

# CARDIAC SURGERY NAVIGATOR NOTEBOOK





# PLANNING AHEAD

## Introduction

- This notebook is provided to you to help prepare and navigate through your cardiac surgery journey with MultiCare. We recognize that this can be an anxious time for you and your family. Your cardiac surgery team is eager to assist you along the way.
- If you have heard the phrase “it takes a village,” this is very true of cardiac surgery. You will receive care from several team members all working together to provide you with a “best practice” experience. We strive to include you and your family as members of this team.
- In addition to this notebook, Pulse Heart Institute has video resources and other helpful links on our website. Go to [www.pulseheartinstitute.org](http://www.pulseheartinstitute.org) and click on “I want to learn with Pulse” under the patient education section to get there.

# PLANNING AHEAD

- **Advanced Directives/DPOA**
  - All hospitalized patients are encouraged to complete both a Durable Power of Attorney (DPOA) and Advanced Directives. This will ensure that your wishes are followed if you are unable to make decisions regarding your care.
  - The surgeon's office will provide you with these forms during your preoperative visit.
  - If you have already completed these forms, please bring a copy with you to the hospital.
  
- **Preparing your home:** Look at the "Preparing for Your Open-Heart Surgery Pamphlet for more information on preparation.
  - Help at Home- We strongly recommend that you are not alone after you leave the hospital for at least five days.
  - You will not be able to drive for at least one month. You will need someone to drive you to your follow up appointments and help with shopping needs.
  
- **Preparing your body for surgery: "Pre-Hab"**
  - Here are some exercises to practice ahead of time to help build your core muscles (those in your abdomen and back) and your leg muscles. Everyone starts at a different strength level before surgery. Do these exercises if you can without worsening symptoms. Strengthening ahead of time will help you get in and out of bed and move more easily after surgery. Do 5-10 repetitions of these exercises 3 times per day prior to your surgery.
    - **Sit to Stands:** Sit in front of your chair, hold a pillow with both arms at your chest.
      - *Modification if this is easy for your- add squats or lunges to strengthen those leg muscles.*

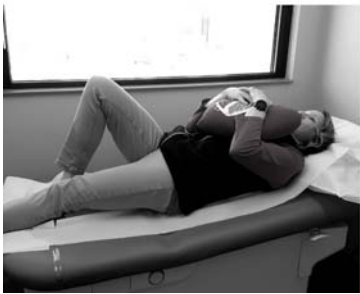


# PLANNING AHEAD

- **Side Bends:** While holding a pillow, sit on the edge of the bed and side bend left and right without using your arms.
  - *Modification can be made to do regular crunches laying on the ground or standing and doing side bends.*



- **Getting in and out of bed:** While holding a pillow, lower to the side, gently and slowly bring one leg up at a time onto the bed. Move slowly- one position change at a time. Roll like a "log"- keeping hips and shoulders in line onto your back.



# YOUR SURGERY AND HOSPITAL STAY

## Hospital team members:

- **Anesthesiologist:** Before the day of your scheduled operation, you will meet a member of the anesthesia team. This may be in person or thru a phone interview. On the day of your surgery, you will meet the anesthesiologist who will be with you during your operation.
- **Cardiologist:** A cardiologist often works with the team after surgery to help optimize your heart healthy plan.
- Other doctors that might see you in the hospital and help manage your care include a pulmonologist (lung doctor) and hospitalist (general medicine).
- **Care Manager:** A care manager will meet with you in the early days of your hospital stay. They help you prepare to go home. Care managers work closely with the social workers. Social workers are available to help patients and families cope with social, emotional, and financial problems related to illness and/or being in the hospital.
- **Nursing and Support Staff:** Nurses, certified nursing assistants, monitor techs, pharmacists, respiratory therapists, registered dieticians, and clinical educators are important team members participating in your care.
- **Therapy Staff:** Physical therapists and occupational therapists will assist in your recovery. Once you are ready to participate, they will see you to teach how to safely move and practice how to take care of yourself after surgery.
- **Hospital Chaplain:** Hospital chaplains are available for spiritual support and counseling. Ask your nurse if you would like a visit from the chaplain.

# YOUR SURGERY AND HOSPITAL STAY

## Day 0 Surgery

### ▪ In the Operating Room

- Families may visit you prior to leaving for the operating room. We recommend that they arrive at least one hour before surgery.
- The anesthesiologist or nursing staff will take you to the operating room when it is time for surgery.
- Staff will ask you a few questions, so you will be awake enough to state your name, your surgeon's name, and the kind of surgery you will have.
- The anesthesiologist or nursing staff will then take you to the operating room when it is time for surgery. When you arrive in the operating room, you will be hooked up to monitors and you will be given some medication to put you to sleep (sedate you) by the anesthesiologist.
- After you have been sedated, the anesthesiologist will place an arterial line to help them monitor you during surgery. In most cases, this will be placed in your wrist. They will also place a central line (large IV). This is typically put in after you are asleep and is usually in the right side of your neck. Both of these lines will be there when you wake up.
- In most surgeries, a transesophageal echocardiogram (TEE) probe is also used to help monitor your heart during the operation. This probe will be placed after you are asleep and removed before you wake up.
- An endotracheal tube (ET Tube) or breathing tube will be placed after you are asleep and will be used during the operation. It will stay in until you have begun waking up in the critical care unit.
- After you are asleep, a tube (foley catheter) will be placed into your bladder so that your urine can be monitored. This helps the team monitor how your kidneys are doing.
- You will be sedated or asleep during these procedures and won't remember the operating room after the sedation has begun.
- A normal heart surgery can last from three to six hours.



