

CARDIAC SURGERY

WHAT YOU AND YOUR FAMILY NEED TO KNOW



**Cardiovascular &
Thoracic Surgery**

ARKANSAS
HEART
HOSPITAL®

CARDIAC SURGERY | CONTENTS

- 4 WELCOME TO AHH CARDIAC SURGERY**
- 5 THE FUNCTION OF THE HEART**
- 6 HEART SURGERY**
- 8 PREPARATION FOR SURGERY**
- 10 PRE-OPERATIVE TESTING AND SURGICAL CONSULTATION**
- 12 THE MORNING OF SURGERY**
- 13 AFTER SURGERY IN THE HOSPITAL**
- 18 GOING HOME FROM THE HOSPITAL**
- 19 WHAT DO I DO ONCE I GET HOME**
- 22 SURGEON CONTACT INFO & FOLLOW-UP APPOINTMENTS**

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WELCOME TO ARKANSAS HEART HOSPITAL'S CARDIOVASCULAR & THORACIC SURGERY DEPARTMENT

The cardiovascular & thoracic surgery department at Arkansas Heart Hospital is world renowned. Our history of successfully treating cardiovascular disease includes over 60 years of combined, state of the art experience. Our surgery program today offers a comprehensive arsenal of surgical interventions from traditional surgeries such as coronary artery bypass, valve replacement and repair, congenital cardiac repairs and peripheral bypass surgeries to new, groundbreaking therapies including minimally-invasive heart surgery, endovascular aneurysm repair as well as transcatheter valve replacements and surgical options for the treatment and management of atrial fibrillation.

In addition to our innovative approach, Arkansas Heart Hospital provides a robust team of interventional cardiologists, electrophysiologists, neurologists, gastroenterologists, urologists, cardiovascular and general surgeons, dietitians, nurses, advance practice nurses and physician assistants all readily available to provide immediate care. We also have a fully equipped endocrinology team as well as one of the only bariatric surgery departments in the region to provide optimal comprehensive care if their services are needed. You will further complete your cardiac surgery journey within our Strong Hearts Rehabilitation Center, the one and only Pritikin Certified Intensive Cardiac Rehab program in the state.

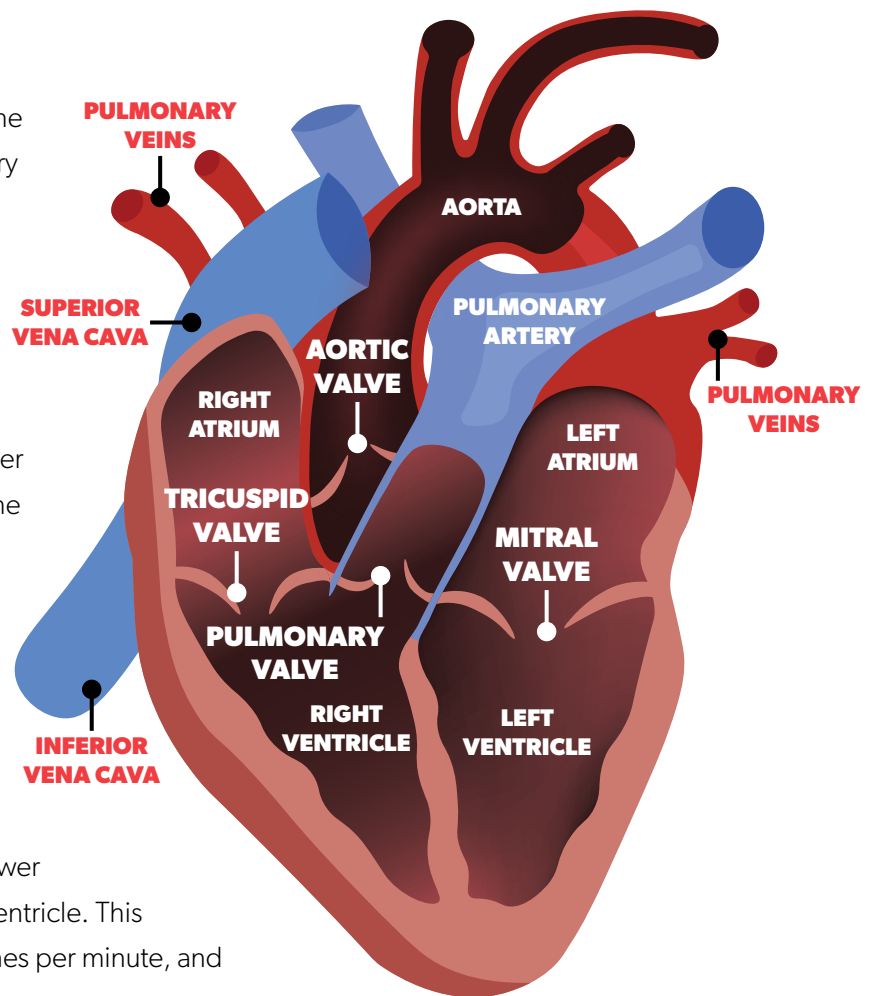
Our approach and expertise have gained us the reputation as a world-class leader both regionally and nationally, with our patients being the center of it all. Our team is committed to providing extraordinary, compassionate care to our patients and their families. You can expect your surgeon to speak with you and your family prior to surgery as well as throughout your stay at Arkansas Heart Hospital.

