### IMPORTANT NUMBERS

<table>
<thead>
<tr>
<th>All Numbers Are Area code (719)</th>
<th>PENROSE HOSPITAL</th>
<th>ST. FRANCIS MEDICAL CENTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registration Office</td>
<td>776-5330</td>
<td>571-1200</td>
</tr>
<tr>
<td>Blood Bank Donor Center</td>
<td>776-5822</td>
<td>776-5822</td>
</tr>
<tr>
<td>Case Managers</td>
<td>776-5173</td>
<td>571-5105</td>
</tr>
<tr>
<td>Central Scheduling/Registration</td>
<td>776-8010</td>
<td>776-8010</td>
</tr>
<tr>
<td>Centura Health at Home (homecare)</td>
<td>877-546-8253</td>
<td>877-546-8253</td>
</tr>
<tr>
<td>Financial Assistance Advisors</td>
<td>776-7489 or 776-7490</td>
<td>776-7489 or 776-7490</td>
</tr>
<tr>
<td>Therapy Services</td>
<td>776-5200</td>
<td>571-8000</td>
</tr>
<tr>
<td>Nurse Advice Line</td>
<td>776-5555</td>
<td>776-5555</td>
</tr>
<tr>
<td>Operator</td>
<td>776-5000</td>
<td>571-1000</td>
</tr>
<tr>
<td>Orthopedic Surgical Unit</td>
<td>776-5752</td>
<td>571-5400</td>
</tr>
<tr>
<td>Pre-Admit Testing</td>
<td>776-2708</td>
<td>571-1276</td>
</tr>
<tr>
<td>Pre-op Class Registration</td>
<td>776-5173</td>
<td>571-5173</td>
</tr>
<tr>
<td>Spiritual Care</td>
<td>776-5660</td>
<td>571-1115</td>
</tr>
<tr>
<td>Nurse Navigator</td>
<td>776-7009</td>
<td>571-6005</td>
</tr>
</tbody>
</table>

---

We are part of Centura Health, the region’s leading health care network.

Centura Health does not discriminate against any person on the basis of race, color, national origin, disability, age, sex, religion, creed, ancestry, sexual orientation, and marital status in admission, treatment, or participation in its programs, services and activities, or in employment. For further information about this policy contact Centura Health’s Office of the General Counsel at (303) 804-8166.

Copyright © Centura Health, 2017.
TABLE OF CONTENTS

BEFORE SURGERY
- Welcome & Thank You 1
- Meet the Team 3
- Pre-admission Testing 4
- Before Surgery Checklist 5
- Pre-surgical Process 8

AFTER SURGERY
- Equipment and Tubes After Surgery 9
- Pain Management 10
- What is Normal After Joint Replacement 12
- Total Hip and Knee Replacement
  - Common Information 13

KNEE SECTION
- What is a Total Knee Replacement? 16
- Total Knee Postop Exercises, Goals, and Activity Guidelines 17
- Exercises to Do Before Surgery 18

HIP SECTION
- What is a Total Hip Replacement? 19

AFTER DISCHARGE TO HOME
- Avoiding Problems After Surgery 20
- Frequently Asked Questions about Total Joint Replacement 21
- Equipment 23
- Directions 24
Dear Valued Patient,

Welcome and thank you for choosing Penrose-St. Francis Health Services for your joint replacement surgery. At the Penrose-St. Francis Total Joint and Spine Center our goal is to work with you as a team to reduce your pain, increase your motion, and improve your quality of life.

We are committed to our mission statement: To extend the healing ministry of Christ by caring for those who are ill and by nurturing the health of the people in our communities. In living our mission day to day, the following awards have been granted:

- Named one of America’s 50 Best Hospitals for 10 years in a row by Healthgrades, the only recipient in Colorado and in the top 1 percent in the nation.
- Recipient of the Healthgrades Orthopedic Surgery Excellence Award™ for 4 Years in a Row (2013-2016)
- Recipient of the Healthgrades Joint Replacement Excellence Award™ for 6 Years in a Row (2011-2016)
- CareChex’s Top 100 Hospitals for Orthopedic Surgery, 2014
- Becker’s Hospital Review’s National List of 100 Hospitals and Health Systems with Great Orthopedic Programs, 2015

Healthgrades awards:

- Ranked Among the Top 5% in the Nation for Overall Orthopedic Services for 4 Years in a Row (2013-2016)
- Ranked Among the Top 10% in the Nation for Joint Replacement for 6 Years in a Row (2011 - 2016)
- Five-Star Recipient for Total Knee Replacement for 7 Years in a Row (2011-2017)
- Five-Star Recipient for Total Hip Replacement for 5 Years in a Row (2011-2016)
- Five-Star Recipient for Hip Fracture Treatment for 5 Years in a Row (2013-2017)

Being well informed about your surgery helps improve your recovery time and outcome. It is our goal to prepare you for surgery and assist you on the road to recovery. Please take the time to review this handbook before and after surgery to guide you through your joint replacement journey.

If you have additional questions or concerns, please contact one of the following Nurse Navigators:

SFMC – 719-571-6005
Penrose Hospital – 719-776-7009

Sincerely,
Penrose-St. Francis Health Services
Total Joint and Spine Care Team
We want you to know what to expect every step of the way during your joint replacement. We hope this patient care book puts your mind at ease, keeps you informed and gets you on the road to recovery quickly.

At Penrose-St. Francis Total Joint and Spine Center, we specialize in joints and you can rest easy knowing that you have chosen some of the most highly-trained and specialized joint surgeons in the region. Our surgeons and associates pride themselves on providing you with the best care available and will strive to make your experience as pleasant as possible.

