

# Thoracic Lung Procedure

PATIENT EDUCATION GUIDE



SHANNON REGIONAL HEART CENTER

Leading the Concho Valley in exceptional cardiac care.

# Welcome!



*Thank you for trusting us with your care.*

Shannon would like to personally thank you for the opportunity to care for you. Our goal is to provide you with exceptional care, and we hope your stay with us has been as comfortable and stress-free as possible.

Our team of professionals has designed this book to assist you in your recovery at home. We also recommend sharing the information in this book with others who will be part of your care and recovery, including family members and caregivers.

You are welcome to use the “Notes” section of this book to write down any questions or concerns you would like to discuss with your care team before leaving Shannon Medical Center.

Again, thank you for letting Shannon care for you!

- Your Cardiothoracic Surgery Team



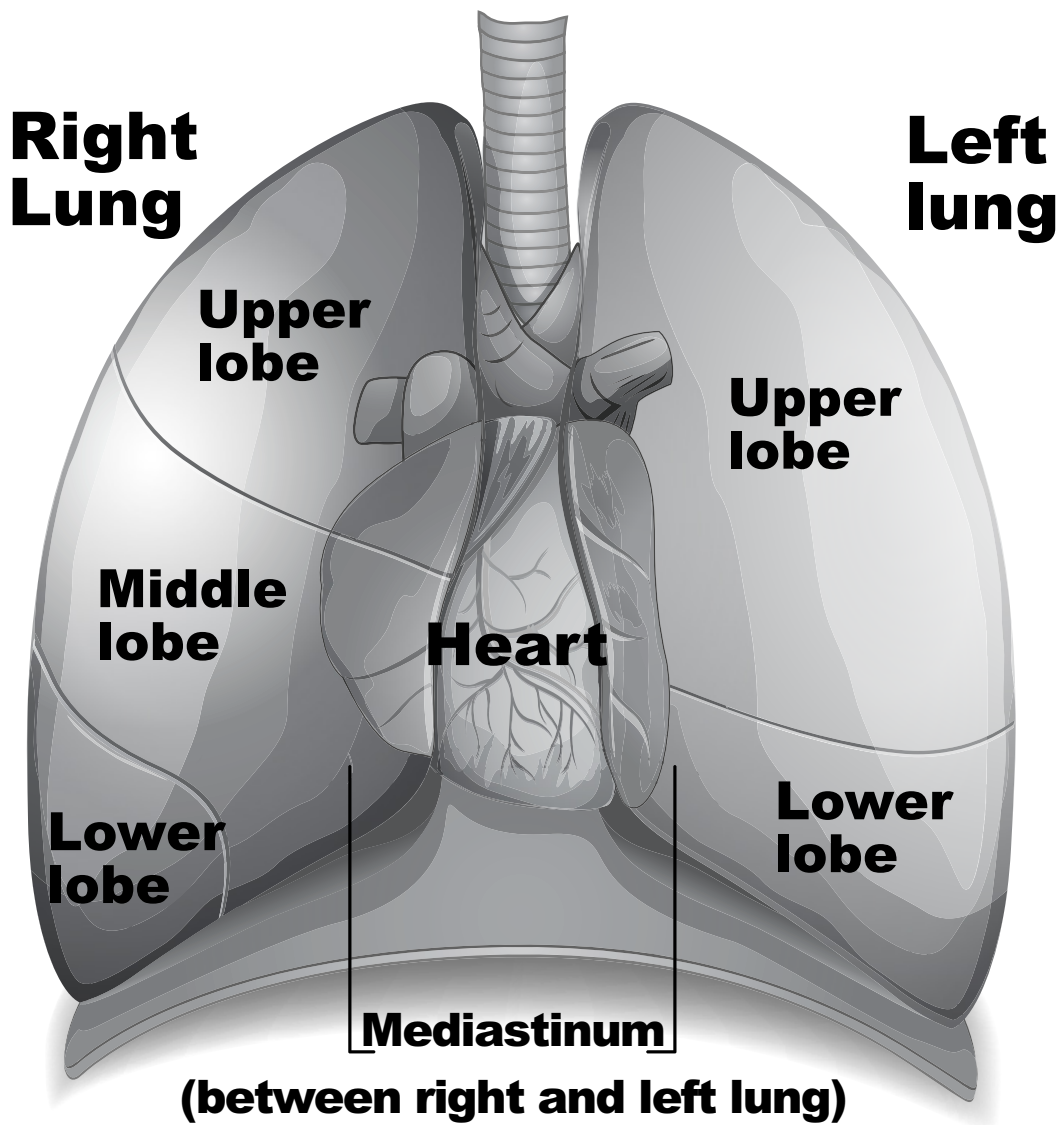
Name \_\_\_\_\_

Date of Surgery \_\_\_\_\_

Surgical procedure \_\_\_\_\_

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# When and How to Call the Doctor

## Direct Physician Contact (direct office lines)

During office hours, Monday - Friday, 8 am - 5 pm:

**Pulmonologist:** \_\_\_\_\_ **Phone:** \_\_\_\_\_

**Primary Care Physician:** \_\_\_\_\_ **Phone:** \_\_\_\_\_

**Surgeon (if applicable):** \_\_\_\_\_ **Phone:** \_\_\_\_\_

**Shannon Regional Heart Center: 325-747-2281 or 800-530-4143**

102 N. Magdalen, San Angelo, Tx 76903

**Medical Exchange (contact MD on-call after hours and during weekends): 325-747-2002**

**Cardiovascular & Thoracic Surgeons: 325-747-2134**

## Conditions requiring a 911 call

- Severe chest pain
- Severe, sudden shortness of breath
- Severe mental confusion

## Conditions requiring a call to your physician

- Progressive, worsening shortness of breath
- New onset of the inability to lie flat at night because of shortness of breath
- New onset of fatigue with walking
- Worsening or new onset dizziness
- Worsening, persistent cough (especially while lying down)
- New onset of nausea, vomiting or diarrhea

## For your safety

Please help your healthcare providers maintain an accurate list of your home medications by bringing all of your medications with you to all hospital visits (ER, Surgery, etc.) and all outpatient visits (doctor's office, urgent care, etc.)

# Physician's Orders

## Thoracic Surgery Discharge Instructions and Orders

### Appointments

\_\_\_\_\_  
**Thoracic Surgeon**                      **Date:** \_\_\_\_\_                      **Time:** \_\_\_\_\_

\_\_\_\_\_  
**Pulmonologist**                      **Date:** \_\_\_\_\_                      **Time:** \_\_\_\_\_

\_\_\_\_\_  
**Oncologist**                      **Date:** \_\_\_\_\_                      **Time:** \_\_\_\_\_

\_\_\_\_\_  
**Radiation Oncologist**                      **Date:** \_\_\_\_\_                      **Time:** \_\_\_\_\_

\_\_\_\_\_  
**Primary Care Physician**                      **Date:** \_\_\_\_\_                      **Time:** \_\_\_\_\_

\_\_\_\_\_  
**Pulmonary Rehabilitation**                      **Date:** \_\_\_\_\_                      **Time:** \_\_\_\_\_

If you are unable to keep your appointments, please call the physician's office prior to your appointment to reschedule.

Medications to be taken at home are included on a separate medication sheet. These will be reviewed with you prior to discharge.

I acknowledge that this Discharge Instruction Sheet has been fully explained to me and that I understand it and have received a copy of it.