We hope you find this information helpful and we welcome any questions you might have. Thank you for putting your trust in our team. We look forward to serving you.

THE FUNCTION OF THE HEART

The heart is a hollow, four-chambered muscular organ that lies beneath and to the left of the breastbone (sternum). Its primary function is to pump oxygen-rich blood to all parts of the body. The heart pumps approximately four quarts of blood per minute at rest and 10 to 15 quarts during exercise.

Blood enters the right side of the heart after it has delivered nutrients and oxygen to the body tissues. The blood is then pumped to the lungs, where it is cleansed of waste gas (carbon dioxide) and provided with a fresh supply of oxygen. The left side of the heart receives this oxygen-rich blood from the lungs. Most of the pump work of the body's circulation is done by the lower left chamber of the heart, called the left ventricle. This pumping action is repeated 60 to 100 times per minute, and each pump is counted as a pulse beat.



There are four valves in the heart—tricuspid, pulmonic, mitral and aortic—which act as one-way doors. The valves allow blood to move forward in a specific direction through the heart and prevent it from leaking backward. Like all organs in the body, the heart requires oxygen-rich blood to perform its work.

The oxygen-rich blood is supplied to the heart muscle (myocardium) by a network of blood vessels called coronary arteries. The two main coronary arteries—right and left—lie on the surface of the heart and branch into a system of smaller arteries so that every portion of the heart is supplied with nourishment. The right coronary artery and its branches supply the front and back of the right side of the heart (right ventricle) as well as the bottom of the left side of the heart (left ventricle). The left coronary artery divides into the left anterior descending artery, which supplies the front of the heart, and the circumflex artery, which winds its way around the left side to the back of the heart.

The entire body depends on the proper functioning of this organ. Diseases and abnormalities of the one-way doors (valves) or of the blood vessels (coronary arteries and/or the aorta) may decrease the heart's function. If these abnormalities occur and are not amendable to percutaneous treatment or medical management, your cardiologist will refer you for heart surgery.

HEART SURGERY

WHAT IS HEART SURGERY?

Open heart surgery is any type of surgery where the chest is cut open and surgery is performed on the muscle, valves, or arteries of the heart. This is also sometimes called traditional heart surgery and may include any or all of the following:

- Coronary Artery Bypass Grafting Surgery (CABG)
- Aortic Valve Replacement (AVR)
- Mitral Valve Repair or Replacement (MVR)
- Tricuspid Valve Repair or Replacement (TVR)
- Ascending Aortic Aneurysm Repair
- Left Atrial Appendage Clip or Resection
- Surgical Ablation (MAZE)
- Surgical Atrial Septal Defect Closure

HOW IS SURGERY ACCOMPLISHED?

Your surgeon will thoroughly evaluate your medical history and determine the appropriate surgical need and approach as necessary. He will meet with you and explain the operation as well as its risks and benefits. You will have the opportunity to ask any questions you or your family may have. This may be done in the clinic or a hospital setting. Once deemed an appropriate candidate you will be properly educated and scheduled for surgery. The day of your surgery you will arrive at the Arkansas Heart Hospital and check in to the front door “reception area”. You will then be prepared for surgery. After informed consent is obtained, your surgery will proceed. You will then be transported to a sterile operating room, sedated and placed under anesthesia by the cardiac anesthesiology team. In the traditional approach to heart surgery, the surgeon opens the chest by dividing the breastbone (sternum) and connects you to the heart-lung machine. By performing the functions of the heart and lungs, this machine allows the surgeon to operate directly on the heart providing optimal outcomes in the shortest amount of time. When the operation is finished, the heart resumes beating on its own and the heart-lung machine is disconnected. Then the divided breastbone is pulled together with a variety of closure devices such as wires, cables and/or sternal plates so that it can heal appropriately. This process can require up to 12 weeks. Finally, the skin is closed by internal stitches. The sternal wires, cables and/or plates will remain in the chest bone and are not removed. The internal stitches will dissolve on their own over time.

HOW LONG WILL THE OPERATION TAKE?

The length of your operation will depend on the type of surgery that you are having. Most surgeries take at least two to four hours. Included in this time is the preparation for surgery, which requires approximately 45 to 60 minutes.

WHAT ARE THE RISKS OF HEART SURGERY?

Several factors influence the risk of heart surgery. These factors vary with each individual and depend on the extent of one's heart disease, as well as one's medical and surgical history. On average, the general population's risk of surgical complications is 1%-2%. Your surgeon will talk with you about your particular risk assessment prior to being considered for surgery.

