Patient Guide

Total Knee Replacement

UPMC Susquehanna
Welcome
We want to welcome you to UPMC Susquehanna’s Joint Center.

We hope your stay is as brief and pleasant as possible. In preparing for your hospitalization, we have written this informational guide to help answer your questions about your total joint replacement and hospital stay. We have included information from all the department staffs that make up our Total Joint Replacement Team.

This patient education book is a resource guide for you and your family as you prepare for your surgery and recovery.

Please bring this guide with you for each of the following:

1. Pre-Admission Testing
2. Total Joint Class—You may want to review this guide prior to class and write down any questions you may have, which can be addressed at the class. You may also be asked to reference various sections of this guide during your class.
3. Day of Surgery—The nurses and therapists will be referencing this guide during your hospital stay.

Mission Statement
The mission of UPMC Susquehanna’s Joint Center is to improve the quality of life for our patients by providing a coordinated orthopedic care program. This is achieved by offering the best in high-quality, cost-effective services that surpass all others in compassion and care.

UPMC Susquehanna’s Orthopedics team delivers high-quality and efficient care by using advanced technology and the best staff. We are committed to improving the health and well being of our patients. This patient-focused environment fosters open communication, cooperation, innovation, respect, and trust.

The Joint Center is a patient-centered environment comprised of 24 private rooms designed to accommodate and promote healing and wellness. The Joint Center team sets the expectation that patients and families become fully engaged in their surgery, recovery and rehabilitation through comprehensive education, group support, practical advice, and enjoyable activities.

The vision is to insure that our patients enjoy quality clinical outcomes that exceed national benchmarks as well as an outstanding overall experience at UPMC Susquehanna.
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Our Joint Replacement Program
Our Joint Replacement Program

We are pleased that you have selected UPMC Susquehanna's Joint Center for your surgery. Depending on your needs, your stay will last two to three days.

Overview of the Joint Center

We offer a unique program with each step designed to encourage the best results leading to a discharge from the hospital two to three days after surgery. Features of the program include:

- Dedicated nurses and therapists trained to work with joint patients
- Casual clothes (no drafty gowns)
- Private rooms
- Emphasis on group activities
- Family and friends participating as “coaches” in the recovery process

Facts about UPMC Susquehanna’s Joint Center:

- We perform more than 700 joint replacements each year.
- We engage a team approach to surgical care, ensuring a smooth transition from surgery to recovery. You and your team of healthcare professionals work together toward a common goal—improved quality of life.
- We employ a unique, comprehensive joint replacement program comprised of doctors and healthcare providers committed to providing you with personalized attention and quality care.
- We provide complete physical and occupational therapy care that is available seven days per week.
- We have over 30 years of experience in providing joint replacements and keeping abreast of the latest procedures and technology.
- We value and strive to achieve complete patient satisfaction.

Welcome to the Team

It’s natural to be concerned or anxious about surgery, a hospital stay and the impact of a total knee replacement. We’ll provide you with information that will alleviate these concerns and assure you that you will not face this alone. You are now a member of an important team that includes your family or coach, doctors, nurses, and other specialized healthcare professionals. As a team, we have a common goal: improving your quality of life through increased mobility. This guide is designed to introduce you to the preparation needed before surgery, the fundamentals of the surgical process and the recovery, or training process. Although each member of the team is important, consider yourself the captain. We’re here to provide you our support and guidance—your active participation is what will drive the team towards achieving your goal.

Common Causes of Knee Problems

If you’re reading this guide, you are probably familiar with knee problems and the need for surgery. Here is a brief overview of the most common causes of joint failure.

Osteoarthritis is the most common form of arthritis. It is most often related to wear and tear on the joints over the years. Its onset usually begins after age 50.

Another common type of inflammatory arthritis is Rheumatoid Arthritis. It is a chronic inflammatory disorder affecting the joints of the body that are lined with a membrane called synovium. These joints include the hip, knee, shoulder, elbow, wrist, hands, and feet. Rheumatoid arthritis occurs when the body produces cells that irritate the synovium in the joints, damaging the cartilage. This form of arthritis occurs in all age groups. Its symptoms include stiffness, joint swelling, laxity of the ligaments, pain, and decreased range of motion.
Total Knee Replacement Surgery

The knee joint is composed of three parts:

1. Thigh bone (the end of the femur)
2. Shin bone (the top of the tibia)
3. Knee Cap (the patella)

In a normal knee, these three bones are covered with a smooth cartilage that cushions the bones and helps them to move easily. In an arthritic knee, the cartilage layers are destroyed, resulting in bone rubbing against bone causing pain, muscle weakness, and limited range of motion. Total knee replacement surgery involves the resurfacing of the knee joint. Metal components are attached to the ends of the bones and a plastic liner is inserted between them. The kneecap may also be resurfaced with a plastic liner. When in place, these components move together to allow normal motion of the knee joint.

Preparing for Surgery

Your path to recovery begins with the pre-operative steps that take place in the weeks before your surgery.

Physical Exam by Doctor

Before surgery, you must see your doctor for a complete physical. It’s important to rule out medical problems that could cause complications during or after surgery. You should also request a copy of your complete medical history.

If your physical exam indicates any possible risk factors, you may need additional testing. You will be contacted if further testing is required.

Selecting A Coach

We encourage you to enlist a coach to assist you with your total joint replacement experience. You will be relying heavily on your coach, so choose someone with whom you are comfortable.

Coach’s Responsibilities:

- Attend the Total Joint Class with you
- Attend physical and occupational therapy with you to learn the exercises and how to assist you in and out of bed
- Provide encouragement and motivation to perform your exercises
- Assist you with creating a safe home environment
- Be present for discharge instructions
- Help you with exercises at home
- Help you at home with daily activities such as bathing, cooking, and cleaning. Help you open doors, clear pathways, provide safety, and coach you regarding proper techniques
- Provide/help with transportation to outpatient therapy sessions and doctor appointments
Homework
Safety video—We believe safety is an important part of your healing process. You will be shown a video the day of your surgery, or you may view our safety video on the web at UPMCSusquehanna.org. Click on Patients & Visitors and then Patient Education.
Additional information can be found at aaos.com (American Academy of Orthopedic Surgeons).

Pre-Operative Total Joint Education Class
To prepare for your surgery, you must attend our pre-operative class one to four weeks prior to surgery. This will enable you to participate in your care and gain a better understanding of the post-operative recovery period and exercise program. The class is taught by either a physical or occupational therapist and an orthopedic nurse.

If you have not scheduled your Total Joint Class, please call (570) 321-3240.

Subjects covered:
- Preparing your home setting to assist in discharge planning
- Your exercise program
- What to expect during your hospitalization
- Use of assistive equipment (crutches, walker, raised toilet seat, etc.) that may be helpful when you go home
- Any questions or concerns

Directions to Total Joint Class
- Enter through the revolving doors at the Main Entrance of Williamsport Regional Medical Center on 700 High St.
- Turn right and follow signs to the Main Elevators
- Go to the 6th floor
- Turn left
- At the end of the hallway turn right and you will see a sign for Multipurpose Room on the left. The Total Joint (Knee/Hip) or Spinal Fusion procedure class will be held in the Multipurpose Room

*Wheelchairs are located just inside of the Main Entrance. If you need assistance, please inform someone at the Information Center, located just inside the revolving doors.

The class lasts approximately one hour.

On the day of your class:
- Bring this guide
- Bring your coach
- Please do not bring children to the class; you will need to be able to concentrate on the education
- Please turn off all cell phones and electronic devices

Pre-Admission Testing
Pre-Admission Testing is an important part of your care before surgery.

What to Bring:
- All of your medicines in original containers
- This guide
- List of previous surgeries

During your pre-admission evaluation you will have:
- An evaluation by a nurse
- Education and instructions about the morning of surgery
- Blood tests
- Urine collection
- EKG/Chest X-ray, as needed

The pre-admission testing takes approximately 45 to 60 minutes. We request that you arrive 15 minutes before your earliest appointment.

