



Beaufort Memorial
ADVANCED ORTHOPEDICS & SPINE



Getting Ready for
KNEE REPLACEMENT



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WELCOME TO Beaufort Memorial

Congratulations on your decision to have knee replacement surgery.

The experts at the Beaufort Memorial Joint Replacement Center have carefully planned every step of your care. We feel that the better informed you are about your surgery, the more likely it is that you will feel less anxious, and that you will have a positive experience and an excellent outcome.

Total joint replacement requires you to be an ACTIVE team member in your recovery and rehabilitation. We will educate, support, and assist you in returning to your optimal state of health before you are discharged from the hospital. Your doctors, therapists, nurses, and YOU will determine your goals for discharge.

It is important that you COMMUNICATE with all team members. Ask questions and seek clarification if you are not sure or do not understand. Our goal is to help you understand what is involved and participate in your care.

Thank you for choosing BMH for your total joint replacement care. You have selected a joint replacement center that has several advantages:

- Highly skilled orthopedic surgeons
- A Preoperative Assessment Clinic to optimize patients for surgery
- A dedicated Joint Care Coordinator to support you throughout the process
- Preoperative education and support
- Experienced and specially trained staff to maximize your recovery
- In-house physical and occupational therapy
- A team approach to discharge planning to maximize recovery after surgery
- A commitment to safe, high quality, patient-centered care



**At Beaufort Memorial,
we are committed to delivering
excellent orthopedic care and
bringing you the best medical options
to improve your quality of life.**

UNDERSTANDING YOUR JOINT REPLACEMENT SURGERY

COMMON CAUSES OF KNEE PROBLEMS

What is osteoarthritis?

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

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

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

What are the symptoms of osteoarthritis?

Symptoms of osteoarthritis can include:

- Joints that are sore and ache, especially after periods of activity
- Pain that develops after overuse or when joints are inactive for long periods of time

What are the causes of osteoarthritis?

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

What is rheumatoid arthritis?

Rheumatoid arthritis is an inflammatory form of arthritis meaning that the material that surrounds the joint and keeps it lubricated becomes swollen. Rheumatoid arthritis affects about one percent of Americans, but is much more common in women than in men. This form of arthritis occurs in all age groups.

What are the symptoms of rheumatoid arthritis?

Symptoms of rheumatoid arthritis can include:

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



UNDERSTANDING YOUR JOINT REPLACEMENT SURGERY

KNEE REPLACEMENT SURGERY

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

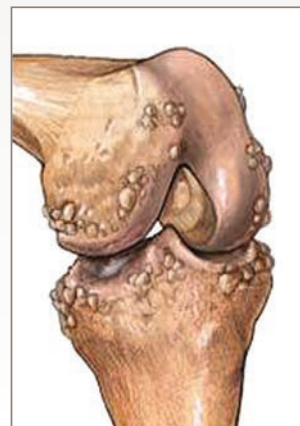


Before

After

Total Knee Replacement Surgery

This involves resurfacing the knee joint with an artificial joint made of a metal alloy and plastic. The materials used in your artificial joint are very strong and are designed to last a long time inside your body. Your orthopedic surgeon will consider many factors, like age, bone density, and the shape of your joints when determining the exact kind of knee replacement you'll receive and how it will be inserted into your knee.



Before

After

Partial Knee Replacement Surgery

Sometimes, the cartilage damage in your knee is limited to just one side or the other. When this happens, a partial knee replacement procedure may be appropriate. Partial knee replacement is similar to total knee replacement except only one side of the knee joint is resurfaced. This involves a shorter hospital stay, quicker recovery and smaller scar.



UNDERSTANDING YOUR JOINT REPLACEMENT SURGERY

Continued

THE RISKS OF KNEE REPLACEMENT SURGERY

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

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

Blood clots: Blood clots can form in a leg vein and in your lungs after knee replacement surgery and can be dangerous. Blood clots are more common in older patients, patients who are obese, have a history of blood clots, smoke, or have cancer.

Infection: Infection is very rare in healthy patients having knee replacement. Patients with chronic health conditions, like diabetes, patients who take some forms of corticosteroids, and those who use tobacco/nicotine are at higher risk of infection after any surgery. Superficial wound infections are usually treated with antibiotics. Deeper infections inside the joint may require additional surgery.

Nerve, blood vessel, and ligament injuries:

Damage to the surrounding structures in the knee, including nerves, blood vessels and ligaments, are possible but extremely rare. More commonly there is numbness in the area of the incision which usually, but not always, resolves in 6-12 months.

Wound healing: Sometimes the surgical incision heals slowly, particularly if you take corticosteroids or have a disease that affects the immune system, such as rheumatoid arthritis or diabetes, or if you are a smoker.

Limited range of motion: The day of surgery, you will begin exercises to help improve the flexibility of your knee. Your ability to bend your knee after surgery often depends on how far you could bend it before surgery. Even after physical therapy and an extended recovery period, some people are not able to bend their knee far enough to do normal activities such as reaching their feet to put on socks or tie their shoes.

Hematoma: Bleeding into the knee can occur either immediately after surgery or at a later time. This is accompanied by acute pain and swelling, and is sometimes confused with infection.

Instability: After surgery, the knee may feel a bit unstable. This will normally improve as muscles regain their strength. Ligament damage can also create instability.

Loosening of the joint: Over the long term, loosening of the artificial knee joint is the most common risk associated with total knee replacement. Loosening may occur with trauma, wear and tear, or changes related to osteoporosis.



UNDERSTANDING YOUR JOINT REPLACEMENT SURGERY

WHAT RESULTS ARE TYPICAL? – You can expect a successful outcome from your knee replacement surgery. Generally, patients experience less pain and more mobility, and can resume most of the activities they enjoyed before the onset of symptoms. Long-term studies show that 85-90% of artificial joints are intact and functional after 20 years. Your artificial joint will last longer if you maintain your ideal weight and if you avoid high-impact activities.

YOU CAN REDUCE YOUR RISKS OF COMPLICATIONS BY:

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

PREPARING FOR YOUR JOINT REPLACEMENT SURGERY

Your Joint Replacement Center (JRC) experience begins long before your actual surgery. These guidelines will prepare you for a rapid and safe recovery in your quest for improved mobility and a healthier lifestyle.

