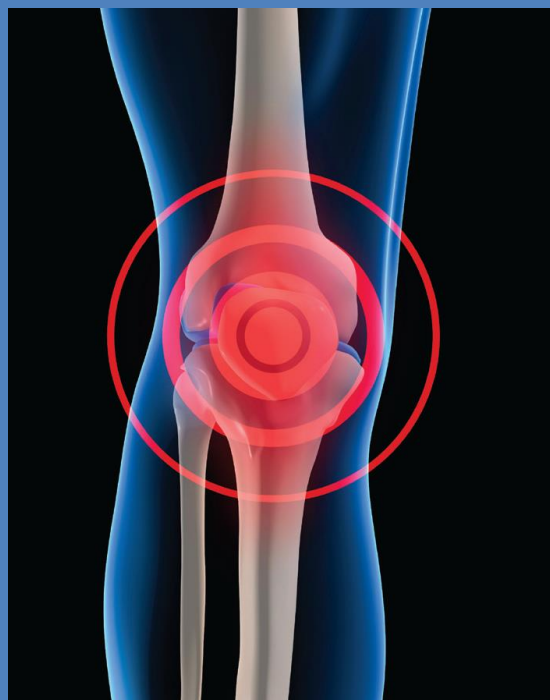




A Patient's Guide to Total Knee Replacement Surgery



Bon Secours Mercy Health
Mary Immaculate Hospital

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Welcome to Mary Immaculate

Thank you for choosing Mary Immaculate Hospital to help restore you to a higher quality of living with your new total joint replacement. We have developed a comprehensive planned course of treatment that will be tailored to fit your needs. This guide will help to outline the surgical process from preparation to completion, providing clear expectations regarding your Orthopaedic care. You play a key role in ensuring a successful recovery, and our goal is to involve you in your treatment through each step of the program. Your education and compliance will help to ensure a safe and successful surgical outcome.

If we have not already had the pleasure of meeting you at our total joint replacement seminar, we look forward to meeting you during your surgical stay. Please feel free to call with any questions, comments, or concerns.



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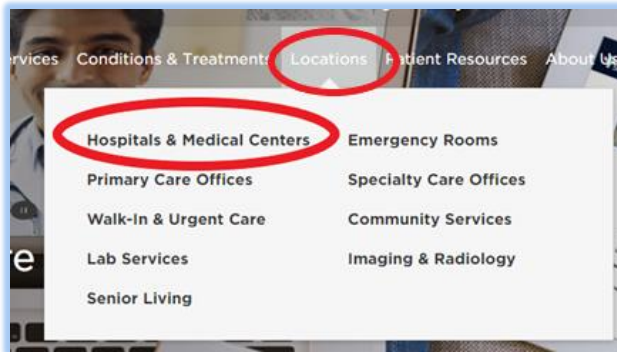
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(Est. 1/2020)

Joint Replacement Seminar

To watch our online “Joint Replacement Pre-Operative Seminar”

- Access the website www.Bonsecours.com
- Under the “*Location*” tab at the top of the page, choose “*Hospitals & Medical Centers*”



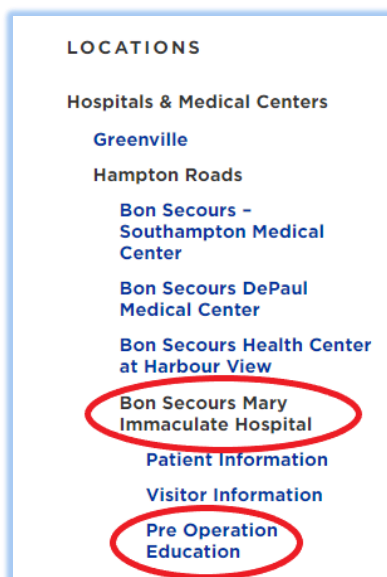
- Click the “*Learn More*” button under “*Hampton Roads*”

Hampton Roads

Bon Secours has a large variety of hospitals and medical centers in the Hampton Roads and surrounding areas, including Mary Immaculate Hospital - the only faith-based hospital on the Peninsula.

[Learn More](#)

- Click “*Bon Secours Mary Immaculate Hospital*,” “*Pre-Operation Education*,” and click play on the video.



Joint Replacement Pre-Operative Seminar

Pre-Operative Joint Education...
Anesthesia Information

General Anesthesia — A combination of anesthetic gases and medications.

Regional Anesthesia — A local anesthetic to provide loss of sensation to a region of the body. (ex. spinal blocks and nerve blocks). You will still be given medication to make you sleepy and unaware during your surgery.

- **Adductor Canal Nerve Block** — (To be done on patients only). This is a single injection performed prior to surgery and is utilized, in addition to General or Spinal anesthesia, to provide you with pain relief for 6-12 hours after injection. This is a sensory block; therefore, you will be able to move your leg and bear weight on it after surgery.
- **Exparel** — This medication (or a similar alternative) is injected into the tissue around the joint during the surgery to provide pain management for 12 to 24 hours.

[Watch later](#) [Share](#)

Please fill out the post survey to receive credit for watching this video!

General Information

Mission Statement of the Bon Secours Mercy Health System

The mission of the Bon Secours Mercy Health System is to improve the health and well-being of our communities and bring compassionate, quality health care services to those in need, especially the poor, dying, and underserved. Recognizing the dignity of all persons, we provide compassionate health care services to the physical, social, emotional and spiritual well-being of those we serve.

Surgical Pavilion

The surgical pavilion is equipped with state-of-the-art technology to perform minimally invasive, as well as traditional, orthopedic surgeries. Our Orthopaedic physicians have the assistance of digital cameras, integrated communication tools, radiologic technology, navigation equipment, and more. The surgical technologists, nurses, nursing assistants, and physical therapy staff, are specially trained to care for the Orthopaedic patient.