If you do not have your Pre-Admission Testing done before your surgery, your surgery may be delayed or even cancelled.
Diet and Nutrition

Healthy Eating
Good nutrition is an important part of healing. Eating well and maintaining a healthy weight also helps eliminate stress to your joints and may reduce the risk of heart disease, high blood pressure, diabetes, and cancer.

To achieve good nutrition, we recommend a balanced diet of a variety of foods each day from the USDA-approved food pyramid below. 

![MyPlate.gov](https://www.choosemyplate.gov)

Use the food pyramid as a guide to healthy eating every day:

- Choose 6 or more servings from grains, beans and, starchy vegetables.
- Choose 3 to 5 servings of vegetables.
- Choose 3 to 4 servings of fruits.
- Choose 2 to 3 servings of milk or dairy.
- Choose 2 to 3 servings of meat.
- Limit your intake of fats, sweets, and alcohol.

Iron and Vitamins
Iron is an essential mineral that plays an important role in a variety of body functions. It carries oxygen and carbon dioxide to other body tissues. It is necessary for the production of energy and the support of your immune system. We do not recommend taking an iron supplement before surgery, due to the constipation iron can cause.

Appropriate alternatives to an iron supplement:
- Iron-rich foods such as lean meat, poultry, and fish
- Vitamin C-rich foods with each meal such as strawberries, orange juice, cantaloupe, green peppers, tomatoes, potatoes, and broccoli

These foods help the body absorb iron. You may drink coffee and tea between meals but since coffee and tea stop iron absorption, do not drink them with your meals.

Medications
To minimize the risk of blood loss during surgery, your orthopedic surgeon may tell you to stop taking medicines and diet/herbal supplements that contain aspirin, anti-inflammatories and, blood thinners. Check with your physician for directions on the following medications:

- Plavix
- Pletal
- Glucosamine/Chondroitin
- Fish Oil
- Ginger Root
- Gingko Biloba
- Vitamins C and E
- Aspirin
- Coumadin
- Blood thinning injectable or oral medications
- Arthritis medicine
- Ticlid
- Anti-inflammatories (Ibuprofen, Aleve, etc.)

A nurse from Pre-Admission Testing will review your list of medicines with you.

Other Medicine Notes
If you currently take blood thinners, please check with your medical/cardiac doctor for instruction on taking this medicine before your surgery. On the morning of your surgery, take only the medicines you have been instructed to take by the Pre-Amission Testing nurse or your orthopedic surgeon, with a small sip of water.
Additional Healthy Ways to Prepare for Surgery

Stop Smoking
Smoking increases your risk of lung complications during and after surgery and decreases your ability to heal. It is best to stop smoking at least four weeks before surgery. If you need help, talk to your doctor about medicines that can ease this process. UPMC Susquehanna is a tobacco-free environment. No smoking is permitted on hospital property.

Limit Alcohol
Limit your alcohol intake to one cocktail, glass of wine or beer per day, starting five to seven days before surgery. If you drink alcohol on a daily basis, please be very honest with your nurse during pre-admission testing. Also inform your doctor as well as your orthopedic surgeon. You may need medicines to prevent withdrawal from the alcohol. Withdrawal from alcohol without medicine can be very dangerous, especially after major surgery and could lead to serious complications. Do not drink any alcohol 24 hours prior to surgery.

Preparing the Skin for Surgery
Preparing or “prepping” skin before surgery can reduce the risk of infection at the surgical site.

Shower for three consecutive days before your procedure.
Follow these steps:

- Use a freshly laundered washcloth and Hibiclens Soap™ that you will need to purchase.
- Leave the Hibiclens Soap on the body for three full minutes before rinsing off. Wash thoroughly and pay particular attention to the area of your procedure.
- DO NOT USE THE HIBICLENS SOAP ABOVE YOUR CHIN, INSIDE YOUR MOUTH OR IN VAGINAL OR RECTAL OPENINGS.
- Dry off with a freshly laundered towel and apply freshly laundered underwear and clothing once each shower is completed. Please wear freshly laundered, comfortable clothes to the hospital when you report for your procedure.

Preventing Infections
Infections can enter the body in many ways, but most commonly through the mouth and skin. Avoid shaving around the surgical site several days prior to surgery. Nicks or cuts in your skin can lead to complications in your new joint. (See MRSA on page 48.)

Visiting Your Dentist
Bacteria can easily enter your bloodstream through the mouth during dental procedures, causing widespread infection. To minimize this problem, schedule a check-up well in advance of your surgery. Continue to brush and floss your teeth regularly.
Prepare Your Visitors

• Recovering from your joint replacement takes effort. Rest is as important as physical therapy.

• Ask visitors to limit visits to evening hours. You will be in physical therapy or resting during the day.

• The day of surgery, please limit visitors to immediate family. Only two visitors will be allowed in the admission area.

• If your visitors are ill or have a cold, please ask them not to visit.

Packing for the Hospital

Pack your suitcase for the hospital a day or two before your surgery. You will wear regular clothing starting with your first therapy session.

Items to pack:

• Loose-fitting shorts and comfortable casual clothing
• Underwear
• Nightgown, pajamas, or boxer shorts
• Elastic (anti-embolism) stockings, if you have them
• Sweater or sweatshirt that can be removed
• Tennis shoes or flat rubber-sole shoes that tie or slip on. Shoes should be comfortable and large enough to allow for swelling. Do not wear clogs, slippers or high heels. You may bring non-skid slippers to use in your room.
• Personal hygiene toiletries
• Eyeglasses, contact lenses and denture cases

Please make sure all cases are labeled with your name.

• Information on food or medicine allergies
• A copy of your Living Will/Advanced Medical Directive (if you did not have it with you during pre-admission testing)
• A copy of your Power of Attorney (if you did not have it with you during Pre-Admission Testing)
• The Patient Education Guide (this book)

Do not bring:

• Jewelry, credit cards, or large amounts of cash
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<th>Timing</th>
<th>Actions</th>
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<tr>
<td>4 weeks before</td>
<td>Schedule a pre-operative physical with family doctor</td>
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<td>Select a coach</td>
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<td>If you have not scheduled your Total Joint Class, please call (570) 321-3240.</td>
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<td>Stop smoking</td>
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<td>1 to 4 weeks before</td>
<td>Review Patient Education Guide</td>
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<td>Pre-Admission Testing</td>
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<td></td>
<td>Prepare list of questions for Total Joint Class</td>
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<td>Attend Total Joint Class (bring this guide)</td>
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<td>Begin pre-operative exercise program</td>
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<td>Begin preparing living space</td>
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<td>14 days before</td>
<td>Check with your physician for directions on the following medications:</td>
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<td>• Arthritis medicine</td>
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<td>• Pletal</td>
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<td>• Ticlid</td>
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<td>• Blood thinning injectable or oral medications</td>
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<td>• Vitamins C and E</td>
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<td>• Glucosamine/Chondroitin</td>
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<td>• Fish oil</td>
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<td>• Ginger root</td>
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<td>• Gingko biloba</td>
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<td>• Anti-inflammatories (Ibuprofen, Aleve, etc.)</td>
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<td>Reduce alcohol intake</td>
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<td>Avoid shaving around surgical site</td>
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<td>3 days before</td>
<td>Shower per the pre-operative showering instructions.</td>
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<td>1 day before</td>
<td>Call Pre-Admission Testing at (570) 321-2757 for arrival time</td>
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<td>Pack for hospital</td>
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<td>No alcohol 24 hours prior to surgery</td>
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<td>Do not eat or drink after midnight.</td>
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<td>Day of Surgery</td>
<td>Take medicines that you have been instructed to take with small sip of water</td>
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<td>Leave valuables at home</td>
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<td>Report to hospital as directed</td>
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**Hospitality Inn™**

For the convenience of our patients and families, we offer onsite, overnight accommodations at Williamsport Regional Medical Center (WRMC). The Hospitality Inn accommodations are a smoke-free environment connected to the hospital. Pets are not permitted. The Hospitality Inn, located at 802 Campbell St., is part of the WRMC campus. The Inn provides two floors with affordable guest rooms, a lobby, and lounge.