To make sure you and your coach are prepared for your joint replacement surgery, it is important that you carefully and thoroughly review this Joint Connection Patient Education Book and practice your exercises before surgery. The information will help you better understand your diagnosis, the joint replacement process, and what to expect every step of the way as you prepare for your experience. Please call us at 843-522-7435 if you have any questions or concerns regarding this information.

HELP FROM YOUR COACH – Recovering from knee replacement is a team effort. Support, encouragement and companionship from your coach (a family member or friend) can make all the difference, not just in the hospital, but also throughout the weeks before and after your surgery. We strongly recommend that you bring your coach with you to your preoperative education class. This person should be someone who is willing to support you every step of the way and who can participate fully in activities before surgery and during your recovery.



PREPARING FOR YOUR JOINT REPLACEMENT SURGERY

Continued

PRACTICING YOUR EXERCISES

As part of your preoperative education, you'll learn exercises to do before surgery designed by our therapists in the Joint Replacement Center Program. After surgery you will learn the post-operative exercises. All of these exercises are listed in the appendix of this book. Performing these exercises regularly and properly is perhaps the most important factor in speeding recovery and determining long-term success of your new joint. Keep in mind that the exercises are designed to strengthen muscles around the knee and improve mobility. The exercises are not always easy, but they are an important part of your treatment and recovery process. Some soreness in your joint is normal and will improve overtime.

If you experience severe pain with any exercise, you should stop immediately.

YOUR MEDICATIONS – Prior to surgery, a nurse will review your medications, including any over-the-counter medicines or supplements, and let you know which are safe to take prior to surgery and which should be stopped.

MEDICATIONS YOU MAY NEED TO STOP TAKING PRIOR TO SURGERY

Some medications that you currently take may prove harmful during surgery because they thin your blood and increase the risk of bleeding after surgery. If you take the following medications you must stop taking them prior to your surgery:

- **Stop two weeks prior:** Prescription diet medications, Methotrexate™ and other rheumatoid arthritis medications.

The American Society of Anesthesiology has recommended you stop the following supplements: Ginkgo Biloba, Garlic or Garlique, Ginseng, Glucosamine, Green Tea (capsule form), Kava, Echinacea, St John's Wort, Valerian, Vitamins A, C, and E and Fish Oil.

- **Stop seven days prior:** Blood thinners, anticoagulants, and antiplatelet agents (such as Eliquis, Coumadin®, Plavix®, Effient®), aspirin, compounds containing aspirin, hormone replacement therapy. Anti-inflammatory medications (such as Ibuprofen®, Motrin®, Advil®, Aleve®, Naproxyn®, Relafin® or Diclofenac®) may need to be stopped prior to surgery. Your physician or preoperative nurse will advise you which medications to stop.

ENSURING THE BEST OUTCOMES

Preop Testing – You will have several routine tests before surgery. Some of the most common tests done include laboratory tests, a chest x-ray and electrocardiogram (ECG).

Blood Conservation Program – While the need for a blood transfusion following joint replacement surgery is low, your lab work may indicate that you could benefit from iron or other supplements to help the body increase hemoglobin levels. Hemoglobin is what gives cells oxygen, which aides in healing and recovery. If your blood work indicates you could benefit from treatment before

surgery, the Blood Conversation Coordinator will contact you to discuss your options. You may contact the coordinator directly at 843-522-5293.

Preoperative Assessment Clinic – Your surgeon may refer you to the Preoperative Assessment Clinic for evaluation, preparation and education before surgery. During a PAC visit, you will undergo a thorough evaluation by a medical provider to ensure readiness for surgery. At this time, you will receive a history and physical examination to determine if additional tests or medical therapy is necessary prior to your anticipated surgical date.

REDUCING THE RISK OF INFECTION

Your overall health is important when you are having a planned surgery. Here are some things you can do to help decrease your risk of developing a surgical site infection.

- Avoid shaving near the surgical area for 48 hours prior to surgery. This may contribute to microscopic cuts in the skin that allow bacteria to enter.
- Make sure you eat nutritiously.
- Control your blood sugar. Research has shown better outcomes with better controlled blood sugars.
- Shower with antiseptic soap as instructed.
- Stop tobacco use at least 30 days prior to surgery.
- Trim nails, and remove polish and fake nails.

While the risk of infection following joint replacement surgery is relatively low, it is important to take the possibility seriously.

- If possible, lose those extra pounds but don't sacrifice nutritional balance.
- Tell your surgeon if you have any other infections (i.e., colds/skin infections/tooth abscess).
- Dental care: Please call your surgeon's office if any dental problems arise prior to your scheduled surgery. Dental work should be completed at least three weeks prior to your surgery and avoided three months after surgery, if possible.
- Clean hands: Hand hygiene is very important for you and your caregivers. Please wash frequently or use the alcohol-based sanitizer products.

Notify your orthopedic surgeon if:

- You have increased hip or knee pain at rest or when active.
- You undergo a procedure or have a condition through which bacteria might spread into your bloodstream.
- You have a persistent fever above 101 degrees for two days.

SHOWER PREP INSTRUCTIONS

Your surgeon recommends chlorhexidine gluconate (Hibiclens) soap to reduce the amount of germs on your skin prior to surgery to decrease your chances of infection. It will be given to you at your pre-op appointment. You may also purchase it at local drug stores.

Take a shower using chlorhexidine gluconate (Hibiclens) each day for five days, including the morning of surgery. On the day you start your Hibiclens shower, make your bed with clean sheets. Do not sleep with pets during this time or after your surgery until your incision has healed.

Directions:

1. Wash all areas as normal, using your regular soap – then rinse.
2. Use the chlorhexidine gluconate (Hibiclens) on a clean, wet washcloth.
3. Wash the area where you are going to have surgery thoroughly.
4. Also wash entire body from neck down (omitting the genitals) thoroughly.
5. Rinse as usual and dry off with a clean towel.
6. Do not apply lotions or powder after shower on the day of surgery.
7. Dress in clean clothes or pajamas.
8. Do not sleep with pets.



NUTRITION BEFORE SURGERY

To help your body prepare for and recover from surgery, we recommend drinking Ensure Pre-Surgery Clear Carbohydrate Drink prior to surgery. Make sure it is the clear formula! Alternative Drink: Gatorade or Powerade (NO RED).

Directions:

On the night before surgery at bedtime (before midnight):

- Drink one 10 oz. bottle of Ensure Pre-Surgery Clear Carbohydrate Drink.