# YOUR SURGERY AND HOSPITAL STAY

- **Immediately Following Surgery**

- After surgery, you will go to the intensive care unit. Cardiac surgery patients do not go to the recovery room due to the equipment and specialized nursing that is required. You will wake up in the intensive care unit.
- Our ultimate goal is to involve families in your care. Families will be allowed to visit during the immediate recovery and throughout the hospital stay based on hospital specific visitor restrictions that are in place.



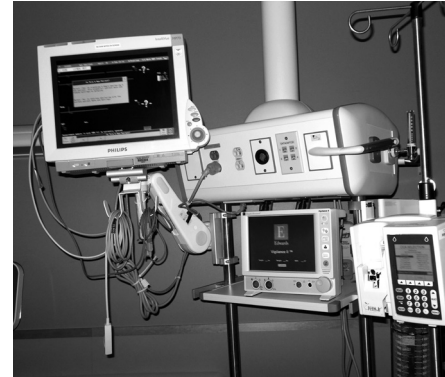
*Cardiovascular Intensive Care Unit  
(CVICU)*



# YOUR SURGERY AND HOSPITAL STAY

## Equipment and Monitoring Lines

- **Heart Monitor-** This monitor is mounted on the post in your room. This is where your heart rhythm and blood pressure readings are displayed.
- **IV Pumps-** The IV pumps are used to deliver fluids and medications.



*Heart Monitor and IV Pumps*

- **Ventilator (Breathing Machine)-**
  - You will remain on the breathing machine for about 4 hours after surgery. This timeframe can be different for some people.
  - In the first few hours, the machine will breath for you. As you start to wake up, you will slowly begin breathing on your own.
  - You will not be able to talk while the breathing tube is in. Nurses will ask you questions which you can respond to by nodding your head.
  - Your hands will be loosely tied down until the tube is removed so you do not attempt to remove it before you are awake.
  - This tube will be removed when the nurses see that you are awake and able to breath on your own after surgery,



*Ventilator –“Breathing Machine”*



*Chest Tube Collection Device*

- **Chest Tubes-**
  - Your surgeon will place temporary drains (chest tubes) in your chest at the end of the operation.
  - They will come out of small incisions below your incision in the breastbone (sternal incision).
  - Your chest will drain some fluid for a few days. When the drainage slows down or stops, the tubes will be removed. (They can be removed in your room). This usually happens on the 2nd or 3rd day after surgery.

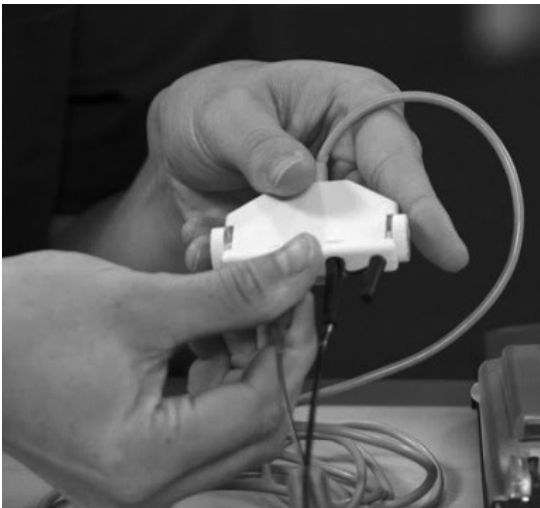
# YOUR SURGERY AND HOSPITAL STAY

## ▪ Incentive Spirometry/Breathing Exercises

- The breathing exerciser (incentive spirometer/IS) is very important after surgery. Taking deep breaths keeps the small air sacs in the lungs from collapsing and prevents fluid from sitting in the lung.
- You will be encouraged to take deep breaths on this every hour when you are awake.
- As you practice this, visualize yourself sucking the most delicious thick milkshake through a straw through a skinny straw. This will help you breath slow, steady, and deep with each breath on the incentive spirometer.



*Incentive Spirometer*



## ▪ Temporary Pacemaker Wires

- These wires are placed on the outside of your heart at the end of the operation.
- They will be taped to your chest where they exit the body near your chest tubes. They will be covered with a dressing.
- Sometimes it is necessary to attach these wires to an external pacemaker box to help your heartbeat. It is rare that you would need a permanent pacemaker put in during the hospital stay.
- You may or may not need to use these wires. They will be removed before you go home. This is usually the day before or the day you leave the hospital.

# YOUR SURGERY AND HOSPITAL STAY

## After Your Surgery- Daily Goals

A typical hospital stay lasts 4-5 days; One day in the intensive care unit and the remainder of your stay will be in the stepdown unit.

- **Day of Surgery**
  - Our goal is to remove your breathing tube as soon as you are awake from anesthesia.
  - They will have you sit up on the side of the bed after the breathing tube is out.
  - You will be allowed to have sips of liquid and ice chips.
  
- **First Day After Surgery**
  - You will be up in the chair for meals three times. You will progress to regular food.
  - Your bladder catheter may be removed, and you will get up to the bathroom or to a commode.
  - Monitoring lines and intravenous medications will be discontinued as you get ready to transfer out of ICU.
  - In the stepdown unit, you will wear a portable monitor (telemetry unit) which allows you to move around more freely.
  - Use the incentive spirometer whenever you are awake. Take a few breaths at a time to get to 10 deep breaths every hour.
  - Physical therapy and occupational therapy will begin working with you.
  
- **Second Day After Surgery**
  - You will be up in the chair for meals three times.
  - Walking three times a day, first in your room and then the hallways. A member of the care team will help you on these walks.
  - Physical therapy and occupational therapy will continue to work with you.
  