Some complications include:

- Bleeding
- Pneumonia (lung infection)
- Infection
- Blood Clot
- Fast or Irregular heart beat (AFib)
- Nerve injury or muscle spasm
- Breathing issues
- Memory problems or confusion
- Kidney failure
- Heart attack, stroke or death



WHAT IS THE LONG-TERM SUCCESS WITH SURGERY?

Long term results of heart surgery are excellent. The majority of patients obtain complete relief of their symptoms of angina and shortness of breath after surgery. Some will notice an increase in their energy level once they have recovered from surgery. Many patients do not realize how much they have been "slowing down" or have attributed their tiredness to "just being out of shape" until after they recover from surgery.

Although symptoms may recur, most patients have sustained relief of their symptoms. A minority of patients will require repeat surgery, usually 10 or more years after their initial operation. Because of a number of improvements in the procedure, most cardiothoracic surgeons feel that fewer and fewer patients will need re-intervention in the future. In addition to the relief of symptoms, research shows that the expected survival (life-span) for patients improves after heart surgery.

PREPARATION FOR SURGERY

WHAT CAN I DO TO GET READY FOR MY OPERATION?

1. Medications

If you are currently on aspirin, please take your daily aspirin up until the time of your surgery, unless your surgeon instructs you not to take it. Do not take any additional doses of aspirin or aspirin-containing products unless otherwise instructed by your surgeon or a member of his team.

Some medications may increase the risk of bleeding and/or effect anesthesia, surgery and/or increase postoperative complications and should be stopped. If you are on any of these medications, you will be instructed to stop them at your preoperative visit.

Some medications that will be required to stop include:

- Blood pressure medicines called ACE (angiotensin-converting-enzyme) Inhibitors (e.g. Lisinopril, Captopril, Enalapril).
- Blood pressure medicines called ARBs (angiotensin receptor blockers such as Cozaar [losartan] or Diovan [valsartan]).
- Blood thinners such as Coumadin (warfarin), Plavix (clopidogril), Eliquis, Pradaxa (dabigatran).

****It is very important to bring a current and fully detailed list of your medications to your consultation appointment.****

2. Smoking

It is extremely important that you STOP SMOKING as soon as possible. People who smoke will have more mucus accumulation in their lungs, which is harder to remove after surgery and it may slow down your recovery. Patients who smoke may also require additional respiratory treatments after surgery. Please notify a member of our team if you would like more information regarding available resources to help you stop smoking.

3. Activity

We will ask that you remain as active as possible up until the day of your surgery. Being active is a very important factor in your recovery process. If you have debilitating symptoms preventing you from living an active lifestyle, please discuss with your nurse the prehabilitation options available to you. Your Arkansas Heart Hospital team will assist in creating a custom plan for you.

4. Personal Devices

If you have sleep apnea and currently use a CPAP machine, please bring this with you to the hospital the day of your surgery. Our facility will make accommodations if needed, but in our experience you will be more comfortable wearing your own fitted mask.

5. Toiletries

Our facility will provide you with everything you need for daily hygiene. For comfort, you may bring with you an overnight bag of personal toiletries. Other suggested items to bring along with you for comfort are: rubber soled house shoes, oversized house coat and a button up shirt or loose fitting clothes to wear home the day of discharge.

6. Insurance, Billing & Disability

We will contact your insurance company to determine surgical benefits. If there are any financial concerns that occur regarding benefit eligibility a financial coordinator will contact you. If you would like specific information regarding your personal out of pocket expenses after insurance coverage, please contact your insurance company or an AHH financial advisor at: (501) 219-7275.

If you have Short Term Disability benefits, please have your HR department provide you with the appropriate paperwork. Bring this paperwork with you the day of your surgery and give to the surgical team. You can also have your employer fax this paperwork to: **(501) 687-8462** or email it to **cvurgery@arheart.com** for expedited completion. **All paperwork will be completed and submitted within 5-7 days after your discharge from the hospital.** If desired and requested, a copy can be presented to you at your discharge follow-up appointment.



PRE-OPERATIVE TESTING

WHERE DO I REPORT FOR PREOPERATIVE TESTING?

For your pre-operative testing as well as your surgery, you will report to the front entrance of the Arkansas Heart Hospital unless otherwise notified by your surgical team. Please remember to bring a list of all of your medications, including the name, doses and how often you take them. This list should include over-the-counter and herbal medications. If you do not have an accurate list, please bring with you all of your medications in their original bottles. After registration is complete, you will then undergo routine preoperative testing such as blood draws, an electrocardiogram (EKG), chest X-ray and any other testing your surgeon may require such as a CTA or Ultrasound. You will be required to arrive at least 2 hours prior to your scheduled surgery to complete all necessary pre-operative testing unless otherwise notified by your surgical team.

IS THERE A PERSON I CAN TALK WITH WHO CAN HELP ME WITH MY FAMILY CONCERNS?