On the day of surgery:

- **If not diabetic, 2 hours before arrival at the hospital,** drink one 10 oz. bottle of Ensure Pre-Surgery Clear Carbohydrate drink. Drink it quickly, within 5 minutes.
- **Special Instructions For Diabetics:** 4 hours before arrival at the hospital, drink one 10 oz. bottle of Ensure Pre-Surgery Clear Carbohydrate drink. Drink it quickly, within 5 minutes. If sleeping does not permit the 4 hours, drink 12 oz. of water 2 hours before arrival instead.



▲ A clear, complex carbohydrate beverage, Ensure Pre-Surgery is specially designed to help improve recovery.

HOME SAFETY PREPARATIONS

There are a number of tips that you and your family can implement to help make your home safe and comfortable for your return home:

- Check your home for tripping hazards like throw rugs and cords. Area rugs should be picked up, removed, tacked down or secured with a non-skid pad. All electrical cords should be tucked out of the way.
- Have nightlights installed in the bathrooms, bedrooms and hallways.
- Make sure stairs have handrails that are securely fastened to the wall.
- Arrange furniture so that it doesn't block walking areas.
- Check the bed and chairs that you will spend most of your time in when you return home. The seat height should not allow your hips to be below your knees; if your chairs or bed are much higher or lower, consider adjusting the height.
- Chairs with wheels should not be used under any circumstance. Arrange your "nest," or where you will spend most of your time, with conveniences (i.e., music, TV, lap desk, water pitcher, pillows, etc.).
- Determine what items from dressers, cabinets and shelves you will need immediately after returning home. Any items that are currently stored either high or low and require excessive bending or reaching should be moved to counter height. This includes items in bathrooms and kitchens.
- Have non-slip bath strips or rubber mats in the tub or shower. Replace bar soap with easier to hold liquid liquid soap or soap on a rope.
- If you have pets of any kind, you may want to consider boarding or finding a caretaker for them for a few days after your return. Pets should not sleep in your bed until the incision is healed.
- A cordless phone or cell phone should be available. It should be tucked in a pocket and carried with you for easy use. Emergency numbers need to be close to the phone and easy to access.
- In order to minimize cooking, prepare meals in advance and freeze them. Alternatively, you can also purchase individual serving-size meals for times when you are alone. The goal is to plan ahead.
- Attend to any outdoor work, like gardening or cutting the grass, prior to your surgery.
- Wash any laundry that you may have. Have loose-fitting, comfortable, wash-and-wear clothing for your first days at home.
- Clean your home prior to surgery. Put clean linens on your bed.
- Plan to have a support person stay with you at home until you are able to perform activities of daily living independently and safely. Typically, this occurs in the first few days after you return home.

REMEMBER

DO NOT shave the surgical area prior to surgery. Women, please do not shave your underarm for 48 hours prior to surgery day. DO SHOWER. You will be given an antibacterial soap and specific showering instructions prior to surgery.

WHAT TO BRING TO THE HOSPITAL

- Bring this book to the hospital for reference.
- Bring all the medications you take in the original bottles-prescriptions, over the counter, and herbal supplements except controlled substances (like narcotic pain medication or sleeping pills). Just write those down on a list with the dosages and include it in your medication bag.
- Personal toiletries (electric razor if you want to shave).
- Footwear that you can easily slip into or has Velcro fasteners and is close-toed. It may be difficult for you to bend and tie your shoes, and you may have some swelling in your ankles that will make your footwear tight at first.
- Comfortable, loose-fitting clothing like pajamas or gym clothes. You will need at least two changes of clothing to wear for group therapy. Think comfort and modesty.
- Eye glasses, contact lenses, and dentures **in their cases, marked with your name.**
- If you have bladder issues, you may want to bring Depends® or pads.
- If you would like, you may bring your cell phone and/or tablet (and charging cables). However, make sure they are secure while you are here. WiFi is available throughout the hospital.
- BiPAP or CPAP machine and mask if you sleep with one at home.
- ID and insurance cards.
- If you plan to utilize Publix bedside delivery service for new prescriptions, please bring a method of payment.

VALUABLE ITEMS

Please leave your valuables at home or give them to a friend for safe keeping. The hospital is not responsible for lost or damaged items.



YOUR ITINERARY COUNTDOWN TO SURGERY

4 WEEKS BEFORE SURGERY

- Attend Pre-Operative Class or Watch Class Video.
- Begin your exercise program.
- Stop smoking tobacco/nicotine products.

2 WEEKS BEFORE SURGERY

- Start making home preparations.
- Stop taking prescription diet medications, herbal supplements as stated previously, Methotrexate and other rheumatoid arthritis medications. **THESE ARE EXAMPLES ONLY.** Please discuss all your current medications and supplements with your surgeon and/or nurse liaison and follow their directions.

7-10 DAYS BEFORE SURGERY

- Stop taking NSAIDS, such as ibuprofen and naproxen, aspirin, and blood thinners as directed by your physician or the preoperative nurse coordinator.
- Reduce alcohol consumption.

4 DAYS BEFORE SURGERY

- Change bed linens
- Stop sleeping with pets.
- Start the Hibiclens shower process (your fifth day of use will be the day of surgery.)

DAY BEFORE SURGERY

- Make sure you stay well hydrated throughout the day.
- Pack your bag for your hospital visit.
- Drink one 10 oz. bottle of Ensure Pre-Surgery clear carbohydrate drink at bedtime (before midnight).
- Do not eat or drink after midnight or as instructed.
- Remove nail polish and fake nails.

DAY OF SURGERY

- Take a shower and clean your body, focusing on the knee with the special cleanser as you were instructed.
- It's ok to brush your teeth, but do not swallow any water.
- Drink one 10 oz. bottle of Ensure Pre-Surgery clear carbohydrate drink two (2) hours before arrival at the hospital. Consume it quickly (in less than five minutes).
Diabetics: drink four (4) hours before arrival.
- Wear clean, comfortable clothes. Avoid wearing any fragrance, deodorant, cream, lotion or nail polish.
- Take any medications with a small sip of water as instructed during your pre-operative testing. Report to the check-in area on time.
- Remove all jewelry including rings, prior to surgery.

ARRIVING AT THE HOSPITAL

The day of your surgery will be a busy one. Several hours will pass between the time you check in at the hospital and the time that your surgery is completed.