- **Third Day After Surgery**
  - Your chest tubes and temporary pacemaker wires may be removed. Once they are removed you will be allowed to shower with help from the care team.
  - Walking in the halls three times a day. A member of the care team will help you on these walks.
  - Physical therapy and occupational therapy will continue to work with you.
  - Walking and eating will help get your bowels moving. If you haven't had a bowel movement, the nurses may use a laxative or suppository to help get things moving.

# YOUR SURGERY AND HOSPITAL STAY

## Recovery Process

People respond differently to cardiac surgery. How quickly you recover depends on many things, some of which are your age, other conditions you may have and your physical condition prior to surgery. Your timeline for recovery may differ from the daily goals listed.

It is normal to be fatigued after surgery and want to stay in bed. For you to recover, you must get out of bed. Being out of bed helps you recover more quickly and promotes:

- ✓ Increased muscle strength
- ✓ Decreased swelling
- ✓ Deeper breathing to help prevent pneumonia
- ✓ Regular bowel movements

## Pain

When you first arrive in the ICU, you will receive pain medication through your IV. Once your breathing tube is out, we will gradually switch from IV pain medicine to pain pills by mouth.

The amount of pain is not as great as most patients expect; however, cardiac surgery is not a pain-free procedure. Some patients experience very little pain while others describe feeling “beat up.” Your nurse will frequently ask you to tell them your pain level on a scale of 0 to 10 (with zero being no pain and 10 being the worst possible pain). The goal is to keep your pain at a level that is tolerable for you. Request pain medication from your nurse when you notice pain that is worsening past tolerable.

No medication will take away all your discomfort, but we want to help you achieve a balance between pain control and your ability to participate in activities that help your recovery.

It is important to stay “on top of your pain.” When pain is controlled, you will walk sooner and recover faster. Be honest about how much pain you feel. Don’t be afraid to ask for pain medication when you need it. You will not become addicted if you take as directed. Tell your nurse if the medications don’t reduce pain or if you suddenly feel worse.

# LEAVING THE HOSPITAL

You are unique! Each person responds to surgery differently. Despite those differences, there are a great number of similarities as well. The following information is provided to help you understand what to expect as you leave the hospital.

Refer to the handouts included:

- After Cardiac Surgery Action Plan- This includes important symptoms to watch for and report to your cardiac surgeon's team.
- Daily Record- Keep track of your morning weight, evening temperature, and your blood pressure if you can through the first month after you go home. Bring this information with you to and doctor visits as well.
- Home Exercise Log

## What to expect after surgery?

- **Weight-**
  - It is normal to retain some fluid after a heart surgery.
  - This can be as much as 10-15 pounds.
  - You may receive a "water pill" (diuretic) to help remove the extra fluid.
  - You may be given a prescription for a water pill to take for the first 1-2 weeks after surgery. Not everyone will get a water pill before they go home.
  - At home, weigh yourself every morning after emptying your bladder and write it down on your chart. Call your surgeon's office if you gain 2 pounds or more in one day.
- **Temperature-**
  - Monitor your temperature every afternoon or evening and write it down on your chart.
  - Call your surgeon's office if your temperature is greater than 101 degrees Fahrenheit.
- **Appetite-**
  - It may take several weeks for your appetite to return.
  - You may experience nausea at the smell of food for a week or two after surgery.
  - Eat a general diet for the first 4 weeks after surgery. If you are diabetic, it is important to follow your diabetic diet. Make food choices that taste good to you.
  - You will need to eat more protein and calories than you normally do for healing after surgery.



# LEAVING THE HOSPITAL

- **Sleep-**
  - You may have difficulty sleeping. This will improve over time.
  - Taking a pain pill before bed can sometimes help.
  - You may sleep on your back or side. Do not sleep on your stomach. Many people are more comfortable in the beginning resting in a recliner or chair.
  - If you still have problems with sleep, you may try over the counter melatonin or diphenhydramine.
- **Constipation-**
  - Stool softeners are recommended while taking pain medications.
  - They can be purchased over the counter: Colace or Docusate sodium is a common brand. Take 100 mg twice per day.
  - If you still have problems with constipation, you may use a laxative of your choice. Dulcolax (tablets or suppositories) or Miralax are common over the counter options.
  - Adding more fruits, fiber, and water to your diet as well as increasing your activity and walking will also help.
- **Depression-**
  - You may have good days and bad days. Don't become discouraged.
  - It is normal to feel emotional after surgery. This is common and will get better over the first few weeks after surgery.
  - Seek help from your doctor if you feel it is not improving or it is preventing you from being able to take care of yourself.
- **Muscle Pain on tingling in arms-**
  - You may experience muscle pain or tightness in your shoulders and upper back between your shoulder blades after surgery. You may also experience numbness or tingling down one or both arms.
  - This will get better with time.
  - If you still have problems with muscle pain, you may try heat pads or over the counter lidocaine patches. Avoid use of ibuprofen unless instructed by your surgeon.
  - Call your doctor if this persists.
- **Concentration-**
  - Some patients have difficulty concentrating after surgery. Reading and retaining information may be hard at first. This can take a while to return.