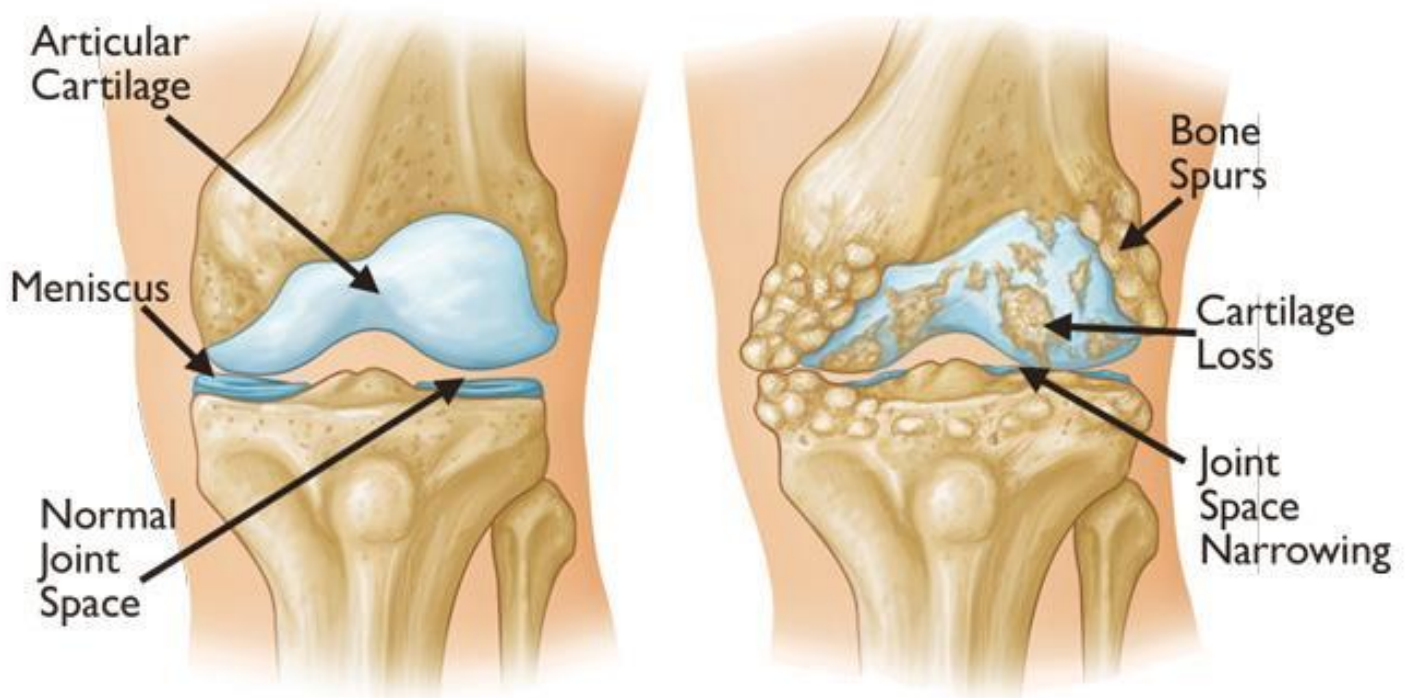
Visiting Hours

We understand the importance of having loved ones at your side while you are recovering. You will be informed about visiting hours when you come to Mary Immaculate Hospital. Due to the impact of COVID we are always changing our visitor policy to make sure we keep you and your loved ones safe. You will be able to talk with your family by phone. If you want us to, we will keep your family updated about your progress. During the day we have “Quiet Rest” from 1pm-3pm to help you heal from your surgery.

Understanding Your Surgery

The Causes of Serious Knee Problems

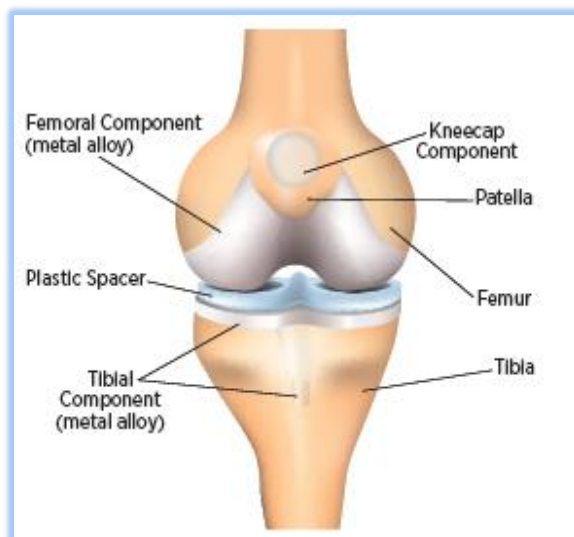
- **Osteoarthritis** is the most common form of arthritis due to wear and tear of the joint over the years. It is most common after 50 years old, but family history, obesity, or previous surgery to the joint, also increase the risk for osteoarthritis.
- **Rheumatoid Arthritis** is an autoimmune issue, which means the body produces cells that damage the joint, leading to destruction of the cartilage. This form of arthritis occurs in all age groups
- **Avascular Necrosis** is a disease where there is cellular death (necrosis) of the bone components due to interruption of the blood supply. Without blood, the bone tissue dies and the bone collapses. This is most common in the hip joint.



www.orthoinfo.aaos.org

What is Total Knee Replacement Surgery?

Your surgeon will cut out the rough bone (arthritis) and replace it with new, smooth metal parts. A plastic spacer is placed between the metal parts and sometimes on the back of your kneecap. Your new knee will move better, and you should no longer be bow-legged or knock-kneed. Your muscles and skin will be sewn back together. Staples or glue may be used to hold the skin.



What is Partial Knee Replacement Surgery?

In some cases, arthritis damages only one side of the knee joint. In a partial knee replacement, your surgeon replaces only one part of the joint with metal and plastic.



Risks of Joint Replacement Surgery

Joint replacement is a major surgery. It is important that you know the risks and complications. These risks include, but are not limited to, problems with anesthesia, infection, surgical bleeding, blood clots, damage to nerves or blood vessels, dislocation, and, very rarely, death. These complications are rare, but possible. Protection is taken by your health care team to avoid these complications. Your surgeon will discuss the risks and benefits with you before surgery.

What Result Can Be Expected from A Joint Replacement?

Joint replacement surgery can help you to get your life back. Pain is relieved, deformities are corrected, and patients can get back to former activities and enjoy an active lifestyle. Long-term success rates vary from 10 to 30 years, depending on motivation, age, weight & activity level.

Pre-Anesthesia Testing

Your Orthopaedic Physician will send information to our Pre-Anesthesia Testing (PAT) Department. You will get a phone call from our pre-anesthesia testing staff 3 - 4 weeks before your surgery to schedule your interview and testing. During the interview you will be given the skin cleansing solution with instructions for bathing the 3 days prior to surgery. If your interview is over the phone, you will get the wash when you come to get your testing done.

While your nursing interview must be scheduled, your pre-operative tests may be completed without an appointment, if within 30 days of surgery. Please call our Pre-Anesthesia Testing Department with any questions at 757-886-6411.

Pre-Operative Nursing Interview

During your scheduled time with the PAT nurse (either in person or by phone) you will be asked to share:

- Your medical history
- Your surgical history
- Your allergies (food and medication)
- Your medications (including vitamins, herbals and anything over the counter)
 - Medication name, dosage, and frequency must be provided.

Pre-Operative Testing

Your medical history and your physician requests will decide what pre-operative testing you will need before surgery. Results of your testing will be sent to your surgeon. You will be contacted if test results are abnormal. Common tests include:

- Lab work (non-fasting)
- Chest X-ray
- EKG (electrocardiogram)
- Urinalysis

Pre-Operative Physical Exam

It is best to undergo a complete physical examination with your primary care physician within 30 days of surgery. (Your surgeon will let you know if this is a requirement.) If you have any high-risk medical conditions, or see a specialty doctor, you may also need surgical clearance from these physicians (example: cardiologist, pulmonologist).

Medications to Stop Prior to Surgery

Your pre-anesthesia testing nurse will tell you to stop all herbal supplements 14 days before to surgery and your surgeon's office will tell you what other medications need to be stopped prior to surgery.

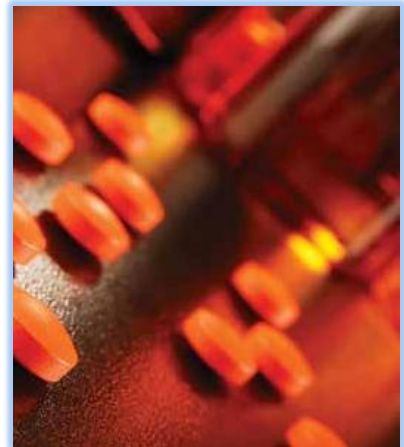
Pain Medications

Non-Steroidal Anti-inflammatories (NSAIDs) are usually stopped 7-10 days before to surgery because NSAIDs increase the risk of bleeding (Examples include Aleve®, Motrin®, Advil®, and Mobic®.) *Check with your surgeon to find out when to stop these medications*

Medications you may take instead for pain include Tylenol® (acetaminophen), Hydrocodone, Percocet®, Tramadol, Vicodin®, Gabapentin, and Neurontin®

Anticoagulants (Blood thinners)

Blood thinning medication are asked to be stopped before surgery. (Examples of blood thinners include Coumadin®, Plavix®, Pradaxa®, Effient®, Xarelto®, Eliquis®, and Aspirin®.) *Check with your surgeon and prescribing physician to know when stop these medications.*



Diabetes Medications

If you have diabetes, tell your primary care physician, or the doctor who guides your diabetes treatment, that you are having surgery. He or she may want more testing or tell you how to adjust your medication before and after surgery. Our diabetes educator may see you in the hospital after surgery to help manage your blood sugar and answer any questions.