Your coach is welcome to stay with you at all times, except surgery and recovery. One person is allowed to stay overnight. A recliner is provided for sleeping.

It is important that you arrive at the hospital at the designated time. This will give you plenty of time to check-in and prepare for surgery. In most cases, you will be told to arrive several hours prior to your

scheduled surgery start time. You will check-in at the desk in the surgical lobby, entrance four (see campus map in the back of this book). The nurse will help you prepare for surgery. Once you are taken to the operating room area, your family member can wait for updates in the surgical lobby or leave a phone number so we can contact them.

CHECKING IN TO THE JOINT REPLACEMENT CENTER (JRC)

A nurse will review your planned procedure and allergies with you, along with additional information.

- You will be placed on several monitors – a blood pressure cuff on your arm, oxygen-sensing device on your finger (similar to a clothespin), as well as three sticky circles on your chest for the heart monitor. Your temperature and breathing rate will be monitored. These are known as your vital signs. Your vital signs will be monitored continuously until you are discharged to your hospital room after surgery.

- All pre-operative orders given by your surgeon will be completed. These may include:
 - An intravenous line (IV) started for administration of fluids and medications during and after your surgery.
 - Hair removal by appropriate means, as needed.
 - Application of special compression wraps called Sequential Compression Devices (SCDs) to aid the circulation in your legs and feet, which helps reduce the risk of blood clots.
- Additional procedures and/or treatments will be completed based on your individual needs. Your surgeon will mark and verify the operative site before surgery.
- When the surgical room and your surgeon are both ready, you will be taken to the operating room and moved to the operating table.

ANESTHESIA SERVICES

General Information

- Before surgery, the anesthesia provider will meet with you, discuss your medical history and determine the best plan for your anesthesia care.
- It is important that you tell your anesthesia provider of any prior problems or difficulties you have had with anesthesia.
- Some joint replacement surgeries use general anesthesia, while most utilize regional anesthesia such as a spinal block.
- Your anesthesia provider will discuss the risks and benefits associated with the various anesthesia options, as well as the potential side effects that can occur with each.



THE OPERATING ROOM

You will be transported to the O.R. on a stretcher. The staff will help you slide onto the operating table. You will then receive a spinal block or general anesthesia by the anesthesia staff. Your knee also will be cleansed and prepared with a colored surgical scrub.

- The anesthesiologist or nurse anesthetist will continue to monitor your vital signs and care for you during your procedure. A registered nurse assigned to your case also will assist in your care throughout surgery.
- While you are in surgery, family/friends may wait in the Surgery Center lobby.
- When surgery is complete, you will be transported to the Post-Anesthesia Care Unit (PACU) by your surgical nurse and a member of the anesthesia team. Your surgeon will contact your family to discuss your procedure.

In PACU you will receive constant care from a specially-trained registered nurse who is knowledgeable in post-anesthesia care. The PACU may seem bright and busy. You will hear monitors beeping and may see other patients. Your nurse will be close by your bedside and will ask you frequently to move your legs and feet, cough and take deep breaths. He or she will perform frequent checks of your surgical site and pain management.

WHAT TO EXPECT AFTER SURGERY

AFTER YOUR SURGERY – After your stay in the PACU, you will be transported to your room. Your nurse and his/her team will provide your care. Communication with your health care team will provide the best outcome possible. Do not be afraid to ask them for assistance.

Your nurse will closely monitor you for several hours. The nursing team will monitor and observe the following:

- Vital signs hourly at first, then as needed.
- Your bandage will be checked frequently for excessive bleeding. Some bleeding is expected and completely normal. You may have a drain in place to assist in decreasing fluid accumulation at your surgical site.

- You will be encouraged to cough and breathe deeply every hour while you are awake. This helps prevent fluid from accumulating in your lungs and reduces the risk of pneumonia.
- You will be taught how to do breathing exercises using an Incentive Spirometer and asked to do these frequently throughout your hospital stay and at home. Please take this device with you upon discharge.



Pain management – Your surgeon and nursing team will work with you to make sure you are as comfortable as possible, keeping your pain under control. Ice packs will be provided for you to take home for use as needed.

Diet – You will start with ice chips and liquids, then eat lightly on the evening after your surgery. Your diet will be progressed as you can tolerate. If you experience nausea, ask your nurse for medication that can help.

Medications – Your nurse will make sure you receive your home medications as ordered by your doctor and you will be started on a blood thinner to help prevent blood clots.

Activity – Physical Therapy or your nursing staff will be assisting you to get out of bed, take a few steps, and sit in the chair for a short period. Keeping the head of the bed up, doing your exercises including ankle pumps, and using your Incentive Spirometer are all important to your recovery.



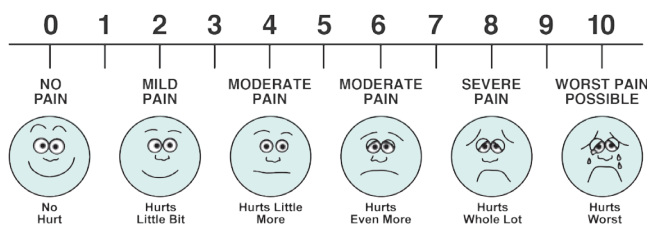
WHAT TO EXPECT AFTER SURGERY

MANAGING YOUR PAIN

- Each of us feels and reacts to pain in different ways. How you feel can depend on experiences you have had in the past, anxiety, stress and other factors.
- Make sure to tell your healthcare team if you are allergic to any pain medicine, if you have had pain medicine that did not work well in the past, or if you have had side-effects to pain medicine such as itching, vomiting, blurred vision or confusion.
- It is our goal to minimize and control your pain as much as possible. We may not be able to make you pain-free immediately after surgery, but we will make the pain as tolerable as possible.
- Staff will often ask about your pain, where it hurts and what type of pain you are having. The following pain scale will help your caregivers understand how you are feeling.

PAIN RATING SCALE – You are the only one who knows how much pain you feel. Be honest with your caregivers. Always let them know if your pain suddenly changes. Medication is our primary defense against pain, but there are additional methods to relieve pain including repositioning, cold therapy and relaxation techniques. Using these techniques alone or with medication will improve the effects of the medication. When you leave the hospital, your surgeon may provide a prescription for pain medicine. Do not be afraid to take pain medicine when you need it, following the directions provided.