\_\_\_\_\_  
Patient or legal representative                      \_\_\_\_\_  
(please provide power of attorney)                      Date/Time

# Cardiovascular and Thoracic Surgery Patient Expectations

We are pleased you have entrusted us with your care and/or your relative's care. The staff of the Thoracic and Cardiovascular Surgery department strive to provide comprehensive care during our involvement in your treatment. We will be seeing you or your relative during the hospitalization and after the operation, as well as in the clinic for follow-up as an outpatient. We hope to provide complete information on your status and provide optimal ways to obtain maximal benefit from your operation and care.

After treating many patients, the staff has identified many common characteristics that lead to a successful outcome after thoracic and cardiovascular surgery. Many things nurses and doctors provide while in the hospital, but many things also have to be done by the patient when they return home, with and without assistance from family and friends.

1) **Family assistance at home will be needed for the initial 7-10 days after discharge.**

The patient will not be discharged home until it is appropriate, but assistance for the patient's recovery at home needs to be addressed before discharge. Assistance with travel to clinic, lab and rehabilitation appointments will be needed until you or your relative is released to drive. If any assistance in transportation will be needed, please let us know while in the hospital. We can help arrange alternative transportation for these essential appointments.

2) **It is essential that the patient obtain and take the prescribed medicines after discharge.**

Some medicines may be the same and some different, but the patient will need to take the medicines on the discharge medication list. A blood pressure and heart rate log (provided in this book) will need to be kept for reference on follow-up visits. You can obtain a BP monitor at your pharmacy. If you will need assistance in obtaining or paying for medicines, please inform us prior to discharge so we can arrange for assistance.

3) **Mobility is essential for a complete recovery.**

Mobility improves lung function to prevent pneumonia and improves intestine function to return to normal appetite and bowel movements. Mobility also improves sleep patterns for nighttime sleeping. Patients will be asked to walk a continuous 10 minutes 4 times a day when at home. The amount of time should gradually increase by 5 minutes a walk per week.

4) **Lung expansion and deep breathing is essential after surgery.**

Doing your incentive spirometer, as you were instructed in the hospital, provides good exercise for your lungs. This exercise should be performed at least 2-3 times every half-hour or during every commercial while watching TV.

5) **Smoking after surgery is detrimental.**

The bypass grafts on the heart will fail if you continue to smoke or have people around you who smoke. The continued insult to the lungs after heart or lung surgery will increase your risk of pneumonia. You and others around you must stop smoking if you wish to have a complete recovery and long-lasting results from your operation.

6) **Diabetic (sugar) control is crucial for recovery.**

During your hospitalization, your blood sugar is tightly controlled with a strict medication regimen. You must follow this regimen, even if different from the regimen prior to surgery. Excellent sugar control diminishes the risk of wound infection and maximizes the recovery of the heart after surgery. You must monitor your sugars as instructed and keep a record. Diabetic teaching will be provided while in the hospital. Please let us know whether you have the tools to measure your blood sugars; and we can assist in getting the tools as well as educating you on monitoring.

# Lung/Respiration (Breathing)

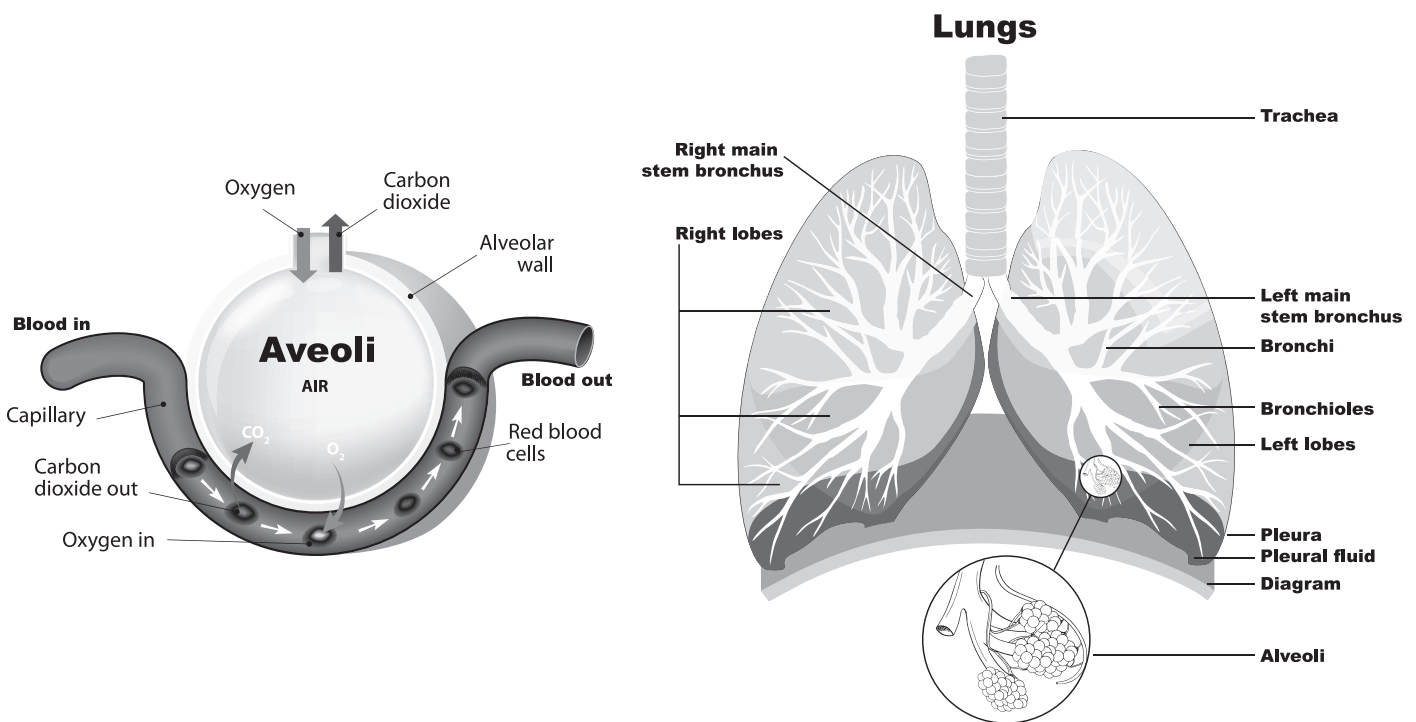
The lungs are part of the respiratory system and are designated as the lower respiratory tract. Respiration is the breathing in (inspiration) of oxygen and the breathing out (exhalation) of carbon dioxide.

Air and oxygen are breathed in through the nose and mouth to the pharynx and travel down to the carina. The carina is where the airway splits into the right and left bronchus. Further division includes the right and left lungs, bronchi of the lungs, bronchioles, aveolar ducts, and finally the alveoli. The alveoli is where oxygen is exchanged from the alveoli to the capillaries. Oxygen is provided to the blood and carbon dioxide is released back into the alveoli. When you breathe out, the carbon dioxide is released from your lungs through your nose and mouth.

The right lung is made up of three (3) lobes: right upper, right middle, right lower.

The left lung has two (2) lobes: left upper and left lower.

Lymph nodes are small, masses of tissue that filter the blood and trap cancer cells and bacteria.



## Blood Supply and Muscle of Breathing:

Three arteries branch alongside the bronchi and bronchioles. Deoxygenated blood comes from the heart to the alveoli, where carbon dioxide is exchanged and exhaled. Oxygen is breathed in (inhaled), diffuses across the alveolar membrane to capillaries, and travels back to the heart to supply the body with oxygenated blood.

The muscle that assists in the breathing process is the diaphragm. Other muscles that assist in the breathing process include the intercostal muscles.