During and after surgery, our pastoral and case management teams are available to help you and your family meet any emotional and social needs. The case management team provides counseling and guidance in coping with stress and gives information about resources and insurance coverage. If you need help with social needs before surgery, please call your surgeon's office. Before coming to the hospital, it is important to discuss with your family and friends the need to have someone stay with you, or live nearby, for the first 7-10 days after your discharge from the hospital. You will need help with activities of daily living, such as grocery shopping, preparing meals, transportation to medical appointments, etc. Services for this are not available from home care agencies without cost. You will also need to arrange for someone to take you home from the hospital after surgery.

Your case manager will follow you closely and collaborate with your surgical team to provide resources and meet your postoperative surgical needs. In some cases home health as well as inpatient and outpatient rehab may be necessary and will be set up for you if clinically indicated.

WILL I NEED REHABILITATION AFTER SURGERY?

Each patient is unique and your surgical team will review with you and your family the help you will need when released from the hospital. Various members of the therapy team, including occupational therapists, physical therapists and speech-language pathologists, may be involved in your recovery process.

The therapy team may make a recommendation for a variety of possible rehabilitative locations including but not limited to cardiac rehabilitation, outpatient rehabilitation, home rehabilitation or inpatient rehabilitation. As each patient is unique, so is his/her discharge plan, and your providers will discuss with you and your family what they professionally feel is the best option for you.

As a courtesy, you will be consulted by the Arkansas Heart Hospital Strong Hearts Cardiac Rehab team prior to your discharge from the hospital. We have locations in both Little Rock and Russellville, AR.



WHAT ARE THE BENEFITS OF STRONG HEARTS INTENSIVE CARDIAC REHAB?

- Program is tailored and personalized to meet your needs
- Improves circulation & energy
- Improves endurance & strength
- Decreases body fat
- Improves blood pressure
- Decreases inflammation
- Decreases cholesterol & triglycerides
- Improves blood sugar control
- Provides dietary and nutritional education, including cooking classes
- Your family can join you at no additional cost

HOW MUCH EXERCISE WILL I DO?

Walking is the most important task after surgery. You will plan to walk 3-4 times daily, at least 10-15 minutes each time your first week after surgery. You will gradually increase your physical activity to assist you in returning to your normal activity level. **Take one step further each and every day.** Your recovery will be slow and gradual, but progressive. Throughout the recovery period, you will have good and bad days. **Remember, gentle daily activity aids healing and speeds recovery! You should plan to walk progressively longer periods each week and rest when necessary.**

THE MORNING OF SURGERY

WILL I BE ABLE TO EAT AND DRINK?

You will not be able to eat or drink anything from midnight the night before surgery. We will ask that you hold all medications the morning of your surgery unless otherwise indicated by your surgical team. You will be given intravenous (IV) fluids, which are started in the operating room and will provide the necessary nutrients and fluids you need during that time.

WHERE DO I REPORT?

On the morning of surgery, you will arrive to the Arkansas Heart Hospital located at 1701 South Shackleford Rd, Little Rock, AR and enter through the front doors which will be open at 0500 AM. Proceed to the registration and check in counter located towards your left immediately following the entrance. In some situations, you may be asked to present through the Emergency Department. This will be confirmed with you by the surgical team at the time of scheduling your surgery.

WHAT WILL I DO IN THE PREOPERATIVE RECEPTION AREA ON THE MORNING OF SURGERY?

After registration, you will be taken to a private room where you will be asked to do the following:

- Put on a hospital gown.
- Remove all pins, barrettes, clips, etc., from your hair. Remove all dentures and bridgework.
- Remove all jewelry, including rings and body piercings.
- Remove all nail polish.
- Remove glasses and contact lenses and give to family members.
- Remove hearing aids.

You will get any preoperative lab work and testing completed if it was not scheduled the day before your surgery. Consent will be obtained by the preoperative nurse. Both the anesthesiologist as well as the surgeon will come see you to answer any final questions prior to your surgery. You will be given your preoperative medications via IV access which will make you sleepy. We will then transport you to the operating room. Your family may go as far as the entrance to the operating room with you. They may wait in the lounge where a patient representative is available during the daytime hours. The cardiac operating room nurses will provide your family with frequent updates on how the operation is going. The surgeon will see your family soon after the surgery is completed.

AFTER SURGERY

AFTER SURGERY, WHAT SHOULD I EXPECT?

Immediately after surgery, we will take you to the Cardiovascular Surgical Post-Anesthesia Care Unit (PACU), which is located right outside of the operating room on the first floor. Under the direction of your cardiac surgeon, your care in the PACU will be coordinated with specially trained nurses, nurse practitioners and physician assistants. Your surgeon as well as the other surgical team members will evaluate you daily and are available to speak with you and your family.