Vaccination Information

You may get your flu shot prior to surgery. If it is flu season and you have not had your flu shot, your nurse will ask if you would like it administered during your hospital stay.

(Please consult your surgeon regarding additional vaccinations)

Preparing for Surgery



Stop Smoking

Smoking increases your risks of complications during and after surgery, such as pneumonia and infection. Stopping smoking helps your wound and muscles to heal.

Limit Alcohol

Do not drink 2 weeks leading up to surgery, or at least limit alcohol intake to one glass of wine or beer, or one cocktail, per day. After surgery, check with your doctor before resuming alcohol intake. **Do not** drink alcohol while you are taking pain medication.

Eat Healthy

Good nutrition is important for healing. Eating a healthy diet helps decrease the risk of heart disease, high blood pressure, and diabetes. Fix and freeze (or buy) healthy meals for times you may be alone. See page 29 of the appendix for further nutrition information.



Visit Your Dentist

Any tooth decay, gum problems, or on-going dental work should be treated and completed before surgery. Oral health is important because bacteria easily enter the bloodstream through the mouth and can cause infection. For this reason, please check with your surgeon to see how close to your surgery date you may have dental work. Continue to brush and floss your teeth twice a day.

Pick a Coach

Pick a friend or family member to help you for the first few days after you get home from the hospital. Share this booklet with your coach so that he or she can help you to stay on track during your recovery.

Get a Walker

You will need a rolling walker after surgery (2 wheels in front). Some patients buy a 3-in-1 chair, which can be a bedside toilet, a shower seat, and can fit over your toilet seat to make it higher. Please ask your surgeon's office about getting these items before surgery. See page 32 of the appendix for more information about equipment.



Do Exercises Before Surgery

Exercise is the key to your recovery! Start now doing exercises to get the muscles in your arms and legs strong for surgery. Keep doing these exercises after surgery when you get home. New exercises will be added by your physical therapist as you recover. You can see the exercises in the appendix on page 30-31. Do pre-op exercises twice a day, 10 to 15 repetitions of each exercise. If you have increased pain, stop the exercises. It is normal for you to have some muscle soreness.

Make Your Home Safe

- Remove scatter/throw rugs from around the house.
- Make sure that all stairways are secure and have hand railings.
- Tuck away long phone and lamp cords.
- Move furniture so that you can easily walk around the house with a walker.
- If possible, have rails in your tub or shower professionally installed.
- A shower bench, or chair, as well as a hand-held shower nozzle and non-skid tub mats may be helpful after surgery.

Clean Your Skin

3 days before to surgery you will begin using the chlorhexidine gluconate (CHG) bathing solution given by the pre-anesthesia testing department. This process is described in detail on the following page. Frequently asked questions about the skin preparation are listed in the appendix.

If you have questions about where to get the CHG wash, please call 757-886-6411.

PREPARING YOUR SKIN FOR SURGERY (Home)

Our skin is naturally covered with bacteria that actually help us to stay healthy. However, if bacteria enter the body through an opening, such as a surgical wound, there is an increased risk of developing an infection at the surgical site. Preparing or “prepping” the skin before surgery can reduce the risk. Your surgical team at Bon Secours Mary Immaculate Hospital would like you to prep your skin by cleansing it with chlorhexidine gluconate (CHG), an antiseptic.

You will be given a product called StartClean. This kit contains a liquid solution of CHG and three sponges. This solution and sponges must be used for three showers before your surgery.



CAUTION

- DO NOT use the products if you are allergic to chlorhexidine. Use an antibacterial soap instead, such as Dial.
- DO NOT use the product on your head, face and genitals, or near your eyes. Use your regular soap in these areas.

If you have any questions, call
757-886-6411 or 757-886-6300
between 8 a.m. and 5 p.m.,
Monday through Friday.

SPECIAL INSTRUCTIONS

- STOP SHAVING three days before surgery.
 - Only facial hair is permitted to be removed with a razor.
 - Shaving before applying CHG to the skin may increase sensitivity and can cause cuts in the skin that may lead to an infection.
- DO NOT apply any lotion, powder, sprays or deodorant to your skin after using the solution.

Thank you for helping us to prevent surgical site infections!



BON SECOURS MARY IMMACULATE HOSPITAL
Bon Secours Maryland's Health System

Good Help to Those in Need®

SHOWERING

THE FIRST SHOWER

- Only use 1/3 of the solution with each shower.
- Take a shower and wash your entire body, including your hair and genitals, using your normal soap and shampoo.
- Turn shower water off or step away from under the water flow.
- While your skin is still wet, use one of the sponges in the StartClean kit and pour 1/3 of the solution onto the sponge.
 - Wash from your neck down.
 - Do not use on your face or ears.
 - Do not use on your genital or anus areas.
- The solution does not lather. Wash without scrubbing.
 - Wash both arms and legs. Pay special attention to underarms and groin.
 - Wash your back (you may need to ask someone to help you).
 - Wash your buttocks.

- Rinse your body very thoroughly.
- Use a newly washed, clean towel to dry your body.
- Use newly washed clean clothes, sheets and pillowcases after showering.
- DO NOT apply any lotion, powder, sprays or deodorant to your skin after showering.

THE SECOND SHOWER

- Repeat the shower process as described using 1/3 of the solution.

THE THIRD SHOWER

- Repeat the shower process as described using 1/3 of the solution.

Thank you for helping us to prevent surgical site infections!

WHEN TO SHOWER

	SU	M	T	w	TH	F	SA
Shower							

Packing for the Hospital

Pack your suitcase for the hospital a day or two before your surgery. Staff will help you to change into your own comfortable clothes after surgery, even if you are staying the night. This will help you to get ready for a recovery at home.

Items to Put in Your Overnight Bag:

- Loose fitting clothing, such as gowns, loose pants/shorts, or bathrobes (pants and/or gowns should not drag the floor)
- Rubber soled shoes that tie easily, or slip-on shoes with a back
No Flip Flops/Sandals.
- Personal hygiene toiletries
- Eyeglasses contact lenses and denture cases
- Mobile Phone charger
- Magazines, books, crossword, iPad/kindle
- A list of medications you are currently taking, including frequency and dosages
- **A way to pay for prescriptions** (An outpatient pharmacy is in the hospital to make it easy for you to get your prescriptions before you go home)

What Not to Bring to the Hospital

- Your entire wallet or purse.
- Jewelry or other valuables.

Don't Forget!

- Label your belongings
- Bring your walker so that physical therapy can adjust it as appropriate
- Bring any additional support/adaptive devices necessary
(Example: Brace for Charcot foot, CPAP or BIPAP machine)
- Bring your Advance Medical Directive/ Living Will
(If you do not have one, we can give you one. [See page 34 of the appendix](#))
- Bring your glasses (do not wear your contacts to the hospital)

Countdown to Surgery

Four Weeks Prior to Surgery

- Schedule your pre-operative physical.
- Plan for a nurse from pre-admissions to call you to schedule your pre-anesthesia testing appointment.
- Watch the online education class ([see page 5](#) for the how to find the video online).
- Begin setting up your home for a safe recovery.
- Eat three healthy meals per day.

10 to 14 Days Prior to Surgery

- Stop taking medications as instructed by your physician.
- Stop or limit alcohol intake and smoking.
- Prepare healthy meals to freeze and reheat after surgery.