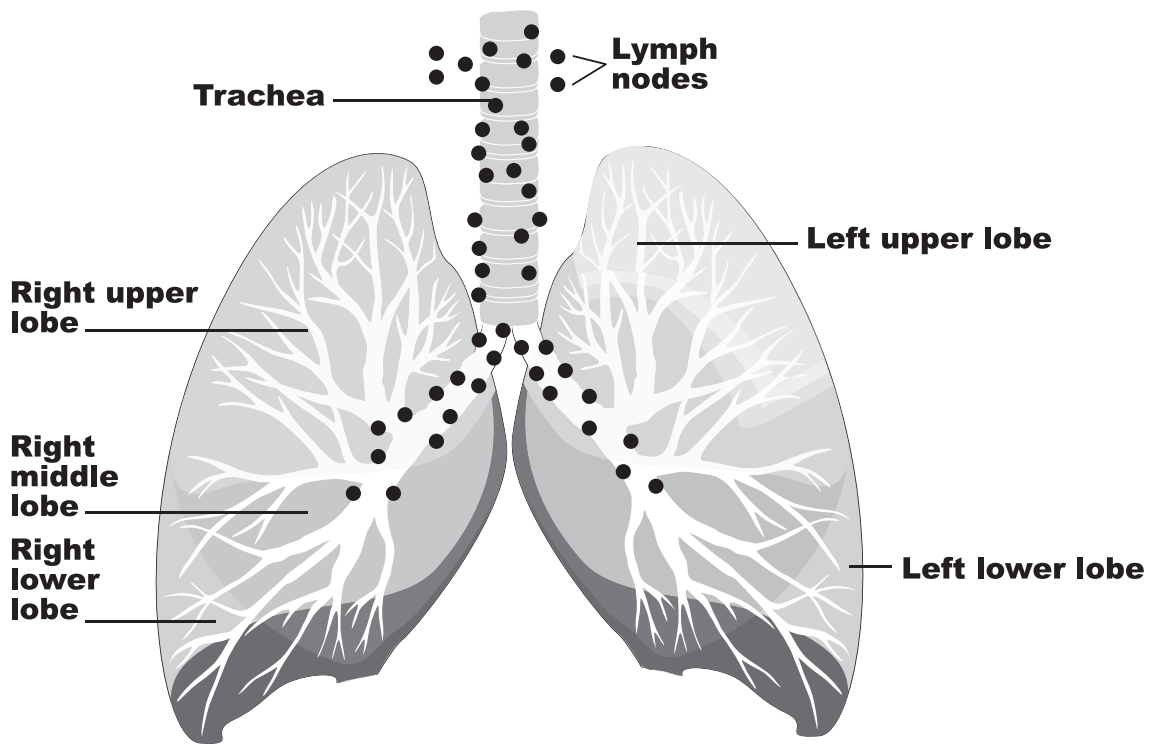
The respiratory tract is lined with epithelia-hair like projections called cilia. These move in a rhythmical motion to carry mucus, dust particles, and bacteria back up the airway to be expelled (coughed out).



# Lung Disease

## Lung Cancer

Cancer cells grow fast and look abnormal in comparison to healthy cells. Cancer cells continue to grow and eventually can be seen as a tumor on chest x-ray or CT images. Cancer cells can spread (metastasize) to other parts of the lung, lymph nodes, or body. Staging of cancer is determined by the size of the tumor and if the cancer has metastasized.



## Risk Factors for Developing Lung Disease:

- **Smoking** – increases your risk of problems during and after your operation. We recommend you stop smoking for 4-6 weeks prior to your surgery. This can decrease your risk of complications by 50%. Quitting smoking can add years to your life. Resources to help you quit include:

The American Cancer Society 1-800-227-2345

Web sites:

<http://www.becomeanex.org/>

<http://www.lungusa.org/stop-smoking/>

<http://www.cancer.org/Healthy/StayAwayfromTabacco/GuidetoQuittingSmoking/index>

- **Environmental Exposures include** Asbestos, Inhaled smoke and chemicals

## Screening

**Low dose chest Computerized Tomography (CT):** a non-contrast (dye) study that is used to identify lung nodules or masses. It allows your doctor to evaluate size, shape, and positioning of nodules, masses, tumors of the lungs, as well as enlarged lymph nodes.

**Positron Emission Tomography (PET):** uses a radioactive sugar tracer (FDG) that is administered through an IV. Normal tissues do not absorb the tracer, the PET would be considered negative. Fast growing tissues like cancers will absorb the tracer, PET would be considered positive. This is used to diagnose areas of suspected primary and metastatic tumor locations in organs and lymph nodes.

**Fine Needle Biopsy:** Tissue is obtained with a thin needle placed through the chest wall under CT scan guidance to the exact location of the tumor/mass.

**Bronchoscopy:** Is a scope that looks at the large airways of the lungs. A flexible fiber optic tube is passed through the mouth or nose into the upper then lower airways. Samples of tissue can be obtained. Evaluation of airway obstruction from mucus or tumor (masses) can be evaluated.

**Endo-Bronchial Ultrasound (EBUS):** A scope with a small, narrow needle in the tip. When the lymph node or mass is seen, the needle is inserted and a tissue sample is obtained.

**Pulmonary Function Test with Room Air Arterial Blood Gasses (PFTs with RA ABGs):** measures the amount of air that you can breathe in and how much oxygen gets into your bloodstream. You should not smoke or use your inhalers for 4 hours prior to the test.

This test evaluates lung function, the ability to inhale (breathe in) and exhale (breathe out) at rest.

Restrictive lung disease – the amount of air you breathe in is restricted.

Pulmonary Fibrosis – inflammation of lung tissue for long periods of time. Lung tissue is replaced with fibrous connective tissue. Causes: Coal-worker's pneumoconiosis, Autoimmune disease, Medications, Asbestosis.

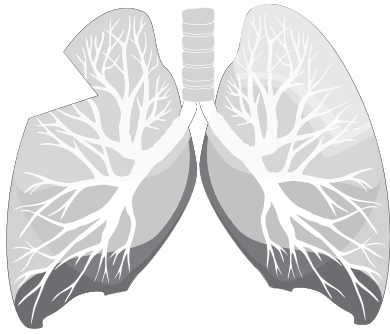
## Surgical Procedures

**Mediastinoscopy/Mediastinotomy** – small incision is made at the base of the neck, a lighted tube is inserted behind the breast bone, in front of the windpipe to obtain lymph node samples from the mediastinum.

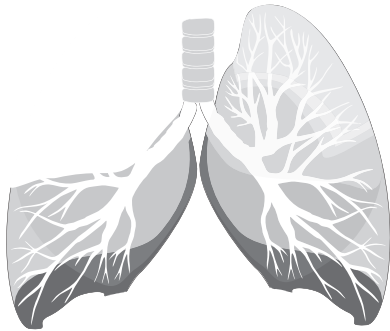
**Mediastinotomy** – larger incision is made between the 2nd and 3rd ribs next to the breast bone to obtain lymph node samples from the mediastinum.

**Thoracoscopy, Video-Assisted Thoracic Surgery** – 2 to 4 small incisions are made on the chest. Each incision is approximately 1 to 3 centimeters in length. Surgical tools including a thoracoscope (tube with a video camera and light source) are placed in the incisions. The involved lung tissue is cut out and removed through the incision.

**Thoracotomy/Mini-Thoracotomy/Minimally Invasive Thoracic Surgery** – A 3 - 8 inch incision is made on the side to back of the chest, which can extend from under the arm around to the back. Some muscles are cut, and the ribs are spread apart. Occasionally a small portion of the rib may be removed to allow access to the involved lung. The size and location of the incision depends on the part of the lung being removed.



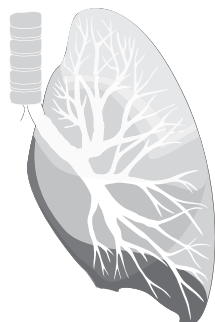
**Wedge Resection:** A small to large pie-shaped area is removed from a lung lobe.