Being well informed about your surgery helps improve your recovery time and outcome. It is our goal to prepare you for surgery and assist you on the road to recovery. Please take the time to review this handbook before and after surgery to guide you through your joint replacement journey.

You will find comfort in the fact that:

- Penrose-St. Francis Total Joint and Spine Center has been recognized by national organizations as a center of excellence for knee and hip replacement.

These designations are awarded to those centers that provide quality and cost efficient care. Our center meets or exceeds nationally recognized standards of care.

- Our operating rooms are specially designed for joint replacement and our entire surgical team is specially trained in joint replacement.

- Our comfortable, private rooms are specially designed for and dedicated to joint replacement patients. We will take the extra care to be sure your stay and recovery are as pleasant as possible.

- A dedicated joint replacement therapy team will work with you to get you back to an improved quality of life quickly.

- Our Nurse Navigator will work with you, your family and our many orthopedic team members to ensure your care is tailored to meet your needs before, during and after your hospitalization.

While recovering from surgery you will be participating in private physical therapy sessions each day. You may be assigned to an open gym time in a group setting.

THANK YOU
for choosing Penrose-St. Francis Total Joint and Spine Center.

TAKE A VIRTUAL TOUR AT
www.penrosetfrancis.org/joint
NURSING
Qualified nurses, including a Registered Nurse, Nurse Navigator, and a Nurse Manager will follow your care or care for you directly during your hospital stay. We encourage you to ask questions or express any concerns to your nurse or doctor at any time.

NURSE NAVIGATOR
The Nurse Navigator helps coordinate patient care and acts as a liaison with your physician to ensure that your treatment and therapies are tailored to your specific needs and situation. The Nurse Navigator will work with you before, during and after your surgery to see that you are receiving the best possible care. The Nurse Navigator will also follow up with you after your discharge to home.

PHYSICAL THERAPY
Your Physical Therapist will meet with you after surgery to begin working on walking, general mobility and strengthening exercises. Your therapist will focus on making sure you are up, moving and getting stronger each day. Expect to perform exercises up to 4 times a day with therapy and nursing supervision.

OCCUPATIONAL THERAPY
Your Occupational Therapist, if needed, will work with you on promoting your overall independence in your home. In addition, your therapist will assess your need for adaptive equipment for your self-care at home. They may recommend special equipment to help you.

PAIN SERVICE CONSULTANT
A Nurse Practitioner (NP) who specializes in pain may be consulted by your physician for the safe management of complex pain concerns.

LAB TECHNICIANS
To draw blood and will usually arrive before 5 a.m.

DIETICIAN
A Dietician may follow you during your hospital stay to ensure that any special dietary needs or requests are met.

PHARMACIST OR PHARMACY TECHNICIAN
A Pharmacist will obtain a list of your current medications prior to surgery and will monitor the medications you are taking while in the hospital.

CARE MANAGEMENT TEAM
The Nurse Care Manager coordinates the services you receive during the course of your hospitalization through discharge. After your surgery, your case manager will meet with you to discuss your discharge needs.

HOSPITALIST
A Hospitalist, if ordered by a physician, is a doctor that will provide comprehensive medical care while you are at the hospital. He/she works closely with your team of care givers to meet your needs during hospitalization.
Your journey will start with a visit to either Penrose Hospital or St. Francis Medical Center where we will combine your Pre-Admission testing and Orthopedic Joint Class into one appointment for your convenience.

LOCATION

St. Francis Medical Center
6001 E. Woodmen Road
Colorado Springs, CO 80923
719-571-6005

Penrose Hospital
2222 North Nevada Ave.
Colorado Springs, CO 80907
719-776-6019

You will check in with Registration located near the main entrance on the 1st floor. Here you will undergo the testing and teaching necessary to make your experience, on the day of surgery, as calm and efficient as possible. Depending on your personal needs expect to spend approximately two hours with us during your Pre-Admission Testing appointment.

PRE-ADMISSION INFO

- Bring the following items with you: medication list, allergy list, surgery history, insurance card and photo ID.
- Pre-operative blood tests, EKG, and possibly a chest x-ray will be performed in our office, unless your primary care doctor has already completed these.
- Your Nurse Navigator will meet with you to provide a thorough pre-operative experience. All of your questions about having surgery at Penrose Hospital or St. Francis Medical Center can be answered at this time.
6-8 WEEKS BEFORE SURGERY


- If you do not have an Advanced Directive this is a good time to complete one before your surgery. This form will help explain your health care wishes to the health care team and hospital staff. We have the forms for you to complete if needed.
- If you already have an Advanced Health Care Directive, please bring a copy to the hospital.

Assistance

- Ask your spouse, children, neighbors, or friends if they can help you for a few weeks after returning home from surgery.

Dental Exam

- See your dentist before surgery. You can make that appointment now in case more than routine cleaning is needed. That way you’ll have a clean bill of dental health prior to your surgery.

Diet

- Increasing protein and decreasing carbohydrates
- Continue to eat a well-balanced diet. Maintaining good nutrition promotes wound healing and improves general strength after surgery.

Exercise

- Continue your usual exercise program at home.
- There are some simple, effective exercises you can do on your own. They are located in the back of the book.

Medical Appointment

- You may be asked to see your primary care doctor or a specialist prior to surgery.

Smoking and Alcohol Use

- Smoking is known to cause breathing problems. It can also decrease the rate of healing.
- For help quitting you may wish to contact the Colorado Quit Line at co.quitnet.com.
- Medical marijuana use is not permitted in hospital.
- All Penrose-St Francis facilities are non-smoking campuses.
- Do not drink alcohol the night before or the day of your surgery. It is important to discuss any alcohol use with your doctor before surgery.

Weight Loss

- Seek the assistance of a dietician or exercise specialist if weight loss is a goal before surgery. Your primary care doctor can make a referral for you.

