





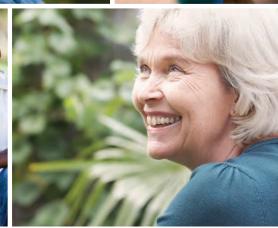






Heart Surgery: Your Journey to Recovery and Wellness

A Cardiac Education Manual





A message from the Physicians and Team Members of the TriHealth Heart & Vascular Institute and Cardiovascular Service Line

Dear Patient,

Thank you for choosing the physicians and surgeons of the TriHealth Heart & Vascular Institute for your care. Whether you are here suddenly and unexpectedly or after careful consideration of all your health care choices, we want you to know that you are in capable hands.

TriHealth Heart & Vascular Institute was created to provide seamless, patient-centered care for heart patients. We're dedicated to offering the most up-to-date, minimally invasive treatment options. We have received national recognition for quality heart care and we participate in clinical trials to bring leading treatments and procedures to our patients. Our physicians work together across all disciplines to ensure that each patient gets the care and treatment that is best for them. In fact, our entire team is dedicated to providing quality care.

Our commitment to you is to do everything we can to help you return to good health. This book is a tool packed with information you need to get back on your feet as quickly as possible. Our team will work with you to get the most out of this book while you are here, and then we encourage you to take it home as an ongoing reference as you recover.

We wish you the best in your treatment and recovery, as we work together to help you live better.

Sincerely,

The Physicians and Team Members of the TriHealth Heart & Vascular Institute and the Cardiovascular Service Line

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Access to Cardiac Binder online with QR code



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In this section, you will learn how the heart works and the important role played by the coronary arteries, valves and electrical system of the heart. You also will receive some basic information about irregular heartbeats, coronary artery disease, angina (chest pain) and heart attacks.

How the Heart Works

The heart is a muscle about the size of your fist. Its job is to pump blood to all parts of the body.

The heart is made up of four chambers that hold and pump blood. The top two chambers are the right atrium and left atrium. The atria collect blood returning to the heart from the veins. The atria then release the blood into the bottom chambers through valves. Heart valves act as one-way doors to separate the chambers and keep the blood moving forward.

The bottom two chambers are called the right ventricle and left ventricle. A wall (septum) separates the two right chambers from the two left chambers. Because of this, you may hear your heart described as two pumps, the "right heart" and the "left heart." When the ventricles contract, they force blood out of the heart to different parts of the body.

The heart is surrounded by a tough protective sac called the pericardium.

Valve Conditions

There are four heart valves that act as one-way doors to keep blood moving in the right direction through the heart. Valve disease occurs when a valve doesn't work the way it should. If a valve doesn't close all the way, blood may leak backward. This is called regurgitation or insufficiency. If a valve doesn't open all the way, less blood moves through the opening. This is called stenosis. Valve problems cause the heart to work harder to pump the same amount of blood. Fluid may back up in the lungs or body and can cause swelling, shortness of breath and dizziness.

Septal Defects

The atrial septum is a wall of tissue that separates the upper chambers of the heart. An atrial septal defect (ASD) is a hole or opening in this wall that fails to close during the body's development before birth.

The ventricular septum divides the two lower chambers (ventricles) of the heart. A ventricular septal defect (VSD) is an opening that can be caused by a birth defect or by an extensive heart attack.

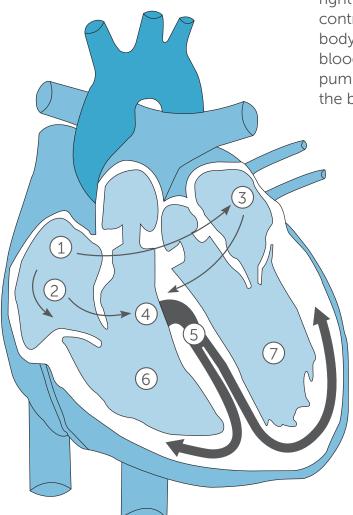
If the hole in the septum is large enough to increase the risk of bacterial infection or cause problems in pressure between two heart chambers, surgery may be needed. During surgery, the hole is covered by a patch or simply closed by sewing the edges of the opening together.

