinator / Nurse Navigator	509-527-8000 ext. 1098
Billing	509-527-8110
Chaplain	509-527-8000 ext. 1848
Main Hospital Number & Patient Information	509-525-0480
Pre-Admission Office	509-527-8060
Privacy Officer	509-527-8088
Quality & Patient Concerns	509-527-8190
Registration & Insurance Questions	509-527-8000 ext. 1175
Rehabilitation Services (Physical/Occupational Therapy)	509-527-8272

Welcome to Aspire Orthopedic Institute

Your care team at Adventist Health/Aspire Orthopedic Institute has a goal — to restore quality of life to those suffering from joint pain. **Quality of life means something different for each individual**. For many, it means spending time with family, enjoying a round of golf, a bicycle ride, or the pleasure of a simple walk. For everyone, being able to move and walk without pain is an important part of living well. As we age, doing the things we love to do without pain often becomes more challenging.

Arthritis affects about 40 million Americans — or one in eight individuals. Our orthopedic surgeons have seen how arthritis attacks joints and robs people of mobility and independence, and have spent years studying how to better combat the effects of arthritis. Through research and surgical advances, at Aspire Orthopedic Institute it is our goal to revitalize your quality of life.

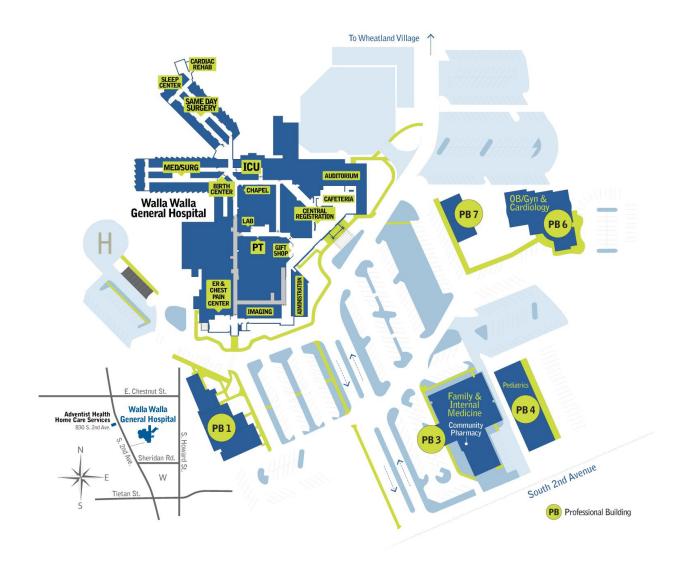
Our orthopedic surgeons and patient care team work closely to develop a joint replacement program that **shortens hospital stays**, **quality care**, and makes your **recovery more enjoyable**. Bringing together our combined expertise, we have created an exceptional patient experience right here in Walla Walla.

Our program is designed to ensure you have the information, care and support you need every step of the way. And **your commitment is essential to ensure the best possible outcome**, so please read all of the information in this educational resource guide. You'll know what to expect, how to prepare, and learn important tips to keep mobile.





Medical Campus Map



Introducing Your Joint Replacement Care Team

Aspire Orthopedic Institute in Walla Walla has an experienced and highly skilled team who will focus specifically on you. Each of our team members is specially trained to help ensure a safe and successful recovery. We work together with you and your designated coach to provide an excellent experience. Your care team includes:

- Anesthesiologist: Your anesthesiologist is the physician or nurse anesthetist who will
 formulate, explain and administer the appropriate medications to keep you
 comfortable and relaxed during surgery. Your anesthesiologist will also assist in postoperative pain management.
- Cardiologist: If you have a history of cardiac disease, your cardiologist is an integral member of the team as we plan your joint replacement surgery. Your cardiologist will provide surgical clearance as well as assist in managing your cardiac medications as we plan for your surgery and throughout your hospitalization and recovery.
- Case Manager/Discharge Planner: These team members help you plan your transition from the hospital to your home and arrange for any additional equipment and services needed.
- Chaplain: Our chaplains are specially trained to serve your spiritual needs upon your request, as well as those of your family, regardless of your religious denomination.
- Coach: Your Coach is a person <u>YOU</u> designate as your support person to help you prepare and recover from your joint replacement surgery. This can be a spouse, friend or family member who will provide support and encouragement throughout your experience.
- Dietitian: Your dietician provides nutrition counseling to help you make healthy choices about the foods you eat. They can help you understand the connection between diet and healing.
- Hospitalist: Our hospitalist team are physicians who may follow your medical care if needed during your hospital stay and will work with your orthopedic surgeon to meet your care needs.
- Orthopedic Surgeon: Your orthopedic surgeon is the physician who will perform your joint replacement operation and will oversee your care throughout your stay.

- Physical Therapist/Occupational Therapist: These are professionals trained to help you gain strength and motion in your new joint, and to help ensure that you do your exercises and activities of daily living correctly. Your physical therapy team will also help teach you how to properly and safely use your walker, crutches, or other assistive devices after surgery.
- Physician Assistant: The physician assistant will assist your orthopedic surgeon in the operating room and help manage your care and recovery process.
- Primary Care Provider: Your primary care provider the person who manages your overall health on a regular basis. You can expect your primary care provider to stay in contact with your orthopedic surgeon and be informed regarding your progress after discharge from Walla Walla General Hospital.
- Registered Nurse Navigator: Your navigator is a registered nurse who will serve as the coordinator of care throughout your stay. They will teach the pre-operative education class, and will become a familiar face as they follows your daily progress to help prepare for transition back home. They will work directly with your surgeon and the rest of the care team to ensure you and your family will have the best possible experience and outcome.
- Registered Nurse: Before, during and after your surgery, you can expect to meet many nurses who perform a wide variety of jobs. Nurses will help prepare you for surgery and will be in the operating room with you throughout your surgery. During your post-operative recovery, a team of nurses will carry out all orders given by your surgeon, as well as keep you comfortable and safe at Walla Walla General Hospital.
- X-Ray Technicians: Medical imaging plays an important role by taking the images that assist your surgeons in planning your surgery.

Other team members you may meet include pharmacists, lab technicians, patient transporters and respiratory therapists.

Common Causes of Knee Pain

What is Osteoarthritis?

Arthritis is a general term meaning joint inflammation. Osteoarthritis (sometimes called Degenerative Joint Disease) is a specific kind of arthritis and is the most common type affecting nearly 21 million Americans. As we age, the chances of developing osteoarthritis increase, though the severity of the disease is different for everyone. Even people in early stages of life can develop some form of osteoarthritis.