Three Days Prior to Surgery

- Begin CHG skin prep ([see page 13](#)).

Day Prior to Surgery

- Pack items for the hospital.
- Surgical time will be given to you by the surgeon's office.
- **Do not eat or drink anything after midnight the night before surgery.** (This includes gum, mints, water, etc.)

Day of Surgery

- Brush your teeth and rinse with water, but do not swallow the water.
- Wear loose-fitting clothes that are easy to take off (no deodorant or lotion).
- Leave ALL jewelry and valuables at home (except payment for prescriptions).
- Take only medications you have been instructed to take with a sip of water.
- **Do not** smoke the morning of surgery.



Day of Surgery

Checking into the Hospital

Check in at the main desk of the surgical pavilion on the ground floor, unless your surgeon's office tells you to go to a different area. The surgical pavilion is across from the Emergency Room entrance. Remember you can only bring one person with you to the hospital the day of surgery. **You will find a map on page 38 of this education book.**

You will be taken to the pre-operative preparation area. In the pre-operative area, a nurse will go over your medical information and check your vital signs (i.e., blood pressure, pulse, temperature, respirations or breathing). An intravenous (IV) tube will be inserted to give you IV fluids. Your skin will be cleansed with CHG wipes and your nostrils with antiseptic swabs to prevent infection.

Holding Area: "Holding"

Once you have finished the initial preparations, you will be moved to the second floor of the surgical pavilion. Here you will see your surgeon, your anesthesiologist and meet the members of your surgical team. You will be given antibiotics to decrease your infection risk. You will use a warming blanket, so you are not cold waiting for surgery. A normal temperature before surgery reduces the rate of infection.

If you are having anxiety you may be given medications to help. If you wear dentures, eyeglasses or contact lenses, you will need to remove them at this time.

Family Waiting Area

A family member can remain with you during the pre-operative process. When it is time for surgery, your family member will go to the surgical waiting area on the second floor. Let your family member know, it may be four to six hours from the time you have surgery until they will see you. When your surgery is done, your family will be updated.



Anesthesia Team

The anesthesia team includes an anesthesiologist and a nurse anesthetist. They oversee your comfort and well-being before, during, and right after your surgery. They will meet with you before surgery to develop an anesthetic care plan for you based on your health history, medications and personal needs.

Types of Anesthesia Used

You and your anesthesia team will decide what is the best type of anesthesia for you in the pre-op period. The types available for you are:

General Anesthesia

General anesthesia uses a combination of anesthetic gases and IV medications to put you to sleep. After you are asleep, an ET tube (endotracheal tube) will be put in your mouth and trachea to regulate your breathing during surgery. Your anesthesiologist will monitor and medicate you to make sure you are comfortable and asleep during surgery. The ET tube will be removed prior to you awakening from anesthesia.

Regional Anesthesia

Regional anesthetic includes a spinal block and/or a peripheral nerve block.

Spinal Block: involves the injection of an anesthetic medication into your lower back to provide loss of feeling from your waist to your toes. At the same time medications are given through your IV to make sure you are sleeping and unaware during surgery. You may awaken from surgery with a numb feeling in your legs. This will slowly resolve as the anesthesia wears off.

Peripheral Nerve Block: involves the injection of an anesthetic medication near the knee, which provides pain relief for 12-24 hours after surgery. Your leg may feel heavy or numb, but you will still be able to move it. Ask your anesthesiologist if you have questions.

Intraarticular Injection

During surgery your surgeon may inject medication directly into the tissue around the joint to provide additional pain management after surgery. This medication can provide relief for up to 24 hours, and sometimes longer.

Will I Have Any Side Effects from Anesthesia?



Your anesthesiologist will discuss the risks and benefits with the different anesthetic options. They will tell you about any complications or side effects that can occur with each type of anesthetic.

Nausea and vomiting are a common side effects of anesthesia and narcotic pain medication. Medications to treat nausea and vomiting will be used before, during and after surgery if needed.

Tell your anesthesia team if you have had problems with anesthesia in the past.

Surgery

In the operating room, your anesthesia team will monitor your vital functions, including heart rate and rhythm, blood pressure, temperature and breathing. You will be asked to breathe oxygen as you are readied for anesthesia. Once you are asleep, there will be a “time out” — a verification of the correct patient and operative site for safety purposes — done before surgery starts.

The average length of time for the surgery is 1½ to 2 hours, with revisions requiring more time.

Post-Anesthesia Care Unit “PACU”

After surgery, you will be taken to the Post Anesthesia Care Unit (PACU), also called the recovery room, where your anesthesia team will continue your care after surgery. Your vital signs will be watched closely as you begin to wake up. When you wake up you may feel sleepy, dizzy, or confused. It is normal to be groggy for the rest of the day. Once you are awake and your Anesthesiologist says you are stable, you will be moved to our Phase 2 unit or to a hospital room on 2South Orthopaedics. You will stay here under the care of your surgeon until you go home.

*If you have **spinal anesthesia** your legs may feel numb when you first wake up. That will go away as you wake up and the spinal medication wears off.*

What to Expect in the Hospital?

Pain Management — Do not expect to be pain-free!!!

Pain is a part of surgery and recovery. Your nurse will work with you to establish pain goals to help you have pain tolerance. The pain is caused by weakness, tightness, and soreness of all the muscles that cause your hip to move.

Pain tolerance means the pain is present, but bearable as you use your new knee. Pain medication, ice, elevation, walking and exercises will be used to help you manage your pain. If you had a pain relief injection intraoperatively, you will feel the effects of that numbing agent for up to 12 hours and will notice a gradual pain increase as it wears off.



Ice and Elevation – Ice will be

provided in disposable water-resistant bags for use during the day and night. You will elevate your leg as tolerated to reduce swelling.



(Toes higher than your nose)



Incentive Spirometer— is a device that will help to exercise your lungs, prevent fluid buildup, and reduce fever after surgery. You should use this device 10 times an hour to prevent pneumonia and reduce fever. Coughing and deep breathing help prevent lung congestion and pneumonia.

Support Stockings (TEDs) – After surgery, compression stockings may be placed on both legs (*if ordered by your surgeon*) to promote blood circulation and ease swelling. You will wear them daily (removing them at night only) until you see your surgeon. Remember to wear socks with a grip over your TEDs so you do not slip and fall.



Sequential Compression Devices (SCD)



An SCD machine is used to prevent a DVT (deep vein thrombosis) by helping to circulate the blood flow in the legs. SCD's are shaped like "sleeves" that wrap around the legs and inflate with air, one at a time. This movement imitates walking, promoting blood flow, which helps to prevent blood clots. *Keep these on while in the hospital bed.* They will be removed when you get up to sit in the bedside chair or walk.

Bathing & Dressing (Occupational Therapy)

After surgery you will change into your own loose-fitting clothing. Each morning you will be wiped down with the same CHG bathing wipes used prior to surgery. An occupational therapist will see you, as needed, to assess your ability to perform daily activities like bathing & dressing. They will give you assistive devices to help if you need them. They will teach you how to use adaptive equipment (see appendix page 32).

Mobility (Physical Therapy)

You will get out of bed the day of surgery within approximately 120 minutes of getting to your room. A Physical Therapist, or your nurses, will help you to a bedside chair for all meals as part of our "up for meals" mobility program.



A Physical Therapist will work with you to make sure you are practicing safe mobility using a walker. They will teach you how to go up and down the stairs safely and will show you what exercises you must do 3 times a day after surgery. Exercising and walking every hour will help to get the muscles in your leg stronger, looser and stretched out. As soon as you wake up, start doing ankle pumps 10 times every hour you are awake to help circulate the blood.