# LEAVING THE HOSPITAL

## Care of your Incisions

- Check your incisions daily and report any of the following to your surgeon's office:
  - Worsening tenderness of the incision.
  - Increased redness or swelling around the edges of the incision.
  - Any unusual drainage from the incision, especially thick yellow drainage.
  - If you notice the incision is separating.
- Shower and wash your incisions daily with mild soap and water.
- Avoid vigorous scrubbing. Do not use a washcloth.
- Avoid soaking in a bathtub, hot tub, or swimming pool until approved by your doctor.
- Avoid lotions, creams, ointments, and powders on your incisions unless approved by your doctor.
- Incisions can sunburn easily. Protect your incisions from sunlight.
- It is normal to have a lump at the top of your incision. It will go down and disappear with time.
- If an artery in your chest (called the mammary artery) was used during your surgery, you may experience numbness or "point tenderness" on your chest to the left of your incision.
- Large breasted women should wear a bra to reduce stress on the chest incision. You may be given a binder during your hospital stay that you can also use to support your chest. Place a gauze pad between the bra and your incision so the bra does not cause irritation and sweat.
- A small amount of pink or yellow tinged drainage from chest tube sites is normal. Dissolvable stitches are used to close these incisions.
- A small gauze pad or band-aid may be used to protect clothing or linen. Remove daily before your shower, wash with soap and water. Apply a new bandage if still leaking.
- Incisions should be left "open to air". No dressings or bandages will cover your incisions unless they are leaking, or you have been given additional instructions. If you have a dressing in place, change it daily.
- If you have a leg incision:
  - Care for this incision as outlined above.
  - Avoid crossing your legs because this slows blood flow.
  - Avoid sitting in one position or standing for long periods of time.
  - Elevate your legs when sitting. If you have swelling in your legs, elevate your legs above your heart level if you can by lying on the couch or bed throughout the day.
  - Check your legs daily for swelling. If you continue to have leg swelling or it becomes worse, notify your doctor.

# LEAVING THE HOSPITAL

- If you have an arm incision:
  - Care for this incision as outlined above.
  - Avoid allowing your arm to hang at your side for prolonged periods of time as this may increase swelling.
  - You may notice some numbness or tingling to your fingers for a few weeks. This will improve over time.
  - If you have swelling, elevate your arm on pillows at night and keep your arm elevated above heart level as much as possible during the day.

## Self-Care

The sternum (breastbone) will take 6 weeks to heal. For this reason, you must avoid any activities that could separate or stress the breastbone. Activities like carrying children, pets, groceries, suitcases, mowing the lawn, vacuuming, etc. can put extra pressure on the sternum.

Please observe the following precautions for 6 weeks to promote healing of the sternum.

- Mobility:
  - Avoid activities that require lifting, pushing, or pulling with your arms.
  - When moving from lying to sitting, use the roll technique. Roll onto your side, bring your legs off the bed, and then use the elbow nearest the bed to sit up.
  - When moving from sitting to standing use your legs to avoid pressure on your arms.
- Dressing:
  - When putting on socks, shoes, and pants, avoid bending forward for PROLONGED periods. Instead, bring one foot up to the opposite knee.
  - If you are alone, the following self-help aids are available:
    - Reacher - Helps put on pants or to pick things up off the floor.
    - ✓ Sock aid and long shoehorn- helps put on shoes and socks
    - ✓ Elastic shoelaces- turn shoes with laces into slip on shoes.
    - ✓ Long handled bath-brush- helps wash your back and feet in the shower.
  - Occupational therapy can provide a list of stores where these items can be purchased should you need them.
- Bathing:
  - You may feel tired easily the first few weeks after surgery. Having a shower chair to sit on during showers may be beneficial.
  - When showering, it is OK to let the water get directly on your sternal incision. If your chest is tender, you may want to let the water hit your back or shoulder area and then flow gently over the incision.



# LEAVING THE HOSPITAL

## Self-Care

- It is normal to tire out easily during the early recovery period. Plan for 8-10 hours of sleep each night as your body requires sleep to heal.
- Limit visitors for the first couple of weeks.
- Pace your activities throughout the day. Plan to rest between activities and to take short naps as necessary. Listen to your body.
- Stairs:
  - Unless instructed differently, you can climb stairs. Take them at a slow pace, rest if you are tired. If you use a handrail, do not pull yourself up with your arms. Let your legs do the work.
- Driving/Riding:
  - You can ride as a passenger in a car at any time. If there is a passenger seat airbag, sit in the back seat if able. When traveling, be sure to get out of the car every 1-2 hours and walk around for a few minutes. You will not be allowed to drive for at least 4 weeks after discharge. You may be legally impaired by your pain medications. Also, your movements may be slow and awkward for the first several weeks after surgery. Your surgeon will tell you when you can resume driving.
- Work:
  - Returning to work is very individualized depending on the speed of your recovery and the type of work you do. Most people are well enough to return to work 6-8 weeks after surgery. When you do return to work, it is recommended that you first return part-time and gradually increase your hours if possible.
  - People who have a desk or computer job may be able to return to work earlier. Those with a physical job that requires heavy lifting may need to wait longer.
  - Your surgeon will help you determine when it is appropriate for you to return to work at your post-operative appointment.
- Energy Conservation:
  - As you go about your daily activities, rest when you are tired. Lay down when you are resting so that your feet are elevated.
  - When doing any activity, pace yourself and pay attention to any symptoms (chest pain, shortness of breath, sudden perspiration, or extreme tiredness).

# LEAVING THE HOSPITAL

- Sexual intimacy and heart disease
  - You can resume sexual relations when you feel comfortable. For many people this is 4-6 weeks after leaving the hospital, unless instructed differently by your doctor.
  - Some of your medications may affect your ability to perform. Talk to your doctor about this.
  - If you develop pain in your chest, unusual shortness of breath or very rapid or irregular heartbeats while intimate, stop, tell your partner and rest. If the symptoms do not resolve get medical attention. If this happens be sure to talk about this with your doctor.