Osteoarthritis breaks down the cartilage in joints and can occur in almost any joint in the body, though it occurs most often in the hips, knees and spine. Cartilage is a rubbery material covering the ends of bones in normal joints and helps ensure that joint bones don't rub together. It also serves as a shock absorber as wear and tear occurs in the joints after years of use.

Osteoarthritis makes joint cartilage susceptible to damage. Over time, the cartilage may break down and wear away, preventing it from working properly. When this happens, tendons and ligaments in the joint can stretch, causing pain. And, if the condition worsens, joint bones can rub together, causing pain and impaired mobility.

What Causes Osteoarthritis?

There are several factors increasing a person's chances of developing osteoarthritis including family history, obesity, injuries such as fractures in the joint, previous surgeries where cartilage was removed from a joint, and overuse.

What Are Symptoms of Osteoarthritis?

Symptoms of osteoarthritis can include:

- Joints that are sore and ache, especially after periods of activity
- Pain that develops after overuse or when joints are inactive for long periods of time
- Joint swelling
- Stiffness or loss of range of motion

What is Rheumatoid Arthritis?

Rheumatoid arthritis is an inflammatory form of arthritis — meaning that the material surrounding and lubricating the joint becomes swollen. Rheumatoid arthritis affects about 1 percent of Americans, but is much more common in women than in men. This form of arthritis occurs in all age groups.

What Causes Rheumatoid Arthritis?

At this time, the exact cause of rheumatoid arthritis is unknown, but it may stem from a combination of family history, environmental and hormonal factors. Something seems to prompt the immune system to attack the joints, causing them to swell. Researchers do not yet understand the role family history plays in rheumatoid arthritis, although people with a family history of the disease are more likely to develop it.

What are the Symptoms of Rheumatoid Arthritis?

Symptoms of rheumatoid arthritis can include:

- Joint symptoms developing gradually over years or developing very quickly
- Stiffness and joint swelling
- Ligaments that stretch and become loose
- Decreased range of motion
- Pain



Knee Joint Replacement Surgery

Your knee is made up of three basic parts that move and work together to ensure smooth motion and function. When arthritis affects the joint and the cartilage that cushions the knee wears away or is destroyed, you are a candidate for knee replacement.

The materials used in your artificial joint are extremely strong and are designed to last a very long time inside your body. Your orthopedic surgeon will consider many factors, such as: age, bone density and the shape of your joints to determine the exact type of knee replacement best for you.

Total Knee Replacement Surgery

If the cartilage damage in your knee has occurred on both sides of the joint, or in all three joint compartments, a total knee replacement procedure may be performed. Knee replacement surgery involves resurfacing the knee joint and using artificial components to replace damaged tissue. With Aspire Orthopedics, your surgeon often uses minimally invasive techniques to avoid cutting the large muscle of the thigh known as the quadriceps.

Partial Knee Replacement Surgery

Sometimes, the cartilage damage in your knee is limited one or two surfaces. When this happens, a partial knee replacement procedure may be more appropriate.

The Risk of Knee Replacement Surgery

Having a joint replaced requires major surgery. Although advances in technology and medical care have made the procedure very safe and effective, there are risks. These risks should be considered carefully before you decide to have surgery. We encourage you to discuss the potential risks with your orthopedic surgeon, primary care provider and your family.

Every measure will be taken by our team of experts to minimize the risks and avoid complications. Although complications are rare, they do sometimes occur. The most common risks include:

- Blood Clots: Blood clots can form in a leg vein and in your lungs after knee replacement surgery and can be dangerous if they stop blood flow to the heart or break free and travel to the lungs. Blood clots are more common in older patients, patients who are obese, patients with a history of blood clots, and patients with cancer.
- Infection: Infection is very rare in healthy patients having knee replacement. Patients
 with chronic health conditions, like diabetes or liver disease, or patients who take
 some forms of corticosteroids, are at higher risk of infection after any surgery.

Superficial wound infections are usually treated with antibiotics. Deeper infections inside the joint may require additional surgery.

- Nerve, Blood Vessel, and Ligament Injuries: Damage to surrounding structures in the knee, including nerves, blood vessels and ligaments, are possible but extremely rare. Generally nerve injuries cause tingling sensations or numbness and may limit your ability to move certain muscles. Nerve damage usually improves with time and may go away completely.
- Slow Wound Healing: Sometimes the surgical incision heals slowly, particularly if you
 take corticosteroids or have a disease that affects the immune system, such as
 rheumatoid arthritis or diabetes, or if you are a smoker.
- Limited Range of Motion: On the day of surgery, you will begin exercises to help improve your range of motion. How far you can bend your knee after surgery often depends on how far you could bend at your knee before surgery. Your commitment to participating in your physical therapy exercise program is probably the most important factor for increasing your range of motion.
- Wear: Your new knee replacement is a mechanical device that will wear over time. The rate of wear may depend on your age and activity level.
- Loosening of the Joint: Over the long term, loosening of the artificial knee is the most common risk associated with total knee replacement. Loosening may occur when tissue grows between the artificial joint and your bone.

What Results are Typical?

You can expect a successful outcome from your knee replacement surgery. Generally, patients experience less pain and more mobility, and can resume most of the activities they enjoyed before the onset of arthritis. Long-term studies show that 85–90% of artificial joints are intact and functional after 20 years. Your artificial joint will last longer if you maintain your ideal weight and if you avoid high impact activities. You can also help reduce your risk of many of these complications by:

- Reducing or eliminating the use of tobacco and alcohol
- Being very careful in managing your diabetes, if applicable
- Maintaining a healthy diet
- Using good hand washing techniques
- Performing your exercises as directed by physical therapy
- Limiting high impact activities as directed by your surgeon

Before Your Knee Replacement Surgery

Pre-Operative Education Classes

Your joint replacement journey begins long before your actual surgery. To make sure you and your family are fully prepared for your joint replacement experience, it is important you carefully and thoroughly review this Patient Guide to Knee Replacement, attend your Pre-Operative Education class, and practice your exercises before surgery.

The Pre-Operative education class is designed especially to help you better understand your diagnosis, the joint replacement process, as well as what to expect every step along your journey to renewed mobility. You'll be introduced to the exercises, tips, and activities you'll need in order to speed recovery and ensure lasting success. The class is a great opportunity for you to ask any questions about your procedure and recovery in a relaxed setting.

Help From Your Coach (The Person YOU Designate as Your Support Person)

Recovering from knee replacement is a team effort. Your Coach's support, encouragement and companionship can make all the difference, not just in the hospital, but also throughout the weeks before and after your surgery. We strongly recommend that you bring your Coach, family member or friend with you to your pre-operative appointment at your surgeon's office and to the Pre-Operative Education class. This person should be someone who is willing to support you every step of the way and who can participate fully in activities before surgery and during your recovery.