Ankle Pumps— Immediately after surgery, you may be encouraged to do ankle pumps every hour to increase the circulation in your legs. This is done by moving your ankles up & down in a gas-pedal type of motion.

Medication Provided During My Hospital Stay

Pain Medication

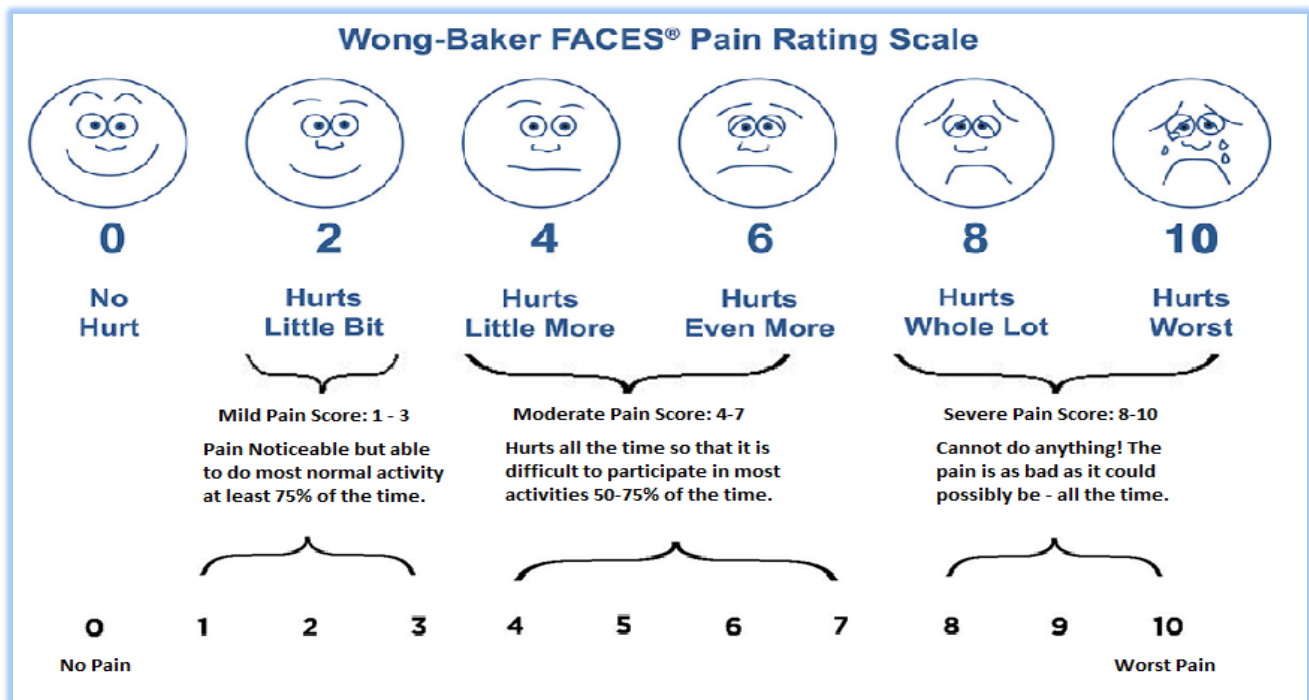
In addition to ice, elevation, and moving, your doctor will choose pain medications that are safe for you. It is common to be given narcotics, Tylenol®, and anti-inflammatories to help with pain tolerance. It is important for you to tell your nurse what your pain level is before and after getting medication. Look at the white board to remember when your pain medication is available.



Call your nurse when the pain is moderate instead of waiting for when pain is severe. We encourage you to take pain medication before you exercise and follow with ice and elevation after each time you do the exercises or walk.

Pain Scale

The Wong-Baker pain scale is numbered from 0 to 10. Zero is no pain and 10 is the worst pain you have ever had. While you're in the hospital, you will be asked to rate your pain level using this scale. The nurses will medicate you based on your response, helping you to achieve good pain tolerance.



Stool Softener

Pain medication and anesthesia make your bowels slow to move. A stool softener, such as Colace® and/or MiraLAX® will be ordered by your surgeon to help your bowels to move.

Even if you are not eating as much, you still need to take a stool softener, so you do not have constipation. Remember to drink lots of water to stay hydrated.



Anticoagulant (Blood Thinner)

An anticoagulant (blood thinner) will be given to you after surgery. This is to prevent the formation of blood clots. The type of anticoagulant you will be taking, and the how long you will need to take it is decided by your surgeon.

My Daily Medications

Your routine daily medications will be given to you in the hospital once the Pharmacist checks to make sure there will be no interactions with the pain medication and anticoagulant ordered by your surgeon. Your medications will be provided by the hospital. Please do not take any additional medication that is not provided by your nurse.








Mary Immaculate Outpatient Pharmacy

You will be given the opportunity to fill your prescriptions at our outpatient pharmacy inside of the hospital, or you may fill your prescriptions at your home pharmacy. If you choose our pharmacy, our transportation team will wheel you by the pharmacy on your way out of the building. **Please note that filling prescriptions at Mary Immaculate Hospital pharmacy is for your convenience and does not obligate you to refill medications here.**

Side Effects

The side-effects to the medications you will be taking after surgery are listed on the [next page](#). Ask your nurse, or pharmacist, if you want to know more about the side effects to any medications you are taking.

Side Effects

MEDICATION TYPE/USE		MEDICATION NAMES	SIDE EFFECTS
PAIN TOLERANCE			
Non-narcotics:	So you can walk, do your exercises and take care of yourself	<ul style="list-style-type: none"> Acetaminophen (Tylenol®) (Do not take more than 3,000 mg every 24 hours) 	<ul style="list-style-type: none"> Upset stomach Rash Headache Dark urine Liver problem
Narcotics:		<ul style="list-style-type: none"> Hydrocodone/Acetaminophen (Norco®, Lortab®) Hydromorphone (Dilaudid®) Oxycodone (Roxicodone®) Oxycodone/Acetaminophen (Percocet®) 	<ul style="list-style-type: none"> Upset stomach Drowsiness Itching Dry mouth Constipation Trouble urinating
NSAID/Non-steroidal anti-Inflammatories: Helps with swelling and pain		<ul style="list-style-type: none"> Celecoxib (Celebrex®) 	<ul style="list-style-type: none"> Upset stomach Reflux Diarrhea High blood pressure Liver problems
Nerve pain Medications: can help with neuropathic pain		<ul style="list-style-type: none"> Gabapentin Pregabalin (Lyrica®) 	<ul style="list-style-type: none"> Drowsy Dizziness Dry mouth Upset stomach Weight gain
STOP THE CLOT			
Blood thinners: Helps you not get a blood clot		<ul style="list-style-type: none"> Aspirin Apixaban (Eliquis®) Enoxaparin (Lovenox®) Rivaroxaban (Xarelto®) Warfarin (Coumadin®) 	<ul style="list-style-type: none"> Bruising Bleeding (nose, urine, stool) Dizziness Upset stomach Tired
CONSTIPATION			
Stool softener: Makes stool soft		<ul style="list-style-type: none"> Docusate (Colace®) 	<ul style="list-style-type: none"> Stomach cramps Nausea Diarrhea
Laxatives: Makes bowels move		<ul style="list-style-type: none"> Milk of Magnesia (MOM) Polyethylene Glycol (MiraLAX®) Senna (Senokot®) 	<ul style="list-style-type: none"> Diarrhea Cramping Upset stomach Burping
UPSET STOMACH			
Medications or over-the-counter products: Used to prevent or treat nausea or throwing up		<ul style="list-style-type: none"> Ondansertron (Zofran®) 	<ul style="list-style-type: none"> Dry mouth Dizziness Headache
		<ul style="list-style-type: none"> Ginger ale Ginger tea Peppermint candy Peppermint essential oil 	<ul style="list-style-type: none"> None

Precautions

A moderate amount of swelling, warmth, pain, soreness & redness is normal after surgery.