Wong-Baker FACES™ Pain Rating Scale



BLEEDING AND DRAINAGE – A small amount of bleeding and drainage at the incision site is normal. Call your surgeon's office if you notice increased bleeding from your incision or your surgical dressing becomes saturated.

SIGNS OF INFECTION – Possible signs of infection include fever, redness and warmth at and around the incision site, and increased or foul-smelling drainage. Call your surgeon's office right away if you experience any of these symptoms.

PREVENTING NAUSEA AND VOMITING – Nausea can be a result of surgery, pain medications or both. Let your nurse know when you feel nauseated so that he/she can administer medication to help, if needed. Tell your nurse if there are other methods that you have used in the past to relieve nausea. Often taking pain medication with a meal or snack may help to decrease nausea. Also, be aware of possible constipation issues. This is a common side effect of pain medications and can contribute to nausea. Have an over the counter laxative available at home if needed.



YOUR RECOVERY SCHEDULE

FOLLOWING YOUR SURGERY – Your surgeon will request that you begin activity and therapy on the day of your surgery. This may be simply sitting at the edge of the bed, getting into a chair, or doing a little walking. Although each patient is different, here are things you can expect on the day of surgery:

- The nurses will closely monitor you to make sure you can urinate. During this time you will need to drink plenty of fluids and save all urine so the staff can record the amount.
 - The IV that was placed before surgery will be left in place to provide you with fluids, pain medications, antibiotics and other medications, as necessary. It will be removed when you no longer need it.
 - You will wear foot or leg pumps which are used to reduce the risk of blood clots. For the pumps to be most effective, they must be worn while in bed or while resting in your recliner. Ask for assistance before getting out of bed, to remove the devices and prevent tangling and falling.
 - Oxygen is sometimes used after surgery, delivered to you through a tube in your nose.
 - Your health care team will continue to observe and monitor you after your surgery. They will assist you with activities as needed, including getting up and walking around. Please ask for assistance at all times, as your safety is our primary concern.
- It is vital to your recovery that you fully participate in all your therapy treatments. Physical therapy will continue with your plan of care and help you regain your independence. We will be teaching you what you need to know to be safe when you go home. Here are activities we will be helping you with in the hospital:
 - Learning to walk with your new knee
 - Learning to get in and out of bed and chairs, on and off the toilet
 - Learning to get in and out of the car
 - Circulation exercises
 - Strengthening exercises
 - Range of motion (ROM) exercises with your new knee
 - Reviewing precautions and safety concerns
 - Your care coordinator will visit to discuss discharge planning for any home needs.
 - Pain and nausea medication are available on an as-needed basis. Please maintain communication with your nurse about your pain levels so they can best assist you.

Your goals for your independent and safe discharge are as follows:

- Understand all precautions and safety concerns.
- Understand and be able to do your home exercise program.
- Get up and down from a chair and toilet safely.
- Walk on a level surface using a walker.
- Walk up and down steps, using banister or assistive device if you have them at home.
- You will go home when you have met your goals.

The care coordinators can help you with any discharge needs you may have, such as physical therapy or equipment needs. They can also give you information about community resources.

PREPARING TO RETURN HOME

Care Coordination Services

Things you can do prior to surgery to assist with your discharge plan:

- Talk to your family and support system about how they are able to help at home upon discharge. We ask you to choose a caregiver or coach to support you during your recovery from joint replacement surgery. Please talk to your surgeon prior to your hospital stay about concerns you have about going home.
- We will make every effort to have everything ready for your planned discharge. We recommend you obtain a front wheeled walker and a shower seat (if needed) prior to the surgery. You can order them online, purchase them at a medical supply store or pharmacy, shop thrift stores, or borrow from a friend or family member. Our goal is for you to be ready to leave the hospital when your goals are met. Having your equipment early ensures you have what is needed for a safe discharge home. Your coach should plan to be with you at the hospital on the day of surgery and early the next morning before therapy (if you spend the night in the hospital). Therapy sessions typically begin around 8:30 a.m. Your coach should attend your physical therapy sessions and listen in on all nursing education so they are prepared to assist you at home.
- If possible, try to ride in a high-seated vehicle, such as an SUV or car with spacious passenger seating.

Care coordinators are available and one will visit with you after surgery. If you or your family would like to speak to them sooner, please alert your nurse and she will contact them.

Continued physical therapy is key to your recovery. You will be working with your surgeon and a team of professionals who will care for you during your hospital stay. When you have met your therapy goals, you will be discharged from the hospital to home with continued physical therapy as an outpatient or with home health.

HOME HEALTH – Your care coordinator will work with you to arrange home care services if

ordered by your doctor. She will also tell you if your insurance has preferred providers of these services. Once you make your choice, your coordinator will forward your orders to that agency.

OUTPATIENT THERAPY – Your doctor will want you to continue your therapy for a while after you leave the hospital. Beaufort Memorial offers three convenient locations for outpatient therapy following joint replacement. Ask your care coordinator to assist you in making your first post-discharge appointment.

IN BEAUFORT:

Orthopedic Specialty Care

1680 Ribaut Road, Suite B • 843-522-5850

Beaufort Memorial Medical and Administrative Center Outpatient Rehabilitation Services

990 Ribaut Road • 843-522-5960

IN OKATIE:

Okatie Medical Pavilion

122 Okatie Center Blvd. North, Suite 200

843-706-8841

DISCHARGE CHECKLIST

Before leaving the hospital, make sure you and your coach know:

- How to control your pain, including prescription and over-the-counter pain medication, ice packs, positioning, etc.
- How to control swelling
- What to do if you have nausea, vomiting or bleeding
- The signs of infection and blood clots
- When and how to change dressings
- What activities you can and cannot do until cleared by your surgeon (for example, walking, lifting, twisting, showering)
- When/if you will begin outpatient therapy
- Who will be helping you at home as you recover
- When to call your surgeon or 911

YOUR CONTINUED RECOVERY

PREVENTING BLOOD CLOTS/ PULMONARY EMBOLI (VTE/PE)

After joint replacement surgery, you are at increased risk of developing a blood clot. There are many ways to decrease this risk, including: being as mobile as possible, as early as possible; wearing sequential compression devices on your feet while in bed; using an anticoagulant (blood thinner) after your surgery; and, performing exercises as instructed by your therapist.