**Third-Floor Deluxe Rooms and Suite**
The newly remodeled Hospitality Inn third floor features five rooms including three deluxe rooms, one ADA-compliant room, and one family suite. Featuring flat screen TVs, mini refrigerators, and private bathrooms, rooms are reasonably priced.

**Fourth-Floor Dormitory Style Rooms**
The fourth floor features 22 dormitory-style rooms with private, fully-furnished rooms and shared bath and shower rooms. Each room contains a TV, clock radio, dorm-size refrigerator, and a phone. A kitchenette with microwave oven, coffee maker, and small refrigerator is available.

**Please note:** Pets are not permitted

***UPMC Susquehanna is a tobacco-free environment. No smoking is permitted in the Hospitality Inn or on hospital property.***

To make a reservation, please call the Reservation Specialists at (570) 321-1000.

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**Discharge Planning**

**Outpatient Therapy**

Our goal is to allow you to recover at home and attend regular outpatient physical therapy sessions. Your therapist and social worker will help you with arrangements and scheduling.

**Rehabilitation or Extended Care Facility**

Occasionally, a stay in our rehabilitation unit or an extended care facility is helpful for recovery. Eligibility depends on your functional needs.

**Assistive Equipment**

Do not buy a walker, crutches, tub bench, or a raised toilet seat before surgery. Your therapist and social worker will help you determine the equipment you need for home. Most insurance companies do not cover bathroom equipment.

The hospital supplies items you need to start your therapy if you do not have them. If you already own crutches or a walker, please ask your coach, friend, or family member to bring them in. Label all equipment with your name (adhesive address labels are best).

Depending on your needs, you may require additional equipment, such as a raised toilet seat, and shower bench. You may be able to borrow these items from family or friends. For your convenience, UPMC Susquehanna has retail pharmacies at both Williamsport Regional Medical Center and Divine Providence Hospital offer a full array of equipment. The pharmacy can be reached from your room by dialing extension 22818 and from home by dialing (570) 321-2818.

**Please note:** a hospital bed and/or wheelchair are seldom needed at the time of discharge.

**Transportation Needs**

Your coach, friend or family member must pick you up from the hospital on the day you are discharged.
Preparing Your Home

There are many ways to prepare your home for a safe and comfortable return after surgery.

Meal Planning
• Prepare and freeze or purchase small-portion meals for times you may be alone
• Stock up on staples that can be frozen for later use, such as bread, vegetables, or fruits

Accident-Proofing Your Home
• Remove throw rugs
• Make sure all stairways are secure and have hand railings
• Tuck away lengthy phone and lamp cords. Plan to use a hand-held portable phone, if you have one, preferably one that will fit into a clothing pocket and be carried with you.
• Arrange furniture so that you can easily move about your house with crutches or a walker.
• Remove shower doors
• If possible, have rails in your tub or shower professionally installed. You may also want to buy or borrow a shower bench or chair, a hand-held shower nozzle, and non-skid tub mats.
• Arrange for care and safety of pets that may run underfoot
• Designate a chair with a firm seat cushion and arms as “your chair” after you return home from surgery. The height of the seat should be about 18 to 19 inches off the ground. Do not use chairs with wheels.
• If your bedroom is upstairs, you may want to prepare a sleeping area downstairs for the first week or two after you return home.

Help at Home
It is a good idea to have your coach, friend, or family member help you for the first few days after you return home.
Your Healthcare Team
Your Healthcare Team

Your orthopedic team includes you, your coach, your orthopedic surgeon, an anesthesiologist, a nurse anesthetist, a doctor, orthopedic nursing staff, occupational and physical therapy staff, social workers, case managers, patient liaison and chaplaincy care professionals. A doctor specializing in rehabilitation medicine called a physiatrist may also see you.

Team members provide individualized treatment, relying on their unique expertise coordinated through a daily team meeting. Because we believe the enthusiastic participation of your caregivers and family members is essential in helping you achieve maximum independence, they are also an important part of the orthopedic team. This provides additional support and helps ensure a smooth transition from the hospital to home.

Total joint replacement patients begin their orthopedic rehabilitation when they come for their pre-admission testing and attend the Total Joint Class. The majority of total joint patients are discharged directly to home from the hospital. Some require an extended care facility and a limited number will meet inpatient rehabilitation guidelines at Williamsport Regional Medical Center.

Getting to Know Your Team

We take a team approach to your healthcare at UPMC Susquehanna. In the weeks before your surgery, at the hospital and when you return home, you will come in contact with many members of our healthcare team, including:

Orthopedic Surgeon
The doctor who performs the actual joint replacement surgery and is responsible for your overall health during your hospital stay and after your surgery.

Anesthesiologist/Nurse Anesthetist
Professionals who administer anesthesia during your surgery and monitor your vital signs during and after surgery. The anesthesiologist may assist with pain control after your surgery.

Doctor/Hospitalist
The doctor who takes care of your general health; he or she will perform your pre-operative physical. Not all doctors come to the hospital to see patients—if yours does not, a hospitalist may see you. A hospitalist is a doctor who specializes in caring for patients’ medical needs in the hospital setting.

Nurse
Before and during your hospital stay, you will meet a number of nurses who perform different jobs. Some nurses attend to your daily healthcare needs in the hospital; others assist surgeons in the operating room; others work in hospital admissions and, in some cases, visit patients at home. Nurses are among the most visible healthcare professionals in the hospital.
**Occupational Therapist**
Trained to teach you how to perform activities of daily living, such as dressing and bathing, before and during your hospital stay.

**Physical Therapist**
Trained to assist you in regaining strength and motion in your new joint. They will also help you with your function and mobility to prepare you for discharge. A physical therapist will work with you before, during, and after your hospital stay.

**Hospital Chaplain**
UPMC Susquehanna’s Pastoral Care Department provides professional spiritual and emotional care for patients, families, and employees. A chaplain is available 24 hours a day, seven days a week, and can be reached by any member of our staff. Our chapel is located adjacent to the Main Lobby.

**Case Manager**
A registered nurse who can assist in identifying any extra clinical needs that may occur during your hospital stay.

**Social Worker**
Assists with any discharge concerns you may have including: obtaining equipment, home needs, setting up your outpatient appointments, assisting with placement in an extended care facility, and providing emotional support for you and your coach. Your social worker can assist you before your surgery if you have special concerns.

**Patient Liaison**
The Total Joint Patient Liaison is a registered nurse (RN) who coordinates your entire continuum of care. She is available to you and your family to answer any questions and ensure your hospital experience is exceptional.

**Volunteers**
Volunteers are a vital part of the UPMC Susquehanna family. Their service in both patient and non-patient care areas play a major role in our commitment to provide high-quality, compassionate, cost-effective, and accessible healthcare to our patients and the community.
Your Surgery
Your Surgery

Before Leaving For the Hospital

- Brush your teeth. You may brush your teeth and rinse with water, but do not swallow the water.
- Take medicines as instructed by your Pre-Admission Testing nurse/doctor with a small sip of water as soon as you get up.
- Wear proper clothing. Wear clothes that are loose fitting and easily removed (avoid back zippers and pantyhose).
- Remove and leave all jewelry at home, including wedding bands.
- Avoid using perfume, deodorant, powder, hairspray, shaving cream, or any scented lotion.
- Do not wear makeup or nail polish.
- Bring a case with your name on it to hold your eyeglasses, contact lenses, hearing aids, and dentures.

Report to Williamsport Regional Medical Center

- You will be asked to arrive two hours before your scheduled surgery.
- Have your coach, friend or family member come with you. There is a waiting room for them to wait in during your surgery. Please designate one person as a contact when your surgery is done.

Admissions Department

- You will receive your hospital identification bracelet and be asked to change into a hospital gown. Your clothes will be placed in a plastic bag. If you wear dentures, eyeglasses or contact lenses, you will need to remove them at this time.
- In final preparation for surgery, an admitting nurse re-checks all your medical records and conducts a brief physical examination that includes taking your vital signs (pulse and heart rate). You are asked to empty your bladder. An intravenous line (IV) is started and you are asked to identify the leg to be operated on so it can be marked with a special marker by your surgeon.