Scheduling Your Surgery & Pre-Surgery Orientation/Testing Appointment

Once it has been determined that surgery is your best option, you may schedule your surgery while in your surgeon's office. We will work with you to obtain preauthorization from your insurance company. This may take several days to accomplish. When approved, you will be contacted to finalize the date of your surgery, and to schedule your pre-surgery orientation/testing appointment.

For this appointment, please be prepared with answers to the following questions:

- Name, date of birth and current address
- Phone numbers, including home and mobile numbers, for you and your coach
- Marital status
- Insurance information including the name of the primary, secondary, and prescription insurance
- A correct and up-to-date medication list
- An emergency contact
- Name, address, and phone number of referring physician and/or primary care provider and cardiologist if applicable

Scheduling a Physical Exam

It is important for you to have a complete physical examination prior to surgery. **Unless your orthopedic surgeon is conducting this exam at his office**, you will want to schedule an appointment with your primary care provider so your paperwork can be completed prior to surgery. If you have a history of heart disease, you will need to make an appointment with your cardiologist to obtain approval for surgery.

In addition to your physical exam, you will need to undergo a series of tests to ensure you are healthy and ready for joint replacement surgery. You will be given instructions about the appropriate tests you will need and when to have the testing. These tests may include:

- Chest X-ray
- Blood Test
- Urine Test
- Electrocardiogram (EKG)
- Nasal Swab

Completing these tests as instructed by your surgeon or physician assistant may shorten your pre-operative day and avoid last minute rescheduling of your surgery. Your results will be reviewed, and if any significant risk factors are revealed, additional testing may be ordered, or your surgery may be postponed. Any abnormal results will be shared with you.

Scheduling Follow-Up Appointments With Surgeon & Physical Therapist

It's a good idea to schedule your follow up appointments now with your orthopedic surgeon and with your outpatient physical therapy office. You'll need these appointments and having them scheduled before your surgery is one less thing to think about in the days following your joint replacement.

Practicing Your Exercises

Included at the back of this booklet you will find a home exercise program designed by our physical therapists from the Aspire Orthopedic Institute. These exercises will be demonstrated during your Pre-Operative Education class session. Performing these exercises regularly and properly is perhaps the most important factor in speeding recovery and determining long-term success of your new joint.

Keep in mind the exercises are designed to strengthen muscles around the knee and improve mobility. The exercises are not always easy, but they are an important part of your treatment and recovery process. Some soreness in your joint is normal and will improve over time. If you experience severe pain with any exercise, you should stop immediately, and discuss this with your provider.

Medications

This is a good time to **carefully review your medication list to make sure it is correct and up-to-date**. Some medications you are currently taking may prove harmful during surgery because they thin your blood and increase the risk of blood loss. If you take medications that contain aspirin, anti-inflammatories, blood thinners, or arthritis medications, your orthopedic surgeon will give you instructions about when to stop taking them*. Talk with your surgeon about your specific medications. During your pre-surgery screening appointment, a nurse will review your list of medications.

*These are examples only. Please discuss all your current medications and supplements with your surgeon.



Infection Prevention

There are several steps you can take to help prevent surgical site infections:

Dental Care: In the weeks before surgery, you should schedule a dental exam if you have not had one recently. Bacteria entering the body through the mouth can cause infection. Continue to brush and floss your teeth daily. All dental work, including cleaning, must be completed at least **SIX** weeks prior to your surgery. You must call the office if any dental problems arise prior to your scheduled surgery date.

If you're planning a visit to the dentist in the first few months after surgery, call your dentist's office at least 3–5 days before your appointment and let them know you've recently had a knee replacement. It is important your dentist order an antibiotic for you to help prevent infection.

Shaving: It is very important you do not shave anywhere near the surgical area for at least **FIVE** days prior to surgery. Studies show an increased risk of surgical site infection associated with shaving. This is attributed to the microscopic cuts in the skin that allow bacteria to enter.

Clean Hands: Hand hygiene is very important. You will notice your caregivers using alcohol-based hand sanitizer when entering your room. We also strongly encourage your family and friends to use this cleanser, as well as wash their hands frequently to prevent the spread of infection.

Illness: If you become ill with a fever, cold, sore throat, flu, or any other illness, please contact your surgeon's office.

Skin Rash: Broken skin or rashes should be reported to your surgeon's office.

Pre-Surgery Bathing: You will be instructed to shower with a special cleanser (Hibiclens®) obtained at your pre-surgery orientation appointment. Starting 2 days before surgery, again the day before surgery, and on the morning of your surgery, you will use 1/3 of the bottle contents, or 1 packet, for each shower (a total of 3 showers).

Hair may be shampooed with regular shampoo and rinsed thoroughly prior to use of Hibiclens® on the body. During your shower apply Hibiclens® from your chin down and wash gently for 3–5 minutes. This is an effective cleanser, even though it doesn't lather well. Rinse thoroughly with running water.

Use a clean towel after each shower, put on clean freshly laundered clothing after each shower, and clean sheets on your bed the night before surgery **Do not use lotion**, **perfumes/aftershave**, **or powders of any kind after bathing/showering with Hibiclens®**. You may use deodorant.

Home Preparation Safety Checklist

You and your family may want to consider these tips to help make your home safe and comfortable when you return from your surgery. ☐ Purchase a **non-slip bath mat** for inside your tub/shower. You may wish to install safety grab bars inside your tub or shower for added safety. ☐ Check every room for **tripping hazards**. Remove throw rugs and secure electrical cords out of your way. ☐ Determine what items from dressers, cabinets and shelves you'll **need immediately after** returning home. Any items you use often should be moved to counter height to avoid excessive bending or reaching. ☐ Plan on using a **cordless phone** or plan to use a **cell phone**. They can be tucked away inside a pocket, carried easily or set within reach. ☐ Make sure stairs have **handrails securely fastened to the wall**. If you must negotiate stairs to enter or once within your home, please discuss this at your pre-operative visit. ☐ If your bedroom is on an upper level, you may want to **consider arranging temporary** sleeping quarters on a lower level. You should plan to use this sleeping area for approximately 1-2 weeks after surgery. ☐ If you have pets, you may want to **consider boarding them for a few days after your return home**, or otherwise arrange for assistance with their care. Pets are a common cause of falls. ☐ A chair which has a **firm back and arm rests** is recommended during your recovery. A chair that sits higher will help you stand more easily. Chairs with wheels should not be used under any circumstances. ☐ In order to minimize cooking, **prepare meals in advance and freeze them**. Alternatively, you can purchase prepared meals for convenience. ☐ Install **night lights** in bathrooms, bedrooms, and hallways. ☐ Avoid **yard work for 10 days prior to surgery**. Make arrangements for outdoor work such as gardening or cutting the grass for at least 2 weeks after surgery. ☐ Do **laundry ahead of time** and put clean linens on your bed.