What is an Anticoagulant/Blood Thinner?

An anticoagulant (blood thinner) is used to help prevent and treat blood clots. It is normal for the body to form blood clots to stop bleeding. However, if a blood clot develops inside a vein, it can block the normal flow of blood and cause problems, such as a DVT in the leg or arm. If a DVT travels from the legs or arms and goes to the lungs, it is known as a PE (pulmonary embolism).

Your surgeon will prescribe a blood thinner after surgery, which you should take at the same time each day. You may be on a blood thinner for two to four weeks.

While on a blood thinner, there are precautions you should know. Because your blood will take longer than normal to clot, you will need to watch for bleeding. Here is a list of what to look for every day:

- Bleeding from your nose
- Bleeding from your gums when brushing your teeth
- Excessive bruising
- Small bleeds under the skin which may look like red freckles
- Coughing or spitting up blood
- Oozing from old cuts or scrapes
- Blood in your urine

- Bleeding for more than 10-15 minutes from new cuts and scrapes
- Blood when you have a bowel movement (this may look like red streaks in your stool or may look like black stool.)

Call your doctor's office to report any of these signs or go to the Emergency Room if you cannot make the bleeding stop.

While taking your anticoagulant, here are other ways you can reduce the risk of developing blood clots or bleeding:

- Be sure to reduce your risk of falling. Review the "Safety in the Home" section of this book.
- When sitting down for a prolonged period of time, recline and rest with your feet higher than your heart and avoid crossing your legs.
- Do not smoke.
- Do not have more than one alcoholic drink per day, as too much alcohol can interfere with how the medication works in your body.
- Take extra precautions outdoors and on wet surfaces.



YOUR CONTINUED RECOVERY

ALSO:

- Avoid using power tools, i.e. lawnmower, drills.
 - Wear gloves while gardening.
 - Tell all your doctors and dentists that you are taking an anticoagulant and are on bleeding precautions.
 - Keep ALL of your doctor appointments.
 - Do NOT use a straight razor. Instead, use an ELECTRIC razor to decrease the risk of nicks or cuts.
 - Do NOT use bath oils or trim corns or calluses. Use caution when nail-clipping.
 - Do NOT go barefoot. Wear shoes or slippers, especially when outside.
- Do NOT take any new medications (prescription or over-the-counter) without checking with your doctor first. Many prescription and over-the-counter medications interact with blood thinners such as:
 - Aspirin, aspirin-containing preparations
 - Ibuprofen (Motrin, Advil)
 - Naproxen (Aleve, Orudis KT)
 - Cimetidine (Tagamet)
 - Chondroitin
 - Ranitidine (Zantac)
 - Coenzyme Q10
 - Pepto-Bismol

Herbal supplements may also interact with anticoagulants, including: fish oil capsules, Vitamins E and K, Gingko Biloba, Bilberry, Ginseng, Devil's Claw, Dong Quai, green tea (limit to 2-3 cups per day), herbal teas with tonka beans, melilot (sweet clover), or sweet woodruff (papain), garlic and ginger (in larger amounts – not the amount to season foods), Chinese herbal medicines (like danshen and methyl salicylate oil), Vitamins A, E, and possibly C. The amounts in a multivitamin supplement are not a problem, but if you wish to take larger amounts, let your doctor know. Please check with your surgeon about when it is safe for you to resume any herbal supplements.



AT HOME CARE

Incision Care

- Keep incision clean and dry to help prevent infection.
- If your dressing is not waterproof, cover with plastic wrap before showering.
- Check the incision for any sign of infection (redness around the incision, foul smelling or pus-like drainage, or if you experience fever/chills). Call your surgeon right away if you see any signs of infection.
- Change your dressing as instructed by your physician. Gauze bandages and tape are available at a drugstore.

Prevention of Blood Clots (DVT/PE)

- Foot and ankle pump exercises
- Walking
- Blood thinners such as Eliquis or aspirin, as prescribed by your surgeon

Signs of Blood Clots in Legs

- Swelling in the thigh, calf, or ankle that does not go down with elevation
- Unusual pain in the leg
- Pain, heat, and tenderness in calf, back of knee, or groin area

NOTE: Blood clots can form in either leg.

Please call your physician if you experience any of these symptoms.

Signs of Pulmonary Embolus

- Sudden chest pain
- Difficult and/or rapid breathing
- Shortness of breath
- Coughing up blood

Dial 911 if you experience any of these symptoms.

Control Discomfort

Take your pain medication as prescribed, and always at least 30 minutes before physical therapy. Use ice and elevation above the heart therapy for comfort and to decrease swelling, especially after physical activity.

Appetite Changes

Your appetite may not be normal. Drink plenty of fluids so that you do not become dehydrated. Your appetite will return to normal gradually.

Sleep and Rest

You may have trouble sleeping at first. Try not to sleep or nap too much during the day. You will return to your usual sleep pattern.

Constipation

Pain medicine contains an ingredient that can constipate you. You may use an over-the-counter laxative or stool softener. Drinking lots of fluid and walking will also help to decrease constipation.

LIFE AFTER YOUR JOINT REPLACEMENT

How long will I be in the hospital? Generally, patients who have had knee replacements stay overnight in the hospital, although some may go home the day of surgery.

Will I need more therapy after I leave the hospital? Yes, most patients need some continued physical therapy. The duration and type of therapy is determined by your performance and your doctor's plan of care. A general rule is approximately six weeks.

What can I do to prepare my home and my body for surgery? Refer to the home safety checklist in this book. We have also provided exercises to begin NOW that will assist you after surgery in the Appendix.

Are there activities that may damage my new joint? Yes. Avoid high impact activities like running and jumping, unless cleared by your doctor. Avoid activities that twist your knee to weight bearing positions.

What about sleep and rest positions? You will be able to sleep in any position but it is recommended to keep your surgical knee as straight as possible. To prevent blood clots and stiffness it is recommended that while awake you do not remain in the same position for longer than two hours.

When can I drive? This depends on which side you are having repaired. Left-sided repairs generally return to driving much sooner than do right. Right-sided repairs may need to wait four to six weeks to drive.

When can I swim, take a bath or shower? Most people can shower within 48 hours of surgery, but remember, your incision needs to remain clean and dry until healed. For this reason, you need to speak to your doctor before resuming these activities. No soaking in water until incision is fully healed. This may be longer than a month.

