



Enhanced Recovery
after Knee **SURGERY**

P A T I E N T G U I D E

ERAS

Enhanced Recovery After Surgery Program



CHRISTUS[®]
ST. MICHAEL
Health System

As a faith-based organization,
it is the mission of **CHRISTUS**
St. Michael Health System to
extend the healing ministry of
Jesus Christ.

Welcome!

Thank you for choosing **CHRISTUS St. Michael Health System** for your health care.

We appreciate that you and your surgeon have selected us for your joint replacement surgery, and we appreciate the opportunity to serve you with care that is extending the healing ministry of Jesus Christ. We hope the following information will help you better understand what to expect during your experience by answering many common questions. As a patient, you play an important role in your health care. Your participation in the decision-making process and your willingness to follow self-care instructions are vital to your complete recovery.

Please take the time to read this guide before your surgery. This first section will cover general information, including how to use the guide, how your surgery will be scheduled, how to access spiritual support, and who will be on your dedicated health care team. Bring this guide with you to the hospital, rehabilitation, outpatient therapy and all your surgical visits. Read all the sections and make notes in the guide for future reference.

Using this patient guide

Preparation, education and a pre-planned discharge are essential for optimum results in joint surgery. Communication is also an extremely important part of this process. This patient guide is a communication and educational tool for patients, family members, surgeons, physicians, therapists and nurses. It is also a reference tool for you to capture important information that you can review when needed.

It is designed to help you understand:

- What to expect during each step of the joint replacement process
- What your responsibilities are
- How to care for yourself before and after joint surgery

Your surgeon, nurse or therapist may add to or change some of the recommendations. Always follow their recommendations first and ask questions if you are unsure of any information. Keep this guide as a handy reference for at least the first year after surgery.

SPIRITUAL SUPPORT

As a faith-based hospital, we understand that meeting your spiritual needs is just as important as meeting your physical and emotional needs. We have a variety of personnel from numerous departments including chaplains, all of whom are committed to supporting you and your family during your experience. For more information regarding spiritual support, please call 903.614.2122.

SURGERY SCHEDULING

Once you and your physician have made the decision to proceed with surgery, the surgeon's office will contact the hospital to schedule your surgery. The date and time of your surgery depends on multiple factors, but the most important considerations are the availability of you and your surgeon.

Report Date: _____

Report Time: _____

A coach may attend group therapy with you and may stay with you.

Preoperative Instructions

GENERAL INSTRUCTIONS:

- Wear loose-fitting clothing to the hospital that is easy to put on.
- Don't bring valuables to the hospital.
- If you wear contacts, bring supplies, wear your glasses if possible.
- Do not drink alcohol for at least 2 weeks before surgery.
- If you wear a CPAP or BIPAP, bring it with you.
- Make sure a responsible person is able to drive you home.
- Bring clothes to wear during hospitalization.



SMOKING CESSATION

We recommend that you stop smoking 4 weeks prior to surgery to improve your health and reduce the incidence of post-operative complications.

Let us discuss options to help you stop smoking. Visit SmokeFree.gov for more info.



SKIN PREPARATION:

- Do not shave the surgical area as this can cause nicks and abrasions which could lead to infection.
- If you develop any wounds, rashes or abrasions in the surgical area prior to surgery, notify your surgeon.
- You will receive antibacterial soap. Shower with this soap in the morning and evening starting 3 days prior to your surgery. Shower with the soap on the morning of the day of your surgery.
- Do not use this soap on your face.
- Do not apply any other soaps, deodorants, lotions, powders or make-up to the surgical area.



INCENTIVE SPIROMETER: AN INCENTIVE SPIROMETER IS A DEVICE THAT WILL HELP YOU EXPAND YOUR LUNGS. THIS WILL HELP PREVENT COMPLICATIONS AFTER SURGERY SUCH AS PNEUMONIA. YOU WILL BE ASKED TO BRING THIS WITH YOU TO SURGERY.