In an average lifetime, the heart beats more than two and a half billion times. The fist-sized organ beats 100,000 times per day, pumping five or six quarts of blood each minute or about 2,000 gallons per day.

An electrical signal starts in the sinus node (#1) which is located in the right atrium. The sinus node tells the upper pumping chambers of the heart (atria) when and how fast to pump. It is the "pacemaker" of the heart.

The Heart's Electrical System

The heart's pumping action is controlled by an electrical system that carries impulses, or signals which causes the pumping chambers of the heart to contract. The signal travels through the right (#2) and left (#3) atria, then to the AV node (#4) in the middle of the heart. The AV node holds the signal briefly until the lower pumping chambers of the heart (ventricles) are filled with blood. The signal then travels through the right and left bundles (#5), distributing the signal to the right (#6) and left (#7) ventricles, which contract to pump the blood out to the body. The right ventricle pumps the blue blood to the lungs, while the left ventricle pumps oxygenated blood to the rest of the body.



The Heart's Electrical Pathway

- 1. Sinus node
- 2. Right atrium
- 3. Left atrium
- 4. AV node
- 5. Right and left bundles
- 6. Right ventricle
- 7. Left ventricle



Irregular Heartbeat (Cardiac Arrhythmia)

Irregular heartbeat, or cardiac arrhythmia, is a problem with your heart rhythm. The heart may beat too fast or too slow, or may skip beats. You may feel palpitations, a rapid heart rate, skipped beats, thumping or pounding in your chest. Cardiac arrhythmias may make you feel anxious, nervous, dizzy, faint or short of breath.

Ventricular Fibrillation (V-fib)

Ventricular fibrillation, or V-fib, is a lifethreatening arrhythmia that can be triggered by a heart attack or damage to your heart. Without emergent treatment, it is fatal. If you are at risk for V-fib, your doctor may recommend an internal cardiac defibrillator (ICD) and/or medication.

Atrial Fibrillation (A-fib)

Atrial fibrillation, or A-fib, is a common problem that is rarely life-threatening. With A-fib, the upper chambers (atria) beat fast and irregularly. About 33 million people suffer from A-fib. One in four adults over age 40 will develop A-fib in their lifetime. People with A-fib are five times more likely to suffer a stroke.

Four Levels of Atrial Fibrillation

According to the Heart Rhythm Society

- 1. **Paroxysmal:** Recurrent A-fib (greater than two episodes) that ends within seven days.
- 2. **Persistent:** A-fib that is sustained more than seven days.
- 3. **Longstanding Persistent:** Continuous A-fib of more than one year duration.

4. **Permanent:** A-fib for which the decision has been made not to try to restore sinus rhythm.

Risk Factors of Atrial Fibrillation

- Coronary artery disease
- High blood pressure
- Advanced age
- Sleep apnea
- Family history
- Binge drinking drinking 4-5 drinks in 2 hours

Symptoms of Atrial Fibrillation

Sometimes people with A-fib have no symptoms. Others may feel one or more of the following symptoms:

- Palpitations a feeling of racing heartbeat
- Weakness
- Reduced ability to exercise
- Fatigue
- Lightheadedness
- Dizziness
- Confusion
- Shortness of breath
- Chest pain

Coronary Arteries

The coronary arteries lie on the outside surface of the heart. The right coronary artery (RCA) supplies blood to the right side of the heart. The left coronary artery starts as the left main artery and divides into the left anterior descending (LAD) and circumflex (Cx) arteries. The left coronary artery supplies blood to the left side of the heart. Coronary arteries are about the size of cooked spaghetti. Many smaller branches lead from these main arteries.