## Home Exercise Program

Walking is one of the best forms of exercise because it increases circulation throughout the body and to the heart muscle. Improved circulation speeds healing and decreases the level of pain you may be experiencing. It is important to increase your activity gradually. Stop and rest if you get tired. Each person progresses at a different rate after heart surgery.

- A daily exercise program will help you in your recovery and when continued for life, will help you to maintain your health.
- Here are recommendations on walking at home:
  - ✓ Increase your walk time by one minute a day until you reach 30 minutes.
  - ✓ When you have reached 30 minutes, walk once a day, and increase the pace of your walk so that it feels brisk to you. Walk every day or at least 5 days a week if possible.
  - ✓ Walk SLOWLY for 3-5 minutes before and after you walk to warm up and cool down.
  - ✓ Modifications: If you cannot walk, it is ok to sit on a recumbent exercise bike and exercise. No swimming or exercises requiring pushing and pulling with the arms.



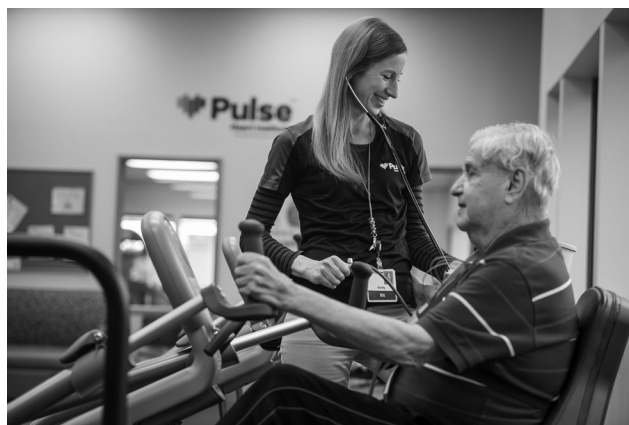
# LEAVING THE HOSPITAL

- Watch for symptoms of “Overdoing Activities”- If you have one or more of the following symptoms during or after your activity/exercise, you could be pushing yourself a little too far too fast.:
  - ✓ Any new discomfort in your chest, arms, neck, teeth, jaw, or ears.
  - ✓ Dizziness or lightheadedness
  - ✓ Rapid or irregular heartbeat
  - ✓ Shortness of breath
  - ✓ Nausea, vomiting, headache, paleness
  - ✓ Cold sweat
  - ✓ Excessive fatigue. You should feel rested within one hour after exercise.
- Stop and rest until these symptoms go away. Resume at a slower pace. If symptoms do not resolve with resting or slower pace, call your doctor.
- While bone healing is usually complete after 6 weeks, your stamina may not have fully returned. It is normal to tire while performing these activities several months after surgery. Be patient. This will improve.

# LEAVING THE HOSPITAL

## Cardiac Rehabilitation/Preventive Cardiology

- We strongly recommend that you attend an outpatient cardiac rehab program that offers monitored exercise and education. Studies show that people who attend this program live longer and learn to take better care of their heart.
- All people with bypass and valve surgeries are eligible to attend. The program is covered by Medicare and most insurance companies.
- You will learn about heart disease, reducing stress, medication management, and more about the “cardiac diet”. Heart healthy food can taste good!
- You can participate about 4-5 weeks after going home. You need to build up a little stamina before starting their exercise program.
- You should hear from the rehab staff in 2-3 weeks after going home.
- If you live in outlying areas, a referral to a program closer to you can be arranged.



# MEDICATIONS

This section contains information for the most common heart medications prescribed after open heart surgery. You may not take all these listed. They are provided to help you understand what the medication is for and possible side effects.

Your medications prescribed at discharge may be changed over the next several weeks as you recover. Not all medication will be taken long-term. Your cardiologist will help manage your heart medications long term.

Your nurse will provide a computer printout and review the medications you will take after leaving the hospital. This list will indicate which pre-operative medications to continue, stop or which ones may have been changed. New medications will also be listed and prescriptions provided that can be filled at your local pharmacy.

Let the nurse know if you need assistance getting your medications. Medications often can be delivered to you before you leave the hospital or picked up on your way out. You will be required to pay your co-pay at the time of this medication delivery.

Medication	What is it used for?	Side Effects	Other Info
<b>Aspirin</b>	<ul style="list-style-type: none"> <li>✓ Help protect heart bypass grafts and stents</li> <li>✓ Help prevent clots that cause heart attack and stroke</li> </ul>	<ul style="list-style-type: none"> <li>• Upset stomach</li> <li>• Heartburn</li> <li>• Bleeding problems</li> <li>• Nausea</li> </ul>	<ul style="list-style-type: none"> <li>• Do NOT STOP this medication unless directed by your doctor</li> <li>• Take with food</li> <li>• Do not drink alcohol</li> </ul>
<b>Clopidogrel/Plavix</b>	<ul style="list-style-type: none"> <li>✓ Prevent heart attack and stroke</li> <li>✓ Help protect heart grafts and stents</li> </ul>	<ul style="list-style-type: none"> <li>• Upset stomach</li> <li>• Heartburn</li> <li>• Diarrhea</li> <li>• Constipation</li> </ul>	<ul style="list-style-type: none"> <li>• Do NOT STOP this medication until checking with your Cardiologist</li> <li>• Any type of bleeding may take longer to stop</li> <li>• Tell your dentist and other doctors that you are taking this medication</li> <li>• Call your doctor for blood in your urine or stool</li> </ul>