MEDICATIONS

Bring all medications (including prescriptions, over-the-counter, and vitamins) in the original packaging when you visit the physician as well as your day of surgery. Heart, blood pressure, and/or seizure medications can be taken the morning of surgery with a sip of water. Medications for diabetes should not be taken the morning of the procedure. Discuss all medications with your surgeon to determine which medications you will take the day of surgery.

PREPARING YOUR HOME

Remove throw rugs and use grab bars in the shower.

MOUTH CARE

Toothpaste, toothbrush and mouthwash will be provided in Day Surgery to you before surgery to help clean your mouth. **This can also help to prevent pneumonia after surgery.**

Preoperative Instructions



Chlorhexidine Gluconate (CHG) Washcloths:

These antibacterial washcloths will be provided to you in **Day Surgery** prior to surgery for a final skin cleansing. These washcloths help to significantly reduce the number of microorganisms on your skin.

BLOOD SUGAR:

Your blood sugar (glucose) may be checked during your pre-admission visit and/or on the day of your procedure. High blood sugar (hyperglycemia) can increase the chance of surgical site infections and can slow down incision healing.

WHAT IS A SURGICAL SITE INFECTION?

After surgery, an infection can develop in the part of the body where surgery took place – this is called a surgical site infection (SSI). Although rare, SSIs can be serious. We want all patients to be aware of the possibility of an SSI and take preventive actions. Hand washing is the best defense against infection.

CALL YOUR SURGEON IF THE FOLLOWING SIGNS AND/OR SYMPTOMS ARE PRESENT:

- Cloudy fluid that drains from your surgical incision
- Fever
- Pain, redness and warmth around the surgical area (some redness and swelling is expected)
- Swelling in the thigh, calf, or ankle that does not go down with elevation
- Pain, heat, or tenderness in calf, back of knee or groin area (sign of a possible blood clot)

NUTRITION

You will not be able to eat anything for at least eight hours prior to surgery. However, you will be provided a carbohydrate drink that will help with appetite, hydration, and stress response to surgery. You will be instructed on the amount and times to consume your drink. Your nurse in the **Pre-Admission Center** will give this to you.

ACTIVITY

Start the post-operative exercise plan before surgery. Do 15 repetitions of each exercise twice daily. After surgery, your safety is our number one priority. Please do not get out of bed without assistance. **Remember: Call – Don't Fall!** Use your call bell to ask for assistance to the bathroom or out of bed even if you have previously been up and walking on your own.

PAIN CONTROL

Breathing deeply, eating, drinking fluids, and walking will help you recover after surgery. This will help you to control pain. Talk with your health care team to set pain control goals. There are multiple ways to help control your pain, including the use of pain medicines, and we are here to assist you with this.

Postoperative Instructions

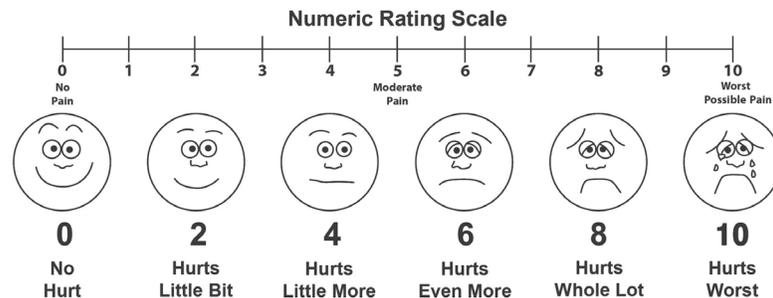
PAIN CONTROL

- Drink fluids
- Take deep breaths
- Sleep well
- Move more easily
- Recover faster
- Eat better
- Do things faster that are important to you

Your nurse may ask you to describe your pain using a number between 0 and 10.

0 means no pain and 10 is the worst pain you can imagine.