The heart gets its blood supply from the coronary arteries. Blood is pumped from the left ventricle into the aorta, a large artery coming off the left ventricle. The aorta supplies blood to the arteries of the heart as well as to the rest of the body.

Problems occur if the left ventricle is damaged and cannot pump enough blood to the coronary arteries. If blockages in the coronary arteries prevent blood from flowing smoothly, the heart muscle may not receive enough oxygen and nutrients to pump blood as it should.

Coronary Artery Disease

The inside of a coronary artery has a smooth lining through which blood easily flows. Coronary artery disease starts when the lining of the coronary artery is damaged. This often is due to a risk factor, such as smoking, obesity, elevated total or LDL cholesterol, hypertension or diabetes. A plaque deposit (a fatty material composed of cholesterol and other abnormal cells) forms between layers of the artery wall. This buildup, called

atherosclerosis, causes the arteries to become stiff and slows the flow of blood to the heart muscle. Over time, buildup of stable plaque can clog the artery and cause a partial or total blockage.

Another way a coronary artery blockage can occur is when a plaque deposit becomes inflamed and unstable and actually ruptures inside the artery (see illustration below). A rupture can narrow the artery even more and can cause a blood clot to form. If the blood clot is large enough, it will cut off blood flow immediately, and severe chest pain or a heart attack will result. If the heart muscle does not receive enough blood and oxygen, it is called ischemia. A symptom of ischemia is chest pain, called angina.

Angina

Angina is not a disease but a symptom of heart trouble. It is a pain or discomfort that happens when part of the heart muscle is not getting enough blood. It is usually brief, lasting just a few minutes.

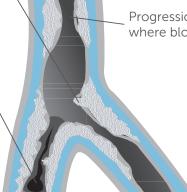
Plaque deposits can sometimes rupture if they become inflamed or unstable.

A rupture can cause a blood clot to form in the narrowed area.

Plaque formation occurs when the lining of the artery becomes damaged and allows abnormal cells and fatty deposits to form between layers of the artery wall.

Progression of plaque narrows the channel where blood flows.

A blood clot (thrombus) can block the artery's flow of blood, causing severe pain and a heart attack.





You may have pressure, tightness or pain in your chest, arms, shoulder, neck, jaw, upper back, or have stomach indigestion.

Angina discomfort often is temporary. It usually occurs during physical activity, after eating a heavy meal, after being outside when the temperature is below 32° F or above 80° F, or during emotional situations.

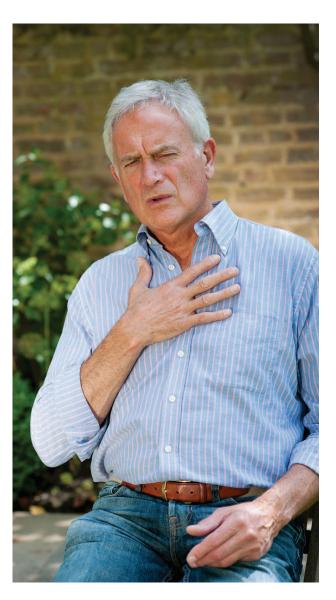
When Angina Occurs

- Stop the activity. This is a sign your heart is not getting enough oxygen.
- Sit down and rest.
- If the pain does not go away in one to two minutes, place a nitroglycerin tablet under your tongue.
- If the pain does not go away in five minutes, take another nitroglycerin.
- If the pain still doesn't go away, call 9-1-1, take another nitroglycerin, and one uncoated aspirin. The aspirin acts as a blood thinner.
- We only have hours to stop a heart attack before there is damage to your heart.

Ways to Avoid Angina Include

- Eat small, frequent meals.
- Avoid heavy exercise or physical activity for one hour after eating.
- Check your heart rate during activity and do not exceed 20 beats above your resting heart rate.

