Preparing for Your Heart Surgery
Thank You for Choosing Us for Your Heart Surgery.

As your partner in health, we will do everything we can to live up to that trust, and to make your stay with us as comfortable and pleasant as possible. Expert doctors, specialty-trained heart nurses, therapists, case managers and state-of-the-art technologies all work together for the best possible outcomes with a patient-centered approach to care.

Before, during and after your surgery, our Heart Surgery Team will work closely with you. We encourage your active involvement in the whole process. If any issues come up during your treatment or you feel that we are not meeting your expectations, please let us know. We value your feedback.

Sincerely,

Your Heart Surgery Team

My Surgery Quick Facts

Surgeon: ____________________________

Surgeon Phone Number: ____________________________

Date & Time of Pre-Operative Appointment at Surgeon’s Office: ____________________________

Date & Time of Pre-Operative Assessment with Nurse: ____________________________

Date & Time of Surgery: ____________________________

Surgical Procedure: ____________________________

Hospital: ____________________________ Time You Should Arrive At The Hospital: ____________________________

Notes:

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**Introduction**

Our mission at Palomar Health is to heal, comfort and promote health in the communities we serve. Our goal is to provide you with a very good healthcare experience. You are the most important member of this team. Your Heart Surgery Team will work with you to make sure your needs are met.

**In this packet, you will find information on the following:**

- What to do before heart surgery
- What happens during heart surgery
- Care after heart surgery
- What to expect while you are in the hospital
- Care after you go home

**Please bring this packet to the:**

- Pre-admission heart surgery appointment
- Hospital when you have surgery
- Physical therapy meetings
- Doctor appointments after surgery

There may be questions you have and things that you would like to write down. Please use the “Notes” sections provided in this book to do so.
Heart Surgery Program Steps

The Heart Surgery Program is Made Up of the Following Steps:

1. Visiting the heart surgeon’s office to discuss your heart surgery.
2. Receiving a phone call from an assessment nurse to review pre-operative tests and instructions.
3. Knowing the necessary equipment needed after your surgery (heart pillow, incentive spirometer).
4. Being admitted to the hospital for surgery, followed by healing on the Intensive Care Unit and Cardiovascular Progressive Care Unit. Your Heart Surgery Team will include your doctor, nurses, therapists, dietitians, pharmacists and case managers.
5. Working with your Heart Surgery Team to develop a home plan. There are several home options based on your healing progress in the hospital, your available insurance options and your ability to care for yourself at home:
   - Home for healing with home care therapy and nursing, as needed
   - Home for healing, going to outpatient therapy
   - Skilled nursing facility for further healing, if needed, then home with therapy

   **NOTE:** If you plan to go home right after surgery, you will need your loved one to be available to help you for the first two weeks.

6. Going to follow-up visits at your doctor’s office.

Your Guide to Heart Surgery

Your average stay in the hospital is five days; however, there may be a time when the doctor thinks you require a longer stay.

Your Heart Surgery Team will continue to care for you and your family until you are ready to go home.

Ask your surgeon to provide your primary care physician with information on your condition and follow-up care.

In this packet, you will learn more about the:
- Heart Surgery Team
- Tests
- Treatments
- Medicines
- Diet
- Activities

If you have questions about this information, please ask any member of your Heart Surgery Team.

Healthcare Team

Who is on my Heart Surgery Team?

Heart Doctor(s):
Consulting MD(s):
Physician Assistant(s):
Nurse Practitioner(s):
Clinical Nurse Specialist(s):
Registered Nurse(s):
Respiratory Care Practitioner(s):
Physical Therapist(s):
Dietitian(s):
Case Manager(s):
Social Worker(s):

Tests

Your blood will be drawn regularly. You will have chest X-rays, electrocardiograms and an echocardiogram. Your heart rhythm will be monitored constantly.

Care and Treatment

Your treatment may include:
- Blood pressure, pulse, respiration and temperature (vital signs) checked regularly.
- Medication given through the vein (IV) or by mouth.
- Breathing tube placed during surgery.
- Coughing and deep breathing exercises after breathing tube is removed.
- Tubes placed to keep stomach empty and to drain your bladder.
- Chest tubes placed to drain fluid from the chest and reinflate your lungs.
- Temporary pacing wires placed.
Medications
After surgery, you may receive antibiotics to help prevent infection and pain medication to make you more comfortable as you move and do your breathing exercises. Some people worry about taking pain medications because they don’t want to become dependent on them, but that would be unusual during a short hospital stay after heart surgery. Other medications you may receive include:

- Anticoagulants (blood thinners)
- Heart medicine
- Blood pressure medication
- Aspirin
- Water pill (diuretic)
- Oxygen
- Potassium supplement
- Stool softener

Diet
You are not allowed to eat or drink before surgery. After surgery, you will start with sips of clear liquids and progress to solid foods as tolerated. Your fluid intake and output is measured while you are in the hospital. Before you leave the hospital, a dietitian may discuss a heart-healthy diet to follow at home.

Activities
You will get instructions about your activity level and will be assisted as needed. You may be asked to participate in activities (sitting up or walking) the same day as your surgery.

Education
Your nurses will tell you and your family what typically happens during your recovery. You may receive prescriptions and education on:

- Diet
- Wound care
- Medications
- Pain control
- Activity levels

Conclusion
This brochure is meant to guide you through your hospital stay. However, each person is different, and your hospital experience may differ from the general guidelines listed here. If you have questions about any of the tests, treatments or activities, please ask a member of your healthcare team.

Many of the care activities you start in the hospital will continue as you return home. If you have questions about what you need to do at home to ensure your successful recovery from cardiac surgery, ask a member of your healthcare team.

Notes:
Getting Ready for Heart Surgery

What You Need to Know Before Heart Surgery

The heart surgery is described in general terms. Your experience may be different. Ask your healthcare team questions about your own case. You will find general information about:

- Things to do to get ready for heart surgery.
- Your heart surgery.
- What usually happens in the hospital after heart surgery.
- What you can do to help recover from your heart surgery.

You are the most important member of your healthcare team. Your recovery depends on your active participation. Before and after heart surgery, you will meet and work with many different members of your healthcare team, including nurses, therapists, pharmacists and dietitians. Ask any member of your team questions you may have.

What you can do to help prepare:

- Read the written materials you are given.
- Make sure you complete the Pre-Surgery/Procedure Patient Checklist.
- Ask questions.

Preparing for Your Heart Surgery

What to Talk About Before Surgery

Talk with your healthcare provider about the following:

- When you will go to the hospital
- What happens before and during surgery
- Reasons for your surgery
- Risks of your surgery
- Advance directives
- Medications — which ones you should and should not take before surgery
- Any allergies or other reactions you have had to medications
- Any history of depression
- What you can expect after surgery
- Any other concerns about your surgery

What to Do Before Heart Surgery

- See your dentist. Dental problems could delay surgery.
- If you have diabetes, think about seeing a podiatrist before surgery to get your nails trimmed.
- Work with your family to make plans for your return home after surgery. Who will be able to help you?
- Choose the family spokesperson (Care Partner).
  Choosing a spokesperson may help to avoid misunderstandings. The person you choose can be responsible for talking with members of the healthcare team and passing on news to the rest of the family. Before your surgery, you will have to fill out a form that names your spokesperson.