	Arrange for someone to collect your newspaper and mail.
	Since your safety is our primary concern, we strongly encourage that your Coach , spouse , family member , or friend stay with you after your surgery until you are able to perform activities of daily living independently and safely. Typically, this occurs within a few days after you return home.
I	tems to Pack
Th	e following checklist should help you pack for your hospital stay.
	Clean, comfortable, loose-fitting clothing such as elastic waist pants , shorts , skirts or jogging outfits to wear in the hospital and for your trip home. (You will not need to wear a hospital gown post-surgery.)
	Tennis shoes or shoes with flat, rubber bottoms. Do not bring tight fitting footwear since your feet may swell a bit following surgery. Do not bring slides, backless slippers, or "flip flop" sandals
	Eye glasses, contact lens cases with solution.
	Your insurance card and a form of identification (i.e. driver's license).
	Credit card number or check to make any necessary co-payments.
	Your own pillow if you think it would make you more comfortable. To keep it separate from hospital pillows, it is helpful if you place your pillow in a colorful pillowcase. But please be sure the pillowcase is freshly laundered just prior to your hospital stay.
	Your advance directive , either a living will or durable power of attorney for healthcare. If you don't already have an advance directive, forms will be available at the hospital.
	Reading material for your enjoyment.
	This Patient Guide to Knee Replacement.
	ems to Leave at Home welry, cash or valuables of any kind should be left at home or in the care of a trusted loved e.

Your Itinerary: Countdown to Surgery

8 Weeks Before Surgery

Begin making arrangements for a coach: someone to accompany you to your pre-operative appointments if desired, to transport you to the hospital the day of surgery, to drive you home the day you are released from the hospital, and to stay with you upon your return home after surgery.

6 Weeks Before Surgery

All routine dental work such as cleaning must be completed as of six weeks prior to surgery OR you need to wait three months after surgery. You must call your orthopedic surgeon's office if any dental problems arise prior to your scheduled surgery date.



4 Weeks Before Surgery

- Surgical clearance appointment with your Orthopedic Surgeon. If you are under the care of a Cardiologist, you may need to make an appointment there as well.
- Attend Joint Replacement Pre-Operative Education class
- Begin your home exercise program

2 Weeks Before Surgery

- Start making home preparations
- Attend your pre-surgery orientation/testing appointment at the hospital; preoperative laboratory tests should be completed 14 days before surgery

10 Days Before Surgery

Avoid yard work until cleared by your surgeon

1 Week Before Surgery

- It is very important before discontinuing or making changes in any of your prescription medications to consult with your surgeon for instructions.
- If you become ill, have broken skin, or develop a rash, please call your surgeon's office.
- Stop shaving your legs at least 5 days before surgery.

4 Days Before Surgery

Reduce alcohol consumption and stop smoking

2 Days Before Surgery

Shower from the chin down with the special cleanser (Hibiclens®) given at your pre-surgery orientation appointment.

Day Before Surgery

- Do not eat or drink anything for 8 hours prior to your surgery, including gum, mints, and candy. Limit your intake of alcohol the evening before to surgery to avoid the risk of dehydration.
- Shower from the chin down with the special cleanser (Hibiclens®) given at your presurgery orientation appointment.
- Get a good night's rest on freshly laundered sheets.

Day of Surgery

- Shower from the chin down with the Hibiclens® before coming to the hospital.
- Wear clean, comfortable clothes. Avoid wearing any fragrance, body lotion, or powders. You may wear deodorant.
- Take the medications you've been instructed to take with a small sip of water.
- Report to the check-in area on time, usually 2 hours prior to your scheduled surgery time.

The Day of Surgery

The day of your surgery will be a busy one. Please remember not to eat or drink anything, including mints or gum, 8 hours prior to your surgery. There may be several hours that pass between the time you check into the hospital and the time your surgery is completed. Your family and Coach should be prepared for a few hours wait.

It is important you arrive at the hospital with plenty of time to check in and prepare in an unhurried manner for surgery. You will be instructed on your expected arrival time, usually about 2 hours prior to scheduled surgery, as directed by your nurse navigator.

Wear comfortable clothes. Do not use lotions, perfumes/aftershave, or powders of any kind. You may use deodorant.



Surgery Preparation

- After you check in at registration, a wristband will be applied. It is important for you to verify all information on your identification bracelet is correct. We will be asking you to confirm this information many times throughout your hospital stay as one way of ensuring your safety.
- You will be escorted to your pre-surgical patient room. Additional wrist bands, including an allergy band, will be applied at this time if applicable.
- Change into a hospital gown. Your clothes and any items you brought with you will be placed in a bag with your name on it. These will be in your room after surgery.
- A nurse will review your medical records, take your vital signs, perform a brief physical exam, clean the surgical site, and make sure everything is in order.
 Sometimes, additional tests may need to be performed.
- As surgery approaches, a nurse will start an IV. This allows medication and fluids to flow directly into your bloodstream.
- Your orthopedic surgeon and the anesthesiologist will visit you in the preoperative holding area prior to surgery. Among other things, your surgeon will ask you to confirm which knee is being operated on and will mark the surgical site with a special marker. Your anesthesiologist will ask you a number of questions to help determine the best anesthesia for you.

Waiting Area for Your Coach, Family and/or Friends

On the morning of surgery your Coach, family member or friend will be able to stay with you until you are transported to the pre-operative holding area. At this point, they will be escorted to a family waiting area where they may wait while you have your surgery.

Once your knee replacement is complete, a member of the surgical team will contact your Coach, spouse, family member or friend.

Types of Anesthesia for Orthopedic Surgery

Your anesthesiologist will meet you before surgery. At that time, the anesthesiologist will examine you, discuss your medical history, and discuss the best plan for your anesthetic care. It is important that you tell your anesthesiologist of any prior problems or difficulties you have had with anesthesia.

Your anesthesiologist will discuss the risks and benefits associated with the various anesthetic options, as well as the potential side effects that can occur with each. If you have a history of difficulty with anesthesia, please let your provider know ahead of time so that we can accommodate you.

Spinal Anesthesia

For many orthopedic surgeries, a spinal anesthetic is used, which is sometimes referred to as a "spinal block." You will receive sedation, and the block will be administered, allowing your lower body to fall asleep. You will have medication through your IV, and you will be asleep during the procedure. When the procedure is completed, you will wake in the recovery room. Your legs may feel heavy and/or numb. This sensation will go away over the next several hours. It is important you do not try to walk until your physical therapist determines you are ready.