Blood Clots

Blood clots is a deep vein thrombosis (DVT) that forms after surgery. Blood clots happen because blood is not circulating or moving. You can get a blood clot in either leg after joint-replacement surgery.

To prevent a blood clot:

- Do ankle pumps 10 times every hour and walk once an hour (while awake) once home.
- Wear your SCDs while in the hospital.
- Take your blood thinner as prescribed.

When a blood clot goes unrecognized in your leg it can break away from the vein and travel to the heart (heart attack), lung (pulmonary embolism), or brain (stroke).

Warning signs of a blood clot include:

- Pain in the calf that is not relieved by ice, elevation, and pain medication.
- Swelling of the foot, ankle, or calf that does not get better with ice & elevation.
- Chest pain or shortness of breath. (If this chest pain or shortness of breath is sudden or severe, tell your nurse right away. Call 911 if you are at home)

Constipation

Constipation is a side effect of narcotic pain medication and anesthesia.

Remember even if you are not eating a lot after surgery you can still get constipated.

To prevent constipation:

- Get up and move every hour.
- Take Colace® (stool softener) daily and/or a mild laxative (MiraLAX®) if needed.
- Drink eight glasses of water a day.

Pneumonia

People who have had surgery have a higher risk of fluid buildup in their lungs from moving less and not taking deep breaths. This fluid buildup can cause pneumonia.



To prevent pneumonia:

- Get up and move every hour while awake.
- Use your incentive spirometer 10 times an hour while awake.

Infection

To prevent Infection:

- Keep your incision covered and dry — do not apply lotions or ointment.
- Shower as directed by your surgeon.
- Notify your surgeon, home health care team or your OP therapist if there is *increased* drainage, redness, pains, odor or heat around the incision.
- Take your temperature if you feel warm. If it is greater than >100.5 degrees Fahrenheit take some Tylenol/Acetaminophen, walk and use your incentive spirometer. If it does not get better call your surgeon.
- Wash your hands! Ensure that you, your family, and your healthcare providers are all practicing proper hand hygiene.

Warning signs of infection include:

- Fever (oral temperature greater than >100.5 degrees Fahrenheit) that does not get better with Tylenol, taking deep breaths and walking.
- Shaking or chills.
- *Increased* redness, tenderness, or swelling
- *Increased* pain during activity and at rest.
- *Change* in color, amount or odor of drainage.



If you have any signs of infection, call your nurse or surgeon right away.

Remember: Walking is the best way to prevent complications.

Care After Discharge

Plan to recover at home. You will rest better, heal faster, eat better, and have less chance of complications in your own home. Your surgeon will let you know before surgery if you will have home health services or go straight to outpatient therapy to continue your joint recovery.

Outpatient Therapy: Your surgeon's office will arrange your outpatient therapy prior to surgery. If you know where you would like to go for therapy, tell your surgeon's office when you schedule surgery.

Remember you will not be able to drive yourself to outpatient therapy, so ask someone to drive you. Your surgeon will let you know when it is safe for you to drive after surgery.

Your surgeon will see you in the office within 7 days of surgery to change your dressing. If your dressing starts to come loose or fills up with drainage, call your surgeons office. Do not take the dressing off.

Home Health Services: Your surgeon's office will arrange home health services prior to your surgery. Home Health services include a nurse and a physical therapist. If you know which agency you would like to use, let your surgeon's office know. If home health services are not arranged before surgery, a Care Manager will visit you in your hospital room to make those arrangements before your go home.



If you are not sure which agency you would like to use, a list of home health agencies is listed on the next page. You may use the website, **Medicare.gov**, as a resource to see the ratings of all the Home Health agencies.

Please do not hesitate to call our care management department with any questions at 757-886-6291.

Home Health Agencies

Bon Secours Home Health/Hospice *	(757) 889-4640	
Albermarle Home Care	(252) 338-4066	
All-4 One Home Care	(757) 962-7838	
Amedisys (Brookside)	NN (757) 223-5424	WMBG (757) 253-2536
A+ Healthcare Partners	(757) 966-5180	
At Home Care	(757) 220-2112	
Bayada Home Health Care	(757) 565-5400	
BioScrip Home Infusion	(757) 855-4255	
Bright Star Home Health	(757) 206-1167	
Comfort Care (Chesapeake Regional)	(757) 312-6464	
Encompass	(757) 226-7560	WMBG (757) 585-2530
Equilibrio Home Health (Southside only)	(757) 965-9942	
Generation Home Care	(757) 822-6991	WMBG (757) 259-7411
Dare Home Health (North Carolina)	(252) 475-5028	
Hope in Home	(757) 873-3410	
Interim Healthcare	(757) 873-3313	Norfolk (757) 466-1401
Intrepid	(757) 787-7202	Eastern Shore (757) 490-3009
Jewish Family Services	(757) 489-3111	
Kindred Home Care	(757) 499-2303	
Medi Home Health	(757) 420-7192	
Personal Touch Home Care/Hospice	(757) 595-8005	
Rappahannock Home Care	(804) 435-8587	
Riverside Home Health	(757) 594-5600	
Riverside Shore HH (Eastern Shore)	(757) 789-5000	
Sentara Home Care	(757) 553-3000	Wmsbg (757)259-6251
Southampton Home Health	(757) 569-6360	
Southeastern Home Health	(757) 234-6650	
Virginia Health Home Care	(757) 534-9222	
Williamsburg Landing Home Health	(757) 565-6552	

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Appendix

Healthy Eating

Eat Healthy

Good nutrition is important for healing. To have a good diet, eat three meals per day and do not skip meals.

- Make sure to eat protein.
- If you are diabetic, keep your blood sugars under control.
- Choose foods and drinks low in saturated fats and sodium, and have no added sugar.
- To get the right nutrients, use all five food groups.



How many grams of protein do you need daily?

- | | | | |
|---------------------------------|---------------------------------|----------------------------------|-----------------------------------|
| • 110 pounds:
40 to 50 grams | • 160 pounds:
58 to 72 grams | • 210 pounds:
76 to 95 grams | • 260 pounds:
95 to 118 grams |
| • 120 pounds:
44 to 55 grams | • 170 pounds:
62 to 77 grams | • 220 pounds:
80 to 100 grams | • 270 pounds:
98 to 123 grams |
| • 130 pounds:
47 to 59 grams | • 180 pounds:
65 to 82 grams | • 230 pounds:
84 to 105 grams | • 280 pounds:
102 to 127 grams |
| • 140 pounds:
50 to 64 grams | • 190 pounds:
69 to 87 grams | • 240 pounds:
87 to 109 grams | • 290 pounds:
105 to 132 grams |
| • 150 pounds:
55 to 68 grams | • 200 pounds:
73 to 91 grams | • 250 pounds:
91 to 114 grams | |

Food with Protein	Serving Size	Protein (grams)
Cottage cheese	1 cup	28
Ricotta cheese	1 cup	28
Beef, fish, pork, chicken or turkey	3 ounces	21
Vegetarian burger	1 patty	10-15
Tofu	½ cup	13
Soy milk	1 cup	9
Milk (all types, including chocolate milk)	1 cup	8
Yogurt	6 ounces	8
Cooked dried beans, peas or lentils	½ cup	8
Peanut butter or other nut spread	2 tablespoons	8
Cheese	1 ounce (1 slice)	7
Egg	1 large	6
Nuts or seeds	2 tablespoons	3-5
Bread	1 slice	2
Cooked cereals, pasta, rice or vegetables	½ cup	2

Pre-Operative Exercises

1. Ankle Pumps

Bend ankles up and down, alternating feet.