Name of spokesperson: ________________________________________________
Phone number: __________________________________________________________________

Promoting a Healthy Recovery

As you get ready for heart surgery, there may be things you can do to help your recovery and speed your healing:

- If you use tobacco, you will be encouraged to quit before surgery.
- Eat a healthy, well-balanced diet.
- Stay as active as you can.
- Practice ways to relieve your stress, such as listening to music, meditation, deep breathing or guided imagery.
- Gather people around you who will support you during and after your surgery.
Pre-admission Interview

Several days before your heart surgery, you will be interviewed by a registered nurse from our assessment team. This is a confidential health history interview to identify specific things about you that help us plan ahead for your care. Please be prepared to tell us about your current medications, health conditions, allergies and other important health information. Our registered nurse will answer your questions and review any special instructions with you. For example, you may be asked to have diagnostic testing done, such as an EKG, blood draw or X-ray before the surgery. Be sure to ask about taking any of your current medications before surgery.

Plans to Make for Your Return Home

Before you come to the hospital for your heart surgery, work with your family to make plans for your hospital stay and make plans for your return home after surgery. Arrange for help for your return home after surgery.

- Ask your spouse, children, friends or neighbors whether they can help you for two weeks after you get home. You will not be able to drive for several weeks after surgery.
- Plan to lower your activity level for awhile. If you are a primary caregiver who takes care of another person, you will not be able to do so for awhile. Make plans for someone to take over for you before you go to the hospital.
- Organize your house before you go to the hospital, so you will not need to deal with housekeeping right after you return home.
- Prepare some meals ahead of time and freeze them.
- If you need to, stop mail delivery.
- If you have a pet, make plans for pet care before you go to the hospital.
- Do not lift more than 10 lbs., about what a gallon of milk weighs. This means that you will need help with daily activities such as grocery shopping and doing laundry.
- Make an appointment to see your cardiologist about one week after surgery.
- Make an appointment to see your cardiovascular surgeon about one week after surgery.

Lower Your Risk for Infection

- Skin bacteria are the most common cause of post-operative surgical wound infections. Before your heart surgery, shower as instructed below with a 4% chlorahexidine gluconate wash (available at most drug stores). Use the product label instructions. Use clean towels to dry and clean sheets to sleep.

Schedule below for showers:

- ___________________________
- ___________________________
- ___________________________

- Do not shave around your surgical area for at least two days prior to your surgery. Shaving will cause tiny nicks and cuts that increase your risk of infection.
- Stop smoking at least two weeks prior to your surgery. Smoking constricts your blood vessels and makes normal healing more difficult.
- Stay warm. Make sure you are warm when you come in for your surgery. Maintaining a warm body temperature lowers your chance for infection.
- If you have diabetes, keep your blood sugar below 200mg/dl. High blood sugar increases your risk for infection.

Insurance Information

Several days before your surgery you will receive a call from a member of our pre-arrival financial clearance team.

Your medical insurance may require that you pay a co-payment or deductible for this surgery. The amount depends on your insurance plan. Please plan to make this payment at the time your surgery/procedure is done. If you have questions regarding a co-payment or need financial assistance, please call Palomar Health Patient Financial Services at 858.675.5218.

The Day Before Your Heart Surgery

You may be in the hospital before your surgery, or you may come to the hospital the morning of your surgery. If you are not in the hospital already, you will be asked to come to the hospital 2 hours before to your scheduled surgery time.

- Follow fasting instructions and any other instructions you get from a member of the health-care team about coming to the hospital.
- Follow shower instructions above using the special soap.
- Get a good night’s rest before surgery. If you are in the hospital the night before surgery and have trouble falling asleep, tell your healthcare provider. You may be given a medication to help you sleep or relax.
Day of Your Heart Surgery

Preparing at Home

- Do not eat or drink anything except clear liquids after midnight the night before your surgery (clear liquids include water, black coffee (no creamer), tea, apple juice, clear soda and other non-red juices you can see through).
- Leave valuables at home. (Do not bring large amounts of money, jewelry, perfumes, lotions or valuables such as cell phones and laptops to the hospital. The hospital cannot be held responsible for your valuables.)
- Take your showers according to the instructions on page 13.
- Wear loose, comfortable and clean clothing.
- Do not wear make-up, nail polish, contact lenses, watches or jewelry.
- On the day of your surgery, take medications only as instructed by your doctor or pre-admission nurse, with just enough water to swallow comfortably.

What to Bring

- This heart surgery guide, insurance and prescription cards
- A list of medications, including name, dose and how often you take each one.
- Inhalers (if needed)
- Eye drops (if needed)
- Financial payment, if required by your insurance provider.
- Personal hygiene items like a toothbrush, hair brush and shaving equipment. Women, bring a comfortable wireless supportive bra with front hook closure.
- A copy of your Advance Directive (if available)
- A case to hold items such as dentures, hearing aids or glasses
- Devices you need to help you walk, such as prosthesis
- Hearing aids

Arrival Time

When you arrive, please proceed to Registration to begin your check-in process. It is important to arrive two hours before your scheduled heart surgery time in order to complete the following items prior to your surgery:

- Registration paperwork
- Preparation for surgery with your pre-op nurse
- Meeting with your anesthesiologist

Heart Surgery Schedule Time Changes

We do everything we can to assure schedule changes are not made, but time changes may occur. If we need to change the start time of your surgery/procedure, you will be notified of the most updated schedule as soon as we know that your scheduled time has changed.

Preparing You for Heart Surgery

After registration, you will be escorted to the surgical area where you will be prepared for surgery and the following will occur:

- Taking your blood pressure, pulse and temperature.
- Clipping of any hair in the area of your surgery.
- Starting an IV (intravenous) in your arm or hand to be used for medicine and/or fluids during and after surgery.

Your family and friends may be able to join you in the surgical area while you are being prepared for surgery. During surgery, your family will be escorted to the surgery waiting area. There will be a nurse liaison for them to check in with while waiting.

For Your Safety

You will be asked to sign a consent form confirming that you understand and agree to the surgery you are going to have. Before you sign, make sure you verify that your name, date of birth, your doctor’s name and the surgery being performed are correct. If there is anything you don’t understand, or if you have any questions, please ask us.

Expect that we will ask your name and date of birth several times. Don’t be alarmed. This is done for your safety. It ensures that everyone knows we have the correct patient for the correct surgery. Your doctor may place a mark on your body where the surgery is to be done.

Tell the anesthesiologist about all of your medications and supplements/vitamins you are taking. Talk about any medical conditions you may have, including diabetes or high blood sugar. Let the anesthesiologist know about any past experiences you may have had with anesthesia.
Anesthesia Care

Because your safety is our primary concern at Palomar Health, we are proud to provide our patients an all-physician anesthesia team. These members of Anesthesia Consultants of California Medical Group (ACCMG) are all highly trained, Board Certified (or eligible) specialists.

These highly-trained doctors will take charge of your safety and comfort before, during and immediately after your procedure. They will stay with you throughout your surgery, keeping a close eye on your vital body functions while giving you medications to relax you, block pain and/or make you completely asleep for your surgery.

You will meet your anesthesia doctor shortly before your surgery for an examination and to review your medical history, allergies, current medications, surgical history and previous experience with anesthesia, such as nausea or vomiting.

The best anesthesia for you will depend on your past and current health, your test results and the type of surgery/procedure you are having. Your anesthesia doctor will discuss your options, including the benefits and possible risks or side effects.

General Anesthesia

You will be completely asleep, have no sensation of pain and be unaware of surgery.

Surgical Patient Checklist

Preparation is extremely important to assure your best outcome. At this time, you want to prepare yourself physically and emotionally for a successful surgery. Please go over this list the day before your surgery.