Regional Block

A regional block is a form of anesthesia where the anesthetist will give you sedation and then inject local anesthetic to numb a specific body part — in this case your knee — for a period of 12–24 hours. Sometimes the anesthesiologist will place a small catheter in this area in order to continue to provide pain relief for more than 24 hours. The benefit of this type of technique is that you will have superior pain relief that is isolated to the affected location. In turn, this will decrease the amount of narcotic necessary to keep you comfortable.

General Anesthesia

A general anesthetic may (also) be administered depending on the type of procedure that you are having done, and other factors specific to each individual patient.

During & Immediately After Surgery

In the Operating Room

Inside the operating room, you will be cared for by a team of physicians, nurses and skilled technicians. The total time required for your surgery will be different from patient to patient depending on the complexity of your procedure.

Recovery

After surgery, you will be transported to an area called the Post Anesthesia Care Unit (PACU) or recovery room. You will spend approximately 1 ½ to 2 hours in the PACU while you recover from the effects of anesthesia.

Specially trained recovery nurses will check your vital signs — blood pressure, respiratory rate, and heart rate — and monitor your progress. Pain medications will be provided through your IV as needed.

Nurses will check your bandages, check drainage from your surgical site, and encourage you to take deep breaths. They will also apply leg compression devices to help with circulation. After your stay in the PACU, you will be moved to your hospital room to begin your recovery.



What to Expect After Surgery

Once you have arrived in your room, nurses will assess you and continue to monitor you frequently until you are stable. You will notice a bandage on your knee and possibly a tube that drains fluid away from your joint. Additionally, you may have a small tube inserted into your bladder, called a catheter, so you don't have to get out of bed to urinate (this will be removed the morning after surgery). You can also expect to have compression devices on your legs which will squeeze your legs at regular intervals to circulate blood and to help prevent clotting. If you do not feel the compression, be sure to let your nurse know.

Once your vital signs are stable and you have regained movement and sensation in your lower extremities, your physical therapist or nurse may assist you to sit at the edge of the bed, stand, and walk.

Managing Your Pain

The amount of pain and discomfort you experience depends on multiple factors. You will receive pain medication through your IV after surgery and by mouth once you are recovering in the Aspire Orthopedic Institute. Your physicians and nurses will do everything possible to relieve your pain and discomfort using medications and other techniques.

Communication is an important part of helping us manage your pain. We encourage you to share information with your nurses about any pain you experience. Be as specific as possible. For example, where is the pain? How often do you feel pain? What does the pain feel like: is it sharp, dull, aching, radiating? On a scale of 0 to 10, with 10 being the worst pain imaginable, how would you rate your pain?

The scale you will use rates as follows:

0-1: No Symptoms, 2-3: Mild Symptoms, 4-7: Moderate Symptoms, 8-10: Severe Symptoms

Wong-Baker FACES™ Pain Rating Scale



Additional Medications

You can expect to receive IV antibiotics the first day of your hospital stay as well as medications for pain and medications to prevent blood clots, called anticoagulants. Sometimes, patients may feel nauseated or constipated. Both symptoms can be managed with medication so it is important you share this information with your nurse.

Early Ambulation

Participation in physical therapy soon after surgery helps speed the recovery process. Even when you don't feel up to it, try your best to participate fully. You can expect to walk with the assistance of a physical therapist on the day of your surgery.

During your stay at the Aspire Orthopedic Institute, you will see a member of your physical therapy/occupational therapy team twice a day for group exercise sessions. These exercises are designed to help increase strength and flexibility in the joint. Ultimately, the goal is for you to regain the range of motion in your knee and resume your usual activities of daily living, like walking, climbing stairs, and getting in and out of a bed and up and down from a chair or toilet. In order to ensure maximum success, it is important you follow physical therapy instructions both while you are in the hospital and after you are dismissed from the hospital. Deep Breathing, Coughing, and the Incentive Spirometer

Deep Breathing, Coughing, and the Incentive Spirometer

Sometimes patients experience chest congestion after surgery. We recommend a few simple breathing exercises to help lessen the feeling of pressure on your lungs.

- Use your abdominal muscles abdominal muscles to help you cough. Take a deep breath in and cough while using your abdomen to push.
- You will receive a device called an incentive spirometer incentive spirometer. The spirometer encourages you to take deep breaths, which will aid you in coughing effectively. This will decrease your risk of respiratory infections. A respiratory therapist will teach you how to use the incentive spirometer.



Your Recovery

Day of Surgery

- Physical and Occupational Therapy assessments completed
- Begin leg exercises including ankle pumps and isometrics as instructed
- Sit up in chair as tolerated
- Ambulate with the help of your physical therapist
- Diet as tolerated
- Incentive spirometry 10 times every hour while awake
- Ice therapy in place
- Manage pain

Day One

- Transition to oral pain medications
- Tubes removed (IV line, catheter, etc.)
- Out of bed to the bathroom
- Up in chair during the day and for all meals
- Advance leg exercises as instructed
- Continue Physical/Occupational therapy including walking and therapeutic activities
- Attend group exercise/physical therapy classes
- Regular diet
- Incentive spirometry 10 times every hour while awake
- Ice therapy
- Manage pain

Day Two

- Pain controlled with oral pain medications
- Managing bowel and bladder needs
- Tolerating regular diet
- Independent with home exercise program as instructed
- Continue Physical/Occupational therapy reviewing all mobility
- Attend group exercise/Physical Therapy classes
- Walking greater than 300 feet and ascending/descending 8 stairs
- Review your home instructions
- Planning for transition to home

Transitioning Home

Congratulations! You have achieved an important milestone on your joint replacement journey — you're headed home. There are some important considerations for you to keep in mind as you enter this next phase of recovery.

You'll be ready to go home once you are able to walk and transfer safely, your pain is managed with oral pain medications, you are independent with your exercise program, and your surgeon determines you are ready for dismissal. To facilitate a smooth transition to home and ongoing recovery, you must arrange for someone to stay with you when you go home in order to avoid a delay in your release from the hospital.

Before you go home, we will make sure that all your dismissal needs are met. Your surgeon will order medications based on your individual needs, including medication for pain and to thin the blood.

These prescriptions will be given to you at your pre-operative appointment **or** prior to being discharged from the hospital.