Family/Coach Waiting Area

Your coach, friend, or family member needs to stay in the waiting room until the admissions staff has completed the admission process. You may wait with them until you are taken to the operating room (OR). They will then be instructed to go to the OR waiting room.

Please check in at the OR waiting area with the registration clerks. You will be asked for a cell phone number of your coach, friend, or family member. This will allow the physician to inform them when the surgery is complete. If your coach, friend, or family member would like to leave the waiting area, we ask them to check in with the registration clerks before leaving so we know their location.

Beepers are available if your coach, friend or family member would like one rather than using their cell phones.

After surgery, the orthopedic surgeon will talk to your coach, friend, or family member, and they will then be directed to check in at the Joint Center’s main desk located on floor 6. After that, your coach, friend, or family member may wait in the waiting area. It will be approximately one to two hours before you return to your room. The nursing staff will alert your coach, friend or family member of your room assignment and when you are returned to your room.
Risks of Total Knee Replacement Surgery

Total knee replacement is considered to be major surgery. It is important that you know the potential risks and complications.

These may include:

- Infection
- Surgical bleeding
- Blood clots
- Damage to nerves or blood vessels
- Problems from anesthesia
- Very rarely, death

Although these complications are rare, they are possible. Every precaution is taken by your doctor and healthcare team to avoid these.

Anesthesia

- Your anesthesiologist will meet with you before surgery.
- Tell the anesthesiologist if you have ever had any problems with anesthesia or medications.
- After examining you and discussing your medical history and needs, the best anesthetic plan will be determined for you.
- Many joint replacements are done under general or spinal anesthesia.
- Some joint replacements combine general and epidural anesthesia.

Types of Anesthesia

Epidural Anesthesia with Sedation

- You will receive local anesthetics (numbing medicine) and pain medication through a thin tube (catheter) placed in the epidural space in the middle of your back.
- Local anesthesia blocks the nerves that provide feeling to your legs and hips.

Spinal Anesthesia

- An anesthetic is injected into your spinal canal below the spinal cord to make you completely pain-free for your procedure.
- Depending on your procedure and what medicine is used, the effects may last from one to six hours. You may also receive sedation through an IV to keep you comfortable during the procedure.
- Certain spinal anesthetics require a special “apnea monitor” for 12 to 24 hours following surgery.

General Anesthesia

- You will be in a deep, relaxed sleep, unaware, and pain-free.
- You first receive medicine through the IV, then breathe gas through a tube placed in your windpipe to keep you asleep throughout the procedure.
- You will breathe oxygen and receive other medicine to help you waken.

Risks from Anesthesia

Our staff is trained to provide you with the safest experience possible. However:

- You may have a reaction to any of the medicines used.
- Your muscles and joints may feel stiff for one to two days from being positioned during your procedure.
Any anesthetic can affect your heart, blood pressure, or breathing. They are constantly monitored during surgery to help prevent any problems.

There is a slight risk of nerve damage from a spinal or local injection.

There is a rare risk of a chipped tooth from the breathing tube for general anesthesia. Please tell your anesthesia provider of any dental issues including chipped, broken, or capped teeth or dentures.

With general anesthesia, there is also the possibility of a sore throat, nausea, or vomiting.

### Going Into Surgery

When you leave admissions, you are taken into the OR holding area, where a nurse will be waiting for you. The nurse will verify your name, orthopedic surgeon, surgical practice, and any allergies. You will be given an antibiotic, and the anesthesiologist will greet you and review the anesthesia to be used during your surgery.

You are provided with a heated gown to help keep your body temperature normal. There is a dial on the gown that you can adjust to your own comfort level. Maintaining a normal body temperature is an important safety measure at UPMC Susquehanna.

You may be given some medicines to help you relax. You then go into the operating room where your joint will be prepared for surgery. The average length of time for the surgery is about one to two hours. At the completion of your surgery, your coach, friend, or family member is notified.

### The Recovery Area

After your surgery is complete, you are transported to the recovery area where you stay for approximately one to two hours.

- Nurses will check your blood pressure, pulse, and breathing.
- You will receive pain medicine as needed.
- Nurses will check your dressings and encourage you to take deep breaths and to move your ankles and feet.

Once awake, you are transported to your hospital room in the Joint Center. From this step forward, you begin your post-surgical recovery.

### Your Hospital Stay

The average length of stay in the hospital after a knee replacement is two to three days. During your hospital stay, you will receive care from your healthcare team in the Joint Center. This team prepares you for your return home or discharge to a rehabilitation or extended-care facility. This section includes information on your in-hospital stay and your discharge from the hospital.

### Post-Surgical Care

Once you are in your room, you may feel groggy. You will also see the surgical dressings and tubes that were put in place during surgery. They are a normal part of post-surgical care.

#### Intravenous Fluids, Antibiotics

You are given fluids and nourishment through an IV. It is removed on the first day following surgery, if you are drinking fluids. Antibiotics are also given through the IV to prevent infection.
Dressings
You may have compressive dressing from your upper thigh to your ankle after surgery. The dressing may be changed on the second day (unless instructed otherwise by your physician) following surgery, and daily after that. Some dressings are left intact and will be removed in your physician’s office.

Drainage Tubes
A drainage tube may be inserted into your knee during surgery. This tube collects bloody drainage after surgery. Your drain will be removed on the first or second day following surgery.

Sometimes patients have difficulty urinating after surgery. If this happens, the nurse will insert a catheter to drain your bladder.

Safety Measures
UPMC Susquehanna’s medication management is done in part with our computer system. Your name band will have a barcode on it that is unique to only you. The computer has a barcode scanner to verify that the correct medications are given to the correct patient. This is another important patient safety measure used by UPMC Susquehanna.

Elastic Support Stockings
Elastic stockings may be placed on one of your legs. After your dressing is changed, a stocking is placed on the operated leg. You will continue to wear your stockings for about four to six weeks after surgery.

Oxygen
Due to the effects of anesthesia, you may receive oxygen through a tube in your nose. Periodically, a monitor will be placed on your finger to measure the amount of oxygen in your blood.

Blood Thinners
You will take blood thinners to prevent blood clots. A blood sample is drawn daily for testing. The results of the blood test will help determine the dosage needed and adjustments will be made as indicated.

Blood Transfusions
If you are light-headed, dizzy, or if your blood count is low, your surgeon may want you to receive a blood transfusion.

Medicines
All medicines must be ordered by your orthopedic surgeon after surgery and given to you by your nurse. Do not take your own medicines, as this can cause bad side effects.

Pain Medicines and Pain Control
One of the most important factors influencing the outcome of your recovery is pain management. You will not be able to perform required activities effectively if you are in too much pain. Starting in the recovery area and throughout your hospital stay, nurses, doctors and therapists are going to ask you what your pain level is on a scale of zero to ten.

While you are in the hospital, you will be asked to rate the intensity of pain you are experiencing through the use of a pain scale. A pain scale is a line numbered from zero to ten, with each number representing a degree of pain. A sample of a pain scale is shown below.
Pain control is achieved by a variety of medications, as ordered by your orthopedic surgeon. Medicines can be given to you intravenously, as an injection in your muscle or as a pill. These medications are given on an as-needed basis.

It is unrealistic to tell you that we can take away all of your pain, but a pain level at a “four” or “five” is tolerable for most people. Be proactive in your pain control. Tell the nurse how the medicine is working. Are the pills lasting for four hours or are you having some pain after three hours? The orthopedic surgeon can change your pain medicine routine and make it right for you, but you need to tell your care team how it is working.

If you have an epidural for pain control, medicine runs continuously through a thin tube placed in your back before surgery. It controls your pain from the waist down until you are ready to take pain pills. On the second day after surgery, the epidural is stopped and you are given pain pills to control discomfort. We encourage you to take the pain pills before therapy.