**Please tell us if you have pain.
We will help you.**



Wong-Baker FACES® Pain Rating Scale

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MEDICATIONS TO TREAT PAIN:

- **Anti-inflammatories:** The underlying cause of pain is inflammation. Medications that treat inflammation become an important part of your pain management plan. These medications may include: Celebrex (celecoxib) or Toradol (ketorolac). Analgesics such as Tylenol (acetaminophen) may also be part of your treatment plan.
- **Opioids:** Small amounts of pain medication called opioids may be included in your ERAS care pathway. These medications will be used for pain not controlled by anti-inflammatories.
- **Local Anesthetics:** These are medications injected into your knee during surgery. This makes the skin and tissues feel numb for several hours. These medications are safe and do not have any major side effects.

DEEP BREATHING AND COUGHING EXERCISES:

An incentive spirometer is a device that helps you breathe deeply to prevent pneumonia.

The nurse will instruct you how to use this device.

INCENTIVE SPIROMETRY (BREATHING EXERCISE) INSTRUCTIONS

- Put your lips around the mouthpiece and breathe in deeply.
- Keep blue indicator between arrows for as long as you can.
- Remove the mouthpiece, breathe out, and rest for a few seconds.
- Repeat this exercise 10 times every hour while you are awake.
- Take a deep breath and cough.



Postoperative Exercise Plan



1. Seated Knee Flexion - Sitting in straight-back chair, bend the affected leg as far as possible under the chair (you can use the opposite foot to help). When maximum bend is reached, plant the foot and slide your hips forward further bending the knee. Hold for 20-30 seconds.



2. Arm Chair Push-ups - Sitting in a sturdy armchair with feet flat on the floor, place your hands on the armrests. Straighten your arms raising your bottom up from seat as far as possible. Use your legs as needed to help you lift. As you get stronger, progress to using only your arms and the "non-operated" leg to perform the push-up. This will be how you will get up from a chair after surgery. Do not hold your breath or strain too hard.



3. Long Arc Quads - Sit with back against chair and thighs fully supported. Lift the affected foot up, straightening the knee. Hold for a 5 count.



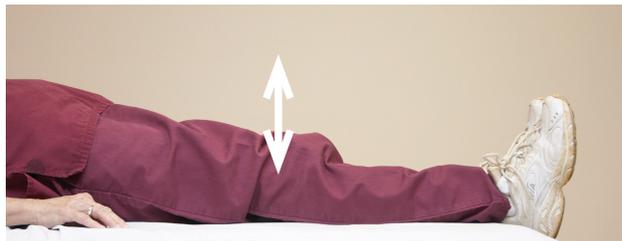
4. Ankle Pumps - Flex and point your feet.



5. Straight Leg Raises - Back lying, with the unaffected knee bent, and foot flat. Tighten the quad on the affected leg and lift the leg 12 inches from the surface. Keep knee straight and toes pointed towards your head.

Postoperative Exercise Plan

6. Quad Sets - Back lying, press knee into the mat by tightening the muscles on the front of the thigh (quadriceps). Hold for a 5 count. Do NOT hold breath.



7. Gluteal Sets - Squeeze bottom together. Hold for a 5 count. Do NOT hold breath.



8. Heel Slides - Back lying, slide your heel up the surface bending your knee. Post-op, your therapist may have you use a strap around the foot to assist gaining the knee bend.



9. Abduction and Adduction - Back lying, with toes pointed to ceiling and knees straight. Tighten the quad muscle and slide legs out to side and back to the starting position.



10. Short Arc Quads - Back lying, place a 6-8 inch roll under the knee. Lift the foot from the surface, straightening the knee as far as possible. Do not raise thigh off roll.



11. Knee Extension - Stretch sitting in a comfortable chair, prop the affected foot on a chair or stool. Place a towel or roll under the ankle so that the calf is unsupported, and apply an ice pack and 5 pound weight (or bag of rice) on top of the knee.