Equipment When You Leave the Hospital

The following is a list of common equipment used after a total knee replacement. During the Pre-Operative Education class, physical therapy staff will demonstrate various assistive devices and assist you in evaluating the type of equipment you will need following your surgery. Equipment recommendations are based on the individual needs of each patient, and not every item will be necessary for every patient. Often it is helpful to arrange for equipment prior to your surgery. If needed, Case Management Services can assist you in ordering equipment during your hospital stay:

- Front-wheeled walker/cane/crutches
- Shower stool/chair/bench
- Raised toilet seat/bedside commode
- "Reacher"/grabber

The Trip Home

If you are driving home, you will need to arrange for your Coach, family member, or friend to drive. To make your ride more comfortable, your driver should bring pillows for you to sit on, slide your seat back, and recline the seat slightly.

If you will be traveling a long distance, either by vehicle or plane, it is vital that you do ankle pumps and walk for 10–15 minutes every 1–2 hours. This will help prevent blood clots and joint stiffness.

Recovering at Home

Medications

Be sure to take your pain medications by mouth with a meal or snack. Avoid drinking alcohol or driving while taking prescribed pain medication. Consider taking pain medication 30 minutes prior to performing the prescribed physical therapy exercises.

Some people experience constipation while taking pain medication. You may wish to try drinking prune juice daily, drinking more water, adding fiber to your diet, or taking an overthe-counter stool softener to prevent this. Exercise and walking also help prevent constipation.

Resume your home medications as instructed by your physician.

Activity

Continue your knee exercises as instructed by your physical therapist every day. You may bear weight as tolerated on the surgical leg, unless instructed otherwise by your surgeon.

- Get up and walk 10–15 minutes every 1–2 hours using your walker or cane for support and safety, until instructed otherwise by your outpatient physical therapist.
- Avoid resistance training or swimming until cleared by your surgeon.
- You may resume driving when you have regained complete control of your leg (usually within 7–10 days after surgery) and are no longer taking narcotic pain medications. Please follow your surgeon's orders.

Managing Swelling

It is normal to have bruising around your knee and down to your foot, as well as up the inner thigh to the groin area. You may also experience swelling of the upper and lower leg down to the foot and ankle. Swelling usually peaks around 7 days after surgery.

Incision Care

Keep your incision clean and dry. With approval of your surgeon, you may shower when your incision is dry and no longer draining, typically 48-72 hours after surgery and sometimes up to 1 week after surgery.

Use regular soap, but do NOT use creams or lotions on your incision for four weeks after surgery or until cleared by your surgeon.

Avoid soaking your incision in a tub bath, hot tub or participating in any water activities until the incision is completely healed, closed and no longer draining. This typically occurs two to four weeks after surgery.

Following your surgery, the surgical site was covered with a special dressing that is waterproof, antimicrobial, flexible and non-irritating. This dressing should be left on until your follow up visit at the surgeon's office. You can shower with the dressing on. Your surgeon will give additional specific instructions as indicated.

Diet and Rest

Eat a healthy diet to promote healing. You may experience decreased appetite after surgery. This is normal and should gradually resolve itself.

Take rest breaks as needed during the day and get a good night's sleep to support the healing process. However, it is common to have difficulty sleeping after surgery. This will gradually improve.

You may sleep on your back or on your side with a pillow between your legs for comfort.

When to Call Your Surgeon

A moderate amount of bruising, swelling, and redness can be expected after knee joint replacement surgery. If you experience any of the following, you should contact your surgeon or physician assistant:

- A fall
- Numbness, tingling, or burning that persists even after elevating your leg and applying ice
- Pain not relieved by medication or pain that is getting worse
- Thick yellow drainage from the incision site
- Inability to do your exercises
- Excessive swelling that persists
- Toes that are very cold and do not get warm when you cover them
- Increased redness around your incision
- A temperature over 101°F (38.3°C)
- Any unexpected problems, concerns, or questions

If you need a refill of your pain medication, please call your physician, 8 AM to 5 PM, Monday through Thursday, and 8 AM to noon on Friday. Pharmacies are also open during these hours and will be able to fill your prescription in a timely manner.

Although unlikely, should you experience chest pain, palpitations, or difficulty breathing, please call 911 <u>immediately</u>.

Life After a Joint Replacement

Traveling

When traveling long distances, you should attempt to change position or stand about every hour. Some of the exercises, like ankle pumps, can also be performed should you need to sit for long periods of time.

Because your new artificial knee contains metal components, you will likely set off the security systems at airports or shopping malls. This is normal and should not cause concern.

Exercises and Activity

Exercise and maintaining an active lifestyle are important parts of health. Most patients with artificial joints are able to enjoy many activities, though some should be avoided. In general, high impact exercises, like running, jumping, heavy weight lifting, or contact sports, are not recommended. Participating in these activities, or activities like them, may damage your joint or cause it to wear down much more quickly. Low impact activities like swimming, walking, gardening, bicycling and golf are encouraged.

Dental Care

Following your joint replacement surgery, it is important to notify your dentist that you have a joint implant. It is essential that you obtain a prescription from your dentist for a prophylactic antibiotic to be taken **PRIOR** to any dental cleaning or procedure for the rest of your life. You will need to remind your dentist before every scheduled appointment in the future of this requirement in order to reduce the risk of developing an infection in your joint.

Reducing Risks of Infection in Your New Joint

To reduce your risk of infection, antibiotics may need to be administered prior to any invasive test, procedure or surgery. The physician or surgeon performing the test, procedure, or surgery should prescribe antibiotics if indicated.

Follow Up Care

You will see your surgeon or physician assistant for post-operative follow-up appointments at 2 weeks, 6 weeks, 3 months, 6 months and 1 year. Joint replacements are monitored thereafter as needed. We may include surveys for research purposes.

Thank You for Choosing Aspire Orthopedics

We hope your experience at the Aspire Orthopedic Institute is positive. After surgery, it is up to you to take good care of your new joint. It takes most patients three to six months to completely regain their strength and energy after a total joint replacement. If you follow your exercise and therapy routine, you will see continued improvement throughout this period.

The goal for replacing the arthritic joint is to enjoy a more active lifestyle. You will need to exercise and stay fit. Keeping your weight at an optimal level will put less wear on your joints, allowing them to last longer. When you are choosing activities, remember to limit sports/activities that are high impact or have excessive pivoting. Ideal activities include: walking, swimming, golf, cycling, hiking, general conditioning, and traveling. Ask your doctor if you have questions about exercise and activity.

Thank you for allowing us to assist you on your joint replacement journey. The entire Aspire Orthopedics care team wishes you the best as you continue to enjoy life.





Exercise & Mobility

The following pages contain a list of basic exercises and activities you will be performing following your knee surgery. These exercises are vital in helping you return to your normal activities and are designed to help increase leg strength, flexibility and function. Practicing the exercises at home prior to your surgery will make the exercises easier for you after surgery.

As a general rule, **exercises should be performed with 10 repetitions**, **three times a day**. Do not add weights or other resistance to these exercises for at least six weeks after surgery, or until cleared by your surgeon.