Post-Surgical Exercises and Activities

Coughing and Deep Breathing Exercises
Coughing and deep breathing help prevent lung congestion after surgery.

• To cough, take a deep breath in and cough forcefully from your abdomen.

• To deep breathe, inhale as deeply as you can and hold while counting to ten. Now exhale all the air. Repeat this exercise five times.

Breathing exercises involve the use of a small plastic device called an incentive spirometer. The spirometer helps you fully expand your lungs. You will be instructed by your nurse on how to use your spirometer. You will need to use this ten times every hour that you are awake.

Physical and Occupational Therapy
Participating in physical and occupational therapy greatly helps your recovery. While you are in the hospital, you will receive physical and occupational therapies two times a day.

• The day of surgery, you may be asked to dangle your leg over the side of the bed or stand at the bedside with assistance from the nursing and/or physical therapy staff.

• The exercises you learned in the weeks before your surgery will be resumed by physical therapy the morning after surgery. In the following days, you will progress to more advanced exercises.

Walking
You begin walking with the assistance of a walker the day of or morning after surgery. Your therapists will show you how to walk safely, and with the correct amount of weight on your leg.

Daily Schedule
As part of our Joint Replacement Program, you will wake up early in the morning to sit in a recliner. If you wish to get back into bed, please call your nurse, as you may experience some stiffness. Group therapy sessions will be held in the gym area twice daily.

Incentive Spirometer
Activities for Knee Replacement Patients

Ankle pumps
Immediately after surgery, you are encouraged to do ankle pump exercises every hour. This is done by moving your ankles up and down and wiggling your toes. Ankle pumps help increase circulation in your lower legs.

Positioning
Turning in bed helps prevent bedsores, lung congestion and blood clots from forming. A pillow is placed under your lower legs to decrease pressure on your heels. Nurses will assist you in turning on your side and position you with pillows. When in bed, you need to keep your knee as straight as possible.

Do not place a pillow under your knee
You need to keep your knee stretched out straight as much as possible to prevent a contracture in your knee joint. Developing a contracture in your knee will prevent you from standing up straight. This may be uncomfortable, but it is very important.

Post-Surgery Diet
During your hospital stay, your diet changes many times.

For example:
• The day of surgery you will be NPO: this means “nothing by mouth” before going to surgery.
• Immediately after surgery, you are on a liquid diet consisting of broth, gelatin, clear juices, soda and tea.
• Your diet is advanced to include more solid foods as you are able to tolerate them.

Please be aware that it is not unusual to lose your appetite for a few days after surgery, and some medicines may change how food tastes to you.

UPMC Susquehanna is committed to your comfort and complete satisfaction with our food service. We provide a complete Room Service program with a restaurant-style menu including a wide range of hot and cold breakfast items, as well as lunch and dinner selections. Simply place a call to the number below, and your meal will be delivered in 45 minutes or less.

Room Service Hours:
Breakfast items: 6:30 am–6:30 pm
Lunch and dinner items: 10:30 am–6:30 pm

To place your food order, dial extension 23500. If you are unable to order your own meal, a food services representative will be happy to take your food order for you. Please order breakfast the night before by 6:30 pm.
Discharge from the Hospital
Discharge from the Hospital

When your doctor feels you are ready and you are walking with a walker or crutches, you will be ready to return home or, in some cases, transfer to another facility, such as inpatient rehabilitation or an extended care facility.

When you are discharged from the Joint Center, you should be able to:

- Take care of your own personal needs including dressing (except for the elastic support stockings) and using the bathroom with some help.
- Walk with a walker or crutches in your home with supervision. If you have stairs, you need one to two crutches, depending on your railings. You may require some help with stairs.

Prior to going home you may be given:

- A prescription for pain medicine
- A prescription for blood thinners (if ordered by your orthopedic surgeon)
- Written instructions from your orthopedic surgeon
- A prescription for outpatient physical therapy
- A prescription for blood work
- An appointment with your orthopedic surgeon

It is recommended that you use the ice pack that is provided during your hospital stay.

The Drive Home

Make sure your coach, friend, or family member brings pillows for the drive home in order to maximize your comfort. When getting into the car:

- Make sure the front passenger seat is as far back as possible.
- Slightly recline the seat.
- If your trip home exceeds 45 minutes, stop to stand and stretch every 45 minutes to an hour.
- If at all possible, avoid getting in and out of compact cars, sports cars, trucks or vehicles with raised suspension.

UPMC Susquehanna’s Retail Pharmacy

Williamsport Regional Medical Center has its own retail pharmacy. You can use this pharmacy to fill your prescription and equipment needs before you leave. If you choose to use this pharmacy, the nursing and/or social services staff can assist you and make sure your prescriptions are given to you before you leave the hospital. The pharmacy can be reached directly from your room by dialing extension 22818, or from an outside phone by dialing (570) 321-2818.
Lab Services

We have full service, state-of-the-art laboratories on each of our three hospital campuses as well as at our outpatient laboratories at the Medical Plaza at Montoursville and the Hepburn Plaza in Williamsport.

Divine Providence Hospital
1100 Grampian Blvd.
Williamsport, PA 17701
Phone: (570) 326-8165
Monday–Friday, 6 am–6 pm
Saturday, 6:30 am–noon

Medical Plaza at Lock Haven
610 High St.
Lock Haven, PA 17745
Phone: (570) 748-1268
Monday–Friday, 6 am–4:30 pm

Medical Plaza at Montoursville Lab Services
900 Plaza Dr.
Montoursville, PA 17754
Phone: (570) 601-8548
Monday–Friday, 8 am–5 pm

Muncy Valley Hospital
215 East Water St.
Muncy, PA 17756
Phone: (570) 546-4202
Monday–Friday, 6:15 am–5 pm
Saturday, 6:30 am–noon

Williamsport Regional Medical Center
700 High St., Floor 1, Main Entrance
Williamsport, PA 17701
Phone: (570) 321-2300
Monday–Friday, 7:30 am–5 pm

Be sure to bring your signed doctor’s orders, photo identification and your insurance information when you come to the laboratory.
Notes:

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Your Recovery
Your Recovery

Your home recovery period may take six to twelve weeks, depending on the complexity of your surgery. Each day you will be able to do more and more activities. Keep in mind, however, that recovery takes time and everyone recovers at their own pace.

Eat a well-balanced diet when you go home from the hospital. A healthy diet gives you proper nutrition and helps restore strength.

For food choices, follow the suggestions that are provided under Diet and Nutrition (page 9). Do not attempt any weight-loss program at this time.

If you find that your appetite has decreased during the first week or two following surgery, try eating five or six small meals spaced throughout the day. It is also important to drink plenty of fluids throughout the day.

Laxatives and Stool Softeners

It is important that your bowels move at least every two to three days. If you experience constipation, use over-the-counter laxatives or stool softeners such as:

- Colace
- Senokot
- Milk of Magnesia
- Dulcolax suppositories or pills
- Fleet enema
- Metamucil

Possible Complications

Infections

Because bacteria can be spread to the replaced joint, any infection in the body must be treated with antibiotics as soon as a problem is detected. This includes lung or urinary tract infections, boils, or abscessed teeth. Call your primary care doctor if you have any concerns. If you develop any joint pain and/or an unexplained fever at anytime during the life of your joint replacement, call your primary care doctor.

In addition, antibiotics may be prescribed by your doctor if you are undergoing ANY type of surgery after your knee replacement surgery. Something as simple as having your teeth cleaned or other types of dental work may be treated with antibiotics. The antibiotic medicine is given before and after each procedure. Always tell your doctors/dentists that you have had a joint replacement prior to any procedure.

Call your orthopedic surgeon immediately if you experience any of the following:

- Persistent fever (oral temperature of 101.5 degrees or higher)
- Shaking or chills
- Increased redness, tenderness, swelling or drainage from incision site
- Increased pain during activity and at rest
- Yellow or green fluid drainage from your incision
- Foul odor from the incision

If you notice these less serious side effects, talk with your doctor:

- Headache or body pains
- Nausea, vomiting, diarrhea, or upset stomach

Blood Clots

Blood clots can sometimes occur after joint replacement surgery. Taking blood thinners as prescribed by your orthopedic surgeon and wearing your elastic stockings (TEDS) are important ways to decrease the possibility of clot formation. However, as a precautionary measure, it is important to recognize the signs of blood clots.