- Do not stay out for long periods in very hot or very cold temperatures (above 80° F, below 32° F), or in high humidity.
- Avoid hot tubs and saunas.
- Manage stress.
- Take your medications as prescribed by your doctor.

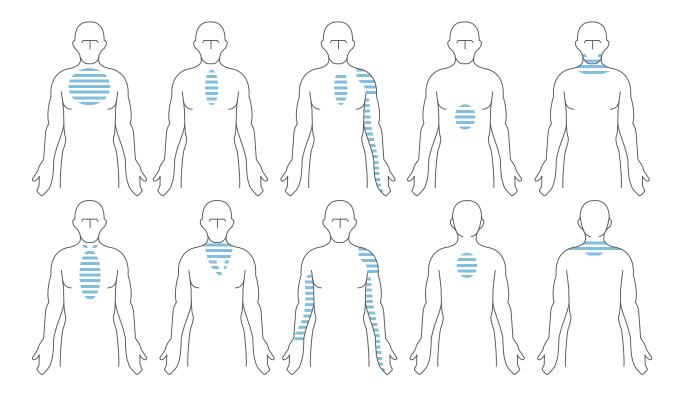




Warning Signs

Angina	Heart Attack
Symptoms occur with activity or exercise and stop with rest	Symptoms may occur with or without activity and do not stop with rest
Chest tightness, pressure, burning— with or without pain—may go to arms or back	Chest tightness, pressure, burning— with or without pain—may go to arms or back
Shortness of breath, extreme tiredness, dizziness, nausea, sweating, heartburn	Shortness of breath, extreme tiredness, dizziness, nausea, sweating, heartburn

Where Angina Discomfort Can Occur





Heart Attack (Acute Myocardial Infarction)

A heart attack occurs when a blood vessel (coronary artery) that feeds the heart becomes blocked and cuts off blood flow to the heart muscle (myocardium). This blockage can occur from either fatty deposits (plaque), a spasm in the blood vessel or a clot.

A heart attack damages the heart muscle. The damage may be slight or extensive, depending on which blood vessel was blocked and how long the blood flow was cut off to the muscle.

Your doctor may recommend additional lab work and cardiac testing to determine if further treatment is needed. Your doctor also will prescribe medicines to help reduce your heart's workload, in order to help the arteries heal and to improve blood flow.

Most patients will have a cardiac catheterization to determine which artery is blocked and the best treatment options. These options include: angioplasty, stent placement, open heart surgery, and valve procedures.

During your hospital stay, your health care team will monitor you closely, watching for any complications. If they occur, it is usually within a few days after a heart attack.

Common Complications Are:

- Heart rhythm problems
- Heart pumping problems or heart failure
- Inflammation or swelling around the heart (pericarditis)

The heart muscle heals slowly. Scar tissue forms where the heart muscle fibers were damaged and this new tissue may not contract as well as the original tissue. The healthy heart muscle near the scarred area has to work harder and, over time, tiny new blood vessels grow from the nearby arteries to carry blood to and around the damaged muscle. These little "natural bypasses" are called collateral circulation.



Notes:

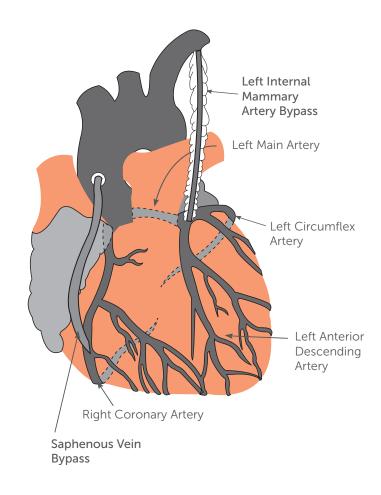


☐ Coronary Artery Bypass Surgery (CABG)

Coronary artery disease may be treated with surgery to improve the blood flow to the heart muscle. Bypass surgery uses veins from your legs or arteries from your arms or chest as replacement vessels (grafts). When a vein or an artery from your arm is used, one end is sewn to the aorta, and the other end is sewn beyond the blockage to create a detour, or bypass. When the chest artery is used, the lower part of the internal mammary artery (left, right or both) is freed from the chest wall and sewn beyond the blockage.