**Lobectomy:** An entire lobe is removed. The remaining part of the lung will fill up the space.



**Segmentectomy:** Each lobe contains between 2 to 5 segments. A Segmentectomy removes one or more segments but not the entire lobe.



**Pneumonectomy:** Removal of the entire lung. The area (pleural space) that contained the lung fills with fluid.

**PleureX Catheter** – a drainage catheter that is inserted through the chest wall to allow for frequent drainage of fluid that collects in the pleural space called a pleural effusion. This is used when the pleural effusion accumulates frequently.

# Ready For Discharge Home

## General Feeling

Feeling tired for the first few weeks after surgery is normal. By gradually increasing your activity, you will gain strength and stamina. Walking continuously for 10 minutes, 4 times a day and adding 5 minutes to each walk every week will build up your stamina. About 8 weeks after surgery, you may notice a significant improvement in your recovery, like increased strength, stamina, appetite, sleep pattern and decrease in your pain. During this 8-week period, you may feel tired and experience some shortness of breath, loss of appetite and aches and pains.

## Incision Care

Upon discharge home, an Aquacel dressing will cover your incision. With the dressing in place, shower every day using Dial or Safeguard soap. NO TUB BATHS, swimming pools, or sitting in water to soak (this will increase your risk of developing an infection). Continue to shower every day using a clean washcloth with Dial or Safeguard soap, and lightly clean all incisions. Avoiding really hot showers is advised. They can cause light-headedness and increase the risk of passing out. Do not use perfumes, lotions or ointments on your incision.

**Please call the Cardiovascular & Thoracic Surgeon's office at 325-747-2134 anytime, for any questions or concerns.**

## Call Immediately for

- Temperature of 101 degrees
- Increased redness or heat to your incisions
- Increased drainage from your incisions that changes from clear yellow or pink to cloudy (pus)
- Questions or concerns about your condition or care

You will have numbness to your incisions, left side of your chest and ankles. This is to be expected. You will have some swelling to your operative leg. This can be kept to a minimum if you keep your leg elevated when sitting.

## Medications

Possible home medications:

- **Prescription pain medication:** Please take as written. It is very important to control your pain initially at home. Adequate pain control allows you to take deep breaths, cough, walk and rest.
- **Stool Softeners (Surfak):** Helps prevent constipation while on pain medication.
- **Take your medications as directed.** Call your physician (doctor) if you think your medicine is not helping or if you have side effects. Tell your physician if you are allergic to any medicine. Keep a list of the medicines, vitamins, herbal supplements or any over-the-counter medications you take. Include the amounts, when and why you take them. Bring the list and/or the pill bottles to every doctor's appointment. Carry your medicine list with you in case of an emergency.

## Diet/Meals

It is important to eat a balanced diet. You need to eat foods that are low in salt, fat or cholesterol. Healthy foods include fruits, vegetables, whole-grain breads, low-fat dairy products, beans, lean meats and fish. For the first 2 weeks after surgery, it is **VERY IMPORTANT** that you eat. During these 2 weeks, we do not restrict your diet. Eating provides nutrients your body needs to heal itself.

## Diabetics

Well-controlled diabetes decreases the risk of wound infection. Monitor your blood glucose twice a day and record the results (BP/glucose log is provided). Your blood glucose should be less than 180. Follow a diabetic diet. Lose weight. Attend a diabetic education class. Talk with your primary care provider about medication options to help control your diabetes.

**Smoking: STOP!! Nicotine can damage your healing process and affect your incision(s). Do not use e-cigarettes or smokeless tobacco. They still contain nicotine. If you smoke, we have information and medications to help you quit.**

## Maintain a Healthy Weight

Extra weight can increase stress on your heart and breathing. Walking is a good low-impact activity. Following a balanced diet and exercising 5 days a week for 30 minutes helps you lose weight or control your weight.

# Activities

## Bending and Lifting

Avoid heavy lifting as directed by your healthcare provider. To make this easier, keep the things you use most (such as clothing and dishes) at waist level. If you must bend down to lift something light, follow these steps:

- Stand close to the object. Put your feet shoulder-width apart, with one foot slightly in front of the other.
- Hold on to something sturdy with one hand.
- Bend at the knees. Keep your back and neck straight and your shoulders and hips in line.
- Pick up the object and hold it close to your body.
- Slowly push up with your legs.

## Getting Up from Sitting

When you get up from a chair or couch, use your leg muscles – not your arms – to push your body up.

### To Stand:

- Scoot to the front of the chair.
- Place one foot slightly in front of the other.
- Put your hands on your thighs.
- Bend forward from the hips and push your body up with your legs.

### To Sit Down:

- Use your leg muscles to lower yourself onto the front of the chair.
- Then use your leg muscles, not your arms, to scoot back.

## Getting Out of Bed

- When you get in and out of bed, keep your shoulders and hips in line.
- Lie on your back and slowly scoot to the edge of the bed.
- Bend your knees slightly and roll slowly onto your side.
- Carefully push your body up, using the elbow beneath you and the arm on the other side of your body. At the same time, gently swing both legs to the floor.
- Sit for a moment. This will help keep you from getting dizzy.
- Put your hands on your thighs. Bend forward from the hips, and push your body up with your legs.

**To get into bed, do the reverse.**

## Activities You Can Do

It's okay to do light household chores or activities, including:

- Watering small plants
- Dusting
- Doing light repairs
- Setting the table
- Washing dishes
- Preparing simple meals
- Baking
- Doing crafts
- Playing cards
- Going to a movie

## Household Chores or Activities to AVOID

Avoid household activities that involve reaching, lifting, pushing or pulling. That means **NO**:

- Vacuuming, sweeping or scrubbing
- Changing sheets on the bed
- Moving trash cans or heavy furniture
- Gardening & mowing the lawn
- Playing golf
- Shooting a gun/rifle
- Contact sports

## Resuming Driving

For your own safety and the safety of others, don't drive until your healthcare provider says you can drive (usually 3 to 4 weeks after surgery). There are several reasons for not driving:

- Your reaction time is slower until you regain your strength.
- Pain medications can slow your reaction time or make you drowsy.
- Driving increases the risk of injury to your incision(s).

## Returning to Work

Depending on the type of work you do, you may be able to return to work 4-6 weeks after surgery. Be sure to check with your healthcare provider before returning to work. If possible, slowly ease back into your schedule. It may be necessary to work part-time (4 hours a day) at first and build up to working full-time.

## Resuming Sex

Ask your healthcare provider when you can resume sex. In most cases, you can begin within 3 weeks of returning home. When you're able to climb 2 flights of stairs or take a brisk walk without pain, you're probably ready. If your incisions are still healing (8 weeks after surgery), you may need to avoid positions that put stress on your chest or arms. Also, some medications may affect sexual arousal (beta blockers). If you have questions or concerns, talk with your healthcare provider.

## Follow-Up Appointments

When you are discharged, you may be provided appointments to the following (if appropriate):

- Pulmonologist
- Surgeon
- Primary Care Physician

It is important you keep these appointments. If an emergency arises, please notify your doctor's office so your appointment can be rescheduled.



# Helpful Tips To Remember

## Safety is Our Priority

- Help us help you get better. Always call for assistance if repositioning or getting up out of bed.
- Make position changes slowly. This allows your body to compensate for position changes and decreases the risk of you getting dizzy or falling.
- Having family or friends in the room is also helpful. If family members will be staying overnight, a cot and linen are available for them to use.