- Do not eat or drink anything except clear liquids after midnight the night before your surgery.
- Follow shower instructions with special soap on page 13.
- Remove all nail coverings (nail polish, acrylic nails, etc.).
- You may brush your teeth and rinse your mouth the day of your surgery.
- Take your medications as instructed by your doctor or pre-admission nurse. Bring any inhalers with you and your C-PAP machine if you use one.
- Bring a current list of your medications including the dosage and times you take them.
- Complete any paperwork your doctor gave you and bring it with you, for example the Health History Questionnaire.
- Bring your health insurance card, photo identification and co-payment.
- Leave all valuables such as jewelry, watch, purse or cash at home.
- Bring a case for your eyeglasses or contact lenses, hearing aids or dentures.
- Wear comfortable and clean clothing that will be easy for you to put back on after your surgery. Avoid buttons and snaps if possible.
- If you have a heart defibrillator or an AICD, please let the pre-admission nurse know in advance.
- Please have a responsible adult available to accompany/drive you home and stay with you at home after your surgery.
- If you feel sick, call your doctor immediately for instructions.

If You Have Any Pre-admissions Questions, Please Call Us:

Palomar Medical Center Escondido / Poway Pre-Admissions
858.613.6171
If after hours, please call the Nurse Practitioner for Cardiology
442.281.2351
About Your Heart Surgery

This section has general information about heart surgery. Ask your healthcare team questions about your own case. Surgery is a little different for each person.

Risks of Heart Surgery

With any surgery, complications can occur. Although unlikely, here are some risks of heart surgery:

- Bleeding
- Infection
- Breathing problems
- Injury to nerves
- Kidney failure
- Heart attack or stroke
- Death

Risks are different for each person. Talk with your surgeon about your risks related to heart surgery.

Chest Incision

To operate on your heart, in most cases the surgeon makes an incision in the center of your chest. The flat bone in the center of your chest, the sternum, is divided. At the end of the operation, the bone is wired together to prevent movement and to help it to heal. This also lessens the discomfort while it heals. These wires do not need to be removed. This bone must be treated with care, just like any other broken bone until it is completely healed.

Cardiopulmonary Bypass

Cardiopulmonary bypass is used for most heart surgery. Bypass means a machine does the work of your heart and lungs during surgery. The bypass or heart-lung machine is a pump. This pump takes blood from the great veins before they empty into the heart. The pump then passes the blood through a chamber where oxygen is added. Then it sends the blood back into the body. Bypass lets your surgeon work on your heart while your heart rests.

For Family Members and Friends

You may be able to join your loved one in the surgical area while your loved one is being prepared for surgery. During surgery, you will be escorted to the surgery waiting area. There will be a nurse liaison for you to check in with while waiting.
Palomar Medical Center Escondido
Parking and Arrival for Surgery
2185 Citracado Parkway
Escondido, CA 92029
442.281.5000

Where Do I Park?
On the day of surgery, please arrive at Palomar Medical Center Escondido 2 hours before your scheduled surgery time. Valet Parking is available at the main entrance for a small fee (ADA no charge) or you can park in any available space near the hospital.

Where Do I Go Once I Arrive?
Once you have parked, follow the signs toward the hospital’s main entrance. Registration is located on the 1st level. You will be checked in for surgery and escorted to the surgery waiting area on the 2nd level.

Where Can My Loved Ones Wait?
There is a comfortable surgery waiting area located on the 2nd level.

Palomar Medical Center Poway
Outpatient Services and Appointments
Parking Information
15615 Pomerado Road
Poway, CA 92064
442.281.3400

Where Do I Park?
Parking is available near the main entrance or in our main parking garage located behind Pomerado Outpatient Pavilion.
Palomar Health San Marcos
Outpatient Services and Appointments

Parking Information
120 Craven Road
San Marcos, CA 92078
442.281.3400

Where Do I Park?
Parking is available in the flat lot located outside the main entrance.

For Family and Friends
Staff members share information from the operating room with you as it comes to them. When your family member is off the bypass (heart-lung) machine, you are called. “Off bypass” means that the main part of the surgery is over and that the heart is working on its own.

The surgeon will update you after the procedure.

After your family member goes to ICU, a staff member takes you to the ICU waiting area on the 5th floor. The process of getting your family member from surgery to settle in ICU usually takes about 45 minutes to 1 hour.

Following are general descriptions of different types of heart surgery. Look for the section that applies to you. You don’t have to read the other sections.

Coronary Artery Bypass Grafts

The heart muscle gets blood from the coronary arteries. These arteries branch off the aorta just as it leaves the heart. The right coronary artery sends blood to the bottom and back of the heart. The left coronary artery, which has two major branches, sends blood to the top, front, side and back of the heart.

The heart muscle gets blood from the right and left coronary arteries and their branches. Dotted lines show structures on the other side of the heart.
Coronary artery bypass grafts allow blood to flow from the aorta to the heart muscle around the blocked parts of the blood vessels.

If your coronary arteries become narrowed or blocked, your heart may not get enough blood. During coronary artery bypass surgery, the surgeon places grafts around blocked or narrowed vessels so that blood can flow past the blocked area and get to your heart muscle.

To create a bypass graft, the surgeon may use the saphenous vein from the inner side of the leg, the internal mammary artery (IMA) from the chest or the radial artery from the forearm. Some people may have a combination of grafts. These vessels are “extra” blood vessels your body does not need.

To make a bypass graft with the saphenous vein or the radial artery, the vein or artery is taken from its normal location. One end of the vein or artery is connected to the aorta above the blocked coronary artery. The other end is connected to the coronary artery beyond the blocked area. The blocked part of the artery is not removed; it is bypassed. The grafts go around the blocked part like a detour when a road is blocked.

The left and right internal mammary arteries run underneath your chest wall. They are about an inch to the left or right of the center. To make a bypass graft with the internal mammary artery, the surgeon frees the artery from the inside of the chest wall and attaches it directly to one or more coronary arteries beyond the blocked part.

After surgery, some people notice a pulling sensation or numbness of the skin on the chest just to the left or right of the sternum. This is because the nerves to this area are close to the internal mammary artery. These nerves may be affected when the artery is taken. This feeling generally goes away with time.

Heart Valve Repair or Replacement

The heart has four chambers: the right atrium, the left atrium and the right and left ventricles. Valves control the blood flow to and from the chambers. The right atrium gets blood from the body, while the left atrium gets oxygen-filled blood from the lungs. The right and left ventricles pump blood out of the heart.

For the heart to pump efficiently, the four valves of the heart must open completely and freely to let blood flow forward. If the valves do not open completely, the heart has to work harder to pump the blood forward past the blockage. If the valves leak or are held partly open, some blood flows backward so that the heart has to pump extra blood.

Valves may need to be repaired or replaced if they become narrowed or do not open and close as they should. Several kinds of replacement valves are available, including different kinds of tissue or mechanical valve(s). Mechanical valves are made from man-made materials. Tissue valves are made using animal or human tissue.
After Your Heart Surgery

What to Expect After Your Surgery

Intensive Care Unit (ICU)
You are taken to the ICU right after surgery. In the ICU, you are closely monitored, day and night. While you are asleep in surgery, several tubes and drains are placed. Chest tubes drain excess blood from around the heart and lungs into a container. A tube may be passed through your nose and throat into your stomach to keep it empty. At first, you get fluids and medications intravenously (IV) through a catheter.

Breathing Tube
After surgery, the condition of the lungs is very important. A breathing tube, called an endotracheal tube, is inserted through your nose or mouth in the operating room.

This tube helps you breathe while under anesthesia, helps clear secretions from your lungs and helps lessen the workload of the heart.