Your physician may prescribe you a medication to prevent blood clots. Please refer to your specific discharge medication education that will be provided by your nurse.
Warning signs of blood clots in the leg:
• Increased pain in the calf of your leg
• Tenderness or redness
• Increased swelling of the thigh, calf, ankle or foot
(If any of these occur, call your orthopedic surgeon.)

Warning signs of blood clots in the lung:
• Sudden increased shortness of breath
• Sudden onset of chest pain
• Localized chest pain with coughing or when taking a deep breath

This is an emergency and you need to seek medical treatment immediately.

Precautions When Using Blood Thinners

You may bleed more easily while on blood thinners.

• Avoid situations where you can be bruised, cut, or injured.
• Brush and floss your teeth gently.
• Be careful when using sharp objects like razors and nail clippers.
• When blowing your nose, blow it gently. Picking your nose may cause excess bleeding.
• Let emergency caregivers know that you are using a blood thinner.
• Make sure any doctor or dentist who treats you knows that you are using this medicine. You may need to stop using this medicine several days before having surgery or medical tests and procedures.

Medicines to Avoid While Taking Blood Thinners

Ask your doctor or pharmacist before taking any other medicine, including over-the-counter medicines, vitamins and herbal products. There are many other medicines, including over-the-counter medicines and herbal products that you should not use while you are taking a blood thinner. Do not take aspirin (unless directed by your physician). Be sure your doctor knows about ALL other medicines you take.

Just for Knees

For safety, follow these instructions—particularly during the four weeks after surgery:
• DO NOT sit on low chairs.
• DO NOT sit on a soft couch.
• DO NOT kneel until approved by your orthopedic surgeon.
• DO work to gain maximum motion of your knee during the first six to eight weeks after surgery.
• DO stay active—when your therapist says you are ready, you should take daily walks and increase your distance as your strength improves.
• DO sit in a chair with arms that provide support for sitting or standing.

Helpful hints for Bilateral Total Knee Replacements

If you are having both knees replaced, the pre-op exercises (#14 chair push-ups) can be extremely helpful. You will find when having both knees replaced, you will be relying heavily on your arms.

After discharge, you will use ice on your knees frequently. It is recommended that you use the ice pack that is provided during your hospital stay.

Many bilateral knee replacement patients find it extremely helpful to have a raised toilet seat to use at home after being discharged from the hospital.
Physical Therapy

For Total Knee Replacements

You will have an exercise program to complete at home, in addition to outpatient physical therapy two to three days per week. Your physical therapy appointment will be made before you are discharged. Your physical therapist will instruct you on proper exercises and will add exercises as needed. See the section on Exercise (page 43) for instruction on proper exercise technique.

For your first physical therapy visit, remember to bring your outpatient physical therapy prescription, as well as your insurance card(s).

Activity

Everyday Activities

Once your incision is not draining, follow your orthopedic surgeon's instructions for showering. If you have a tub shower, you may want to use a shower bench or chair. Avoid direct spray of water on your incision. You will be given specific instructions upon discharge.

Pain Medicines

Take pain medicine 30 minutes before activities and therapy. This will help you to perform your exercises with minimal pain. After exercising, apply ice over and under your knee for about 20 minutes to decrease swelling.

Caring For Your Incision

Your nurse will go over wound care instructions. Do not use any creams, lotions, or powders on the incision site unless your orthopedic surgeon advises you to do so. If you have butterfly bandages over your incision, wash over them and allow them to fall off on their own. Do not remove them when you clean your incision.

Ice and Elevation

Please plan to take frequent rest periods throughout the day, elevating your legs on pillows/cushions to place it above your heart with ice/cold in place.

Homemade Ice Packs

You will need:
- 2 one-gallon Zip-Lock Freezer bags
- 3 cups of water
- 1 cup of rubbing alcohol
- Put one Zip-Lock bag inside of the other
- Fill doubled bag with 3 cups of water and 1 cup rubbing alcohol.
- Place in freezer until frozen.

**Note: Be sure Zip-Lock bags are sealed to prevent leaking.

Another form of an ice pack is a bag of frozen peas/corn wrapped in a towel.

UPMC Susquehanna’s Outpatient Rehabilitation Services

Costello Center
Divine Providence Hospital
1705 Warren Ave.
Williamsport, PA 17701
(570) 320-7470

Eastern Lycoming YMCA
50 Fitness Dr.
Muncy, PA 17756
(570) 546-0999

Little River Plaza
449 River Ave.
Williamsport, PA 17701
(570) 320-7458

Muncy Valley Hospital
215 E. Water St.
Muncy, PA 17756
(570) 546-4209

Williamsport Regional Medical Center
700 High St.
Williamsport, PA 17701
Rehabilitation Center, Floor 3
(570) 321-2605
Neuro Rehabilitation Services, Floor 3
(570) 321-2605
Using a Walker and Crutches
Using A Walker

Standing
• Make sure the chair is stable and will not roll or slide—it must have arms and back support.
• Slide your bottom to the front of the chair.
• Use both armrests or one armrest and one hand grip on the walker to move from sitting to standing position.

Sitting
• Back up to chair until the “good” leg is against the seat of the chair.
• Put one hand onto the arm rest/seat of chair and keep the other hand on the hand grip of the walker.
• Allow the “operated” leg to slide forward as you sit down slowly.

Walking
• Move walker forward a comfortable distance without leaning forward.
• Step forward with the operated leg, placing on the “imaginary line” between your hands. (If there was a line drawn between the walker hand grips, it should go through the middle of your ankle.)
• Move the “good” foot forward and past the “operated” leg placing only the amount of weight allowed on your “operated leg” as directed by your orthopedic surgeon and therapist.
• Repeat.

Steps and Curbs
Curb/Single Step: The phrase “up with the good, down with the bad” is often used to help patients recall the appropriate step pattern for going up/down steps or curbs.

Going up if weight bearing—as tolerated:
• Approach step, moving up close to it.
• Place walker up first.
• Step up with the “good” leg.
• Follow with the “operated” leg.
For safety purposes, a helper should stand behind you until you are comfortable with the process.

Going up if limited weight-bearing:
• Back up close to step.
• Step up and back with “good” leg.
• Follow with the “operated” leg and walker.
For safety purposes, a “helper” should stand behind you until you are comfortable with the process.
Going down—regardless of weight bearing:
• Approach steps, moving up close.
• Place walker down first.
• Move the “operated” leg down next.
• Step down with the “good” leg.
• Place only the amount of weight allowed on your “operated” leg as directed by your surgeon/therapist.

For safety purposes, a coach should stand behind you until you are comfortable with the process.

When in doubt of safety on a step, sit on the step and go up and down the stairs on your bottom. A low stool can be used to help you get down to and up from the step.

Using Auxiliary Crutches

Sitting
• Back up to chair until the “good” leg is against the seat of the chair.
• Place both crutches in one hand, grasping them by the hand grips.
• Allow the “operated” leg to slide forward as they sit.

Standing
• Make sure the chair is stable and will not roll or slide—it must have arms and back support.
• Place both crutches in one hand and hold them by the hand grips.
• Slide bottom to the front of the chair.
• Using the crutches and the arm or seat of chair (if no armrest) move from sitting to standing position.
• Move crutches under arms and go.

Walking On Level Surfaces
• Move both crutches forward at the same time to a distance that is comfortable without leaning forward.
• Place the foot of the “operated” leg forward between the crutches. (If there was a line drawn between the crutch tips, it should go through the middle of your ankle.) Place only the amount of weight allowed on your “operated” leg as directed by your surgeon/therapist.
• Step forward with your “good” leg, passing the crutches and the “operated” leg.
• Repeat the process.
• The length of the steps should be as “normal” as possible.
**Stairs**
The phrase “up with the good, down with the bad” is often used to help patients recall the appropriate step pattern for stair climbing. If there is no rail for help, one must also learn how to appropriately use their crutches.