Until you are fully awake, you will be attached to a ventilator (breathing machine) by a tube in your mouth, down your windpipe. This will provide your body the oxygen it needs throughout your surgery and immediate recovery. When the PACU team feels that you are ready, usually 2-4 hours after your surgery, they will remove this breathing tube and place a small green plastic mask over your nose and mouth to give you moist oxygen. You will be drowsy from the anesthesia and continuously encouraged to cough and deep breath.

You can expect multiple drain tubes to be placed during your surgery. These will remain one to three days after your surgery to allow further drainage and monitor closely for any bleeding.

In addition, there will be one or two small wires on the lower portion of your left chest. These are called pacemaker wires and are inserted during surgery. Sometimes the heart beats slowly and needs a temporary pacemaker for a short time after surgery. The pacemaker wires will be removed shortly before you are ready to go home.

You will also have a catheter in your bladder to measure your urine output for at least the first 24 hours after surgery. You may still feel a sensation of having to urinate. The nurse will remind you of this tube. It is generally taken out the day after your operation.

To maintain continuous assessment, you will have a catheter in the artery in your wrist or your groin called an arterial line. This line will be removed the day after your surgery. When the arterial line is removed, pressure will be held by your RN and a pressure bandage will be applied.

You will undergo frequent finger sticks to monitor your blood glucose level and may require insulin even if you do not have a history of diabetes, as the stress of surgery may make your glucose levels increase and it should be properly managed. You will find that the nurses and doctors are constantly attending to your needs, and sleeping for long periods of time may be difficult. You will be able to sit up once you are off the respirator, and when your blood pressure is stable.

6-8 hours after your surgery and depending on the effects of anesthesia, you will be transferred to your room in the Progressive Critical Care Unit for further recovery. Your assigned critical care nurse will continue to closely monitor your progression.

AFTER THE POST ANESTHESIA CARE UNIT, THEN WHERE?

Once you are ready to leave the PACU, we will transfer you to the Progressive Critical Care Unit (PCCU), located on the second and third floors of the hospital. On this unit, we will continue to aid in your recovery while continuously monitoring your heart rate and rhythm.

The day after your surgery you will be expected to get out of bed and move about with assistance in your room. Once your heart rate and rhythm have been stable, and usually the second day after your surgery, we will change your monitor to a telemetry device that will allow you greater freedom to move around your room and the nursing unit while still allowing the nurses to monitor your heart.

Activity, coughing and deep breathing will be your primary focus throughout the rest of your hospital stay. We will focus on clearing your lungs of mucus and increasing your activity level. To clear your lungs, your nurse and respiratory therapist will give you instructions on the use of the incentive spirometer. While you are awake, we will instruct you to use the incentive spirometer every hour.

Your nurse will assist you with your daily activity. The physical therapist will also work with you on beginning exercises. It is important that you not attempt to get out of bed or walk by yourself. Activity progresses from sitting in the chair, to helping with your bath, to taking long walks in the hallway. Your doctor will prescribe pain medication that you may request if you are having any discomfort or pain. It is important that you report any pain to your nurse right away as well as to understand you will never be without pain. Our goal is to keep you comfortable during required activity which will guide your postoperative progression. You will have a call light within your reach at all times to address any needs.

Family may visit you at any time. One adult family member or significant person is welcome to stay with you in the room on a 24-hour basis. Each room is equipped with a sofa that changes into a bed. The Patient-Centered Care Packet that you will be given on admission to the PCCU has patient and family information about patient care and services available to you.

CHEST X-RAYS? BLOOD DRAWING AGAIN? EKGS?

We will continue to evaluate your heart and lungs as well as do periodic chest X-rays and EKGS (electrocardiograms) as necessary throughout your recovery.

WHAT ARE THESE WIRES IN MY CHEST?

You may have pacemaker wires in your chest when you leave the operating room. A small box called a pacemaker may be connected to these wires if necessary. The wires in your chest will be covered with a small dressing (bandage) and be removed prior to your discharge from the hospital. The heart may be irritable after surgery. Approximately 30 percent of patients develop an irregular heart rhythm called Atrial Fibrillation. Most of the time, this is controlled with medication and reverts back to a regular rhythm before you go home.

HOW LONG WILL MY STITCHES (SUTURES) BE IN?

Most of your stitches will be internal and dissolve over time. You may also have small chest tube sutures on the upper part of your abdomen. The nurse practitioner, physician's assistant, or surgeon will remove these sutures when the tubes are removed with minimal discomfort. Some surgeons may also use a surgical glue to seal the incision. This does not need to be removed and will wear off gradually.

WILL I HAVE ANY DRESSINGS OVER MY INCISIONS?

Depending on your surgeon, you may be discharged with no dressings at all or with a PICO dressing intact over your sternal incision. This sealed dressing will be connected to a small box by a tube which provides negative-pressure wound therapy (NPWT). It is designed to help increase blood flow to the area and draw out excess fluid from the wound. It will be placed in the OR after your surgery, if indicated, and remain intact for 7 days after your surgery. You may remove this on the 7th day after your surgery. If this dressing falls off or if the box continually beeps indicating a disturbance in the seal, you may remove the dressing and place it in the trash without any concern.