The tube is not painful, but it is uncomfortable. The staff know this and do everything possible to lessen your discomfort. While the tube is in place, you cannot talk because the tube passes through the voice box. Nurses can help you communicate. The endotracheal tube is removed when you can breathe on your own.

When the breathing tube is removed, you will get oxygen through a mask or nasal cannula, a tube in your nose. You may have either a raspy voice or a sore throat or both after the tube is removed.

For Family and Friends
After your family member is settled in the ICU, you can visit. The first time in the ICU may be difficult for you. You may feel uncomfortable hearing unusual sounds and seeing all the monitoring equipment used in the ICU.

When you see your family member right after surgery, he or she may not look like himself or herself. He or she may look pale and swollen and be connected to machines to help with breathing. Your family member may be cool to the touch and may not respond to you right away.

Your visits and support are important. Even though your family member may not seem to know you are there, you can talk and hold his or her hand. This may help your family member know you are there.

Hospital staff need to know where a family member can be reached at all times. Be sure to leave your contact information with the primary nurse caring for your loved one.
Disorientation

After heart surgery, some people get disorientated. This means their alertness changes over the course of a day. Disorientation occurs when there are changes in the way the brain works. Usually, disorientation lasts for a time and then goes away. Illness, pain and some medications can cause confusion. If you have disorientation, you may have a longer hospital stay.

**Signs of disorientation may include:**
- Problems understanding and reasoning
- Lack of ability to concentrate
- Confusion
- Changing levels of consciousness, going from sleepiness to an excited state
- Hallucinations
- Lack of cooperation

Some events in the hospital may bring on disorientation:
- An increase or change in medications
- A long time under anesthesia
- Excessive blood loss
- Infection
- New surroundings

In the ICU, you are checked all the time, day and night. You may notice many unusual sounds from the equipment. Also, members of your healthcare team are in your room often — day and night — to care for you. Because of all this activity, you may not sleep well the first few days after surgery. If you have trouble sleeping, talk to the healthcare team. Sleeping aids may be available.

**Disorientation**

Other causes of confusion in the hospital may be lack of sleep or changes to the normal day-and-night routine.

Confusion generally gets better after the patient leaves the ICU, but some symptoms may continue. If you have confusion in the ICU, it does not mean that you will have trouble with confusion after you go home. Ask a member of the healthcare team any questions you have about confusion.

**For Family and Friends**

Treatment of disorientation depends on the causes. Both the healthcare team and family members can help to lessen the sense of anxiety and unfamiliarity that may contribute to disorientation:
- Explain to the person what is happening.
- Call the person by name and mention the date and time.
- Discuss current events and interests.
- Provide a structured routine.
- Make the surroundings as calm and quiet as possible.
- Help to keep some kind of sleep schedule so that the person is awake during the day and sleeping at night.
- Encourage the use of glasses and hearing aids if needed.
- Bring familiar objects from home, such as a favorite bathrobe or family photos.

Although medications are commonly used to lessen agitation and uncontrolled behavior, at times it may be necessary to use physical restraints to promote safety.

Your presence may help to calm your family member.
How long you stay in the ICU depends on many things. When your surgeon decides that you no longer need the special facilities of the ICU, you move to the Cardiovascular Progressive Care Unit.

**Cardiovascular Progressive Care Unit (CPCU)**

When you go to the CPCU, you may still have several IVs, a temporary pacemaker, chest tubes, a urinary catheter and oxygen. When you move to the CPCU, your healthcare team still monitors your heart rhythm all the time. Changes in rhythm are treated as they occur. Also, your physicians will order frequent blood tests.

The nursing staff will work with you to increase your activity level even while you are monitored. As your strength increases, your healthcare team will encourage you to walk farther and spend more time out of bed.

Short rest periods throughout the day may help as you increase your activity. Get out of bed for all meals.

Continue to cough and do deep-breathing exercises on your own. Coughing is very important to keep your lungs clear. The nurses will continue to encourage you to cough and do your deep-breathing exercises. The nurses may show you how to cough using a heart pillow for support. The pillow may help lessen discomfort. Women may wish to wear a comfortable, supportive bra with clasp in the front to help support the incision. Coughing does not interfere with the healing of your incision.

A dietitian is available to help you plan your diet and answer questions. Ask your healthcare provider any questions you have about your diet.

It is important for you to return to regular bowel habits after surgery. Talk with members of your healthcare team about what you can do for regular bowel movements. Some pain medications can cause constipation.

How long you stay in the CPCU varies and depends on many factors. Your healthcare team will work with you to plan for your date of discharge from the hospital. Your healthcare team will also help to set up transitional care or home health nursing, if you qualify for it.

**Heart Rhythm Changes**

Your healthcare team will monitor your heart rhythm closely after surgery. Many people have small changes in heart rhythm after surgery. Changes in heart rhythm are treated as they occur by treating the cause. Medications may be used to treat changes in heart rhythm.

**Atrial Fibrillation**

One common type of irregular heartbeat, or arrhythmia, is atrial fibrillation. Atrial fibrillation starts in the upper chambers of the heart, the atria. When it occurs, you may feel tired and weak. You also may notice odd feelings of fluttering in your chest.

Short periods of atrial fibrillation are not life threatening. Changes in your heart rhythm after heart surgery are common and may go away as you recover. However, tell your healthcare provider about any odd feelings in your chest or if you feel your pulse is not regular.

**Pain Management**

After surgery, some pain and anxiety are normal. Managing your pain is important because it helps you to recover more quickly. If your pain is under control, you can do what you need to do to get better, such as cough, deep breathe, and walk. Pain may delay healing. You may slow your recovery when you try to “tough it out.” There are many ways to control pain. Ask for medication to control pain when you need it. Follow these medication tips to help control your pain following surgery:

- Take your medication as ordered and as needed.
- Take your medication 30 to 40 minutes before you get up, move around or go to therapy.
- Ask about possible side effects.
- Tell your nurse, anesthesiologist or doctor if the pain does not improve.
- Know that it is rare to become addicted to the pain medication used in surgery.
- Know that medication will reduce but not take away all of your pain.
We recognize that pain is an individual experience and not all regimes and plans suit everybody. Your pain will be assessed at regular intervals.

When you are anxious, your pain may feel worse. Members of your healthcare team can work with you to help you manage your anxiety and pain.

Medication and other treatments such as distraction and relaxation are available and may help you with your pain and anxiety. Since you are the best judge of how you feel, tell your healthcare provider when you need help.

Pain is rated on a scale of 0 to 10, with 0 meaning no pain and 10 meaning the worst pain you can imagine. You will be asked to rate your level of pain using a pain scale. Discuss your goal for pain control with your healthcare provider.

If your pain isn’t under control, tell your healthcare provider right away. If your pain goes untreated for a lengthy amount of time, it will take longer to get relief. Some people worry about getting addicted to pain medications, but that would be unusual during a hospital stay after heart surgery.

Sleep
Lack of sleep affects your energy level and your mental functioning. Getting enough restful sleep while you are in the hospital may help you do what you need to do to get better, such as cough, deep breathe and walk. When you are rested, your immune system is stronger and you may recover faster.

As you recover from sickness or surgery, you may need more sleep than usual. Tell your healthcare team if you are having trouble sleeping while you are in the hospital.

Your healthcare provider may ask about your sleep in the past. If you have had problems sleeping, think about what has worked for you in the past.

Some things that may help you sleep include:
- Music
- Ear plugs or eye mask
- Warm drink
- Deep breathing or relaxation exercise
- Medication

Nausea
Nausea is a feeling of stomach upset. When you have nausea, you also may feel like you are going to throw up. After heart surgery, some people have nausea. It can be caused by the anesthesia used during the surgery or by medications given to you after surgery.