When can I resume sexual activity? This is dependent on your recovery and should be discussed with your surgeon prior to resuming activity. .

Can I ever have an MRI after joint replacement surgery? Yes, but always remind the technician and all your doctors of your joint replacement.

Will I set off an airport metal detector? Maybe, and you will then need to be checked with a hand wand. Identity cards are no longer allowed, since they are so easy to reproduce. Allow extra time for this when you travel.

What about precautions when seeing the dentist or having minor surgical procedures? Your dentist or health care provider may wish to order preventive antibiotics when you have any dental work. Always let health care professionals know that you have had a joint replacement.



HELPFUL PHONE NUMBERS

Beaufort Memorial Hospital

(843) 522-5200 or TOLL FREE: (877) 532-6472

TO YOUR ROOM:

(843) 522-5xxx – your room number

WEB ADDRESS: www.bmhsc.org

ADDRESS: 955 Ribaut Road, Beaufort, SC 29902.

Joint Care Coordinator – Dana Aiken, RN

(843) 522-7435 • dana.aiken@bmhsc.org

Preoperative Nurse Coordinators

(for questions before surgery)

(843) 522-5954, (843) 522-7554 or (843) 522-7755

Care Coordination Director – Carrie Confare

(843) 522-5052 • cconfare@bmhsc.org

BMH Outpatient Physical Therapy

BEAUFORT MEMORIAL MEDICAL &
ADMINISTRATIVE CENTER: (843) 522-5593

ORTHOPEDIC SPECIALTY CLINIC:

(843) 522-5850 • 1680 Ribaut Road, Suite B

Okatie Medical Pavilion

MAIN DESK: (843) 706-8660

OKATIE REHAB SERVICES:

122 Okatie Center Blvd. North, Suite 200

(843) 706-8841

Joint Replacement Center

Nurses Station (24 hours) - (843) 522-5488

Beaufort Memorial Orthopaedic Specialists

Dr. Edward Blocker – (843) 522-7100

Dr. H. Kevin Jones – (843) 524-3015

Dr. Vandit Sardana – (843) 524-3015

Beaufort Orthopaedic Sports & Spine

BEAUFORT – (843) 525-0045

BLUFFTON – (843) 681-2363

HILTON HEAD – (843) 681-2363

**To find out more details about anesthesia,
please review Lowcountry Anesthesia's website
at www.lowcountryanesthesia.com.**

HELP US TRACK YOUR RECOVERY

You will be asked to complete several online assessments at various times before surgery and throughout your recovery. Your feedback is very important and will help us to measure your improvement. Each time you receive a feedback request, please take a few minutes to let us know how you are doing.

Check your email or text messages – A member of our Outcomes Team will contact you by email or text message a few days before your surgery about answering an initial set of questions.

Complete assessment – It is important that you complete each assessment within a few days of being contacted. This allows your care team to have all the information needed to provide you with the best care possible.

Questions? If you have questions about the assessments, contact a member of our Outcomes Team at bmh-ortho-spine@patientoutcomes.com



HOME EXERCISE PROGRAM BEFORE AND AFTER SURGERY

Heel Slide

Slide the heel along the surface towards your buttocks while bending your knee. Try to take your knee through the entire range of motion. *Repeat 10 times, 2 sets.*



Straight Leg Raise

Lie on your back with the opposite knee bent. Tighten the knee muscle and pull your toes back towards your nose. Lift your leg straight up until it is even with the bent knee. Hold for 3-5 seconds. *Repeat 10 times, 2 sets.*



Long Arc Quads

In a seated position with knee bent, straighten your leg as much as possible then slowly return to the bent position. *Repeat 10 times, 2 sets.*



Hamstring Stretch

Prop your leg out straight on a surface such as a couch or bed. While keeping your knee straight, slowly lean forward and reach your hands to your foot until a gentle stretch is felt along the back of the leg. Hold for 30 seconds. You can use a belt or folded towel wrapped around the foot to assist. *Repeat 2-3 times.*



Gastroc/Soleus Stretch

In a seated position, hook a towel/sheet/belt around your foot. With the leg straight, pull back on the foot until a stretch is felt in the calf, hold for 30 seconds. **Repeat with the knee bent. Repeat 2-3 times.**



Triceps Extension Chair push up

Sit in a chair with hands on the armrests. Push yourself up from the chair by straightening your elbows. Slowly lower yourself back to the chair by bending your elbows. **Repeat 10 times, 2 sets.**



Sit to Stands with butt squeeze

Start by scooting to the front edge of the chair. Lean forward with your nose over toes and rise to standing using your arms for support. When standing fully, squeeze the buttocks pushing the hips forward. To make this exercise harder, try without using your hands to push up. **Repeat 10 times, 2 sets.**



Quad stretch with chair

While in a standing position, bend your knee behind you and place it in a chair to feel a gentle stretch in front of the thigh. Hold 30 seconds. **Repeat 2-3 times.**



Heel-Toe Raises

While standing and holding to a counter or chair back for support, rock back on your heels raising your forefoot and toes then rock onto the toes and balls of the feet lifting your heels.

Repeat 10 times, 2 sets.



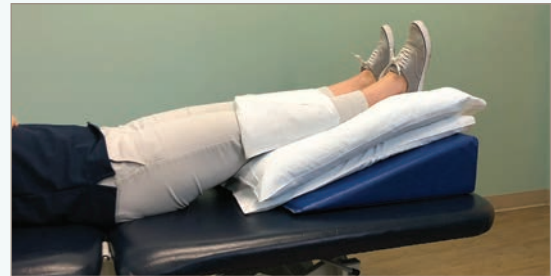
Weight Shifts

While in a standing position using a counter or chair back for support if needed, place one foot forward and one back in a staggered stance. Next, slowly shift your body weight to the front foot then towards the back foot. **Repeat 10 times, 2 sets.**



Ice-Elevate with ankle pumps, quad sets, and glute sets (Proper leg elevation)

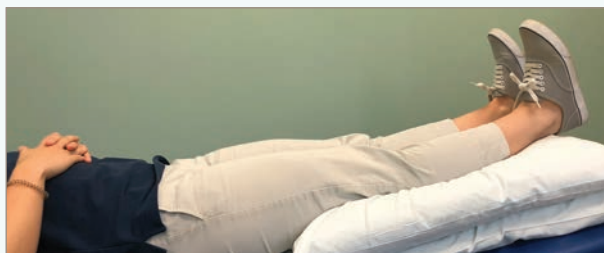
Elevate the whole leg above the heart with pillows from buttock to heel. Try to keep the knee straight, however if you are unable to tolerate this position with the knee straight, bend slightly for comfort. Apply ice pack to the knee area.