Some surgeons prefer no dressings on their incisions. In this case, your sternal incision dressing should be removed by your surgeon, his nurse practitioner or physician's assistant within 24-36 hours after your surgery while in the hospital. **If this applies to you, all dressings, including the ones placed at discharge, should be removed 24 hours after you arrive at home unless specifically notified by your surgeon or his team prior to your discharge.**

WHEN CAN I TAKE A SHOWER OR BATH?

You may shower once you are discharged from the hospital. We suggest that you have someone close by to assist you if needed. You may allow the shower stream of water to run down over on your incisions. Use a mild soap such as Dial, Ivory or Dove. Showering is permitted, but do not take a bath. Do not rub the incisions and ensure that you pat them completely dry. You will be tired and worn out, please ensure that you are physically able to undergo the task.

HOW WILL I FEEL AFTER SURGERY?

You will have good and bad days. You may experience many different feelings that can be due to lack of sleep, decreased blood count, constant activity in your room, the hospital environment with its structured routine, physical discomforts from surgery and unfamiliar faces.

You may experience a period of feeling down or blue, which usually takes place the first few weeks after surgery. It is normal to have difficulty focusing and concentrating in the first week or two after surgery. As activity increases and you return to a more normal routine, these feelings should disappear and your ability to concentrate should improve.

Oftentimes, you may feel restless and have trouble sleeping at night. This is routine and normally subsides with time. You may use nighttime OTC sleep aids such as Benadryl, Unisom or Melatonin. Remember that activity is vital after surgery. If you are taking naps instead of being active throughout the day, you will most likely not be sleepy when it comes time for bed.

WHY IS MY APPETITE SO POOR

Due to the surgery itself, decreased activity and medications, your appetite will be suppressed. This should get better throughout your healing process. Because your diet after surgery is very important in your recovery, we will encourage you to eat as much as you can and supplement your diet with high-calorie protein shakes. Protein is necessary for adequate healing and if you are not consuming at least 2000 calories per day you should add a supplement such as Boost, Ensure, or Glucerna if you are diabetic. You can have up to three of these per day but they do not take the place of a well-rounded meal. Soy milk, almond milk, peanut butter, and protein powder supplements are also good options if you do not like the shakes.

The recommended protein intake for the first 2-3 weeks following surgery is: **1.5-2.0 grams (g) of protein per kilogram (kg) of your weight per day. If you weigh 150 lbs, $150/2.2 = 68\text{kg}$. ($2.2\text{lbs} = 1\text{kg}$) $68\text{kg} \times 1.5\text{g} = 102\text{g}$ of protein per day.**

***If you have renal insufficiency i.e. chronic kidney disease or known elevated creatinine decrease this by half and do not exceed 60g per day.**

WHAT CAN I EAT?

Your physician may order a diet restricted in sodium. Because of this, you will not be able to add salt to your meals. You will receive a cardiac menu to select your meals daily. Between-meal snacks may be ordered. Dietary modifications or adjustments in your diet may include restrictions in calories, sodium, fats or cholesterol.

Understanding the importance of maximizing heart-healthy foods and minimizing the restricted foods is instrumental in preventing further heart disease. The Dietitian is a vital asset to our team and will be following your nutritional progression throughout your recovery.

WHY MUST I EXERCISE?

Daily activity is important to prevent complications such as lung congestion (pneumonia) or blood clots in your legs, it is important to begin walking around the hall as soon as possible. This will occur on the day after your surgery, no later than day two. You will continue this once you get home. Everyone feels tired after the surgery. However, it is extremely important to exercise the muscles. A physical therapist will see you and plan an exercise routine for you in the hospital as well as at home. We strongly encourage you to follow these instructions for a steady and full recovery. We will provide you with a booklet that reviews specific activity instructions for you.

We will also give you instructions on sternal precautions (protection for your breastbone). Sternal precautions help you protect your chest, your sternal bone and your surgical incision. **You may not lift anything heavier than 10 pounds for six to eight weeks after your surgery and nothing over 15 pounds until 12 weeks after your surgery. You cannot raise both arms over your head at the same time, and no bending at the waist.** If you have steps at home, the physical therapist will help you walk up steps before discharge.

Vigorous arm activity is limited for six to eight weeks after surgery while the chest bone heals. Physical activities that require arm movement, such as golf, swimming, tennis, etc., will be restricted until cleared by your cardiac surgeon.

MEDICATIONS?

Everyone's medications will differ. We will give you written information about your medications. We will also give you prescriptions the day of your discharge that can be filled at any pharmacy. We are also able to send these electronically if you prefer. Take only the medications prescribed for you at the time of discharge.

COUGH, COUGH, COUGH?