## Pain Control

- Do not wait to take pain medication. Ask for pain medication when you first feel pain. It takes 20-30 minutes for your body to absorb the medication to provide pain control.
- Pain medication is very important to take on a routine basis BEFORE you start having severe and uncontrolled pain. Adequate pain control will also aid you in recovery.
- We cannot keep you pain-free. You will experience some pain, but you should be comfortable when you are moving or taking deep breaths.
- Talk to us! We will be assessing and evaluating how well your pain is controlled. Let us know if your pain is managed or uncontrolled.

## Infection Prevention

- Hand washing is the #1 form of infection prevention. The staff will use an alcohol foam when they enter and exit your room.
- You should wash your hands after using the restroom or anytime they become soiled.
- Foley catheters will be discontinued as soon as possible to prevent infections.
- Remember not to touch any open wounds or your incision without washing your hands.

## Blood Clot Prevention

You will be assisted out of bed the evening of surgery. The morning after surgery, you will sit up in a chair and walk in the halls. Activity helps prevent the development of blood clots and helps you heal. Please work with your nurse and care team; they will ask you to get up out of bed to a chair, the shower and walk in the hall. You will be allowed to rest between activities. We will not ask you to do anything you cannot do, and we will be there to assist you in these activities.

## Constipation

A common side effect of surgery and pain medication is constipation.

- You may be given a stool softener daily and we have medication that will help your bowels work.
- Activity, fiber and some fluids will help your bowels return to normal.
- Fiber adds bulk and softens while water keeps you hydrated and helps lubricate the GI tract which helps the passage of stool.
- GET MOVING! The more mobile you are, the more your bowels will wake up and get back to normal.

## Customer Service

We are the guests in your care, so please let us know if there is anything we can do better or any question you may have. We strive for you to have an excellent experience at Shannon and a quick, pleasant recovery.

# Physician's Orders

## Cardiovascular & Thoracic Surgeons: 325-747-2134

### Thoracic Surgery Discharge Instructions and Orders

#### Diet

- Heart Healthy
  - Literature provided
- \_\_\_\_\_ calorie, Diabetic, Heart Healthy - monitor your blood sugar \_\_\_\_\_ times a day and keep a written record to take to your doctors appointments
  - Literature provided
- Renal - continue with your scheduled dialysis appointment
  - Literature provided

#### Activity

- No driving for 2 weeks - especially while on narcotic pain medication
- No working for 2 weeks unless otherwise instructed
- No lifting over 10 pounds for 8 weeks
- Walk 3-4 times a day for 10-15 minutes at a time the first 2 weeks
- You may lift arms above your head
- Perform the “crawl the wall” exercises at least 3 times per day. This will improve the mobility of your arm.
- Continue using your breathing machine (10 breaths every hour while you are awake)
- Rest 8 hours each night
- **NO TUB BATHS.** Shower every day — clean all incisions with Dial or Safeguard soap and water.
- Weigh yourself each morning.

## **Notify Surgeon's Office Immediately If You Experience**

- Sudden shortness of breath
- Chest pain not associated with incision
- Any increase in redness in your incision or chest tube site
- Painful swelling or increased pain to incisions
- Temperature greater than 101 degrees
- Drainage from your incision that changes from clear to cloudy

## **Incision and Chest Tube Site Care**

- Dressings may be removed after 48 hours
- Keep area clean and dry
- After the first 48 hours, you may shower. Wetting the dressing will aid in its removal. Wash incisions with Dial or Safeguard soap, rinse completely and pat dry with clean towel.
- Shower daily to clean incisions. NO TUB BATHS. NO SWIMMING.
- Leave incisions open to air. Cover with gauze if necessary.
- Incisions may be numb or hypersensitive to the touch. This is normal and will improve with time.
- If you have steri-strips, do not remove them.
- If you have staples, we will remove them during your clinic appointment.
- Never use antibiotic ointment, creams, alcohol or hydrogen peroxide on incisions.

## **Controlling Pain**

You have been sent home with a prescription for pain medication. Take as prescribed, with food to avoid nausea. Pain medication may cause constipation. Take a laxative if needed.

## **No Smoking or Tobacco Products**

If you smoke — **QUIT NOW.**

- Get Ready — set a date to quit.
- Get Medicine — talk to your doctor.
- Get Help — call toll free 1-877-448-7848.
- Stay Quit — quit for good.
- Caregivers: by quitting, you protect your loved ones from illness caused by secondhand smoke.

# Home Exercise

Exercise improves the way your heart, lungs and muscles work. It is an important part of your recovery from lung surgery and a healthy life. Walking will begin as soon as the next day after your surgery to prevent a lung infection and blood clots. As you become stronger, the walks will happen more often and for longer distances.

Rehab starts in the hospital with monitored activity and a walking plan.

At home, it is important to continue with exercise, but follow these guidelines:

1. Limit to range of motion, stretching, walking and stationary cycling for 6 weeks. Jogging, swimming, tennis and golf should be discussed with your heart surgeon before beginning.
2. Monitor your heart rate and how tired you feel during exercise. You should feel a little tired during exercise, but not so tired that you cannot go any further. Your heart rate should go up with exercise, but not more than 30 beats per minute higher than the resting heart rate. This can be monitored by checking your pulse. Check your pulse by placing first and second finger (not your thumb) on the thumb side of your wrist or along the Adam's apple of your neck. Count the beats for one minute before, during and after exercise.
3. The total time of exercise can be broken up into shorter periods of time if you are feeling tired. Start by walking for 10 minutes, 4 times a day. The amount of time should gradually increase by 5 minutes a walk per week. As you recover, you will be able to walk for longer periods of time and less often, such as a 45-minute walk once a day.
4. It is important to warm up for 5 minutes before exercise and cool down for 5 minutes after exercise.

## **5. STOP EXERCISING IMMEDIATELY** for these reasons:

- Chest discomfort with or without radiation to your arms, neck, jaw or stomach
- Light-headedness and dizziness
- Skipped heartbeats (if not normal for you)
- Breaking out in a cold sweat
- Excessive muscular pain or weakness
- Excessive shortness of breath
- Loss of balance
- Nausea or vomiting
- Excessive fatigue (exhaustion)

## **6. GET IMMEDIATE MEDICAL HELP FOR:**

Severe chest discomfort that is not quickly relieved by rest and/or nitroglycerin, unexplained fainting or blackout spells

### **Other special considerations:**

- Take slow continuous deep breaths during exercise; do not hold your breath.
- Avoid caffeine before exercise.
- Wear comfortable clothing and shoes.
- Drink plenty of fluids before and during exercise, unless on a fluid restriction.
- Do not exercise while you are sick or right after eating a big meal.
- Avoid hot showers, saunas, Jacuzzis and hot tubs after exercise.
- Exercise inside, or if exercising outside, avoid extreme hot and cold temperatures. The Sunset Mall in San Angelo is a great indoor walking option.