With traditional bypass surgery, the breastbone (sternum) is cut to open the chest. You are usually in the hospital for four to five days after surgery.

Bypass surgery is not a cure for coronary artery disease. Plaque (blockages) can form in the bypasses. To help keep the bypasses open, you will need to control risk factors that cause coronary artery disease. This includes taking your medicines as ordered, exercising to strengthen the heart muscle, controlling cholesterol by changing your diet, and not smoking.



☐ Valve Surgery

Heart valve surgery involves repairing or replacing a narrowed or leaking valve. With repair, a ring may be used to tighten a leaking valve, or a cut may be made to open a valve that is too narrow. To replace a valve, the surgeon takes out the bad valve and replaces it with a tissue valve, either porcine (pig) or bovine (cow), or mechanical (metal) valve.

Valve surgery may require opening the breastbone. In some cases, a minimally invasive approach between the ribs can be used. You are usually in the hospital for four to five days after surgery.

After surgery, you will take medicines to support heart function and to prevent clots from forming on the valve. With a tissue valve, a "blood thinner" (usually Coumadin/Warfarin) may be taken for a short time ($1\frac{1}{2}$ to 3 months); with a mechanical valve, Coumadin is needed for the rest of your life.

Preventing Future Infections

Protecting yourself from infection is important after you have had valve surgery. Call your doctor at the first sign of an infection—fever, sore throat, body aches.

Keep your teeth and gums healthy. See your dentist twice a year. Tell your dentist that you have had valve surgery. Also let your dentist know if you are taking a blood thinner. The same bacteria that grows in your mouth can grow on your heart valve.

You may need to take an antibiotic before other surgeries or procedures (dental work, skin surgery, colonoscopy or other scope procedures). Tell all your health care providers that you have had valve surgery when you schedule an appointment or procedure.

☐ Transcatheter Aortic Valve Replacement

For some patients, traditional or even minimally invasive valve surgery through the chest is considered too high-risk. For patients with severe aortic stenosis (narrowing of the valve) who cannot have open-heart surgery, it may be possible to place a new heart valve inside their narrowed aortic valve. If you are a candidate for this type of aortic valve surgery, you and your family will have several meetings with the cardiologists and surgeons to explain the procedure in more detail.

☐ Septal Defect Repair

The septum is a wall of tissue that separates the right and left chambers of the heart. An atrial septal defect (ASD) is a hole or opening between the upper chambers that fails to close during the body's development before birth. A ventricular septal defect (VSD) is an opening between the lower chambers that can be caused by a birth defect or by an extensive heart attack.

During surgery, the opening is covered by a patch or simply closed by sewing the edges of the opening together.



□ Maze Procedure

When medications have not worked to stop atrial fibrillation, the Maze procedure might be right for you.

During the Maze procedure, the surgeon makes scars on the left and possibly right atria. These scars help block the irregular electrical signals that lead to A-fib. The goal is to make your heart beat more regularly. The success rate for the Maze procedure is 50 to 90 percent. Sometimes it can be three to six months before you know if the procedure has worked for you.

☐ Repair of Thoracic Aortic Aneurysm or Aortic Dissection

An aneurysm is the widening or bulging of a weakened area of the wall of an artery. This weakness and widening is often caused by atherosclerosis (fatty deposits), genetic conditions that weaken the aortic wall, or high blood pressure. Infections can also cause them.

A dissection is a tear in the wall of the aorta. Causes include poorly controlled high blood pressure, genetic defects or a forceful blow to the chest, such as hitting a steering wheel in an automobile accident.

Thoracic aortic aneurysm or dissection in the main artery that carries blood away from the heart may cause chest, arm or back pain, shortness of breath, or difficulty swallowing.