Postoperative Instructions

AFTER YOUR OPERATION (DAY 0)-IN YOUR ROOM

Goals for the Evening of Surgery

BREATHING

Do your breathing exercises 10 times every hour while awake.

ACTIVITIES | MOBILIZATION | PHYSICAL THERAPY EVALUATION

- Get out of bed and sit in a chair with the help of your nurse or physical therapist.
- Walk in the hallway with help.
- Brush your teeth and gargle with mouthwash in the morning and evening.

PAIN CONTROL

Your nurse may ask you to describe your pain using a number between 0 and 10. 0 means no pain and 10 is the worst pain you can imagine.

Please tell us if you have pain. We will help you.

Anti-inflammatories will be used to control your pain. If you have severe pain not relieved by anti-inflammatories, your surgeon may order small amounts of pain medication called opioids.

EATING AND DRINKING

You may eat and drink.

Chew sugar-free gum or sugar-free hard candy for 45 minutes, 3 times per day to stimulate your GI tract.

Your glucose will be checked as ordered by your surgeon.

Our goal is to keep your glucose below 150 mg/dl.

IF YOU ARE NAUSEATED, NOTIFY YOUR NURSE.

Your surgeon may have ordered medications to help control nausea.

TUBES AND LINES

You may have a urinary catheter to measure your urinary output. For some patients, you will keep your catheter until Day 1. Your IV fluids may be decreased or discontinued once you are drinking well.

You will have Sequential Compression Devices (SCDs) on your feet to prevent blood clots when you are in bed or immobile for greater than 2 hours.

Postoperative Instructions

AFTER YOUR OPERATION

Goals for Day 1

BREATHING

Do your breathing exercises 10 times every hour while awake.

ACTIVITIES

- Ambulate with physical therapy in the morning and afternoon.
- Occupational therapy evaluation
- Sit up in a chair all day.
- Brush your teeth and gargle with mouthwash in the morning and evening.



PAIN CONTROL

Your nurse may ask you to describe your pain using a number between 0 and 10. 0 means no pain, and 10 is the worst pain you can imagine.

Please tell us if you have pain. We will help you.

Anti-inflammatories will be used to control your pain. If you have severe pain not relieved by anti-inflammatories, your surgeon may order small amounts of pain medication called opioids.

EATING AND DRINKING

You may eat your usual diet. You should drink liquids as well as immunomodulating supplements as ordered. Please let your nurse know if you are not tolerating your diet.

Chew sugar-free gum or sugar-free hard candy for 45 minutes, 3 times a day to stimulate your GI tract. Your glucose will be checked as ordered by your surgeon. Our goal is to keep your glucose below 150 mg/dl.

TUBES AND LINES

If you have a urinary catheter, it will be removed today.

Your IV fluids will be discontinued.

You will have SCDs (Sequential Compression Devices) on your feet or legs to prevent blood clots when you are in bed or immobile for greater than 2 hours.

Postoperative Instructions

AFTER YOUR OPERATION

Goals for Day 2

BREATHING

Do your breathing exercises 10 times every hour while awake.

ACTIVITIES

- Ambulate with physical therapy in the morning and afternoon.
- Self-care activities with occupational therapy
- Sit in the chair all day.

PAIN CONTROL

Your nurse may ask you to describe your pain using a number between 0 and 10. 0 means no pain, and 10 is the worst pain you can imagine.

Please tell us if you have pain. We will help you.

Anti-inflammatories will be used to control your pain. If you have severe pain not relieved by anti-inflammatories, your surgeon may order small amounts of pain medication called opioids.

EATING AND DRINKING

You may eat your usual diet. Continue to drink liquids as well as immunomodulating supplements as ordered.

Chew gum or sugar-free hard candy for 45 minutes, 3 times a day to stimulate your GI tract. If you are diabetic, your glucose will be checked as ordered by your surgeon.