# MEDICATIONS

<b>Dabigatran/Pradaxa</b>	✓ Prevent heart attack and stroke	<ul style="list-style-type: none"> <li>• Upset stomach/pain</li> <li>• Heartburn</li> <li>• Bruising easily</li> </ul>	<ul style="list-style-type: none"> <li>• Do NOT STOP this medication until checking with your Cardiologist</li> <li>• Any type of bleeding may take longer to stop</li> <li>• Tell your dentist and other doctors that you are taking this medication</li> <li>• Call your doctor for blood in your urine or stool</li> </ul>
<b>Warfarin/Coumadin</b>	✓ To prevent blood clots from forming after heart valve surgery	<ul style="list-style-type: none"> <li>• Bruising easily</li> <li>• Significant bleeding with any injury</li> <li>• Headache</li> </ul>	<ul style="list-style-type: none"> <li>• This medication requires frequent blood tests, careful monitoring by a physician or nurse practitioner, and careful attention to diet</li> <li>• This medication interacts with other medications, including over the counter, so be sure to review all medications with your doctor or pharmacist before taking.</li> </ul>
<b>ACE Inhibitor</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Lisinopril</li> <li><input type="checkbox"/> Captopril</li> <li><input type="checkbox"/> Enalapril</li> </ul> <b>Angiotensin II Blockers</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Valsartan</li> <li><input type="checkbox"/> Losartan</li> </ul>	✓ Treat high blood pressure ✓ Improve weakened heart ✓ Protect the kidneys if you have diabetes	<ul style="list-style-type: none"> <li>• Dry cough (ACE inhibitors only)</li> <li>• Dizziness, especially when standing or sitting too quickly</li> <li>• Abnormal taste</li> </ul>	<ul style="list-style-type: none"> <li>• Do not take antacids within 2 hours</li> <li>• Avoid alcohol</li> <li>• Call your doctor if you experience swelling (face, mouth, hands, or feet), hoarseness, difficulty swallowing or breathing</li> </ul>

# MEDICATIONS

<p><b>Calcium Channel Blockers</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Diltiazem</li> <li><input type="checkbox"/> Amlodipine</li> <li><input type="checkbox"/> Nifedipine</li> <li><input type="checkbox"/> Verapamil</li> </ul>	<ul style="list-style-type: none"> <li>✓ Treat high blood pressure</li> <li>✓ Treat chest pain</li> <li>✓ Prevent spasm of the Radial artery graft</li> </ul>	<ul style="list-style-type: none"> <li>• Dizziness</li> <li>• Headache</li> <li>• Slow heartbeat</li> <li>• Upset stomach/loss of appetite</li> <li>• Constipation</li> <li>• Difficulty sleeping</li> <li>• Dry mouth</li> </ul>	<ul style="list-style-type: none"> <li>• Do NOT suddenly stop taking this medication unless directed by your doctor</li> </ul>
<ul style="list-style-type: none"> <li><input type="checkbox"/> <b>Amiodarone</b></li> </ul>	<ul style="list-style-type: none"> <li>✓ Treat an irregular heartbeat</li> </ul>	<ul style="list-style-type: none"> <li>• Headache</li> <li>• Blurred or altered vision</li> <li>• Sensitivity to light</li> <li>• Metallic taste in mouth</li> <li>• Loss of appetite</li> </ul>	<ul style="list-style-type: none"> <li>• Take with food to avoid an upset stomach</li> <li>• Wear sunscreen as you may be more sensitive to sunlight</li> <li>• Do not suddenly stop taking this medication</li> </ul>
<p><b>Gabapentin</b></p>	<ul style="list-style-type: none"> <li>✓ Pain relief</li> </ul>	<ul style="list-style-type: none"> <li>• Drowsiness</li> <li>• Dizziness</li> <li>• Swelling of ankles</li> <li>• Changes to vision</li> </ul>	<ul style="list-style-type: none"> <li>• Used short term after surgery if necessary</li> <li>• Tell your doctor if you have loss of coordination, severe drowsiness, or dizziness</li> <li>• Call your doctor before stopping if you are experiencing side effects</li> </ul>
<p><b>Pain Medications:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Oxycodone</li> <li><input type="checkbox"/> Hydrocodone</li> <li><input type="checkbox"/> Tylenol #3</li> <li><input type="checkbox"/> Tramadol</li> <li><input type="checkbox"/> Tylenol</li> </ul>	<ul style="list-style-type: none"> <li>✓ Pain relief</li> </ul>	<ul style="list-style-type: none"> <li>• Drowsiness</li> <li>• Dizziness</li> <li>• Weakness</li> <li>• Dry mouth</li> <li>• Constipation</li> <li>• Nausea</li> <li>• Headache</li> </ul>	<ul style="list-style-type: none"> <li>• Drink plenty of fluids to help avoid constipation</li> <li>• Do not drink alcohol</li> <li>• Do not drive a car or use machinery</li> <li>• Call you doctor if you experience hallucinations, extreme tiredness, or confusion</li> </ul>