If you have problems with nausea after surgery, tell your healthcare provider. Your healthcare provider will work with you to reduce your nausea.

Conclusion
Remember, you are the most important member of your healthcare team. This information is meant to help you prepare for heart surgery.

Review the material and be sure to ask questions whenever you have them.

For Family and Friends
Encourage your loved one to take pain medication regularly. This may help keep the pain under control. Talk with the healthcare team if you are concerned about their pain and discomfort. The healthcare provider may be able to suggest things you can do to help.
Recovering From Your Heart Surgery

Recovery Plan While You Are in the Hospital
While you are in the hospital, your goal is to be able to do your personal care and daily activities before you go home. The healthcare team will work with you as you start on your road to recovery.

Usually, you can expect to be in the hospital about five days after your surgery. Each person’s activities and length of stay are different. If you have questions, talk with a member of your healthcare team.

While you are in the hospital, work with your healthcare team. Your participation and the participation of the person who will help with your care at home are important.

Activities
■ Do breathing and coughing exercises every hour that you’re awake, as instructed after your breathing tube is taken out.
■ Use your heart pillow to support your chest incision when you cough.
■ Follow precautions to protect your chest incision as instructed.
■ You and your family will start to do your daily care, such as bathing, brushing your teeth and combing your hair.
■ Sit in a chair for your meals.
■ You are encouraged to walk frequently throughout the day, increasing your distance each time. At first you will have help. Increase how far you walk each time. Walk up to eight times a day before you leave the hospital.

Diet
■ You may start to have ice chips and drink non-carbohydrate liquids after the breathing tube is taken out.
■ You and your healthcare team will work together to decide how your diet will progress.

Tests
■ You will have blood tests, chest x-rays and echocardiograms as needed.

Medication and Equipment
■ You may get oxygen through a mask or a nasal cannula after your breathing tube is taken out.
■ You will have a urinary catheter for a couple of days after surgery.
■ As you start to eat and drink, some of your IVs will be taken out.
■ Your pain medication will change from IV medication to pills as you begin to eat and drink.
■ Tell your nurse if your pain is not under control.

Plan for Going Home
■ You and your healthcare team will discuss your plans for leaving the hospital and follow-up plans.

Your Day-By-Day Post-Surgery Care Guide

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<th>Days After Surgery</th>
<th>You May Receive These Tests</th>
<th>Treatment and Care Plan</th>
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<td>Blood tests</td>
<td>Vital signs every 2–4 hours, or as needed</td>
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<tr>
<td></td>
<td>Chest X-ray</td>
<td>Daily weight check</td>
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<tr>
<td></td>
<td>ECG as needed</td>
<td>IV access</td>
</tr>
<tr>
<td></td>
<td>Heart monitor</td>
<td>Bladder catheter may be removed</td>
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<tr>
<td></td>
<td>Pulse oximeter</td>
<td>Chest tube may be removed</td>
</tr>
<tr>
<td></td>
<td>Other tests as needed</td>
<td>Temporary pacemaker wires in place</td>
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<tr>
<td></td>
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<td>Breathing exercises every 1–2 hours while awake</td>
</tr>
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<td>Wound care – Special dressing may be in place for up to 5 days.</td>
</tr>
<tr>
<td>Day 2</td>
<td>Blood tests</td>
<td>Vital signs every 4–8 hours, or as needed</td>
</tr>
<tr>
<td></td>
<td>CXR as needed</td>
<td>Daily weight check</td>
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<tr>
<td></td>
<td>Heart monitor</td>
<td>IV access</td>
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<tr>
<td></td>
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<td></td>
<td>Wound care – Special dressing may be in place for up to 5 days.</td>
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</table>
## Your Day-By-Day Nursing Care Guide

### Days After Surgery

<table>
<thead>
<tr>
<th>Day 1</th>
<th>Your Nurse May Ask You To Try These Activities</th>
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<tbody>
<tr>
<td></td>
<td>Sternal precautions Use your heart pillow to support your chest incision</td>
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<tr>
<td></td>
<td>Daily plan of care</td>
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<td></td>
<td>Pain control</td>
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<td>Activity level/progression</td>
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<table>
<thead>
<tr>
<th>Day 2</th>
<th>Your Nurse Will Go Over This Information With You</th>
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<tbody>
<tr>
<td></td>
<td>Daily weight check</td>
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<tr>
<td></td>
<td>IV access</td>
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<td></td>
<td>Breathing exercises every hour while awake</td>
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<tr>
<td></td>
<td>Wound care – Special dressing may be in place for up to 5 days</td>
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### Day 1 Cont.

<table>
<thead>
<tr>
<th></th>
<th>Sit in chair for all meals, at least 2 or more hours each time</th>
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<tbody>
<tr>
<td></td>
<td>Elevate legs while sitting</td>
</tr>
<tr>
<td></td>
<td>Walk in hall with staff assistance (increase frequency and distance)</td>
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</table>

<table>
<thead>
<tr>
<th>Day 2</th>
<th>Sternal precautions</th>
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<tbody>
<tr>
<td></td>
<td>Use your heart pillow to support your chest incision</td>
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<tr>
<td></td>
<td>Elevate legs while sitting</td>
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<tr>
<td></td>
<td>Walk in hall with staff assistance 3–4 times a day</td>
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<table>
<thead>
<tr>
<th>Day 3</th>
<th>Sternal precautions</th>
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<tbody>
<tr>
<td></td>
<td>Use your heart pillow to support your chest incision</td>
</tr>
<tr>
<td></td>
<td>Sit in chair for all meals, at least 2 or more hours each time</td>
</tr>
<tr>
<td></td>
<td>Elevate legs while sitting</td>
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<tr>
<td></td>
<td>Walk in hall with staff assistance 4–6 times a day</td>
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<table>
<thead>
<tr>
<th></th>
<th>Plan of care</th>
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<tbody>
<tr>
<td></td>
<td>Discharge teaching/planning</td>
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<tr>
<td></td>
<td>New medications</td>
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<td></td>
<td>Heart healthy diet</td>
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<td>Cardiac rehabilitation</td>
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<tr>
<th>Day 4</th>
<th>Sternal precautions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Use your heart pillow to support your chest incision</td>
</tr>
<tr>
<td></td>
<td>Sit in chair for all meals, at least 2 or more hours each time</td>
</tr>
<tr>
<td></td>
<td>Elevate legs while sitting</td>
</tr>
<tr>
<td></td>
<td>Walk in hall with staff assistance 6–8 times a day</td>
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<table>
<thead>
<tr>
<th></th>
<th>Shower with help after temporary pacemaker wires have been removed</th>
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<tr>
<td></td>
<td>Plan of care</td>
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<tr>
<td></td>
<td>Discharge teaching/planning</td>
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<tr>
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<td>New medications</td>
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<td>Cardiac rehabilitation</td>
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<thead>
<tr>
<th>Day 5</th>
<th>Sternal precautions</th>
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<tbody>
<tr>
<td></td>
<td>Use your heart pillow to support your chest incision</td>
</tr>
<tr>
<td></td>
<td>Shower and self-care activities</td>
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<table>
<thead>
<tr>
<th></th>
<th>Plan of care</th>
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<tbody>
<tr>
<td></td>
<td>Discharge teaching: medications; diet; food &amp; drug interactions; wellness &amp; lifestyle changes; activity restrictions; driving; sexual activity; monitor heart rate; pain management, sleep management; wound care; when to call for help</td>
</tr>
</tbody>
</table>

|       | Discharge planning: home health arrangement |
Day 5 Cont.
■ Sit in chair for all meals, at least 2 or more hours each time
■ Elevate legs while sitting
■ Walk in hall with staff assistance 6–8 times a day