You should do this exercise:

- ☒ Before surgery
- ☒ In the hospital
- ☒ At home

2. Quad Sets

Slowly tighten the muscles on the top of your thigh of the straight leg. Do this while counting aloud to 10.



You should do this exercise:

- ☒ Before surgery
- ☒ In the hospital
- ☒ At home

3. Hamstring Set

Press the back of the knee into the bed and hold while counting to 5.



You should do this exercise:

- ☒ Before surgery
- ☒ In the hospital
- ☒ At home

4. Short Arc Knee Extensions

Place a rolled towel under leg. Straighten knee and leg. Hold 5 seconds.



You should do this exercise:

- ☒ Before surgery
- ☒ In the hospital
- ☒ At home

5. Heel Slides

Bend knee and pull heel towards buttocks. Hold 5 seconds. Return. Repeat with other knee.



You should do this exercise:

- ☒ Before surgery
- ☒ In the hospital
- ☒ At home

6. Glut Sets

Squeeze buttocks muscles as tightly as possible while counting aloud to 10.



You should do this exercise:

- ☒ Before surgery
- ☒ In the hospital
- ☒ At home

7. Straight Leg Raise

Lie on back with your unaffected knee bent and foot flat. Lift your leg up 12 inches while keeping your knee straight and your toes pointed up.



You should do this exercise:

- ☒ Before surgery
- ☒ In the hospital
- ☒ At home

8. Chair Push-ups

With hands on armrests, lean forward to push up. Return to sitting position.

You should do this exercise:

- ☒ Before surgery
- ☒ In the hospital
- ☒ At home



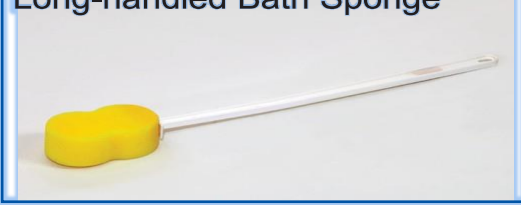
Adaptive & Durable Medical Equipment

Occupational therapy will provide the equipment pictured below if you need it. A therapist will also teach you how to use it.

Sock Aid



Long-handled Bath Sponge



Long-handled Shoehorn



Reacher



Information about ice machines (Polar Ice, CryoCuff) or compression devices (VenoPro) should be obtained from your surgeon's office, as the hospital does not supply, stock, nor sell these devices.

Walker: You will need a rolling walker (two wheels in the front) to use after surgery. **If you have never used your walker, bring it to the hospital, so that it can be adjusted to your height.** (Crutches or canes are not used in the hospital)



Walker — A walker can be used as a tool for individuals who need additional support to maintain balance or stability while walking.

Elevated Toilet: After surgery it is hard to get on and off low seats. If your toilet is low, you may need to buy a 3 in 1 commode. A 3-in-1 chair may be helpful after surgery, as it can be used as a bedside toilet, an elevated toilet that fits over your existing toilet, and a shower seat.



3-in-1 Commode — The 3-in-1 commode can be used at the bedside, over the toilet, in a walk-in shower or a bathtub (depending on the size).

Elevation Pillows: To help decrease swelling you need to elevate your whole leg above your heart after each time you exercise. You can use enough pillows under your ankle and calf to raise your toes higher than your nose.



Elevation Wedge: If you want an elevation wedge, you can find them online at Amazon, Walmart, pharmacies, and medical supply companies. Buy a wedge that elevates your leg with your knee straight.



You can find any medical equipment at medical supply stores, local drug stores, online, thrift stores or ask family/friends to see if you can borrow any things you need.

Make Your Wishes Known

Put Your Health Care Decisions in Writing

ADVANCED MEDICAL DIRECTIVE

An advanced medical directive is a legal paper letting your care team know what you want done if you are not able to tell us. It is our policy at Mary Immaculate Hospital to respect and follow your wishes.

There are different types of advanced medical directive:

Living Wills ---Written instructions that tell you wishes for your health care. The Living Will is your wishes in writing when you are not able to tell us what you do and do not want done.

Health Care Agent (may be called a medical power of attorney) ---A legal paper that lets your care team know who you want to make decisions about your medical care if you can't.

Health Care Instructions ---Your chose regarding the use of life-sustaining equipment, hydration, nutrition, and use of pain medicines.

At Bon Secours Mercy Health Mary Immaculate Hospital, it is our policy to respect and follow our patient's wishes for their care.

On admission to the hospital you will be asked if you have an Advance Medical Directive. If you do, **please bring copies of the documents to the hospital with you**, so they can become a part of your medical record. If you do not have one and would like to get one let us know.

Advance directives are not a requirement for hospital admission.

Frequently Asked Questions

Am I too old for joint replacement surgery?

Age is not a problem if you are in reasonable health and have the desire to continue living a productive, active life. You may be asked to see your personal physician for his/her opinion about your general health and readiness for surgery.

Will the surgery be painful?

You will have pain and soreness after joint replacement surgery. The goal is for you to have pain tolerance as you get the muscles of your leg stronger and stretched. You will use ice, elevation, movement, nonnarcotic medication and narcotic pain medication to help you as you recover.

How long, and where, will my scar be?

The scar will be approximately six inches long. It will be straight down the center of your knee. You may notice some numbness around the scar as it heals. This is normal and will not cause any problems.

When can I take a shower after surgery?

Showering after surgery is dependent on your surgeon. You will be given discharge instructions from your surgeon telling you when you can shower. Sponge bathing may be easier in the immediate post-operative period to make sure your dressing stays clean and dry.

When will I be able to get back to work?

Your surgeon will let you know when you will be able to return to work, but it greatly depends on your recovery and your occupation.

When can I start driving?

About four to six weeks after surgery, but not until your surgeon gives you the OK to drive.

How long do I need to perform exercises?

Start now before surgery and keep doing your exercises until you are pain free after surgery. Do the pre-operative exercises listed in this book and any others your physical therapist gave you. The more you exercise and move your arms and legs before surgery the faster you will recover and have less pain.

When can I have sexual intercourse after surgery?

The time to resume sexual activity should be discussed with your Orthopaedic physician.

How long will my prosthesis last?

This varies from 10 to 30 years, depending on your age, weight and activity level.

Frequently Asked Questions Regarding the CHG Skin**Preparation:****If I use my CHG bathing at night before to bed, can I shower again in the morning?**

Yes. You may take a normal shower again in the morning using dial soap (orange bar or blue liquid only). Use the CHG cleaning solution only during the nightly shower.

(DO NOT SHOWER ON THE MORNING OF SURGERY.)

Do I need to wash the comforter on my bed every day as well?

No. If the comforter is clean, only the towels, pajamas, and sheets need to be cleaned each day for the three days prior to surgery.

Can my spouse sleep with me? What about my dog or cat?

Yes, your spouse may sleep with you. It is recommended that your pet sleep elsewhere if normally under the sheets with you in the bed.

Do I need to clean my sheets every day after surgery?

No. Post-operatively your incision area will be covered and not exposed.