DISCHARGE WILL BE AFTER GROUP THERAPY.



Discharge Instructions

BEFORE YOU LEAVE THE HOSPITAL, YOU SHOULD:

- Be moving around well
- Have your pain adequately controlled
- Have no temperature greater than 101.0

WHAT HAPPENS AFTER DISCHARGE?

It is worthwhile to plan in advance for your discharge. You will need someone to drive you home.

You will require someone to help with heavy jobs for a few weeks. This includes food shopping and heavy household jobs such as vacuuming, laundry and yard work. If you live alone, perhaps a friend or family member could stay with you for a short period to assist you with these things. To enhance your recovery, you will be expected to return to a normal routine as quickly as possible. This means you need to actively participate in your recovery by walking, eating, and drinking plenty of fluids, including water.

Complications do not happen very often, but you do need to know what to look for during the first few weeks after surgery.

If you are worried about any of the following items, please contact your surgeon.

PAIN:

- If you develop a swollen, painful lower leg or legs, contact your surgeon.
- If you develop sudden shortness of breath or chest pain call 911 immediately.

YOUR INCISION:

- It is not unusual for your incision to be slightly red and uncomfortable during the first one to two weeks.
- If your incision becomes inflamed, painful, swollen or starts to discharge purulent fluid (pus), notify your surgeon.
- Wash your hands with liquid antibacterial soap and water before touching your incision.
- Your incision may be bandaged or left open to the air.
- Please inform our nursing staff if you do not have this at home and we can provide a bottle for you.
- Your surgeon may give you specific instructions for your incisions. Please follow those above all else.
- Shower daily with liquid antibacterial soap but NO tub baths until cleared by your surgeon at the follow up visit.



SMOKING CESSATION

If you have stopped smoking for this surgery and you are interested in quitting smoking altogether, go to SmokeFree.gov for more tips on how to be successful.

Discharge Instructions

YOUR DIET:

A well balanced, varied diet is recommended. Drink adequate amounts of fluids- at least 2 quarts (8 cups) daily. If you are on fluid restrictions, drink as directed by your physician. Continue to drink the immunomodulating supplement three times daily until your supply is completely gone.

YOUR PAIN:

- You should continue your regular medication regimen unless directed otherwise by your physician.
- Pain medication prescription may be given to you. Fill it with your pharmacist and follow the directions on the bottle.
- Follow your surgeon's directions for the blood thinner you are prescribed.

YOUR ACTIVITY:

Walking is important from the day of your operation. You should plan to regularly walk several times a day and gradually increase during the weeks following your operation until you are back to your normal level of activity. The main restriction is that you do not do any heavy lifting or contact sports until cleared by your surgeon. You might find you have low energy levels in the first few weeks you are at home. It is important to mix activities with some rest as needed, but do get out of bed each day and get dressed. Do your postoperative exercises twice daily.

- Take your incentive spirometry machine home with you. Continue to use it for 1-2 weeks after you get home as instructed. Continue to deep breathe and cough every 2 hours while awake.

YOUR BLOOD SUGAR:

- If you are diabetic, keeping your blood sugar under control is important for your healing.
- High blood sugar can increase the chance of surgical site infection and can slow down incision healing.

Further information:

WORK:

- You should be able to return to work when specified by your surgeon.

DRIVING:

You should not drive until you are released to drive by your surgeon and are no longer taking pain medication so that you can drive safely. Usually this will be within two to four weeks after surgery. Ask your surgeon at your first postoperative office visit. It is important that any pain has resolved so that you can perform an emergency stop and turn the wheel quickly.

HOBBIES/ACTIVITIES:

You should consider restarting your hobbies and activities as soon as possible again after surgery. It helps you to improve your activity and will help your recovery. Do not restart activities if they cause pain or involve heavy lifting. You may wait to restart activities six weeks after your operation if they cause pain or involve heavy lifting.



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