You may not have any warning signs. The problem may be near the aortic valve, or it

may involve the blood vessels that lead to the head and arms and affect blood flow to those areas.

Repair of an aneurysm or dissection in the aorta involves opening the chest through the breastbone (sternum) or between the ribs. The weakened part of the aorta is replaced or patched. The aortic valve also may need to be replaced if it has been damaged.

You are usually in the hospital for four to seven days after aortic surgery. Recovery is similar to bypass and valve surgery. After surgery, it is important to control the risk factors that led to the aneurysm or dissection, such as high blood pressure and high cholesterol.

☐ Robot-Assisted and Minimally Invasive Heart Surgery

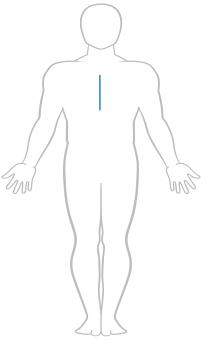
Some heart surgeries now can be done through several one- to four-inch incisions, rather than cutting through the breastbone to reach the heart. The surgeon may use robot-assisted instruments to work through these smaller openings. Your surgeon will tell you if it is possible to do your surgery this way. With minimally invasive surgery you are usually in the hospital for two to four days after surgery. The smaller incisions usually mean a faster recovery.

Just as with traditional heart surgery, controlling risk factors and taking your medicines are very important for recovery and for the long-term health of your heart.

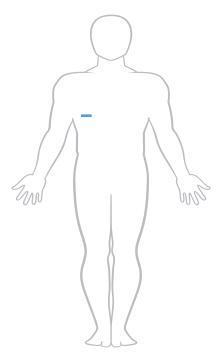


Common Incisions (wounds)

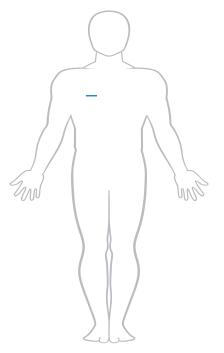
These diagrams show common incisions for heart surgery. Your surgeon and nurses can show you what to expect for your surgery.



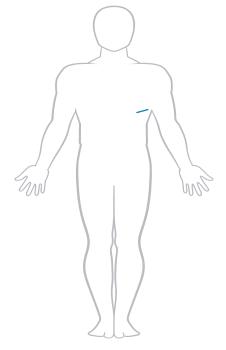
Sternotomy



Mini/robotic mitral valve



Mini aortic valve



Robotic bypass surgery



What to Expect After Heart Surgery

Breathing Tube

When you wake up from surgery, the first thing you may notice is a tube in your throat. Following surgery, the tube helps you with breathing. It is connected to a breathing machine called a ventilator.

When you are able to breathe on your own, your nurse will take the tube out. While the tube is in, you can't talk. At first, when you are still somewhat sleepy, your hands will be tied down to keep you from pulling out your tube. Your nurse will give you medicine to help you feel less anxious with the tube. Most patients do not remember the time that the breathing tube is in.

Chest Tubes

You will have several drainage tubes in your chest. These stay in until the oozing and drainage stop, usually by the second day after surgery. Your nurses will help you turn side to side and get up to a chair to help the tubes completely drain fluid from your chest. You need to be up in a chair at least 2 times before the tubes can be removed.

Monitoring Lines and IVs

You will have several special IVs that monitor your blood pressure and the pressures inside your heart. Most of these are usually taken out the first or second day after surgery. One other IV in your neck will be kept in place until you are ready to go home.

Heart Monitor

You will have a heart monitor attached to your chest. This will stay on until you go home. As you get stronger and start walking, you will have a monitor that allows you to walk outside your room.

Foley Catheter

The tube (catheter) in your bladder will be placed during surgery. It may be taken out on the first or second day after surgery, usually when your chest tubes come out.