**Going Up Steps**
- Approach steps, moving up close.
- If there is a railing, use it rather than a crutch on that side.
- Step up with the “good” leg.
- Follow with the “operated” leg.
- Follow with the crutch/crutches (some people will naturally bring both the “good” leg and crutches up at the same time—with good balance, this is not a problem).
- Place only the amount of weight allowed on your “operated” leg as directed by your surgeon/therapist.
- A coach should walk up behind the person for at least the first time.

**Going Down Steps**
- Approach steps, moving up close.
- If there is a railing, use it rather than the crutch on that side.
- Place the crutch/crutches on the step below.
- Lower the “operated” leg to the same step as the crutches.
- Place only the amount of weight allowed on your “operated” leg as directed by your surgeon/therapist.
- Step down to the same step with the “good” leg.
- A coach should back down in front of the person for at least the first time.
Exercise Program
Exercise Program

Start Pre-Operative Exercises
Many patients with arthritis favor the painful leg. As a result, the muscles can become weaker making recovery slower and more difficult. For this reason, it is very important to begin an exercise program before surgery as you work toward improving strength and flexibility. This can make recovery faster and easier.

Exercising Before Surgery
It is important to be as flexible and strong as possible before undergoing a total knee replacement. Always consult your physician before starting a pre-operative exercise plan. Exercises are listed here that your physician may instruct you to start doing now and continue until surgery. You should be able to do them in 15–20 minutes and it is typically recommended that you do all of them twice a day. Consider this a minimum amount of “training” prior to your surgery.

Remember that you need to strengthen your entire body, not just your leg. It is very important that you strengthen your arms by doing chair push-ups. After surgery, you will be relying on your arms to support you when walking with the walker or crutches, getting in and out of your bed and chairs, as well as on and off the toilet. You should also exercise your heart and lungs by performing light endurance activities—for example, walking for 10 to 15 minutes each day.

Pre- and Post-Operative Knee Exercises
Do the following exercises before surgery:
1. Ankle Pumps
2. Quad Sets
3. Gluteal Sets
4. Lying Abduction
5. Heel Slides
6. Knee Extension
7. Straight Leg Raises
8. Standing Knee Flexion
9. Sitting Knee Extension
10. Standing Heel/Toe Raises
11. Marches
12. Standing Abduction
13. Shallow Squats
14. Chair Push-Ups

Do NOT do any exercise that is too painful.
**Total Knee Replacement Exercise Program**

<table>
<thead>
<tr>
<th><strong>Note:</strong></th>
<th>If an exercise causes significant pain, discontinue the exercise. Consult your therapist or surgeon. <strong>Remember:</strong> Do not hold your breath when performing these exercises. Lie in bed or on a reclined chair for all exercises. Do not lay on the floor.</th>
</tr>
</thead>
<tbody>
<tr>
<td>When doing these exercises, it is normal to experience some pain. It is important to listen to your body and work within your comfort level. Repeat each exercise 20 to 30 times daily.</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>1. Ankle Pumps</strong></th>
<th><strong>2. Quad Sets</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Bend ankle up towards your body as far as possible. Now point toes away from body. <strong>Coach’s Note:</strong> Perform throughout the day.</td>
<td>Tighten muscles on top of your thigh—this will straighten the knee. Hold tight for five seconds. <strong>Coach’s Note:</strong> Look and feel for the muscle above the knee to contract. If done correctly, the heel should lift slightly.</td>
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<table>
<thead>
<tr>
<th><strong>3. Gluteal Sets</strong></th>
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</tr>
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<tbody>
<tr>
<td>Tighten buttock muscles—squeezing cheeks together. Hold tight for five seconds. <strong>Coach’s Note:</strong> Patient can place hands on right and left buttocks area and feel for equal muscle contractions.</td>
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</tr>
</tbody>
</table>
## Total Knee Replacement Exercise Program

<table>
<thead>
<tr>
<th>Exercise</th>
<th>Description</th>
<th>Coach's Note</th>
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<tbody>
<tr>
<td><strong>4. Lying Abduction</strong></td>
<td>While laying on your bed, point your toes towards the ceiling. Keeping your knee straight, slide your hip out to the side away from your other leg, and then back.</td>
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<tr>
<td><strong>5. Heel Slides</strong></td>
<td>Bend opposite knee to support lower back. Slide heel of operated leg towards your buttocks, bending the knee. Hold for two seconds and slowly lower your leg.</td>
<td>The patient should pull their heel up on their own. If they can’t, you can assist at the ankle.</td>
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<tr>
<td><strong>6. Knee Extension</strong></td>
<td>Put a rolled-up towel under knees. Raise heel until knee is straight. Hold for five seconds and slowly lower.</td>
<td>Have patient work toward full extension (straightening) of the knee. Assist with hand under the heel, encouraging to lift the foot from the hand.</td>
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<tr>
<td><strong>7. Straight Leg Raises</strong></td>
<td>Bend your &quot;good&quot; leg so your foot is resting beside your other knee. Tighten muscles on top of thigh on your &quot;operated&quot; leg. Keep knee straight and lift 10–12 inches off the surface. Hold this position five seconds and lower slowly.</td>
<td>Make sure the straight leg is maintained and that the knee does not bend with the lift. Go slowly. If needed, put hand under foot.</td>
</tr>
<tr>
<td>Exercise Description</td>
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<tr>
<td><strong>8. Standing Knee Flexion</strong></td>
<td>Stand holding on to a solid object as shown. Slowly bend &quot;operated&quot; knee. Hold for five seconds and slowly lower.</td>
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<tr>
<td><strong>9. Sitting Knee Extension</strong></td>
<td>While seated on the edge of a chair or table, slowly straighten &quot;operated&quot; knee. Hold for five seconds and slowly lower.</td>
<td></td>
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<tr>
<td><strong>10. Standing Heel/Toe Raises:</strong></td>
<td>Holding on to an immovable surface, rise up slowly on your toes as high as you can, then come back down slowly.</td>
<td></td>
</tr>
<tr>
<td><strong>11. Marches</strong></td>
<td>Stand with legs straight. Bend &quot;operated&quot; knee and hip upward as shown. Slowly relax.</td>
<td></td>
</tr>
</tbody>
</table>
### 12. **Standing Abduction**
Stand holding onto a solid object for balance. Raise "operated" knee out to side without letting it come forward. Hold for five seconds, then slowly relax.

![Standing Abduction Diagram](image)

### 13. **Shallow Squats**
Hold on to a solid object as shown. Keep feet flat on the floor, about shoulder width apart. Slightly bend knees, then stand up using as little help from the arms as possible.

![Shallow Squats Diagram](image)

### 14. **Chair Push-Ups**
Place hands on arm rests of chair. Lift buttocks off the chair by pushing with your arms.

![Chair Push-Ups Diagram](image)
What is MRSA?
MRSA (Methicillin-resistant Staphylococcus aureus) is a bacteria that causes infections in different parts of the body. It’s tougher to treat than most strains of staphylococcus aureus (staph) because it’s resistant to some commonly used antibiotics. It is a germ that commonly lives on the skin and in the nose. Usually staph bacteria do not cause harm, but sometimes they get inside the body through a break in the skin and cause an infection. These infections are usually treated with antibiotics, but sometimes the antibiotic that is used does not kill the staph bacteria. This can mean that the bacteria have become resistant to those antibiotics.

Community-Acquired MRSA (CA-MRSA)
This is a skin infection that has been identified among certain populations that share close quarters or experience more skin-to-skin contact. Examples are team athletes, military personnel and prisoners. CA-MRSA is being seen in the general community more and more.

Hospital-Acquired MRSA (HA-MRSA)
This type of infection is most common among people who have weak immune systems and are living in hospitals, nursing homes, and other healthcare centers. Infections can appear around surgical wounds or invasive devices like catheters or implanted feeding tubes.