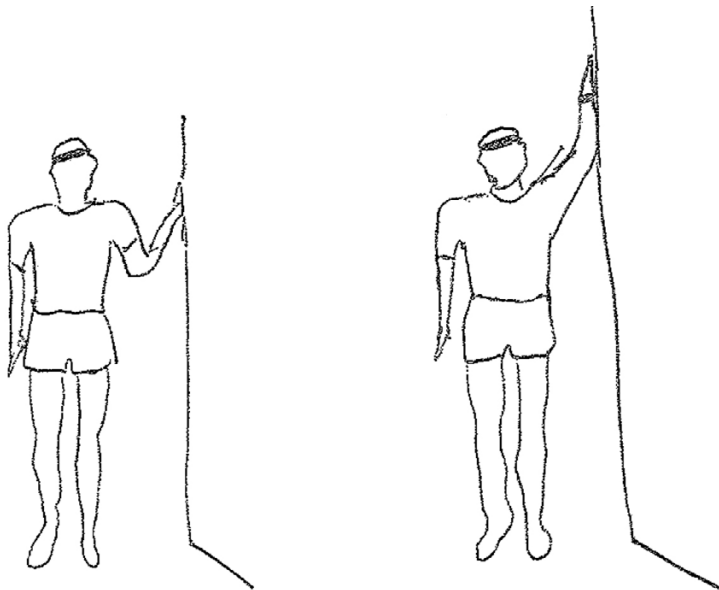
## Climb the Wall Exercise

**Purpose:** To stretch and strengthen muscles of the chest and shoulder area.

**Repetitions:** 5-10

**Starting position:** Stand an elbow length away from the wall, with your operative closest to the wall.

**Movement:** Slowly use your fingers to climb the wall until your arm is fully extended. Complete this exercise at least four times a day or more, as tolerated.



# Medications

## General

Shannon Medical Center has a central pharmacy staffed with pharmacists and technicians to ensure safe and suitable use of medications during your stay. Pharmacists are available to answer questions regarding your medications.

## Allergy Information

It is very important that your healthcare providers are aware of any medication or food allergies you may have. It is also important for them to know what reaction you had to the medication or food. Knowing which medications or food you are allergic to will help your physician provide the most suitable medication therapy.

## Home Medications

Upon admission, a nurse and pharmacist will review your medication list. It is important for your healthcare providers to know what medications you are currently taking, including any over-the-counter medications, herbal medications, vitamins or natural supplements. Your physician will provide medication instructions. You may be asked not to take one or more of your medications. While in the hospital, take only what your nurse dispenses; do not take anything from home.

Upon discharge, you will be provided a list of medications and how to take these medications at home.

## Diabetic Medications

If you are diabetic, it is important for you to take your diabetic medications as instructed. Good blood sugar control will help your surgical incisions heal.

## Antibiotics Before and After Surgery

You will receive an antibiotic prior to surgery and up to 24 hours after surgery. This is a preventative measure to decrease the risk of infection. Antibiotics can slow or prevent the growth of bacteria normally found on your skin.

## Medications You May Be Discharged Home On:

### Pain Medication

You will have pain medication available during your hospitalization. Ask for your pain medication when you first start feeling pain. When you go home, you will be given a prescription for pain medication. Again, take your medication when you first start feeling pain to keep your pain under control. Pain medication and many over-the-counter medications contain Acetaminophen.

Therefore, watch all medication labels for acetaminophen and **DO NOT TAKE MORE THAN 4 grams (4,000 mg) total of Acetaminophen in a 24 hour period.**

### Hydrocodone (Norco, Lortab)

Contains 325 to 500mg of Acetaminophen per tablet. Take one or two tablets every 6 hours as needed for pain control.

### Tramadol (Ultram)

Take one or two tablets every 8 hours as needed for pain control.

**DO NOT EXCEED 400mg in a 24 hour period.**

## **Tylenol**

If you are not taking Hydrocodone, Ultram or any other pain medication prescribed to you prior to your surgery, then you may take Tylenol for pain control. Remember, **DO NOT EXCEED 4 grams (4,000 mg) in a 24 HOUR PERIOD.**

## **Stool Softener**

Surgery, decreased activity and pain medication can slow the GI tract and cause constipation. Therefore, you will be prescribed a stool softener during your hospitalization and upon discharge.

## **Docusate or Surfak**

You may also use Metamucil or any over-the-counter stool softener.



# How Do I Manage My Medications?

Taking medicine may be new to you, and there may be a lot to remember. For example, why are you taking it? What time should you take it? How often do you take it, and how many pills do you take?

It's very important to take medicine the right way - just as your doctor tells you.

If you don't follow your doctor's directions, what could happen? First of all, if medicine isn't taken the right way, it may not work. It could also cause side effects that may be mild - or very harmful. Without knowing it, you could counteract one medicine by taking it with another. When not taken properly, medicine can also make you feel sick or dizzy.



## How Can I Remember to Take My Medicine?

- Take it at the same time each day along with other daily events, like brushing your teeth.
- Use a weekly pill box with separate sections for each day or time of day. Computerized pill boxes can alert you when it's time to take a pill or order refills.
- Ask family and friends to help remind you.
- Use a pill calendar or drug reminder chart.
- Leave notes to remind yourself.
- Try an e-mail or calendar reminder.
- Wear a wristwatch with an alarm.

## What Else Should I Know?

- Ask your doctor or pharmacist when to take your medicines and if they can be taken with food.
- Store your medicine the way your doctor or pharmacist tells you. Keep medicine in the original containers, or label new containers.
- Keep track of what pills you can and can't take together, including over-the-counter medicines.
- Always get your prescription filled on time, so you don't run out.
- Try to see the same pharmacist each time.
- Don't take more of your medicine than the prescribed dose.
- Always check with your doctor before you stop taking a medicine.
- Ask your doctor or pharmacist before buying a new over-the-counter medicine, such as an antihistamine or "cold tablets" or vitamin supplements, to be sure they don't interfere with your prescribed medicine.
- If you have questions about your pills, make a note to remind yourself to ask your doctor or pharmacist.
- Tell your doctor and pharmacist if you have any side effects.
- Write down the names and doses of medicines you are taking. If you go to more than one doctor, take your updated medication list with you to each visit.



# My Current Medications List

Name: \_\_\_\_\_ Month: \_\_\_\_\_

Take this record with you each time you go to the doctor.

NAME OF MEDICINE	DOSAGE OF MEDICINE	WHEN TO TAKE IT	WHAT IT IS FOR	DATE STARTED	DATE STOPPED	DOCTOR ORDERED

# Diabetes

## What is Diabetes and How Can I Manage It?

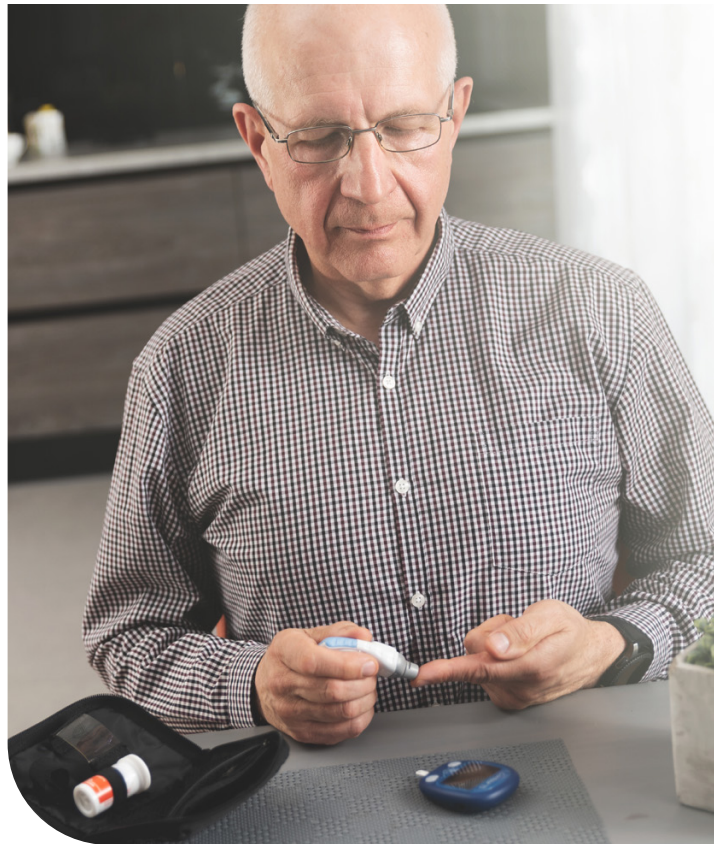
Most of the food you eat is turned into glucose, or sugar, for your body to use for fuel or energy. Insulin is a hormone needed to convert sugar and other food into energy and to help glucose get into your body's cells.