Work

- Ask your surgeon to sign a work release form if needed. Request a minimum of 4-6 weeks off work with notice that rehabilitation may take longer.

Handicap Parking Permit

- It may be advisable to obtain a temporary handicap parking permit at no cost.
- Download the form from www.colorado.gov.
- Have your physician complete this application and bring to the nearest Department of Motor Vehicle office for your temporary handicap parking placard.
10-20 DAYS BEFORE SURGERY

Pre-Admission Testing

• You may be asked to see your primary care doctor or cardiologist prior to surgery for medical clearance. Ask your surgeon which tests are preferred prior to surgery so you can tell your primary care doctor.

• Your surgeons’ office will assist you in setting up your pre-admission testing date at the hospital.

• A pharmacy technician will call you to discuss your current medications, vitamins, and herbal supplements 2-3 days before your scheduled appointment.

• On your appointment day please bring with you: medication list, allergy list, surgery history, and insurance card and photo ID.

• Pre-operative blood tests, urinalysis and an EKG are typically performed in our office, unless your primary care doctor has already completed these.

• The pre-admission nurse will go over medications that must be stopped 7-10 days before surgery. The nurse will also discuss any medications that need to be continued through the day of surgery.

• The nurse will provide a skin preparation kit with instructions on how and when to use the cleanser in preparing for your surgery.

• Your nurse navigator will meet with you and may take you on a tour through the orthopedic unit, explain pre-operative, intraoperative and post-operative procedures.

• We highly recommend you bring a friend or family member to this visit.

Insurance and Financial Counseling

• Please check with your insurance company about coverage for your surgery, co-pays expected at the time of surgery and out-of-pocket expenses that will occur for your surgery. Your surgeon’s office will obtain approval for surgery. This way there are no unexpected surprises in the end.

• Financial Assistance Advisors available to contact if you have further concerns or questions at 719-571-1021 or 719-571-1015.

Spiritual Care

• Hospital chaplains are available 24/7 to help care for your spiritual needs during your hospital stay and can be reached at 719-571-1115 (SFMC) or 719-776-5660 (PH).

• Your own spiritual care advisor is always welcome to visit.
BEFORE SURGERY Checklist

THE WEEK BEFORE SURGERY

- Eat nutritious foods and drink plenty of fluids.
- Stop taking medications that your doctor has discontinued 7-10 days before surgery. May include:
  - Aspirin
  - Some anti-inflammatory medicines (Motrin, Aleve, etc.)
  - Some vitamins
  - Fish oils
  - Herbal supplements (Ginseng, Gingko Biloba, Garlic Pills)
  - Herbal Teas
  - Pain medications that contain aspirin

PREPARE YOUR HOME

- Prepare meals in advance and freeze them.
- Be sure you have plenty of food, supplies, and medications for when you get home.
- Store important items at waist level, so that you don’t have to bend over to reach them.
- Remove rugs, tape down electrical cords and arrange furniture to allow easy access for walking.
- Make sure your stairs have a sturdy handrail.
- Wear sturdy walking shoes when at home. No sandals or slippers.
- Place a non-slip mat on the floor of your tub/shower.
- Be sure your house is well lit and use night lights.
- Please arrange for pet care both while you’re in the hospital and when you return home.
- Arrange for transportation to home, follow-up appointments, and any errands.
- If you live alone arrange for family/friend to stay one to two nights with you as you transition from the hospital.

NIGHT BEFORE SURGERY

- Do not eat or drink after midnight unless otherwise directed by your surgeon.
- Shower using the special soap you were provided (one package). Do not use any lotion, perfume, powder or deodorant after showering with the special soap.
DAY OF SURGERY

- Follow the direction of your surgeon if you are required to take your medication the day of surgery. Please only take a small amount of water.
- You may brush your teeth and rinse, do not swallow.
- Do not bring your own medications unless your surgeon tells you differently.

Pack

- Driver’s license or photo ID, insurance card, and co-pay
- Copy of your Advanced Healthcare Directives (example: Living Will)
- Important phone numbers
- Cell phones and chargers may be packed and will remain your responsibility during your hospitalization
- Under garments
- Personal toiletries
- Good pair of walking shoes
- Seasonally appropriate clothing for going home
- Three sets of loose fitting clothes. Expect to get dressed daily.
- If you use a CPAP machine please bring your mask and your machine
- Books or magazines

PLEASE DO NOT BRING ANY VALUABLES WITH YOU.

Shower and brush your teeth at home before coming to the hospital. Do not use any creams, powders, or lotions. Do not wear any makeup. Remove nail polish from your toes so the staff can check your nails for good circulation.

Please arrive at the hospital and check in on a 2nd floor surgery check-in desk two hours before surgery or as directed by your surgeon. Upon arrival your nurse will greet you and ask you to change into a gown and will review your medical information. Your nurse will insert an intravenous (IV) catheter into your arm to keep you hydrated with fluids. Once your nurse has completed your preparation up to two family members may sit with you until it is time for surgery.

Your anesthesiologist will see you before surgery. He or she will review your medical history and do a brief physical exam. General anesthesia (when you are put to sleep completely), is the most common anesthesia technique used. Some other forms of anesthesia are spinal injections, epidural catheters, nerve blocks, and many times, a combination of methods to manage your pain during and after surgery. The anesthesiologist will explain the type of anesthesia you will receive, the risks involved, and will answer any further questions for you.
WHAT TO EXPECT IMMEDIATELY AFTER SURGERY

1. **Oxygen/Pulse Oximeter:**
   You will receive oxygen through small nasal prongs after surgery. A machine called a pulse oximeter will measure your blood oxygen level while you are in the hospital. The machine will monitor the oxygen percent in your blood and your heart rate.