Signs and Symptoms of MRSA
Some MRSA infections start as small red bumps on the skin that look like pimples or spider bites, a cut that is swollen, hot, and filled with pus, or blisters filled with fluid (called impetigo). Although often more serious, this is less common. These sores can quickly turn into severe abscesses (pus-filled areas of infection). MRSA can also appear in other areas of the body, such as blood, lungs, eyes and urine. It can spread deeper into the body where it can cause one or more of the following:
- Infections in bones, muscles, and other tissues
- Pneumonia (a serious lung infection)
- Infection in a wound from an operation
- Infection in the bloodstream
- Endocarditis (infection of the lining of the heart and the heart valves)
- Infection of the urinary tract (bladder and kidneys)

What Causes It?
Garden-variety staph is common bacteria that can live on our bodies. Plenty of healthy people carry staph without being infected by it. In fact, 25 to 30 percent of us have staph bacteria in our noses. But staph can be a problem if it manages to get into the body, often through a cut. Once there, it can cause an infection. Staph is one of the most common causes of skin infections in the U.S. Usually, these are minor and don’t need special treatment. Less often, staph can cause serious problems like infected wounds or pneumonia.

How is MRSA Spread?
- People who are colonized with MRSA have MRSA in their noses or on their skin. Though they are not sick themselves, they can spread the germs to others.
- In hospitals and long-term care facilities, MRSA can spread from patient to patient on the hands of healthcare workers. It can also spread on objects such as cart handles, bed rails and catheters.
- Outside healthcare settings, MRSA usually spreads through skin-to-skin contact, shared towels or athletic equipment or through close contact with an infected person.

What Does it Mean to be a MRSA Carrier?
Infected or colonized patients are the major reservoir of MRSA in institutions. Colonized patients carry the MRSA organism in epithelial and mucosal regions without suffering MRSA infection and with no obvious signs of colonization. The carrier state is clinically significant, because any surgical intervention or exudative (draining) skin condition will predispose the MRSA carrier to MRSA infection.
Also, healthcare personnel unknowingly have contact with carriers of MRSA and transmit the organism to vulnerable patients missing treatment of MRSA.

**Treatment**

Staph can usually be treated with antibiotics. But over the decades, some strains of staph, such as MRSA, have become resistant to standard antibiotics that once destroyed it. MRSA was first discovered in 1961. It’s now immune to methicillin, amoxicillin, penicillin, oxacillin, and many other antibiotics. While some antibiotics still work, MRSA is constantly adapting. Researchers developing new antibiotics are having a tough time keeping up.

**In an effort to provide the best care to our patients, screening is completed on all of our total hip and knee patients in Pre-Admission Testing.**

1. Your results will be known before you enter the hospital.
2. All patients will treat themselves with Bactroban (Mupirocin Ointment) twice a day for five days prior to your scheduled surgery.

**What can be done before your operation to prevent an infection?**

- Take showers for three consecutive days prior to your procedure.
- Tell your doctor about other medical problems you may have. Health problems such as allergies, diabetes, and obesity could affect your surgery and your treatment.
- Quit smoking. Patients who smoke get more infections. Talk to your doctor about how you can quit before your surgery.
- Do not shave near where you will have surgery. Shaving with a razor can irritate your skin and make it easier to develop an infection.
- Call your surgeon or the nurse about any cuts, scrapes, or open areas on your skin.

Shower with antimicrobial soap or 4 percent hibiclens liquid three consecutive days before surgery. Apply one ounce of liquid soap to a clean, new washcloth. Wash all skin surfaces from the neck down, with attention to skin fold such as armpits, groin, wrists, between fingers, and elbows. **AVOID CONTACT WITH EYES AND EAR OPENINGS.** Allow soap to have contact with the skin for three minutes before rinsing off skin.

**Post-Surgery Check-Up**

Your first post-operative visit will be scheduled one to four weeks after surgery. The date and time is included in your discharge instructions. Additional follow-up appointments with your orthopedic surgeon are scheduled by your surgeon’s office.

In addition to a full check-up and X-rays of your hip, you will receive a new set of instructions for care and a list of appropriate activities. Your next visit is determined by your orthopedic surgeon and the progress you make in physical therapy.

As your recovery continues, you may begin to participate in many of the activities that you enjoyed before surgery.

**Medical Follow-Up**

**Lifetime Activities**

After about three to six months, you are usually able to enjoy most activities that you did before. Still, there are some activities that your orthopedic surgeon prefers over others, and some that your surgeon will want you to avoid entirely.

**Medical Follow-Up**

After the first year following surgery, your joint may be evaluated every one to two years for the rest of your life. Although over 90 percent of replacements last for more than 10 years, the implant may wear with years of use. For this reason, your surgeon may take an X-ray at every visit to determine the condition of your replacement.

**Metal Detectors**

Your new joint may activate metal detectors in airports and some buildings. Tell security personnel about your joint replacement. They may use a metal detecting wand over your joint.
What to Expect from a Total Knee Replacement

Short-Term Results
You will:

• Be able to take care of your own personal needs including dressing (except for elastic stockings).
• Use the bathroom independently or with little help.
• Walk with a walker or crutches with help or on your own. If you have stairs, you need one to two crutches, depending on your railings, even if you use a walker. You may require some help with stairs.

Long-Term Results
Your:

• Long-term success rates vary from 15 to 25 years, depending on age, weight, and activity level
• Pain is relieved
• Knee deformity is corrected
• Former activities are allowed

Living With Your Knee Replacement
By having a knee replacement, you join an average of 600,000 Americans who have this surgery every year. More than 95 percent of these people experience a dramatic reduction in pain and a renewed ability to participate in and enjoy physical activity. Still, a replacement joint is not a normal joint. This section discusses your lifestyle with your joint replacement.

Activity

Recommended

• Walking: Take short walks daily, gradually increasing your distance without increasing pain and swelling. Use your walker or crutches as directed and avoid over-exertion. Take special care when walking on uneven surfaces like lawns or gravel.

• Sitting: Use chairs that have arms, backs and firm seats. You need the arms to help lift yourself out of the chair. DO NOT sit on low stools, low chairs or low toilets. To maintain good circulation, pump your legs up and down after sitting in one spot for more than 30 minutes.

• Reaching: Use your reacher tool to put on your shoes and pick up objects from the floor. DO NOT bend over to pick up objects.

Restricted Activities
Until your orthopedic surgeon allows you, DO NOT do any of the following:

• Return to work
• Drive a car
• Participate in sports
• Have sex
• Take a tub bath

In the future your surgeon will allow you to perform the following activities:

• Swimming
• Biking
• Walking
• Golf
• Tennis (social doubles on a clay surface)
• Low impact and water aerobics
• Dancing
• Nordic track™
• Bowling
• Fishing
• Gardening
• Elliptical™ machine
• Cross-country and downhill skiing on groomed trails

Do You Have Questions?
Remember, your healthcare team is here to help you before, during, and after your surgery. If you have any questions, we will be happy to help you. If you are at home and need help, please call your orthopedic surgeon’s office.

Williamsport Regional Medical Center
Joint Center
700 High St.
Williamsport, PA 17701
UPMCSusquehanna.org
Toll-Free: 1-877-852-2874
Appendix
Assistive Equipment for Activities of Daily Living Following Knee Surgery that May be Required/Helpful

A shower bench allows increased accessibility and safety following knee surgery. There are many different styles. This is the most basic.

A standard toilet equipped with raised toilet seat and toilet frame railing improves accessibility and safety with knee replacement precautions.

An alternate toilet modification/setup utilizes a portable/bedside commode over a normal toilet.

A long-handled shoe horn increases independence with donning shoes or slippers.

A long-handled reacher assists dressing lower limbs (undergarments, pants, shorts). It can be used for retrieval of items in the closet, cupboards, or items on the floor.
A sock aid assist with putting on socks independently.

Elastic laces eliminate the need of continued untwisting and retying shoes. This converts the shoe into a slip-on style shoe.