Prescriptions
Return appointments
When to contact your physician

Please Adhere To Strict Sternal Precautions
Our surgeons require sternal precautions after all open heart surgeries involving sternotomy. There are the following instructions:

- Use “heart” pillow to embrace chest when you cough, deep breathe or sneeze
- Do not lift, push or pull more than 10 pounds
- Do no reach behind yourself with both arms at the same time

What you should do while in the hospital:
- Keep your “heart” pillow within reach at all times
- When moving from a lying to sitting position:
  - Keep arms within a pain free range
  - Keep arms as close to your sides as possible
  - It is ok to use the side rail for assistance
- To stand:
  - Use one arm to push off the surface of the bed or chair
  - Try to keep your arms close to your sides
  - Do not use the arm rests to push up
  - Do not let others push or pull on your arms or lift under arms when assisting with moving
  - Use a gait belt or waistband to assist with standing
- Physical Therapists may have you use a walker after you have been cleared. Discuss a walker with your physical therapist before using
- Do not use one-sided walking supports such as canes and crutches

Ask for extra assistance if you are physically unable to comply with these sternal precautions during all activity and mobility.

Do not hesitate to ask your nurse, physical therapists and doctors if you have any questions.

Follow-up Appointments May Include:
- Cardiac Surgeon
- Cardiologist
- Primary Care Doctor
- Cardiac Rehab (see page 51)

Feelings After Heart Surgery
As you start to feel better physically, it is common to feel many different emotions. Emotions often follow a common pattern, starting with denial, followed by distress, fear and anger.

It is normal to notice changes in appetite and sleep patterns after surgery. Foods may not taste “right.” Choose foods that sound good to you and that are good for you. Your appetite should get better as you recover.

Your sleep patterns may be disrupted while you are in the hospital and for a few weeks after you are home. You may have trouble falling asleep or you may wake up in the middle of the night. Talk to your healthcare team if you have trouble sleeping.

After surgery, you may feel down occasionally. But after a short time, most people start to feel better. If those sad, lonely, irritable or tired feelings don’t go away, you may have depression. If feelings of sadness last for a long time, talk with a member of your healthcare team. Medication or therapy or both can be used to help you.

Symptoms of depression include:
- Persistent sadness
- Irritability
- Overwhelming feelings of anxiety
- Loss of interest or pleasure in life
- Neglect of personal responsibilities or personal care
- Changes in eating habits
- Changes in sleeping patterns
- Tiredness or loss of energy
- Big mood changes
- Feeling helpless, hopeless or worthless
- Physical symptoms, such as headaches or chronic pain, that don’t get better
- Increased alcohol or drug use

Talk to your healthcare provider if you have any of these symptoms for more than 7 to 10 days. If you find yourself thinking about suicide or making a suicide plan, get medical help immediately.
For Family and Friends
When a loved one is ill, you may forget about taking care of yourself. Your support will be important during your loved one’s recovery, so you must take care of your own health. Take care of your physical, emotional and spiritual needs so that you can stay well and support your loved one as he or she recovers.

Physical Needs
Physical needs include rest and sleep, physical exercise and a healthy diet. If you are sick, you can’t help your loved one. It is important for you to stay healthy and get medical care right away if you get sick. Give yourself time to recover from an illness.

Emotional Needs
Emotional needs include support, reassurance, mental exercise and free-time activities. It is important to meet your emotional needs because they are closely related to your physical health.

Spiritual Needs
Spiritual needs include inner peace and strength. Many things that help meet physical and emotional needs also support your spiritual needs. A short quiet time or relaxation exercises may help you meet your spiritual needs. A chaplain service is available. Recovering from heart surgery can be hard for both the patient and the family. You, too, need support and reassurance as you help your loved one during his or her recovery. While your loved one is in the hospital, ask a member of the healthcare team about available support services.

Medications
After your heart surgery, your medications may change. You may have some new medications. Take only the medications that your healthcare provider prescribes. Check with your healthcare provider before you take over-the-counter medications or herbal supplements. Over-the-counter medications and supplements may cause unwanted side effects if you take them with your prescribed medications.

Before you leave the hospital, ask any questions you have about your medications. Make sure you understand what medications you should take and when to refill your prescriptions.

Tell your healthcare provider if:
- You are allergic or have had a reaction to any medication.
- You have taken any medication in the last few weeks, including birth control pills and over-the-counter medications such as pain relievers, cold, allergy or flu medicines, antacids, laxatives, vitamins or herbal medications.
- You have trouble taking off child-proof caps.
- You are pregnant, intend to become pregnant or are breastfeeding.
- You have had a change in your health or eating habits.
- You do not understand the directions on the label of your medicine container.

Important Things to Know About Your Medications
Make sure you know the following about each of your medications:
- The name of the medication and what it is used for.
- When to take the medication, for example, the time of day and how many times a day.
- How to take the medication, for example, with food or on an empty stomach?
- How long to continue to take the medication.
- What to do if you forget to take a dose.
- The possible side effects of the medication.
- Whether you can drink alcohol while you are on the medication.
- Possible interactions of over-the-counter medications or herbal supplements with your prescription medications.
Before you leave the hospital, you get prescriptions for one month’s supply of your medications. You may have the prescriptions filled at the hospital or take them to an outside pharmacy. Do not stop taking your medications after one month unless you are told to by your healthcare provider.

Tips for Taking Your Medications
The following ideas may help you take your medications as prescribed:

- Try to take your medications at the same times as other daily routine activities, such as at mealtimes or when brushing your teeth.
- Take your medications exactly as your healthcare provider prescribes. Always take the complete dose.
- Make a written schedule for your medications, so you know exactly when to take them.
- Do not drive or operate machinery when you are taking medications that make you sleepy.
- Do not cut, crush or chew a tablet or capsule unless you have been told it is OK to do this.
- Do not share your medications or take medication prescribed for another person.
- Do not stop taking medication without first talking to your healthcare provider.
- If you are traveling, take your medications in your carry-on bag.

Filling Your Prescriptions
Get all your prescriptions filled at the same pharmacy if possible. Then your pharmacist can keep a list of all your medications and let you know about possible problems if some medications are combined.

Fill your prescriptions on a weekday, so your pharmacist can call your healthcare provider, if needed.

Side Effects
Medications may have unpleasant or even dangerous effects in one person but not in another. Contact your healthcare provider if you have new symptoms after you start a medication. Do not stop taking any medication without first talking to your healthcare provider.

Storing Your Medications
Follow these guidelines when storing your medications:

- Keep medications in the containers they come in. Keep the caps on tightly.
- Store medications in a cool, dry place away from direct sunlight. Do not store medications in the bathroom because the air is too humid.
- Keep medications out of children’s reach and sight. If you can, lock up your medications.
- Do not let liquid medicines freeze.
- Do not store medications in the refrigerator unless you are told to do so.

Ask your healthcare provider or pharmacist any questions you have about your medications.

Going Home
Members of your healthcare team will work with you to assess your needs when you are ready to leave the hospital.

Often people need extra support for a short time. Your healthcare team can help you decide if you need transitional care or long-term care or need to go to a rehabilitation facility before you return home. They can also help you figure out if you qualify for nursing help at home.