2. **IV Fluids:**
   An IV is a small, soft catheter that is inserted into a vein in your hand or arm. Fluids and medications are given through this catheter. Once you are no longer using IV medications and you are eating and drinking, the nurse may be able to disconnect your IV tubing from the catheter and allow you more movement and fewer tubes.

3. **Drains and tubes:**
   Drain tubes called Hemovac drains are placed in the surgical site area and are connected to a gentle suction device to collect drainage. There may be some discomfort where the tube enters the skin, but the discomfort is usually mild. These tubes are removed prior to discharge.

4. **Foley Catheter:**
   Depending on your expected mobility after surgery you may have a Foley catheter. This is a small tube that is inserted into the bladder to drain urine. This tube is put in place after you are asleep prior to surgery. This tube is held in place by a small, fluid balloon inside the bladder. The Foley catheter is usually removed the first day after surgery.

5. **Embolus Stockings:**
   These are used to help prevent the formation of blood clots in your legs due to immobility from bed rest and decreased walking after surgery. There are several different types.
   - **TED Hose** - These are white elastic stockings that are thigh-high in length.
   - **SCD stockings** - These are also known as Sequential Compression Device Stockings. These are cloth covered plastic sleeves that wrap around each leg and gently massage the legs by squeezing and releasing the muscles in your legs. This helps return blood to the heart to prevent blood clots. The plastic sleeves are connected to a machine at the foot of your bed.
   - **AVI foot pumps** - These foot pumps wrap around each foot and gently pump the foot to return the blood back to the heart to prevent blood clots. They are connected to a machine at the foot of your bed.

6. **Dressings:**
   Your incision will be covered with a sterile dressing after surgery and will be changed according to your doctor’s instructions.

7. **Continuous Infusion Pump:**
   Your doctor and anesthesiologist will determine if the pump is appropriate for you.

   **Pain Ball** – This is a device that is applied during surgery that has small “tubes” that are placed under the skin around the surgical site and are connected to a battery operated pump that contains a local anesthetic medication. This device will automatically infuse a set amount of medication to help provide pain relief at the surgical site. These tubes will be removed prior to discharge.

8. **Mobility:**
   You can expect to begin activity on the day of your surgery. You will be starting exercises, getting out of bed and even walking.
Total joint replacement surgery is a major procedure—you will experience pain after surgery. The Penrose-St. Francis Total Joint and Spine Center care team is committed to managing your pain to allow you to fully participate in your therapies and activities of daily living.

Some of the methods of pain control include: general anesthesia, peri-articular block/spinal anesthesia, oral pain medication, IV Breakthrough pain medication, ice and moving.

Your participation in pain management is of the upmost importance to be successful. Here are some key ways you can participate in your own pain management.

1. Ask your surgeon what you can expect regarding your pain after surgery and ways it can be managed. You will be transitioned to oral pain medication immediately after surgery. IV pain medications are used for breakthrough pain management. One of the criteria for discharge is that your pain is controlled by oral pain medication prior to discharge.

2. Discuss with your surgeon the medications you’re presently taking for pain, including daily doses of each medication.

3. Establish pain management goals with your nursing staff after surgery. You will be asked what an acceptable pain level is for you. We don’t ever want your pain so high you can’t participate in therapy or so high you can’t sleep.

PAIN MANAGEMENT
through it. If you begin to experience dangerous side effects of your pain medication (slurring speech, decreased oxygen, dizziness, and excessive sleepiness) we will work with you to find other methods of pain control while finding the dose range appropriate for you with your safety needs in mind. You will be asked to rate your pain on a scale of 0-10, with 0 meaning no pain and 10 meaning the worst possible pain. There are pain level scales posted in the patient rooms; they include pictures of faces corresponding to the number pain scale.

4. Please inform your nurses and doctor about the type of pain you are having (aching, throbbing, shooting, etc.) and what relieves the pain for you.

5. DO NOT wait until the pain becomes severe before asking for pain medication. It is helpful to take the pain medication at regular intervals. Oral pain medication generally takes 30 minutes to take effect. It is helpful to take medication before physical therapy and when you will be doing increased physical activity.

6. Some other ways to help decrease pain levels do not require medication: application of ice, listening to music, watching TV, or breathing exercises.

**PAIN RATING SCALE**

*3 IS KEY!*

<p>| | | | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>NO PAIN</td>
<td>HURTS A LITTLE BIT</td>
<td>HURTS A LITTLE MORE</td>
<td>HURTS EVEN MORE</td>
<td>HURTS A WHOLE LOT</td>
<td>HURTS WORST</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

11
The following are a few of the most common complaints by patients, and some things to try to help alleviate your discomfort or fears.

**SWELLING**
Lie down flat (not in a recliner) and elevate your operative leg with the foot higher than your heart, for at least 1 hour several times a day. Use ice for 20 minutes on, 20 minutes off while elevating the leg. Some swelling is expected for several months after surgery.

**TED HOSE**
If your surgeons orders these you will wear on both legs during the daytime for the duration of your doctor’s recommendations up to 3-6 weeks from the date of surgery. Do not wear at night.

**PAIN**
Take your pain medication as directed. Use ice for 20 minutes on, 20 minutes off.
*Contact your physician’s office if your pain medication is inadequate.*

**SPASM/ACHING**
Gently stretch. Apply warm compresses to your thigh, but not on the incision or other sore parts of your body.

**WEAKNESS/STIFFNESS**
*Exercise.* Do your physical therapy 3 times daily on your own, keeping in mind your restrictions/precautions and pace yourself. It is better to exercise frequently each day for shorter periods of time rather than extended periods less frequently.