Anesthesia, decreased activity and shallow breathing make your lungs susceptible to congestion and partial collapse. It is important that you cough and do deep-breathing exercises frequently to prevent lung congestion, collapse and pneumonia. The physical therapist, respiratory therapist and nurse will assist and educate you prior to your discharge. It is very important that you use the incentive spirometer **at least 100 x per day**. The best way to meet this goal is to use your device during every commercial that appears on TV.

WHY ARE MY LEGS SWELLING?

If the large vein (saphenous vein) is removed from your leg for bypass grafts, it will take time for alternate (collateral) circulation to form. This leg is also expected to be bruised, especially in the thigh. The bruising will migrate down your leg over time simply due to gravity. You may also notice tender swollen areas in your thigh. These are normal and warm packs will help with them dissolve.

To reduce the swelling:

- Elevate your feet and legs (above the level of your waist if possible) when you are sitting.
- Avoid foods high in salt. Examples include: anything from a can, soup, vegetables, etc.; any type of pork: bacon, ham, etc. Additional diet resources are available at your request.
- Support stockings may also be indicated for excessive edema. You can purchase the stockings at Walmart, Walgreens, CVS, or any other pharmacy. Knee high and any level of compression will be sufficient.
- Remember do not to cross your legs, as this may cause circulation to slow down.

WHEN WILL I BE READY FOR DISCHARGE?

Everyone progresses at his/her own rate. You may begin to think about going home when you see that your activity is increasing and your suture lines are healing well. The usual length of hospital stay is four to five days total (including your surgery day). To be discharged, you must:

- Have stable vital signs and a stable heart rhythm.
- Be able to walk and be steady on your feet.
- Have blood lab results within normal range and have no signs or symptoms of infection.
- Be able to tolerate regular food and have a bowel movement.



GOING HOME FROM THE HOSPITAL

PLANNING FOR DISCHARGE

- Arrange for someone to stay with you or close by for the first week after discharge
- Bring with you a set of loose fitting pants and button up shirt to wear home for comfort
- Before your discharge, tell the nurse of any discharge needs (such as walker, bedside commode, prescription needs, etc.)

WHAT ABOUT THE TRIP HOME?

You will need a ride home from the hospital. If friends or family are driving you home, have them help you with your luggage. If your trip home takes several hours, you may ask them to bring a pillow and blanket so that you can rest. We ask that you stop for short rests (every 2 hours), walk around and exercise your legs (weather-permitting) if your trip home is longer than one hour.

Again, pack and wear comfortable loose fitting clothes for your trip home. You may ask your nurse for pain medication 30 minutes to an hour before your discharge to aid in relief during your trip. You may wear a seatbelt, this is suggested for safety. Be expected to be fatigued and ready to rest once you arrive at home.

WHEN CAN I ANTICIPATE FULL RECOVERY?

Everyone increases their activity level at different rates. Some days will seem better than others. Week by week, you should be increasing your strength and activities. At first, dressing, personal hygiene, reading, writing, visiting, walking and resting should fill your day. Follow the exercise routine that your surgical team has given you.

Avoid sleeping during the day except for a small nap if needed early in the day. If you sleep too much during the day, you will be unable to sleep at night. This can set up a pattern of sleepless nights and tired days. Most people are back to their regular routines in three to four months after surgery.

WHAT DO I DO ONCE I GET HOME?

WEIGH YOURSELF EVERY DAY

It is important to weigh yourself every day to make sure you are not gaining too much fluid. **Weigh before breakfast** and after urinating every morning until your follow-up visit with the surgical team, and record it. Use the same scale and wear the same weight clothing each time. **Notify your surgeon's nurse if you gain more than three pounds over night or five pounds in 3-5 days, if you have increased shortness of breath or if you have substantial swelling in both legs.**

SHOWER DAILY AND MONITOR YOUR INCISIONS

If you **are not** discharged with a PICO dressing, wash your incision once you get home. Wash all incisions gently with soap and water. Do not rub or scrub. Use mild soap like Ivory or Dove. Gently pat dry during the first week.

Do not apply moisturizers such as aloe, cocoa butter or vitamin E cream if your incision has any open areas. **Do not** apply any anti-bacterial ointments or powders. **Keep these incisions clean, dry and open to air unless otherwise directed by your surgeon and/or his team.**

The incision might give you periodic discomfort because of weather changes or "morning stiffness." You can apply gentle heat (100° F) to the incision and take an analgesic (Tylenol) to ease the discomfort. Use heat and medicines as advised by your doctor. There is usually some redness to pinkness along the incision, which will gradually decrease, generally in six months to a year. You might also experience some numbness on either side of your incision. This may persist for months but will gradually fade with time.