If you are ready to go home, your healthcare team may help you to make plans for the first few weeks. For example, if your house has two stories, you may need to sleep on the main floor for the first few weeks. Or you may need help with personal care. Before you leave the hospital, ask members of your healthcare team how to get your home ready for your recovery.

Care of Your Incision and Chest Tube Sites
Keep the incision and chest tube sites clean and leave them open to air until they are healed. You may shower. Use mild soap and warm water. If you take a tub bath, do not soak your incision or chest tube sites. Be careful when climbing in and out of the bathtub. Do not put creams, lotion or powder on your incisions until they are well healed. Pat incisions dry with a clean, dry towel after your shower. Do not scrub incisions.

Normally, as your incision heals, you will have soreness, numbness, bruising, redness, swelling and itching. Do not scratch your incisions. You can expect some clear or pinkish drainage from your incisions. These symptoms gradually go away as you heal.

Normal drainage is clear yellow or pinkish. If the drainage has pus, is bright red, is thick or smells bad, contact your healthcare provider right away.

Your chest tube sites may need a stitch. As they heal, they may get a scab.

Look at your incisions every day for possible signs of infection, which include:

- A temperature of 100.4 degrees Fahrenheit (38 degrees Celsius) or higher
- Increased tenderness, redness, drainage or bad smell from any of the incision sites
- Increased shortness of breath
- Increased pain

If you have any of these signs, please contact your healthcare provider.

Activities
Your back may feel sore between your shoulders after your surgery. This is because spreading the sternum during surgery puts pressure on your back and shoulders. A gentle massage may help with the soreness. This gets better as you heal.

Avoid activities in which you push, pull or lift more than 10 pounds, about what a gallon of milk weighs, for about six to eight weeks after your heart surgery.

Talk with your surgeon about your activity restrictions. Restrictions are different for different kinds of surgery.
Examples of Activities You Should Avoid Include:

- Mowing the lawn
- Raking leaves
- Shoveling snow
- Laundry – especially lifting baskets of wet clothing
- Vacuuming
- Wet mopping
- Opening frozen windows
- Opening tight jars
- Lifting, pushing or pulling things that weigh more than a gallon of milk
- Carrying groceries
- Sleeping on your stomach

Do not take total responsibility for housework, child care or meal preparation right away when you get home from the hospital. You may start to share these duties 3 to 4 weeks after you leave the hospital.

When you get home, you can start to help with light work around the house, climb stairs and visit. You can take short car trips. Do not cross your legs when you are sitting. Limit stair climbing to once or twice a day, resting in between every 3–4 steps.

Driving and Riding
Talk with your surgeon about when you can start to drive again. Usually, people can start driving a car about 4 weeks after surgery. You may ride in a car before then. If you take a long car trip, stop and walk for a short time every 2 hours. When you are riding in a car, wear your seat belt.

Return to Work
The kind of surgery, how long you were in the hospital and what kind of work you do all influence when you can go back to work. Many people find that they don’t have much energy when they first go back to work. They may have trouble concentrating, too. If you can, you may want to go back to work for a few hours or a half day at first. Discuss your return to work with your healthcare provider.

Taking Your Pulse
Before you leave the hospital, learn to take your pulse. You may have a target range for your pulse when you exercise.

Follow these steps to count your pulse. Counting your pulse as you exercise is fairly easy if you are riding a stationary cycle but almost impossible if you are walking.

1. Stop exercising. If you count your pulse while you are standing, shift your weight from foot to foot to keep from feeling light-headed. When blood pools in the legs after exercise, you can feel light-headed.
2. Place two fingers between the bone and tendon over your radial artery (Figure 1). Your radial artery is on the thumb side of your wrist. Press gently.
3. Count your pulse for 10 seconds. Then multiply by six to find your heart rate in beats per minute. If you have trouble counting your pulse rate, you may need to use an electronic pulse meter.

<table>
<thead>
<tr>
<th>Beats Per 10 Seconds x6 = Beats Per Minute</th>
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<tbody>
<tr>
<td>9  = 54</td>
</tr>
<tr>
<td>10  = 60</td>
</tr>
<tr>
<td>11  = 66</td>
</tr>
<tr>
<td>12  = 72</td>
</tr>
<tr>
<td>13  = 78</td>
</tr>
<tr>
<td>14  = 84</td>
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</tbody>
</table>

Taking Your Pulse

Beats Per 10 Seconds x6 = Beats Per Minute

9 = 54  
15 = 90
10 = 60  
16 = 96
11 = 66  
17 = 102
12 = 72  
18 = 108
13 = 78  
19 = 114
14 = 84  
20 = 120
Diet
Before you leave the hospital, discuss your diet with your healthcare provider. You may be able to
go to a diet class. A heart-healthy eating plan does not eliminate any food groups from your diet.
Balance, variety and moderation are keys to good nutrition. Ask your healthcare provider for your
personal guidelines, especially guidelines for fat, salt and fluid intake.

Try to eat three meals a day and spread your eating throughout the day. Small snacks are OK. Include
food from different food groups in your snacks. For the first few weeks after heart surgery, eat smaller
meals more often. Very large meals make your heart work harder. Do not exercise until one hour after
you eat because exercise also makes your heart work harder.

Your cholesterol levels may change after surgery. Your local healthcare provider may check your lipid
levels 4 to 6 weeks after you return home.

Sexual Activity
You can start to resume sexual activity when you have the energy. During the first few weeks after
surgery, you may feel too uncomfortable for sex. Positions that don’t put pressure on the sternum
are best. If you have chest pain during sex, stop. Discuss your questions about sexual activity with
your healthcare provider.

Sleep
If you have trouble sleeping after you go home, talk to your healthcare provider. Rest frequently
throughout the day, especially after meals and activities, such as showering or walking.

Follow-up Appointments
Schedule an appointment with your primary healthcare provider for 7 to 10 days after you leave the
hospital. When you leave the hospital, you will get a copy of your hospital summary. Your surgeon
may mail a complete report to your primary healthcare provider.

Plan to see your cardiologist about one week after you leave the hospital. Plan to see your cardiovascular
surgeon about one week after you leave the hospital.

Symptoms to Report to Your Healthcare Provider
Contact your healthcare provider if you notice any of the following:

- Chest pain (angina)
- Shortness of breath
- Palpitations
- Irregular heartbeat
- Dizziness
- Swelling of hands, feet or ankles
- Rapid weight gain
- Increased redness, swelling, tenderness at the incision and chest tube sites
- Change in drainage at the incision or chest tube sites
- Fever higher than 38 degrees Celsius or 100.4 degrees Fahrenheit
- Pain that isn’t controlled
- Night sweats with fever – although cold night sweats are common for about two weeks after
  surgery. They are not a problem.
- Problems sleeping

You are the most important member of your healthcare team. Following these guidelines may help
you have a smooth recovery.

If you have questions related to your heart surgery or recovery, contact your Cardiologist.
Discharge Checklist

Go over the topics on this list with your healthcare provider before you leave the hospital. This information is important for you to know before you go home.

Check off each item when you feel you know what you need to about it.

Self-care Activities
- Incision care
- Showering
- Using the incentive spirometer
- Bowel care
- Diet
- Sleep
- Relaxation and stress management

Medications
- Printed information on each medication
- When to take your medications
- If you take blood thinning medications, when to have follow-up blood tests

Follow-up Appointments
- Cardiac Rehabilitation Program
- Cardiologist
- Primary healthcare provider

Activity Restrictions
- Lifting
- Driving
- Returning to work
- Sex

Other
- Pain management
- Sleep management
- When to contact your healthcare provider
  (If you had valve surgery, you must notify your healthcare provider before any dental work or surgery. You may need to take antibiotics as a precaution to prevent infection.)
- If you have a life-threatening emergency, call 9-1-1

Tell Us About Your Experience

Your Comments Are Very Important to Us!