**FATIGUE**
Continue with a normal diet and drink lots of fluids. Take non-prescription iron or a multi-vitamin with iron in it according to surgeon’s recommendation.

**INSOMNIA**
Don’t nap during the day and avoid caffeine. Get back to your regular routine.

**NAUSEA**
Be sure to eat before taking medications. Eat light foods, not heavy, greasy foods. You could be too sensitive to your pain medication. The doctor’s office may need to help you find a different medication for your pain or other anti-nausea medications.

**CONSTIPATION**
Increase your fluid (water) intake. Increase your fiber (fruits, whole grain cereals). Take a stool softener such as Colace with a laxative such as Senokot, Dulcolax, Miralax, which are found over the counter at your pharmacy.

**LOSS OF APPETITE**
Continue eating small healthy meals more frequently. Drink lots of fluids. As pain allows, switch to Extra Strength Tylenol as narcotics can decrease your appetite.

**WOUND DRAINAGE**
Some drainage (bloody, clear, yellowish) and bruising is common for the couple of weeks after surgery and will be evaluated at your initial post-op visit(s). Excessive or persistent drainage should be reported to your surgeon’s office.
You may require the use of a walker, cane or crutches upon discharge to home. The next few pages go over general information on how to use your walker, cane or crutches when going up and down curbs and stairs.

**UP/DOWN CURB USING WALKER**

**STEPPING UP**

1. Step close to curb with walker. Lift walker up.

2. Step up, leading with unaffected leg.

**STEPPING DOWN**

1. Stand close to edge of curb.

2. Lower walker.

3. Step down, affected leg first.
UP/DOWN STAIRS OR CURB USING CRUTCHES

STEPPING UP

1. Stand close to curb or stairs, step up with unaffected leg
2. Follow with affected leg, placing crutches securely on curb or step

STEPPING DOWN

1. Stand close to edge of curb or step, place both crutches down securely.
2. Step down first with affected leg. Follow with unaffected leg.
UP/DOWN STAIRCASE USING CANE

STEPPING UP

1. Step up with unaffected leg first.
2. Move cane then affected leg up to same step.

STEPPING DOWN

1. Place cane down a step.
2. Move affected leg down
3. Follow with other leg to same step.
WHAT IS A TOTAL KNEE REPLACEMENT?

An arthritic or damaged knee is removed and replaced or resurfaced with an artificial joint called a prosthesis.

WHAT IS A JOINT?
The ends of two more bones that are connected by thick tissues form a joint. For example, the lower leg bone (called the tibia or shinbone) and your thigh bone (called the femur) form your knee joint.

The bone ends of the knee joint are covered with a smooth layer called cartilage. Normal cartilage allows nearly frictionless and pain-free movement. However, when the cartilage is damaged or diseased by arthritis, the knee can become stiff and painful. A fibrous tissue capsule encloses every joint with a smooth tissue lining called the synovium. The synovium produces fluid that reduces friction and wear in the knee.

WHY IS KNEE REPLACEMENT NECESSARY?
The goal of a knee replacement is to relieve the pain in the joint caused by the damaged done to the cartilage. A physical examination, possibly some laboratory tests and x-rays will show the extent of damage to the joint, weakening the muscles around the joint and making it even more difficult to move the joint. Total knee replacement will be considered if other treatment options do not relieve your pain and disability.

HOW IS TOTAL KNEE REPLACEMENT SURGERY PERFORMED?
You will be given an anesthetic and the surgeon will replace the damaged surfaces of the joint. For example in an arthritic knee, the damaged ends of the bones and cartilage are replaced with metal and plastic surfaces that are shaped to restore knee movement and function.

The materials used in a total knee replacement are designed to enable the knee to move much like your normal knee. The prosthesis is generally composed of two parts: a metal piece that fits closely into a matching sturdy plastic piece. Several metals are used, including stainless steel, alloys of cobalt and chrome, and titanium. The plastic material is durable and wear resistant (polyethylene). Bone cement may be used to anchor the prosthesis into the bone. Joint replacements may also be implanted without bone cement when the prosthesis and the bone are designed to fit and lock together directly.
Exercise is very important after a total joint replacement. Exercise will help you strengthen your legs. It will also help you gain at least 90 degrees of flexion in your affected knee. Continue with your walking program and challenge yourself to go farther every day. The more active you are, the more mobile you will become.

**Activity Goals for Week 1:**
- Walk at least 300-500 feet with your walker, crutches, or cane as instructed.
- Go up and down 12-13 steps with a rail, one foot at a time, once per day.
- Perform your exercise program 3-4 times a day.
- Shower and dress by yourself.
- Gradually resume light home duties with help as needed.

**Activity Goals for Week 2-3:**
- Complete any remaining goals from week 1.
- Wean from a walker or crutches to a one crutch or a cane as instructed.
- Walk at least the distance of 4 blocks.
- Go up and down 12-14 steps with a rail, one foot at a time, more than once per day.
- Continue your exercise program.
- Resume all light home duties with help as needed.
- Return to light work duties if approved by your surgeon.

**Activity Goals for Week 3-4:**
- Complete any remaining goals from weeks the previous weeks.
- Walk with a crutch or cane to complete the distance of 4-8 blocks.
- Go up and down stairs with a rail from one foot at a time to regular way.
- Continue with your exercise program.
- Drive a car at 6 weeks if approved by your surgeon.
- Resume all light home duties by yourself.
- Return to light work duties if approved by your surgeon.

**Activity Goals for Week 5-8:**
- Remaining goals from weeks 1-4.
- Walk without a cane or crutch without a limp the distance of 8-16 blocks.
- Go up and down stairs with a rail.
- Resume all home duties and low impact activities.
EXERCISES TO DO BEFORE SURGERY

In order for you to be better prepared for surgery, we recommend the following exercises after surgery. You will be given an individualized program of exercise instructions specific for your surgery.