Knee Replacement Exercise Instructions

- Exercise slowly and do not hold your breath.
- Perform all exercises at least 3 sessions per day.
- Continue to do your exercises until instructed otherwise.
- Increase your walking gradually. Be prepared for "good days" and "bad days." Remember, overdoing on a good day may be followed by a "bad day."
- Applying ice following your exercise/therapy session will help to reduce pain and swelling.



Pre-Operative Exercises / Bed Exercises

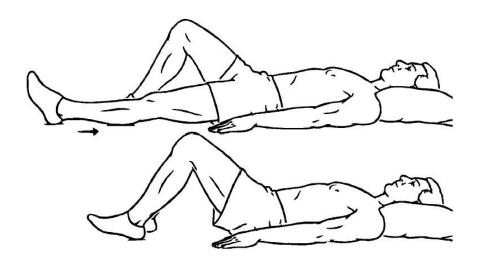
Ankle Pumps

- 1. Bending at both ankles, first point your toes upward or toward your nose.
- 2. Then point your toes downward.
- 3. Perform 10 repetitions; Repeat 10 times every hour.



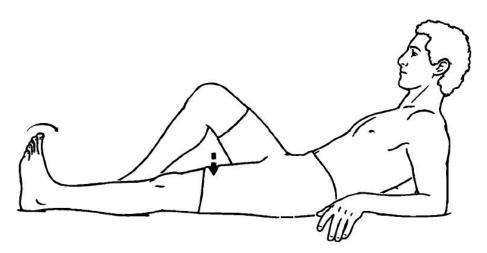
Heel Slides

- 1. While lying on your back or sitting in a chair, keeping the heel of your foot on a firm surface at all times, slowly slide your heel in toward your bottom.
- 2. Then straighten the leg to the starting position. Repeat with other leg.
- 3. Do 10 repetitions, 3 times per day.



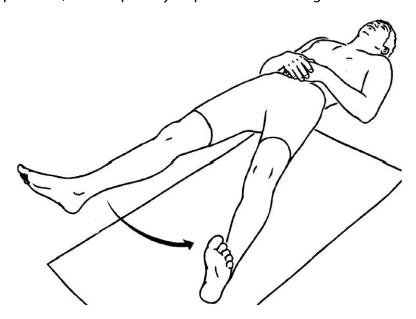
Quad Sets

- 1. Lie with your leg straight and toes pointed toward the ceiling.
- 2. Tighten the muscle on the top of your thigh, keeping your thigh on the bed while attempting to raise your heel slightly off the bed.
- 3. Hold your muscles tight for 5 seconds. Do not hold your breath.
- 4. Repeat 10 times, 3 times per day. Repeat with the other leg.



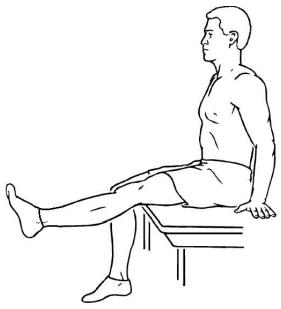
Hip Abduction

- 1. Lie on your back.
- 2. Keeping your knee tight and straight, slide the whole leg out to the side. Keep your knees and toes pointing upward.
- 3. Slowly bring your leg back to the center. Do not cross the midline.
- 4. Do 10 repetitions, 3 times per day. Repeat with other leg.



Seated Knee Extension

- 1. To promote quadriceps strength, sit with your knees bent at 90 degrees.
- 2. Straighten your leg at the knee while keeping your back upright.
- 3. Slowly lower your leg to the starting position. Perform 10 repetitions, 3 times per day.



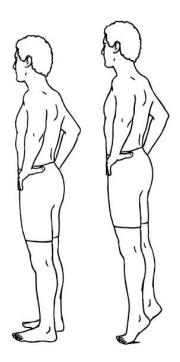
Seated Hip Adduction

- 1. Place a ball, pillow, or towel between your knees, gently squeeze. Hold 5 seconds.
- 2. Perform 10 repetitions, 3 times per day.



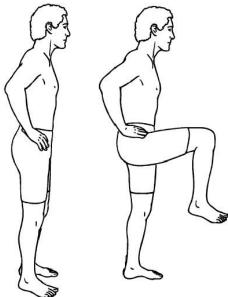
Standing Calf Raises

- 1. Standing while holding onto your walker, lift your heels so that you are standing on your toes.
- 2. Slowly return to the starting position. Perform 10 repetitions, 3 times per day.



Standing Hip Flexions

- 1. Standing while holding onto your walker, lift your knee so that your thigh is level with the ground.
- 2. Slowly return to the starting position. Alternate legs. Perform 10 repetitions, 3 times per day.



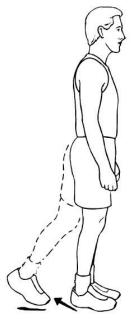
Standing Hip Abduction

- 1. Standing while holding onto your walker, move your foot sideways away from your body keeping your leg straight. Don't lean sideways.
- 2. Slowly lower your leg to the starting position. Alternate legs. Perform 10 repetitions, 3 times per day.



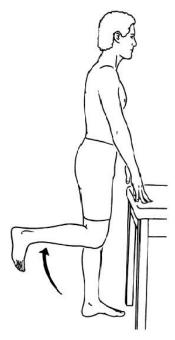
Standing Hip Extension

- 1. Standing while holding onto your walker, move your foot backward away from your body keeping your leg straight. Don't lean forward.
- 2. Slowly lower your leg to the starting position. Alternate legs. Perform 10 repetitions, 3 times per day.



Standing Hamstring Curls

- 1. Standing while holding onto your walker, lift your foot backward, while bending your knee, keeping your thigh still.
- 2. Slowly return to the starting position. Alternate legs. Perform 10 repetitions, 3 times per day.



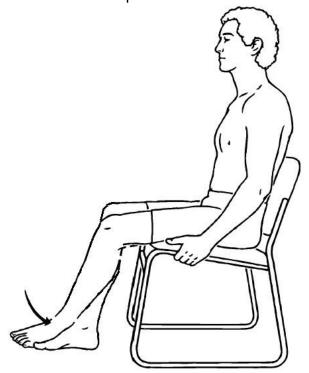
Mini Squats

- 1. Standing while holding onto your walker, bend your knees slightly.
- 2. Slowly return to the starting position. Perform 10 repetitions, 3 times per day.



Seated Knee Flexion Stretch

- 1. To promote knee bending, sit in a chair with your legs crossed at the ankles with the non-operated leg in front, and operated leg in back.
- 2. Push operated leg back with front leg until a stretch is felt in the operated knee. Hold for 20–60 seconds. Perform 3 repetitions.