Following your visit with us, you may receive a survey asking about your experience with Palomar Health.

We value your feedback and look forward to receiving your response.

If you have an experience you would like to share with us about your visit to Palomar Health, please contact us directly:

- Phone: 760.740.6345
- Email: ContactUs@PalomarHealth.org

It is our privilege to serve you.

Make sure your questions are answered before you leave the hospital. If you have questions about your heart surgery or your recovery, contact a member of your heart surgery team.
Cardiac Rehabilitation Information

Palomar Health’s cardiac rehabilitation program is a hospital-based, medically-supervised program that provides comprehensive services for the management and prevention of heart disease. It is designed to help people recover from a cardiac event, surgery or procedure.

Cardiac rehabilitation professionals teach you how to exercise safely while providing education and support to help you make lifestyle changes that will reduce your risk of future heart problems. They partner with your physician to develop an individualized heart health plan to meet your goals.

Cardiac rehabilitation is an important part of the treatment plan for people who have heart disease including:

- Heart Attack
- Coronary Artery Disease
- Angina (Chest Pain)
- Coronary Artery Angioplasty or Stents
- Heart Transplantation
- Heart Failure / Ventricular Assist Devices
- Peripheral Artery Disease
- Cardiomyopathy
- Heart Surgery such as Coronary Bypass or Valve Surgery
- Heart Failure / Ventricular Assist Devices
- Peripheral Artery Disease
- Cardiomyopathy
- Heart Surgery such as Coronary Bypass or Valve Surgery

Cardiac rehabilitation is divided into three phases:

Phase I: In the hospital, rehabilitation is the beginning of your road to recovery. After a cardiac event, specialized therapists come to your hospital room and begin your rehabilitation program. They assist with getting you out of bed, discussing physical restrictions and designing a home exercise program.

Phase II: In an outpatient setting, nurses and exercise physiologists provide assistance with early recovery and prevention. This phase usually begins within the first 3 to 6 months after a cardiac event has occurred, although patients may start the program up to one year after an event. Typically, patients attend three sessions per week for a total of 24–36 sessions over a 2 to 4 month period.

While exercising, your heart rate, blood pressure and other cardiac activity are closely monitored. After assessing your personal risk factors, you will receive education on important lifestyle indicators such as diet and nutrition, diabetes, high blood pressure, cholesterol, tobacco use, stress and family history.

Phase III: This long-term management and prevention program reinforces education and exercise principles that help maintain cardiac health for a low monthly fee.

Progressive Home Walking Program

This walking program is a foundation on which you can gradually build your activity level. Although there are many forms of activity and exercise that can help you reach and maintain your cardiovascular health, this progressive walking program is recommended as a first step.

Progressions:

- Do not move forward to the next level in your walking program if you have tenderness in a joint (such as the ankle, knee or hip), or if you experience chest discomfort that becomes worse with activity.
- Include gentle stretching and range of motion exercises. This will help increase your flexibility and decrease your stiffness.
- Walk slowly to warm-up and cool-down once you are able to walk continuously for 20 minutes. Speed is not important at this time.

Warm-ups:

- Perform 5–10 minutes of slow walking and stretching before exercising. This will help to gradually increase blood flow to the working muscles and decrease the incidence of injury.
- After the warm-up, walk at your exercise walking pace for 20 minutes or more.

Cool-downs:

- After exercising, gradually slow your walking pace. This will help you avoid a quick drop in your heart rate and blood pressure, which can lead to dizziness or light-headedness.
- Following the slow walk, perform the same stretching exercises done in the warm-up. If showering after exercise, use lukewarm water rather than extreme temperatures.

Insurance Information

Phases I and II of the Cardiac Rehabilitation Program are covered by most insurance carriers including Medicare. A referral from your doctor is required. For more information, please contact us at 442.281.3400 or visit PalomarHealth.org/Cardiac.
Intensity:
Once your doctor has told you to begin normal exercise, you should feel slightly challenged, but not exhausted during the exercise. Your exercise heart rate should not go above 120 beats per minute, unless directed by your doctor. To lower your heart rate, slow your exercise pace. The Rating of Perceived Exertion Scale is provided below. When exercising, you should be between 12–14 on the RPE scale.

RPE Scale When Exercising
- The RPE scale is used to measure the intensity of an exercise.
- MHR = Maximum Heart Rate

<table>
<thead>
<tr>
<th>RPE</th>
<th>Description</th>
<th>Intensity Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>Easy</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Very light</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Fairly light</td>
<td>50% MHR</td>
</tr>
<tr>
<td>11</td>
<td></td>
<td>60% MHR</td>
</tr>
<tr>
<td>12</td>
<td>Somewhat hard</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td></td>
<td>70% MHR</td>
</tr>
<tr>
<td>14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td></td>
<td></td>
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<tr>
<td>16</td>
<td>Hard</td>
<td>80% MHR</td>
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<tr>
<td>17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Very hard</td>
<td>90% MHR</td>
</tr>
<tr>
<td>19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Very, very hard</td>
<td></td>
</tr>
</tbody>
</table>

Examples of MET levels
- Walking 2.0 mph not carrying objects – 2.0 METs
- Walking 2.0 mph carrying light objects (i.e., laundry) – 3.0 METs
- Light house work (i.e., dusting) – 2.5 METs
- Grooming standing at sink level (hairstyling) – 2.5 METs
- Warm shower standing – 2.5 METs
- Hot shower standing – 4.0 METs

Frequency of Exercise and Other Instructions:
- Exercise at least 4, and preferably 6 days a week.
- Wait at least 2 hours after eating a heavy meal before beginning vigorous exercise or walking for long distances.
- Avoid caffeine 2–4 hours before exercising.
- Avoid hot or humid weather. Exercise in the cooler parts of the day.
- Drink plenty of water before, during and after exercise.
- Wear comfortable, loose-fitting clothing that allows you to perspire. When it is cold, dress in layers.
- Wear comfortable walking shoes that do not rub or cause blisters. Also wear cotton socks since your feet perspire, too.

Level 1
- Walk for 5 minutes without stopping 4 times a day. If 5 minutes is too much, add 1 minute each day up to 5 minutes.
- Walk at the same slow pace you did while you were in the hospital.
- Walk on flat ground for the first 30 days.
- If moving to the next level makes you very tired, repeat the lower level.

Level 2
- Walk for 5–10 minutes without stopping twice a day.

Level 3
- Walk for 10–15 minutes without stopping twice a day.

Level 4
- Walk for 20 minutes without stopping once a day. Add 5–10 minutes of slow walking from warm-up and cool-down.

Level 5
- Walk 20–25 minutes once a day.

Level 6
- Walk 25–30 minutes once a day.
If you have any questions regarding this home exercise program, or would like to join the CARDIAC REHABILITATION program located at Palomar Health San Marcos, please call 442.281.3400.

Home Exercise Log

Remember, always warm-up and cool-down. Stop if you begin to have symptoms such as chest discomfort, dizziness or nausea, for example.

<table>
<thead>
<tr>
<th>Date</th>
<th>Resting HR</th>
<th>Exercise HR</th>
<th>Recovery HR</th>
<th>Exercise Time</th>
<th>RPE Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Example:</strong> Month/Day/Year</td>
<td>66</td>
<td>90</td>
<td>70</td>
<td>15 min</td>
<td>11</td>
</tr>
</tbody>
</table>

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