TOTAL HIP - 3 Short Arc Quad

Place a large can or rolled towel under leg. Straighten knee and leg. Hold _5_ seconds. Repeat with other leg. Repeat _10_ times. Do _4_ sessions per day.

TOTAL HIP - 2 Gluteal Squeeze

Squeeze buttocks muscles as tightly as possible while counting out loud to _5_. Repeat _10_ times. Do _4_ sessions per day.

TOTAL KNEE - 11 Long Arc Quad

Straighten operated leg and try to hold it 5 seconds. Repeat _10_ times. Do _4_ sessions a day.

KNEE - 15 ROM: Heel Prop

Lie with pillow under heel. Tighten the muscles on the top of leg while trying to push knee toward the floor. Hold 5 seconds. Repeat _10_ times. Do _4_ sessions per day.

TOTAL HIP - 12 Arm Chair Push

Put hands on arms of chair and push body up out of chair using your arms. Try to use your legs as little as possible. Repeat _10_ times. Do _4_ sessions per day.

HIP / KNEE - 77 Functional Quadriceps: Sit to Stand

Sit on edge of chair, feet flat on floor. Using your legs, stand upright, extending knees as straight as possible. Do 10 times per session. Do 4 sessions per day.
An arthritic or damaged hip is removed and replaced or resurfaced with an artificial joint called a prosthesis.

**WHAT IS A JOINT?**

The ends of two more bones that are connected by thick tissues form a joint. Your hip is a ball and socket joint, formed by the upper end of the femur (the ball), and a part of the pelvis called the acetabulum (the socket).

The bone ends of the hip joint are covered with a smooth layer called cartilage. Normal cartilage allows nearly frictionless and pain-free movement. However, when the cartilage is damaged or diseased by arthritis, the hip can become stiff and painful. A fibrous tissue capsule encloses every joint with a smooth tissue lining called the synovium. The synovium produces fluid that reduces friction and wear in the hip.

**WHY IS HIP REPLACEMENT NECESSARY?**

The goal of a hip replacement is to relieve the pain in the joint caused by the damaged done to the cartilage. A physical examination, possibly some laboratory tests and x-rays will show the extent of damage to the joint, weakening the muscles around the joint and making it even more difficult to move the joint. Total hip replacement will be considered if other treatment options do not relieve your pain and disability.

**HOW IS TOTAL HIP REPLACEMENT SURGERY PERFORMED?**

You will be given an anesthetic and the surgeon will replace the damaged surfaces of the joint. In an arthritic hip, the damaged ball (the upper end of the femur) is replaced by a metal ball attached to a metal stem fitted into the femur, and a metal or plastic socket is implanted into the pelvis, replacing the damaged socket.

The materials used in a total hip replacement are designed to enable the hip to move just like your normal hip. The prosthesis is generally composed of two parts: a metal piece that fits closely into a matching sturdy plastic piece. Several metals are used, including stainless steel, alloys of cobalt and chrome, and titanium along with ceramic. The plastic material is durable and wear resistant (polyethylene). Bone cement may be used to anchor the prosthesis into the bone. Joint replacements may also be implanted without bone cement when the prosthesis and the bone are designed to fit and lock together directly.
AVOIDING PROBLEMS AFTER SURGERY

BLOOD CLOT PREVENTION

Follow your orthopedic surgeon’s instructions carefully to minimize the potential risk of blood clots that can occur during the first several weeks of your recovery.

Warning signs of possible blood clots include:

- Pain in your calf and leg, unrelated to your incision.
- Tenderness or redness of your calf
- Swelling of your thigh, calf, ankle, or foot that does not recede with elevation

Notify your doctor immediately if you develop any of these signs.

Warning signs that a blood clot has traveled to your lung include:

- Shortness of breath
- Chest pain, particularly with breathing

Call 911 or go to the Emergency Room

PREVENTING INFECTION

The most common causes of infection following total joint replacement surgery are from bacteria that enter the bloodstream during dental procedures, or urinary tract infections. These bacteria can lodge in the bone around your joint replacement and cause an infection.

Following your surgery, you should take antibiotics prior to dental work, including dental cleanings, or any surgical procedure that could allow bacteria to enter your bloodstream.

Warning signs of a possible joint replacement infection are:

- Persistent fever (higher than 101 degrees orally)
- Shaking chills
- Increasing redness, tenderness, or swelling of the surgical wound
- Drainage from the surgical wound
- Increasing joint pain with both activity and rest

Notify your doctor immediately if you develop any of these signs.

AVOIDING FALLS

A fall during the first few weeks after surgery can damage your new joint and may result in a need for further surgery. Stairs and curbs are a particular hazard until your joint is strong and mobile. You should use a cane, crutches, a walker, handrails, or someone to help you until you have improved balance, flexibility, and strength.
A well-informed patient is one who will be able to take part in their care and rehabilitation. Knowing what to expect before, during and after surgery can help you to recover more quickly. It can also assist you and your caregiver to avoid and recognize potential problems. There are common questions patients have about total joint replacement. Answers to some questions are listed below. However, it’s best to discuss your specific questions with your surgeon. Note that some questions have a reminder to do just that.

WHY DO MOST PEOPLE HAVE JOINT REPLACEMENT?
One reason is to have less pain. There may be the desire to add walking and exercise back to daily life. Activities such as dressing, grocery shopping, and others are pleasant when they become easier. Many people want improved quality of life overall.