Propped Knee Extension

- 1. To fully straighten your knee, prop your surgical leg on a small towel or pillow under your heel, **not under the knee**.
- 2. Maintain this position for 5 minutes, slowly increasing your tolerance to 30 minutes at one time. Continue until full knee extension is achieved.



Group Therapy Exercises

- Go slowly
- Do not hold your breath
- Maintain good posture
- Move through full range of motion
- Keep a steady rhythm through full range of motion
- 1. Chest Pulls: Hold ends of the band with arms out in front of you. Keep elbows straight and pull arms away from each other to the side. Bring hands back together. Repeat 10 times.
- 2. **Diagonals/Shoulder Flexion:** Hold one end of the band with your palm up. Holding the other end of the band with your other hand, stabilize that end of the band on your thigh; raise the first arm with thumb leading in a diagonal direction. Bring back to thigh. Repeat 10 times, then switch to other side.
- 3. **Overhead Pulls:** Hold one end of band with each hand; raise arms above your head keeping your elbows straight. Pull down behind your head. Stop with arms outstretched. Lift hands above head again. Repeat 10 times.
- 4. **Elbow Flexion:** Hold theraband with palms up (about 4 inches between hands). Put left hand on your right thigh, if able. Stabilize the right elbow against your side and bend right elbow 10 times. Reverse everything and do with left elbow.
- 5. **Elbow Extension:** Hold theraband with palms down (about 4 inches between hands). Put one hand on chest, push other hand out extending elbow. Repeat 10 times, then change hand positions, and repeat 10 times.

^{*}If you have shoulder pain at any time when doing these exercises, discontinue immediately.

Mobility

Walking With an Assistive Device

- 1. Move your walker or crutches first, then your surgical leg, followed by your other leg.
- 2. **Heel to Toe Gait:** When walking with a walker or crutches, stand tall and look ahead (not at the floor), bend your knee to take a step, and, keeping your toes pointed straight ahead, set your heel on the floor first.
- 3. For better balance, stay in the **middle of your walker**. Do not step beyond the front of your walker.
- 4. Use your walker **until you are able to walk confidently without a limp**. If you find yourself holding onto the wall or other objects while walking, you need to continue to use your walker. You may transition to a cane when you are able to stand on your surgical leg without support.

Stairs — "Up with the good. Down with the bad."

- 1. Hold onto the railing during stair negotiation.
- 2. Step up with the "good leg" (non-surgical leg) first, then the surgical leg.
- 3. Step down with the "bad leg" (surgical leg) first, then the non-surgical leg.

Getting Into Bed

- 1. Slide your surgical leg forward for comfort and sit on the edge of the bed.
- 2. Scoot your bottom and hips back, bring your legs onto the bed.
- 3. Scoot up in bed using your arms and non-surgical leg.

NOTE: DO NOT CROSS YOUR LEGS TO HELP THE OPERATED LEG INTO BED

Getting Out of Bed

- 1. Scoot your bottom and hips to the edge of the bed.
- 2. Sit up while lowering your legs to the floor.
- 3. Scoot hips to the edge of the bed.
- 4. Slide operated leg out in front of you when standing up.
- 5. Use both hands to push off the bed. If the bed is too low, use a hand rail. Do not grab onto your walker or use it to help you get up.

Sitting

- 1. Back up (using a walker or crutches) until you feel both legs touch the chair or the toilet.
- 2. Slide your surgical leg forward for comfort, reach back for the armrest, handle or toilet and then lower yourself slowly.

Standing up From Chair – Do Not Pull Up on the Walker to Stand!

- 1. Sit in a chair with armrests when possible.
- 2. Scoot to the front edge of the seat, keeping your surgical leg forward for comfort.
- 3. Push up with both hands on the armrests. If sitting in a chair without armrests, place one hand on the walker while pushing off the side of the chair with the other.
- 4. Balance yourself before reaching for the walker.

Sitting Down on the Toilet

- 1. Take small steps and turn until your back is to the toilet. Never pivot.
- 2. Back up to the toilet until you feel it touch the back of your legs.
- 3. If using a commode with armrests, reach back for both armrests and lower yourself onto the toilet. If using a raised toilet seat without armrests, keep one hand on the walker while reaching back for the toilet seat with the other.
- 4. Slide your operated leg out in front of you when sitting down.

Getting Up from the Toilet

- 1. If using a commode with armrests, use the armrests to push up. If using a raised toilet seat without armrests, place one hand on the walker and push off the toilet seat with the other.
- 2. Slide operated leg out in front of you when standing up.
- 3. Balance yourself before reaching for the walker.

Shower Transfers

Note: You may bathe or shower as soon as your surgeon gives permission. Use adaptive equipment if needed.

- 1. Place shower chair into the shower.
- 2. Stand near the shower lip.
- 3. Step over the shower lip with your surgical leg first and then your non-surgical leg.
- 4. Back up to the shower bench or seat.
- 5. Slide your surgical leg forward for comfort, reach back with one hand for the chair or bench and sit slowly. If available, use hand-held shower hose and/or long-handled sponge to avoid excessive bending.

NOTE: Using a bath seat, grab bars, long-handled bath brushes and a hand-held shower hose makes bathing/showering easier and safer; they are typically not covered by insurance.

NOTE: Always use a rubber mat or non-skid adhesive on the bottom of the tub or shower.

Car Transfers

Slide the seat of your car as far back as possible and if able, recline the seat. If needed, place a pillow on the seat to make it level. Cars with very low or high seats are not ideal.

- 1. Back up to the car using your walker (or crutches). Reach back to the car seat or dashboard for support.
- 2. Slide your surgical leg forward as you sit down on the edge of the seat
- 3. Scoot back on the seat as far as possible and lean back as you swing your legs into the car.
- 4. To get out of the car, reverse the above procedure.



Resources for Home Care Services

Walla Walla

Adventist Health/Home Medical Supply

Phone: 509-529-2649 826 South Second Avenue Walla Walla, WA 99362

Green & Jackson Medical Supply

Phone: 509-529-1700 1365 Dalles Military Road Walla Walla, WA 99362

Lincare

Phone: 509-526-0223 489 N Wilbur Walla Walla, WA 99362

Norco Medical Supply

Phone: 509-525-1066 329 South Second Avenue Walla Walla, WA 99362

Pendleton

In Home Medical Supply

Phone: 541-966-6293 301 SW 20th Street Pendleton, OR 97801

Hermiston

Good Shepard Home Medical Equipment

Phone: 541-667-3542 435 NW 11th Street Hermiston, OR 97838

Notes & Questions