# MEDICATIONS

<p><b>Statins</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Simvastatin</li> <li><input type="checkbox"/> Atorvastatin</li> <li><input type="checkbox"/> Pravastatin</li> <li><input type="checkbox"/> Rosuvastatin</li> </ul>	<ul style="list-style-type: none"> <li>✓ Help lower cholesterol and triglycerides</li> <li>✓ Help prevent heart attack and stroke</li> <li>✓ Slow progress of heart disease</li> </ul>	<ul style="list-style-type: none"> <li>• Stomach pain</li> <li>• Headache</li> <li>• Diarrhea or constipation</li> <li>• Muscle weakness</li> </ul>	<ul style="list-style-type: none"> <li>• Do NOT suddenly stop taking this medication</li> <li>• Wear sunscreen as you may be more sensitive to sunlight</li> <li>• Limit alcohol</li> <li>• Take in the evening unless otherwise instructed</li> <li>• Call your doctor if you experience muscle pain, weakness, or cramping</li> </ul>
<ul style="list-style-type: none"> <li><input type="checkbox"/> <b>Furosemide/Lasix</b></li> </ul>	<ul style="list-style-type: none"> <li>✓ Treat swelling after surgery</li> <li>✓ Often called a “Water pill”</li> </ul>	<ul style="list-style-type: none"> <li>• Dizziness/light-headedness</li> <li>• Headache</li> <li>• Low Potassium</li> </ul>	<ul style="list-style-type: none"> <li>• Tell your doctor about signs of low potassium such as dry mouth, irregular heartbeat, muscle cramps, weakness, or upset stomach</li> </ul>
<p><b>Potassium</b></p>	<ul style="list-style-type: none"> <li>✓ Treat or prevent potassium loss, often given with Furosemide</li> </ul>	<ul style="list-style-type: none"> <li>• Mild nausea, upset stomach</li> <li>• Diarrhea</li> </ul>	<ul style="list-style-type: none"> <li>• Take with food to avoid an upset stomach</li> <li>• Tell your doctor about signs of high potassium such as confusion, anxiety, numbness or tingling in your hands or feet, weakness or heaviness of legs, difficulty breathing, or headache</li> </ul>
<p><b>Iron supplement/Ferrous Sulfate</b></p>	<ul style="list-style-type: none"> <li>✓ Treat low red blood cell count after surgery</li> </ul>	<ul style="list-style-type: none"> <li>• Constipation</li> <li>• Nausea/vomiting</li> <li>• Diarrhea</li> <li>• Black stool</li> <li>• Stomach pain/cramps</li> </ul>	<ul style="list-style-type: none"> <li>• Used short term after surgery if necessary</li> <li>• Drink with a full glass of water to avoid upset stomach</li> </ul>



# MEDICATIONS

<b>Famotidine/Pepcid</b>	✓ Treat nausea after surgery ✓ Prevent stomach upset from other medications	• Constipation/diarrhea • Dizziness • Headache	• Tell your doctor if you have fainting episodes, mood changes, or seizures
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# NUTRITION

## Short term Nutrition Goals for recovery

It is important after surgery to make sure that you are getting enough calories, protein, and nutrition to promote healing. Follow a general diet for about 4 weeks after surgery. If you have diabetes, continue to follow your diabetic diet recommendations.

Keep these “short-term goals” in mind for recovery. Long term diet changes should be addressed once you have recuperated.

- Eat Regularly
  - Eat small amounts more frequently.
  - Aim to eat four times a day.
- Focus on Protein
  - Meat, fish, poultry, dairy, and egg are animal proteins.
  - Nuts, beans, and whole grains are vegetable proteins.
  - Choose lean meats, low fat dairy, and low sodium proteins as much as possible, but don't restrict your diet too much.
- Keep Sodium Intake Low
  - Avoid processed foods, restaurant and fast foods, soups, and condiments.
  - Use fresh or frozen ingredients, make meals at home as much as possible, and try new seasonings, garlic, and onion.
- Caffeine and Your Heart
  - It is ok to have caffeine in moderation. Limit to 1-2 cups of coffee per day or less than 400 mg per day.
  - Heavy daily caffeine use- more than 500-600 mg a day may cause insomnia, nervousness, restlessness, irritability and upset stomach.

## Choose Good Nutrition for a Heart Healthy Diet

Making adjustments to your diet can be a strong weapon to fight heart disease and improve health. Small diet changes over time can make a large impact. It is your overall pattern of choices that counts!

- ✓ Lose excess body weight
- ✓ Keep fat intake at 1/3 or less of the calories you consume
- ✓ Choose healthy fats instead of the ones that clog arteries
- ✓ Include Omega 3 fatty acids into your diet at least 2-3 times per week
- ✓ Increase fiber intake to 25 grams or more per day.
- ✓ Keep sodium intake at only 2300 mg per day.

# NUTRITION

Here are some steps to get started:

- Add Vegetables and Fruits
  - Eat at least 5 servings of vegetables and up to 4 servings of fruit daily. This will add dietary fiber which can help improve your cholesterol levels.
  - Eat a variety of colors. This will allow for varied flavors and provide a good amount of nutrients in your diet.
  - Frozen vegetables and fruits can be just as nutrient rich as fresh and may be more affordable.
- Switch to Whole Grains
  - Eat whole grains, in place of refined grains, which provide more nutrients and dietary fibers. Whole grains can be found in items like whole wheat bread or pasta, graham flour, oatmeal, whole oats, brown rice, wild rice, whole grain corn, popcorn, whole grain barley, quinoa.
  - Eat fewer white starches or refined grains such as white rice, white bread, pasta.
- Make Thoughtful Meat Choices
  - Eat more fish (1-2 servings per week) which contain Omega 3 fatty acids.
  - Eat more beans, lentils, tofu, peas in place of meat for meals.
  - Eat smaller red meat portions (beef, pork, lamb) which contain saturated fats. One portion of meat should be no larger than the size of a deck of cards.
  - Eat less processed meat (bacon, salami, sausage, deli meats).
- Adjust the Fats you Eat
  - Use healthier cooking methods such as baking, broiling, grilling, or broiling in place of frying.
  - Eat more poly and mono-unsaturated fats (olive, safflower, soybean, sunflower oils). These help lower bad cholesterol and provide nutrients your body needs.
  - Eat less saturated fat (beef, lamb, pork, lard, butter, cheese, full fat dairy products). Saturated fats can raise your cholesterol levels.
  - Avoid trans fats, hydrogenated oils (fried and processed foods) and tropical oils (coconut and palm oils). These raise cholesterol levels and can put you at higher risk of developing diabetes.