WHAT ARE THE MAJOR RISKS RELATED TO TOTAL JOINT REPLACEMENT SURGERY?
Infection and blood clots may be avoided by use of antibiotics and anticoagulant medication. Special measures are taken in the operating room to reduce the risk of infection. The chances of an infection or blood clot are very low. Dislocation is prevented by using all precautions taught to you by your therapists. Your surgeon will discuss the risks of surgery with you.

AM I TOO OLD FOR THIS SURGERY?
Age is not an issue if you are in good health and want to continue living an active life. You may be asked to see your primary care doctor about your overall health and readiness for surgery.

WILL I NEED A BLOOD TRANSFUSION?
You may need blood during or after surgery. Discuss with your surgeon if there is a need your concerns/questions about receiving banked blood. Other options and medications are available to patients prior to surgery that may help decrease the need for a blood transfusion after surgery.

*Discuss need for blood with your surgeon

WILL I BE PUT TO SLEEP FOR SURGERY?
General or regional anesthesia may be possible for your surgery. General anesthesia allows you to sleep. Regional anesthesia provides numbness of a certain body region with other medication given to cause sleepiness. Several factors are included to decide which type of anesthesia is best for you:

- Past experience with surgery
- General health and physical condition
- Reactions or allergies you have had to medications
- Risks of each type of anesthesia
- Input from your surgical team and you

*Discuss this with your anesthesiologist.

HOW LONG WILL MY SURGERY LAST?
One to three hours is the normal range. Time often depends on the equipment and anesthesia. Some time is also spent preparing you for surgery and anesthesia.

WILL I HAVE PAIN AFTER SURGERY?
You will have discomfort after surgery, but the discomfort will lessen greatly over the first several days. Medication can be given to keep you comfortable. It will also help you to participate in therapy. Quicker than you might think, your medication will be reduced to an over the counter pain reliever and then none.

WHEN CAN I GET UP?
You will get up on the day of surgery. You will need the help of the health care team for your entire hospital stay unless the physical therapist tells you differently.
**FREQUENTLY ASKED QUESTIONS ABOUT TOTAL JOINT REPLACEMENT**

**WILL I NEED TO USE A WALKER?**
Your therapist will determine if you use a walker, crutches, or cane after surgery. This gait aid will be needed for a certain length of time, depending on your specific surgery.

**WHEN CAN I SHOWER?**
You can shower with assistance when approved by your surgeon. Protection of your incision during showers will be discussed with you. You will not be able to sit down in a bathtub for at least three months after surgery.

*Ask your surgeon how long you should wait until you get down into a bathtub.*

**HOW LONG WILL I STAY IN THE HOSPITAL?**
Most patients go directly home after one to three days in the hospital. Some patients, however, may need to spend a few extra days in a hospital-like setting, or rehabilitation center.

**WILL I NEED PHYSICAL THERAPY AT HOME?**
Most patients continue therapy at home or at an outpatient setting for a certain length of time. Therapy options should be explored with your insurance company so there are no surprises about coverage.

*Ask your surgeon how long you should have therapy after discharge.*

**SHOULD I EXERCISE BEFORE MY TOTAL JOINT REPLACEMENT?**
Yes. Exercise instructions are available for you to follow for 6-12 weeks before surgery.

**WILL I NEED SPECIAL EQUIPMENT AFTER A TOTAL JOINT REPLACEMENT?**
Besides a gait aid, an elevated toilet seat or a commode, shower bench or chair, grab bars, and other assistive equipment may also be necessary for safety and use at home. Equipment may be arranged before or during your hospital stay.

**CAN I DRIVE AFTER SURGERY?**
No, you cannot drive immediately after surgery. You cannot drive while taking pain medication. Generally, driving resumes four to six weeks after surgery. You can ride in a car after surgery by following the techniques and precautions outlined by your therapist.

*Discuss driving with your surgeon.*

**WHEN CAN I HAVE SEX AFTER HIP REPLACEMENT SURGERY?**
Sexual activity is not recommended immediately after surgery. Sexual activity can often resume safely at four to six weeks after surgery, but it could be longer. Your surgeon will determine what timeframe is safe for you. Following precautions to prevent dislocation is very important.

*Discuss resuming sexual activity with your surgeon.*

**WHEN CAN I RETURN TO WORK?**
Most often, at least 4-6 weeks are needed off from work. It depends upon the type of work you do.

*Discuss your specific work activities with your surgeon.*

**WHEN CAN I PLAY SPORTS AGAIN?**
You are encouraged to participate in low-impact activities after your full rehabilitation. These activities include walking, dancing, golfing, hiking, swimming, bowling, and gardening. High-impact activities such as running, tennis, and basketball are not recommended.

*Discuss specific activities with your surgeon.*

**HOW OFTEN WILL I NEED TO SEE MY SURGEON?**
You will see your surgeon within two weeks of surgery. Additional visits will be scheduled, so be sure to write them on your calendar.

*Discuss frequency of follow-up visits with your surgeon.*
EQUIPMENT YOU MAY NEED - YOUR THERAPIST WILL WORK WITH YOU TO MAKE RECOMMENDATIONS FOR YOUR INDIVIDUAL NEEDS

- **Walkers**
- **Shower Chair**
- **Hand Held Shower and Shower Chair**
- **Crutches**
- **Elevated Toilet Seat with Arms**
- **Long Handled Shoehorn**
- **Tub Transfer Bench**
- **3 in 1 Commode**
- **Reacher**
- **Forearm Crutches**
- **Tub Railing (or install permanent grab bars)**
- **Sock Aid**

**CARRYING THINGS**

- There are many different bags, packs and pouches you can purchase that will assist you with carrying your items.
- An apron or jacket with several large pockets will be helpful as you carry items within your house.