When you have diabetes, your body does not make enough insulin, or you are insulin resistant. This means your body is not using your insulin efficiently or you are not providing enough. This causes sugars to build up and become too high in your blood.

## Types of Diabetes

Type 1 – It results from the body's inability to produce insulin, typically starts early in life and people must take insulin to control it. Accounts for 5-10% of the diabetes population.

Type 2 – The most common type of diabetes, develops when the body doesn't make enough insulin and doesn't use it efficiently. Risk factors for developing Type 2 diabetes include being greater than or equal to 30 pounds overweight, family history of Diabetes Mellitus, ethnicity- Hispanic/Latino, African American, American Indian or Asian American heritage, over 30 years of age and overweight or over age of 45, gestational diabetes (diabetes during pregnancy) or delivery of a large baby (9 pounds or more), inactive lifestyle (exercise less than 3 x week), high blood pressure (140/90 or higher) and abnormal cholesterol (lipid) levels. Accounts for 90-95% of the diabetes population.



## Am I At Risk?

The number of people with diabetes is increasing. By the year 2050 it is predicted that 1 in 3 people will develop diabetes. This is because there are more people who are overweight or obese, do not exercise enough and an aging population. However, many young people are developing Type 2 diabetes at an alarming rate. This is likely due to their weight and inactivity.

## How Can I Control My Risk for Heart Disease and Stroke?

1. Manage your weight, blood pressure and cholesterol levels with a heart healthy diet that includes low amounts of salt, saturated fat, trans fat, cholesterol and added sugars. While you are in the hospital, ask to speak with the dietician and diabetes educator for assistance with a meal plan.
2. Be physically active – Try for 150 minutes per week (2 hours and 30 minutes) of a moderate intensity activity such as brisk walking or an aerobic exercise program.  
If you cannot manage 150 minutes per week, aim for as many as you can – some exercise is better than none.  
Remember to check with your healthcare provider before starting any exercise program.

3. If you drink alcohol, don't have more than one drink per day for women or two per day for men. Remember to discuss your alcohol intake with your provider.
4. Lower your blood pressure if it's too high. Take your blood pressure meds as ordered by your healthcare provider, participate in regular physical activity and follow a low salt diet to maintain blood pressure under 140/90 mm Hg.
5. Don't smoke and avoid second hand smoke as well
6. Keep your blood glucose readings within the target range set by your provider or your diabetes educator. Always bring your glucose log or meter with you to every appointment so your healthcare team can review. If you take medications for diabetes management, take them exactly as prescribed. Do not stop taking your medications without first discussing with a healthcare provider. If you have questions regarding your medications ask your pharmacist or your doctor.
7. Ask your healthcare provider about a referral to a diabetes self-management education class where a certified diabetes educator and a registered dietician will help you to manage your diabetes reducing risk factors. In these classes you will learn what diabetes is, a healthy eating plan, which foods increase your glucose, target ranges for your blood sugar, glucose monitoring, medications, long-term complications and taking care of your feet.



# Daily Blood Glucose Record

Name: \_\_\_\_\_ Month: \_\_\_\_\_

Take this record with you each time you go to the doctor.

DATE	WEIGHT	BLOOD GLUCOSE:		BLOOD PRESSURE:		HEART RATE
		AM	PM	AM	PM	

# Daily Blood Glucose Record

Name: \_\_\_\_\_ Month: \_\_\_\_\_

Take this record with you each time you go to the doctor.

DATE	WEIGHT	BLOOD GLUCOSE:		BLOOD PRESSURE:		HEART RATE
		AM	PM	AM	PM	

# Nutrition

Good nutrition is beneficial in the healing process. Your diet should be low in fat and sodium.

Each day should include:

## Whole Grains – 6 to 8 servings per day

- Examples: whole grain bread, pasta or cereal, brown rice
- Serving sizes: 1 slice bread, 1/3 cup pasta or rice, ½ cup hot cereal, ¾ cup dry cereal

## Fresh Vegetables – 4 to 5 servings per day

- A variety of colors is recommended
- Serving sizes: 1 cup leafy green vegetables; ½ cup chopped or cooked vegetables

## Fruits – 4 to 5 servings per day

- A variety of colors is recommended, especially deep colored fruit
- Fruit juice is not recommended
- Serving sizes: 1 small to medium fresh fruit, ½ cup canned or chopped fruit, 15-17 grapes, 1 cup berries

## Lean Protein – 8 to 10 ounces per day

- Lean beef or pork, poultry, fish (not pre-breaded or fried), legumes, egg whites
- Serving sizes: 3 ounces of meat is about the size of a deck of cards, 1/3 cup nuts, 2 tablespoons peanut butter, ½ cup cooked dried beans or peas

## Fat-Free or Low-Fat Milk Products – 2 to 3 servings per day

- Skim or 1% milk, fat-free or low-fat yogurt, dry-curd, fat-free or low-fat cottage cheese (watch sodium content)
- Serving sizes: 8 ounces milk, 6 ounces fat-free yogurt

## Fats and Oils – 2 to 3 servings per day

- Choose oils high in monounsaturated fats such as olive or canola oils. Healthy snacks include limited amounts of unsalted nuts and avocados. Avoid saturated or trans fats such as stick margarine, processed snack foods and commercially baked goods.
- Serving sizes: 1 teaspoon vegetable oil or soft margarine, 1 tablespoon regular salad dressing or mayonnaise

**2,300 mg of Sodium is the Recommended Daily Limit.** One teaspoon of table salt contains 2,300 mg of sodium.

- If you are diabetic, the grains, fruits and dairy servings will need to be included in your carbohydrate servings at meals.



## Post Surgery

Nausea and vomiting are common side effects of anesthesia. After surgery you will most likely be placed on a clear liquid diet. This consists of broth, sugar-free jello, decaf coffee and diet lemonade. Your diet will be advanced as you tolerate to regular consistency heart healthy or diabetic heart healthy diet. You also may be placed on a fluid restriction.

Good nutrition is an important part of the healing process. If your appetite is poor, nutrition supplements are available to help increase your calorie and protein intake.

Following the above diet is recommended when you go home after surgery.





# Eat Smart for a Healthy Heart

Heart disease is the leading cause of death worldwide. The foods & drinks you consume can impact your heart health and increase your risk of heart disease. Using the nutrition guidelines below can lead to a longer, healthy life!

## Eat Smart

### Control Your Portion Size

Use a smaller plate or bowl at mealtimes. When eating out, limit portions by sharing with another person or boxing up half your meal. Restaurant foods tend to be higher in calories, saturated fats, sodium, and sugar so asking for no added butter or salt can help limit these. Look for nutritional information on their website to make healthier choices.



### Choose Low Fat Protein Sources

Lean meat (like poultry & fish) low fat dairy, plant-based proteins (like beans, peas, lentils & nuts) and eggs are good sources of protein.

### Choose Low Fat Dairy

such as skim, 1% milk or fat free cheeses and yogurt.

### Enjoy Fish at Least Twice a Week

Fish such as salmon, herring and mackerel are **rich in omega-3 fatty acids** that can lower blood fats called triglycerides. Flaxseed and walnuts are good sources too.

### Eat More Fruits & Vegetables

Vegetables and other plant-based foods help prevent heart disease. Choose a variety of fruits & veggies in a wide range of colors, without added sauces.