# NUTRITION

- Cut Down on Sodium
  - Use herbs and spices in place of salt to season your food.
  - Opt for no salt added broths, sauces, vegetables.
  - Avoid meats injected with sodium solutions. Look for items on the ingredient list like broth, saline, sodium solution in them.
  - Avoid processed or prepared foods. If purchasing, compare the options for how much sodium each of them contain.
- Limit Sugar
  - Limit the amount of added sugars you eat.
  - Sources of added sugars include regular soft drinks, candy, cakes, cookies, pies, and fruit drinks. Dairy desserts and milk products, and processed grains like cereals, waffles also have a good amount of added sugars.
- Limit Alcohol
  - If you drink alcohol, the recommendation is at most 2 drinks daily for men and at most 1 drink daily for women.
  - One drink is one 12-ounce regular beer, 5 ounces of wine or 1.5 ounces of 80 proof spirits.

## Long Term Nutrition Goals- Cholesterol

Diet changes can lower a person's risk for heart disease by lowering the amount of blood cholesterol circulating in the body. There are "good" and "bad" types of cholesterol in our bodies. Both types are created in the liver.

With healthy diet changes, we can influence the amount of "bad" cholesterol our body makes. This will lower the amount that circulates through our heart and arteries.

- LDL=Bad Cholesterol- type of cholesterol you want to be low; it increases your chance of clogging arteries.
- HDL=Good Cholesterol- type of cholesterol you want to be high; it decreases your chance of clogged arteries.
- Triglycerides- type of bad fat that thickens your blood if levels are too high; increases chance of clogged arteries.

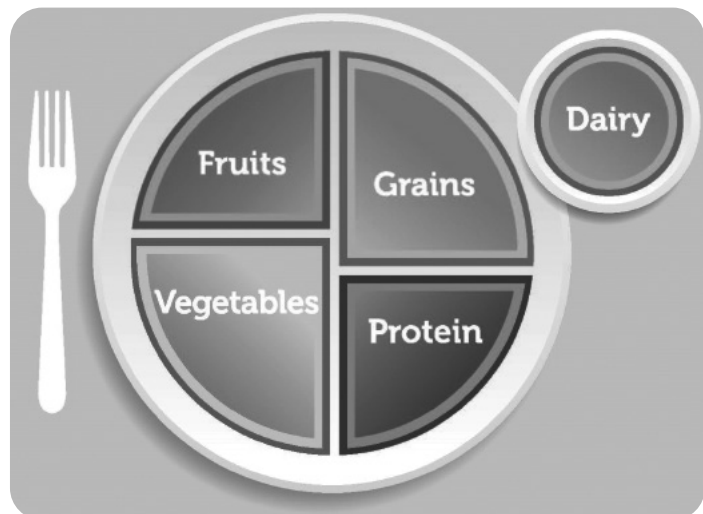
# NUTRITION

Don't confuse dietary cholesterol (found in our food) with blood cholesterol. The amount of dietary cholesterol in a food can be found on the nutrition facts label, but you'll never find the LDL or HDL values on the nutrition label, as the liver makes these from the fat we eat.

## Additional Nutrition Resources

Other resources to support your dietary changes:

- Get started with cardiac rehab. There is a dietitian on the cardiac rehab team that can help you on this journey.
- Visit the Pulse Heart Institute website: [pulseheartinstitute.org](http://pulseheartinstitute.org)
- American Heart Association website: [heart.org](http://heart.org)
- US Department of Agriculture: [choosemyplate.gov](http://choosemyplate.gov)



# SMOKING AND YOUR HEART

Thirty five percent of Americans die of heart disease and smokers are at twice the risk of developing heart problems. Most people connect smoking with lung cancer, but it is also linked to at least one-third of all heart disease deaths in the United States each year.

- Here are a few reasons why:
  - Nicotine in cigarettes makes the heart pump faster and raises blood pressure. It also tightens arteries, making it difficult for blood to flow.
  - Carbon monoxide reduces the amount of oxygen in the blood, making the heart work harder to supply the body with blood. It also damages the arteries, allowing plaque to form until the artery becomes completely blocked, resulting in a heart attack.
  - Smoking triples the risk of dying from heart disease among middle aged men and women.
  - Cigarette smokers die an average of nearly 7 years earlier than non-smokers.
- After you stop smoking:
  - No matter how long you have been smoking, your body starts to fix itself as soon as you stop!
    - ✓ **Within 20 minutes** your blood pressure, heart rate, and the temperature of your hands and feet become normal.
    - ✓ **Within 8 hours** oxygen and carbon dioxide levels in your blood become normal.
    - ✓ **Within 1 day** your risk of heart attack begins to decrease.
    - ✓ **Within 2 weeks to 3 months** your circulation becomes better and breathing improves; it becomes easier to walk.
    - ✓ **Within 1 to 9 months** coughing, sinus congestion, shortness of breath and fatigue decrease, and you have more energy.
    - ✓ **Within 1 year** Your risk of heart disease is now less than half what it was a year ago. Congratulations!

## MultiCare Tobacco Cessation Program

- Get help and support with quitting. How to get started:
  - ✓ Email- [TobaccoCessationProgram@multicare.org](mailto:TobaccoCessationProgram@multicare.org) to request a program guide.
  - ✓ Online- visit [www.multicare.org/tobacco-cessation/](http://www.multicare.org/tobacco-cessation/) to view the complete program.
  - ✓ On your Phone- Download the Quitters Circle APP free with user code "Multicare"