You may need to use some adaptive equipment for a short period of time to help you complete your activity. Your therapist can help you decide which aids you may need. The therapist and case manager will give you a list of stores that sell this equipment. Much of the equipment that can be used in the bathroom is not covered by insurance or Medicare. Often equipment is available to borrow from lending closets. Discuss this possibility with your case manager if this is of interest to you. Please refer to the following equipment list to view items. You can obtain this equipment from any local drug store or pharmacy.
DIRECTIONS TO PRE-ADMIT TESTING:
Valet hours are from 7am – 8:30pm. Once inside St. Francis Medical Center, you will pass the volunteer desk on your left and proceed to the registration desk which will be on your right, across from the Coffee Shop (see map at the top). Check-in will take 5 – 10 minutes. Once check-in is complete you will be asked to take the main elevators to the 6th Floor. A representative from the Pre-Admit Testing Office will come and get you for your appointment.

DIRECTIONS TO THE SURGICAL CENTER THE DAY OF YOUR SURGERY:
Once inside St. Francis Medical Center, you will pass the volunteer desk on your left and proceed to the registration desk which will be on your right (across from the Coffee Shop). Once registered you will be directed back to the main entry where you will take a left to the main elevators. Take the main elevators to the second floor. Once on the second floor, (see bottom map to the left) exit the elevators and go to your right where you will see the Surgical Waiting Area. There will be a volunteer at the check in desk who will assist you back to the surgery suites. Family and friends may stay in the surgical waiting area.

DIRECTIONS TO PREADMISSION TESTING:
From the main entrance, walk past the information desk to the registration area. Once registration is complete, you will be directed to Preadmission Testing.

DIRECTIONS TO THE SURGICAL CENTER THE DAY OF YOUR SURGERY:
From the main entrance, walk past the information desk to Registration (see map at the top). Once registration is complete, you will be directed to the Surgical Waiting Area on the second floor. At the Coffee Stand, turn left and take the elevators to the 2nd floor. On the 2nd floor, turn right and follow the signs to Surgery Waiting Area (see map to the left).
# Table of Contents

## Before Surgery
- Welcome & Thank You .............................................. 1
- Meet the Team .................................................. 3
- Pre-admission Testing ........................................... 4
- Before Surgery Checklist ....................................... 5
- Pre-surgical Process ............................................. 8

## After Surgery
- Equipment and Tubes After Surgery ......................... 9
- Pain Management ................................................ 10
- What is Normal After Joint Replacement .................. 12
- Total Hip and Knee Replacement ..............................
  - Common Information ........................................ 13

## Knee Section
- What is a Total Knee Replacement? ......................... 16
- Total Knee Postop Exercises, Goals, and Activity Guidelines .... 17
- Exercises to Do Before Surgery ....................... 18

## Hip Section
- What is a Total Hip Replacement? ......................... 19

## After Discharge to Home
- Avoiding Problems After Surgery ............................ 20
- Frequently Asked Questions about Total Joint Replacement .... 21
- Equipment ....................................................... 23
- Directions ......................................................... 24
## IMPORTANT NUMBERS

<table>
<thead>
<tr>
<th>Service</th>
<th>PENROSE HOSPITAL</th>
<th>ST. FRANCIS MEDICAL CENTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registration Office</td>
<td>776-5330</td>
<td>571-1200</td>
</tr>
<tr>
<td>Blood Bank Donor Center</td>
<td>776-5822</td>
<td>776-5822</td>
</tr>
<tr>
<td>Case Managers</td>
<td>776-5173</td>
<td>571-5105</td>
</tr>
<tr>
<td>Central Scheduling/Registration</td>
<td>776-8010</td>
<td>776-8010</td>
</tr>
<tr>
<td>Centura Health at Home (homecare)</td>
<td>877-546-8253</td>
<td>877-546-8253</td>
</tr>
<tr>
<td>Financial Assistance Advisors</td>
<td>776-7489</td>
<td>776-7489</td>
</tr>
<tr>
<td></td>
<td>or 776-7490</td>
<td>or 776-7490</td>
</tr>
<tr>
<td>Therapy Services</td>
<td>776-5200</td>
<td>571-8000</td>
</tr>
<tr>
<td>Nurse Advice Line</td>
<td>776-5555</td>
<td>776-5555</td>
</tr>
<tr>
<td>Operator</td>
<td>776-5000</td>
<td>571-1000</td>
</tr>
<tr>
<td>Orthopedic Surgical Unit</td>
<td>776-2745</td>
<td>571-5400</td>
</tr>
<tr>
<td>Pre-Admit Testing</td>
<td>776-6019</td>
<td>571-1276</td>
</tr>
<tr>
<td>Pre-op Class Registration</td>
<td>776-2108</td>
<td>571-1278</td>
</tr>
<tr>
<td>Spiritual Care</td>
<td>776-5660</td>
<td>571-1115</td>
</tr>
<tr>
<td>Nurse Navigator</td>
<td>776-7009</td>
<td>571-6005</td>
</tr>
</tbody>
</table>

We are part of Centura Health, the region’s leading health care network. Centura Health does not discriminate against any person on the basis of race, color, national origin, disability, age, sex, religion, creed, ancestry, sexual orientation, and marital status in admission, treatment, or participation in its programs, services and activities, or in employment. For further information about this policy contact Centura Health’s Office of the General Counsel at (303) 804-8166.

Copyright © Centura Health, 2017.

---

Penrose-St. Francis Total Joint & Spine Center
Centura Health
Penrose Hospital
St. Francis Medical Center

Orthopedic and Spine Academy

Penrose-St. Francis Total Joint & Spine Center
Centura Health
Penrose Hospital
St. Francis Medical Center

Orthopedic and Spine Academy

Penrose-St. Francis
Centura Health
Penrose Hospital
St. Francis Medical Center

Orthopedic and Spine Academy