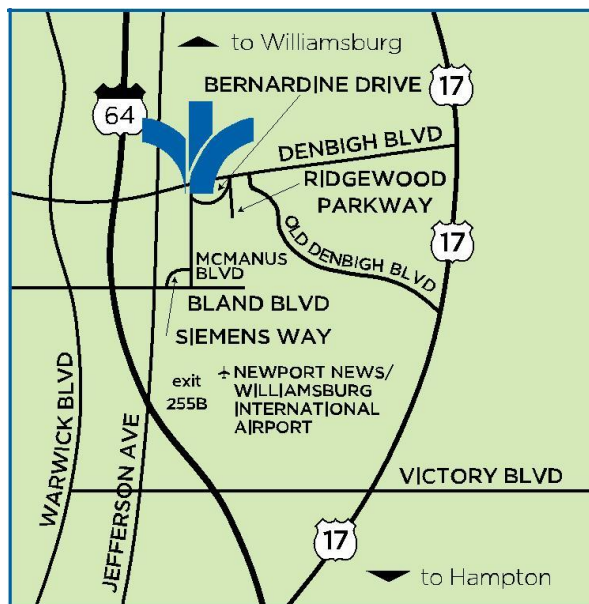
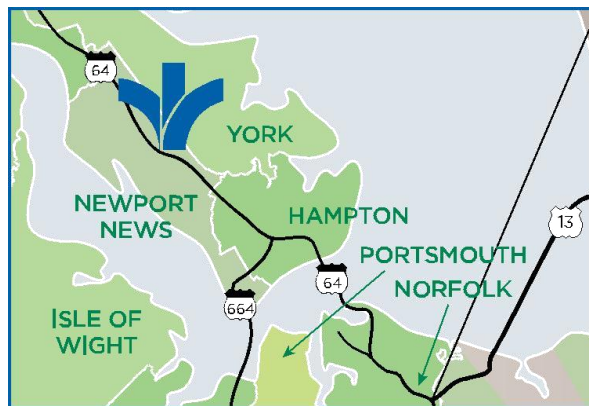
If I have difficulty reaching my back, is it okay to use a sponge with a handle to reach it?

Yes, if the sponge is new and clean you may use it to clean areas you cannot reach.

Sponges with handles can be found at most drug stores.

Directions & Maps

From I-64, take Exit 255B toward the Newport News/Williamsburg International Airport. Stay on Jefferson Avenue for approximately ½ mile. Turn right onto Bland Boulevard, then take a left onto Siemens Way at the stop light. Continue to follow Siemens Way around to the right. Turn left onto McManus Boulevard, directly across from the airport. Follow the road almost to the end and turn right onto Bernardine Drive. Bon Secours Mary Immaculate Hospital is on the right.

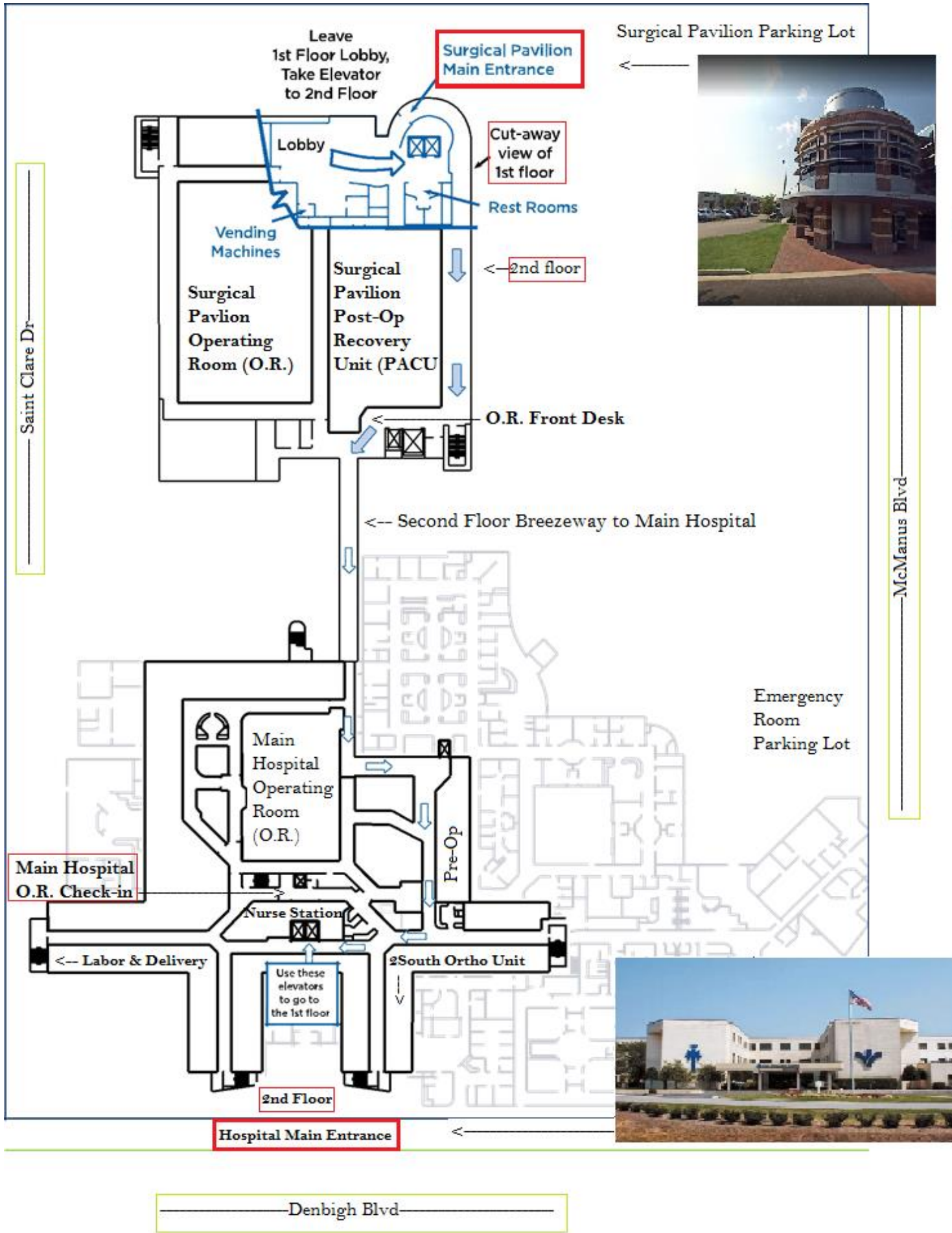


Directions from Surgical Pavilion First Floor to the Main Hospital 2 South Orthopaedic Unit

The following page is a map of the second floor of the surgical pavilion and the main hospital. There is a small cut-out of the first-floor lobby of the Surgical Pavilion Main Entrance (**red block top of page**). If you follow the blue arrows onto the elevator and out to the second floor, it will lead you through the surgical pavilion and second floor breezeway, directly to 2South Orthopaedics in the main hospital.

Directions from the Main Hospital Entrance to the Main Hospital Operating Room Lobby

Enter through the main hospital entrance (**red block bottom of page**) and onto the elevators immediately inside to the second floor. Once the elevators open, you will find the 2 South Orthopaedics nurses' station on the left-hand side. Behind it you will find the Operating room lobby (check-in).



Hotel Discounts

Bon Secours patients and families have a new reason to feel good about choosing us as their health partner. You'll now be able to stay closer to your loved ones at a substantial discount. There are participating hotels near our award-winning Bon Secours hospital where you can receive these wonderful benefits:

Courtyard Marriott
105 Cybernetics Way
Yorktown, VA 23693
757-874-9000

Residence Inn
531 St. Johns Road
Newport News, VA 23602
757-842-6214

Comfort Suites
12570 Jefferson Ave.
Newport News, VA 23602
866-348-7755

Courtyard by Marriott
530 St. Johns Road
Newport News, VA 23602
757-842-6212

You must mention that you are seeking the "Bon Secours discount."