Contact the surgical team for the following:

- Continuous or increased pain at the site of the incision
- Purulent or foul smelling drainage from the incision
- An incision that is swollen, bright red, warm or sore to touch
- A persistent fever over 102 degree Fahrenheit

CHECK YOUR HEART RATE AND BLOOD PRESSURE DAILY

It is recommended to have a way to check your blood pressure and heart rate once discharged home. You can buy any type of blood pressure machine; however, ones that have a cuff to fit your arm above the elbow are most accurate. Take your blood pressure in the morning and evening each day before you take your medication. Also check your blood pressure and heart rate if you are feeling dizzy, excessively tired or sluggish throughout the day, or if you feel like you are anxious or heart is racing.

There is a log included with this booklet. Please document your daily blood pressure, heart rate and weight to provide to the surgical team at your follow up visit.



WHEN WILL I BE ABLE TO RETURN TO WORK?

The standard answer is about three months after your surgery, but it varies with the type of surgery, hospital course and type of work. Your doctor will discuss this with you before your discharge home or when you return to the clinic for your follow-up visit.

WHEN CAN I DRIVE A CAR?

This varies with each patient and their postoperative progression. In general, you will be released to drive short distances after two weeks from your surgery. This is solely based on how you feel and if you are taking narcotic pain medication. Your final release to resume driving will be provided at your surgical follow up appointment.

DO NOT DRIVE until released by your surgical team at this visit.

WHEN CAN I RESUME SEXUAL ACTIVITY?

In general, you are able to resume sexual activities when you feel comfortable. Sexual activity, as with any activity, should be postponed until you are rested with limited discomfort, usually 2-3 weeks after surgery.

CAN I LIFT ANYTHING?

Avoid lifting anything over 10 pounds for the first six weeks, nothing over 15 pounds until 12 weeks after your surgery. Lifting a heavy object will strain your muscles and pull on your breastbone. This will lead to discomfort and slow the healing of the breastbone. Therefore, do not lift children, large pets, groceries, garbage bags, etc. Avoid opening stuck windows and heavy doors, moving furniture, vacuuming, or shoveling mounds of dirt or snow. Avoid pushing, pulling and carrying objects up or down hills. This will put excessive pressure on your sternum and delay healing.

MUST I STOP SMOKING?

Without cigarette smoking, your lungs are cleaner. Your blood carries more oxygen. Your heart does not suffer from the toxic effects of inhaling cigarette smoke. Make an effort to stop smoking from now on. Ask people not to smoke in front of you. Request booklets from the American Heart Association and the American Lung Association on helpful hints to quit smoking. Use these tips to stop smoking. Also, consult with your surgical team, cardiologist or PCP about smoking cessation aids if needed (e.g., nicotine patch, medication).

WHAT MEDICATION WILL I BE TAKING AFTER I GO HOME?

Your medications may change after surgery, and you must **take only the medications prescribed by your surgeon upon discharge.** Your nurse and doctor will give you information about the medications you will take at home. You will receive prescriptions the day of discharge that you can fill at your local pharmacy, these may also be sent electronically. If there is any question as to what medications you should be on, please contact your surgery team ASAP.

HOW LONG WILL MY CHEST ACHE?

For a few weeks after surgery, you may feel a generalized soreness, especially in your shoulders and back. This often comes from muscles being stretched during surgery, the OR stretcher as well as the hospital bed. You may use a heating pad at home if desired. Remember, it takes up to three months for you to fully recover; it is a gradual process. You will be sent home with a mild narcotic to help with the pain/discomfort you feel. After one to two weeks, you should no longer need the narcotic. Instead, you may use over the counter Tylenol to relieve the generalized soreness in your shoulders, back and breastbone.

If your surgeon used the mammary artery for a bypass graft, you may feel pain along the left side of the incision over your left breast. This will gradually improve over several weeks, but you may have some residual numbness as well as nerve pain in the skin for several months.

Daily activity will be vital to assisting in eliminating most of your postsurgical muscle soreness.

SURGEON CONTACT INFO & FOLLOW-UP APPOINTMENTS

WHEN WILL I SEE MY DOCTOR?

You will return to see your surgeon or our surgical team APN for a postoperative visit 7 - 10 days from the date of your discharge, unless otherwise notified by your physician. Prior to your discharge you will receive your postoperative appointment time and date.

After your appointment, if your surgeon feels that there is no active issue of surgical concern, he will typically remain available and be updated by your cardiologist about your subsequent postoperative progress. If you are scheduled to participate in cardiac rehab, you will be released to proceed at this time.

You will have full access to contact your surgeon and his nurse via phone at **(501) 748-8400** with any surgical concerns. You will further be scheduled to see your cardiologist 4-6 weeks after your surgery for continued management. You will also need to contact your PCP to notify them of your recent surgery and schedule an appointment per their discretion.

YOUR SURGICAL FOLLOW-UP APPOINTMENT IS SCHEDULED FOR: _____

YOUR SURGICAL RN IS: _____

CARDIOLOGIST FOLLOW-UP APPOINTMENT: _____

PCP FOLLOW-UP APPOINTMENT: _____

PLEASE CONTACT YOUR SURGEON'S OFFICE FOR ANY POST-OPERATIVE QUESTIONS OR CONCERNS.



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