### Choose Whole Grains

Whole grain foods are good sources of dietary fiber. Fiber can help improve blood cholesterol levels and lower your risk of heart disease and stroke.

### Limit Saturated & Trans Fats

Choose foods with 0 grams of trans-fat when looking at food labels. To limit intake of saturated fat, trim any visible fat from meats you are cooking at home.

### Include Heart Healthy Fats in Moderation

Olive oil, canola oil, avocado oil, nut butters, nuts and seeds, whole avocado, and tub margarine are good choices.  
1 tsp of oil=1 serving

## Eat Less Salt/Sodium

Excessive intake of salt can lead to high blood pressure and fluid retention. Make sure to prepare foods at home without adding extra salt. Try a variety of herbs and spices to add flavor! When choosing frozen or packaged meals, look for those with 650 mg or less sodium per serving. **The AHA recommends <2300 mg sodium daily but the average American is currently consuming more than 3400 mg/day.** Be sure to check with your doctor before using “No Salt” or “Salt Substitute” as these contain potassium and could interact with some of your medications.

## Limit Added Sugars

These are found in sodas, candies, sweets, and desserts. A 20 ounce soda has 15 teaspoons of sugar and is more than the amount of added sugars allowed for an entire day!

## Limit Alcohol

Alcohol intake to 1 drink per day for women and 2 drinks per day for men. 1 drink= 5 ounces wine, 1.5 ounces liquor or 12 ounces of beer. Be sure to discuss alcohol intake with your physician.



## Get Moving

### Exercise

Exercise has been shown to strongly decrease your risk of heart disease. Physical activity can help in reducing cholesterol & triglyceride levels. The AHA recommends at least 150 minutes of moderate physical activity each week, which includes walking, light weightlifting, biking and even housework. Always check with your physician before starting new activities.

## Healthy Weight

### Extra Body Weight Can Increase Your Risk for Heart Disease

Losing 5-10% of your extra body weight can lower your risk for heart disease.



# Healthy Cooking

Healthy eating encompasses more than just choosing the right foods. Preparing your own foods at home:

1. Gives you control over what you and your family eat;
2. Allows you to be creative with your culinary creations; and
3. Saves you money.

You don't have to be an experienced cook to make something your family will enjoy, nor do you have to give up taste or foods you love. Learning heart-healthy cooking skills will (almost) allow you to have it all!

## 10 Tips to Get You Started

1. Find inspiration in healthy cookbooks, cooking shows, blogs, or Pinterest, then try new recipes to “wow” your family.
2. Choose healthier meats and proteins.
3. Add more color with fruits and vegetables. Fresh, frozen, canned, and dried are all good choices, just watch out for excess salt and added sugars.
4. Make healthy substitutions when you can (i.e., Greek yogurt for sour cream).
5. Break up with salt and learn new ways to add flavor to foods, such as herbs, spices, or vinegars.
6. Start a new love affair with salad. Look for recipes for colorful, hearty salads that can stand on its own as an entrée.
7. Upgrade your fats. Opt for healthy vegetable oils instead of lard, shortening, and tropical oils.
8. Stock your pantry (cabinets, fridge, and freezer) with the right staple ingredients to have ready for healthy meal preparation.
9. Learn new cooking techniques and methods. See below for alternatives to frying.
10. Don't be afraid to have fun in the kitchen. Everyone has a cooking fail and lived to tell the tale.



## Healthy Cooking Methods to Try

### Air Fry

Basically, a small convection oven that cooks food with minimal oil and circulating hot air.

### Bake

Cook foods slowly in dry heat like an oven.

### Braise

Cook food using both dry heat (from an oven or stovetop) and wet heat from liquid. Refrigerate the cooked dish and remove the chilled fat before reheating.

### Broil

Cook directly under a heat source at high temperature

### Grill

Cook directly or indirectly over a heat source

### Microwave

Needs no extra fat; in fact, you can drain food of fat by placing it between two paper towels while it cooks.

### Poach

Cook by immersing food in simmering liquid like water, broth, or wine.

### Roast

Cook uncovered in the oven. Set meat or poultry on a rack so it doesn't sit in its own fat drippings. Roast vegetables at 400° for 20-25 minutes to give them a richer, deeper flavor.

### Sauté

Cook food in a pan over direct heat using a small amount of liquid like vegetable stock, fruit juice, wine, healthy oil or cooking spray, or water.

### Steam

Cook in a covered pot over boiling water, vegetable stock, or chicken stock. Foods will retain more of their shape, texture, and flavor.

### Stir-fry

Use a wok or large pan to cook food quickly over very high heat in a small amount of liquid or oil. Stir constantly to prevent sticking or burning.



# How to Read a Food Label

By understanding how to read a nutrition facts label you can eat smarter! Take control of your health by reading and understanding nutrition facts labels.

## What to Look for

### Serving Size

Be sure to check the number of servings & serving size. Aim to only consume the serving size. If you eat double the serving size, you would need to double the nutrient values.

### Limit Fat

- **Saturated Fat:** Aim for no more than 5-6% of total calories from saturated fat (For an 1800 calorie diet this would equal no more than 11 grams of fat per day)
- **Trans Fat:** Aim to only consume foods with 0 grams

### Limit Sodium

Foods with **less than 140mg** of sodium/serving for a snack/side item and **less than 650 mg** for an entire meal

**Goal is to limit total sodium intake to <2300 mg /day**

### Total Carbohydrates

Looking at **Total Carbohydrate** can help:

- Control your blood sugars & prevent risk of developing diabetes
- Help promote a healthy weight loss
- Aim for less than 30 g total added sugars/day or <7 tps.

If you follow a consistent carbohydrate diet for diabetes:

- 1 carbohydrate choice = 15 grams of carbohydrate
- 2 carbohydrate choices = 30 grams of carbohydrate
- 3 carbohydrate choices = 45 grams of carbohydrate
- 4 carbohydrate choices = 60 grams of carbohydrate
- 5 carbohydrate choices = 75 grams of carbohydrate

## Nutrition Facts

4 servings per container	
<b>Serving size</b>	<b>1 cup (140g)</b>
<hr/>	
<b>Amount per serving</b>	
<b>Calories</b>	<b>160</b>
<hr/>	
	<b>% Daily Value*</b>
<b>Total Fat</b> 8g	<b>10%</b>
Saturated Fat 3g	<b>15%</b>
<i>Trans Fat</i> 0g	
<b>Cholesterol</b> 0mg	<b>0%</b>
<b>Sodium</b> 60mg	<b>3%</b>
<b>Total Carbohydrate</b> 21g	<b>8%</b>
Dietary Fiber 3g	<b>11%</b>
Total Sugars 15g	
Includes 5g Added Sugars	<b>10%</b>
<b>Protein</b> 3g	
<hr/>	
Vitamin D 5mcg	<b>25%</b>
Calcium 20mg	<b>2%</b>
Iron 1mg	<b>6%</b>
Potassium 230mg	<b>4%</b>

\*The % Daily Value tells you how much a nutrient in a serving of food contributes to a daily diet. 2000 calories a day is used for general nutrition advice.

\*Before buying “**sugar-free**” foods, check label for **Total Carbohydrate**. “**Sugar-free**” does not mean calorie or carbohydrate free. Some contain sugar alcohols such as sorbitol or mannitol which may cause gas, stomach discomfort, or a laxative effect.

\*A “free” food is one with 0-5 grams carbohydrate and less than 10 calories per serving including most non-starchy vegetables such as green beans, cucumber, spinach, broccoli, lettuce, tomato, carrots, or zucchini.



# NOTES:

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# Award-Winning Care



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HEART CENTER

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