Ankle pumps – Move your foot up and down through the entire ankle range of motion like you are working a gas pedal.



Quad sets – Tighten the muscle on the front of the thigh and press the back of the knee down into the surface. Hold for 3-5 seconds, then relax.



Glute sets – Squeeze your butt cheeks together and hold for 3-5 seconds, then relax. **Repeat 10 times, 2 sets.**



SPECIAL REHABILITATION CONSIDERATIONS

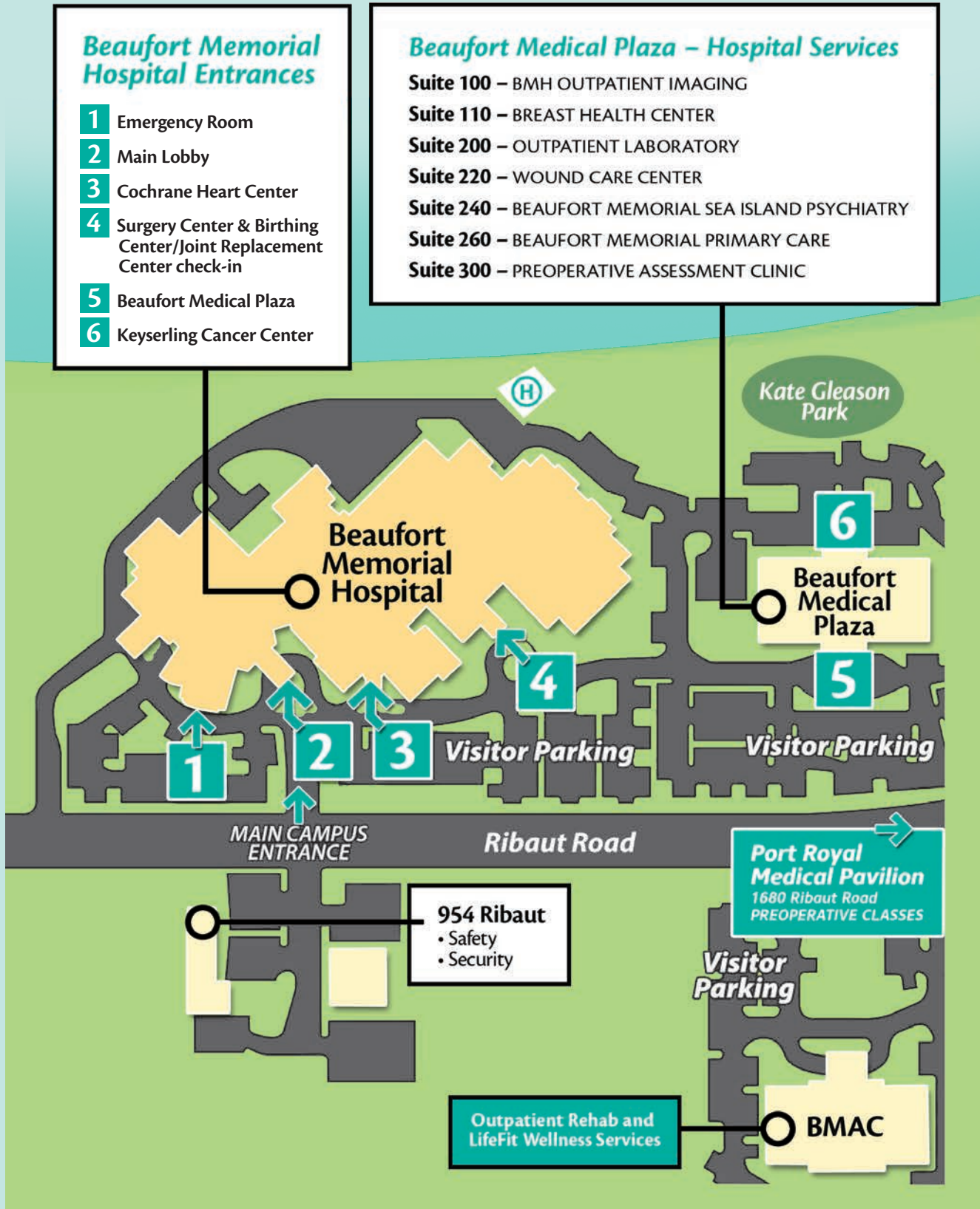
after Joint Replacement

PATIENTS WHO HAVE HAD KNEE REPLACEMENT

- Do not put a pillow under your knee while in bed or sitting. Resting in this position will keep your knee from straightening, which is a bad outcome.
- You can expect swelling in your knee and leg for a few months after surgery.
- To help reduce swelling, perform RICE – Rest, Ice, Compress, Elevate.
- Rest with your ankle and knee above your heart.
- Put ice packs on operative knee.
- Do ankle pumps at least every hour to compress your muscles and support circulation.
- Elevate legs/feet above hips when sitting.
- Always go up steps with your stronger leg first, followed by the weaker (operative leg). To go down, the weaker (operative leg), then the stronger leg. Remember to always use a handrail.
- Walking is an excellent exercise to help build strength and general conditioning.
- Avoid tennis, jogging, or other sports that require a lot of stop-start or jarring, unless you are given permission by your doctor.
- Avoid prolonged sitting (more than two hours) at a time. Stand up, walk, or lie down instead.
- When sitting, avoid low chairs and sofas. Instead sit on a higher chair or a chair with a firm pillow in the seat.
- Perch on a stable stool, if prolonged standing is anticipated.
- Avoid wearing high-heeled shoes or open-heeled slippers/shoes.



BEAUFORT MEMORIAL CAMPUS MAP



PREOPERATIVE EDUCATION

Prior to surgery, we ask that you and your coach watch an educational video to help prepare you for surgery and recovery. You may access the video by scanning the QR code from your smartphone or typing the following into your web browser:

BeaufortMemorial.org/OrthoEducation



BeaufortMemorial.org • Phone: (843) 522-7435