Moving and Activity

You will be getting out of bed on the first day after surgery. The nurses will help you get out of bed for meals and for walks. By the second day, you should be ready to take a walk in the hallway outside your room.

Swelling

You will have swelling. This is due to the fluids you receive during surgery. You will be given a medicine (diuretic) to help get rid of this extra fluid. This takes several days.

Water Restriction

You may be limited to 8 cups of fluid per day. This includes ice, drinks, soups and water, including what you drink to take medicines. Most patients feel thirsty after surgery. Chewing gum helps decrease your feeling of thirst. Using sugar free hard candy also helps.

Importance of Pain Control

You will have some amount of pain after surgery. Every patient is different in the amount of pain they feel. It is important for you and your family to have a plan for pain management after surgery, and realistic expectations of what we can achieve. We will do our best to keep your pain under control so that you are able to perform the therapies to help you get better.

Please let your nurse know if you are having pain. You will be expected to get out of bed, walk, and do your breathing exercises. These activities are harder to do if you have significant pain. By taking pain medicine, you can be comfortable enough to do all activities that help you recover and prevent problems.

Pain medicine can cause constipation. You may be given laxatives or stool softeners to assist you to have a bowel movement before you leave the hospital. We expect that most patients will not need narcotic medications by 3-4 weeks after surgery.

Pacing Wires

You will probably have small wires attached to your heart coming out near your chest tubes. These are used to increase your heart rate if needed. They are temporary and are removed or clipped before you go home.

Breathing Exerciser

You will be reminded to do your breathing exercise 10 times every hour while you are awake. This is important to help keep your lungs inflated and to prevent pneumonia.

Blood Sugar and Insulin

High blood sugar levels prevent or slow down healing. During and after your surgery, your blood sugar level will go up. This happens even in people who do not have diabetes. Your nurses will frequently check your blood sugar level by sticking your finger for a drop of blood. They will give you insulin for several days, through an IV at first, to keep the blood sugar normal.

Sternal Precautions

If you have a sternotomy (mid sternal incision), your activity will be limited until your sternum (breastbone) heals. This usually takes 8 weeks, but can take longer. During this time, you have a 5-10 pound weight limit for pushing, pulling or lifting. You will be taught how to safely move in a way that limits stress on your wounds during your hospital stay.

Demonstrate getting in and out of a chair



using sternal precautions.	now. Every day that you stop before surgery, helps to reduce your risk of		
☐ Patient able to return demonstration.	problems after surgery.		
☐ Helper knows how to help.	Alcohol Use		
Additional Considerations			
Smoking / Vaping / Electronic Cigarette / Smokeless Tobacco:	It is important that you be honest with your health care providers about your alcohol use. Tell your surgeon how many drinks you have per day (or per week).		
Harms the heart and lungs.	This information can help determine if		
 Can cause blood to thicken and form clots. 	you are at risk for alcohol withdrawal or other alcohol-related problems that could		
Can cause breathing problems.	occur after surgery. This could affect your		
Can slow the rate of healing.	recovery.		
 Reduces oxygen levels. Oxygen is food for the heart. 			
If you smoke, we encourage you to stop			
Recap: Name three things you can do to	help get ready for surgery.		
1			
2.			



Discharge Assessment

Home Environment

1.	Describe your home (circle)			
	a. House			
	i. ranch – bed / bath on first floor			
	ii. two-story - bed / bath on first floor			
	iii. two-story - bed / bath on second floor			
	iv. bi-level – number of steps to bed/bath level			
	b. Condominium			
	c. Apartment			
	d. Mobile home			
2.	Number of steps			
	a. Into the home			

Medical Equipment and Supplies

b. To the bedroom _____

- 1. Do you already own or have access to any medical equipment:
 - a. Walker with front wheels? (yes / no)
 - b. Shower chair? (yes / no)
 - c. Bathtub bench? (yes / no)
 - d. Raised toilet seat? (yes / no)
 - e. Bathroom scale? (yes / no)
 - f. Blood pressure machine? (yes / no)
 - g. Thermometer? (yes / no)
- 2. Do you have the following supplies:
 - a. Antibacterial soap? (yes / no)
 - b. Several washcloths? (yes / no)

Activity Assessment

- 1. One month ago, how far could you walk before you had to stop or rest? ______
- 2. Do you drive? (yes / no)
- 3. Do you clean your own home? (yes / no)
- 4. Do you do your own laundry? (yes / no)



- 5. Do you do your own shopping? (yes / no)
 a. Do you have to lean on the cart? (yes / no)
 - b. Do you use the riding shopping cart? (yes / no)
- 6. Do you use any assist devices (cane / walker / scooter / wheelchair)?
- 7. 5-meter walk test: ______, _____, _____,

Do you have a coach to help you through your operation?

A coach is someone (adult family member or friend) who can be at the hospital to learn how to help you after surgery. This person needs to be with you 24 hours a day for 7-10 days after your surgery. More than one person can help care for you.

Name _____

- 1. Can this person physically help you with walking and getting out of bed? (yes / no)
- 2. Can this person come to the hospital between 9 a.m. and 2 p.m. to learn how to help you get out of bed? They need to come on two days. (yes / no)
- 3. Can this person come to the hospital at 10:30 a.m. to attend a discharge class? (yes / no)
- 4. Can this person take you to a doctor's appointment after discharge? (yes / no)

Post Surgery Plan

- ☐ Home with 24-hour care from family or friend
- 1. You have a coach who can provide 24-hour help, can help you with mobility and can drive.
- 2. You will most likely be able to care for yourself and not need much help from your coach.
- 3. You will have a home visit by a nurse to assess your heart, knowledge of your medicines, and how you are doing. This will be arranged before you go home.

☐ Short-term Rehab

- 1. If you do not have someone to help care for you 24 hours a day OR you need significant help now, you will most likely need rehab.
- 2. This is most likely to happen at a skilled nursing facility, although some patients may need an acute rehab facility.
- 3. We have a list of facilities that are preferred facilities, with better outcomes than other facilities. We will give you a list of these to review.
- 4. Preferred nursing facility _____

Patient/Coach Contract – Cardiac Surgery

Patient Name:	Date:	
Facility Where Surgery is Scheduled	:	
Date of Surgery (if available):		
Thank you for selecting a TriHealth land the confidence you have placed in cand after your surgery. We look forweducation program.	our team's ability to care for	you before, during
t is the expectation of your heart susupport you throughout your expereducation and will be available to as discharge. Your coach will come with	ience. Your coach will partic ssist you for at least the first	ipate in discharge 7-10 days after
My Coach Will Be:		
Coach's Contact Numbers: Cell		
Home _		
When discharged the following care personal needs and driving (do not		e to assist with my
1.		
Name	Cell Phone	Home Phone
2		
Name	Cell Phone	Home Phone
3		
Name	Cell Phone	Home Phone
Patient Signature:		
Coach Signature:		



Notes:

Notes:



Countdown to Surgery

Date	Day of Week	What to do – ☑ Check each item as you complete it	
		□ Buy or obtain scales to weigh yourself.□ Buy antibacterial soap (liquid soap preferred).□ Buy or obtain a thermometer for taking your temperature.	
5 Days Before		 □ Drink 2 cartons of Impact supplement if given to you. □ Morning □ Evening/Dinner □ Walk 3 times a day as able. Stop if you have symptoms. □ □ □ □ Practice using your incentive spirometer (lung exerciser). □ □ □ 	
4 Days Before		☐ Drink 2 cartons of Impact supplement if given to you. ☐ Morning ☐ Evening/Dinner ☐ Walk 3 times a day as able. Stop if you have symptoms. ☐ ☐ ☐ ☐ Practice using your incentive spirometer. ☐ ☐ ☐ ☐	
3 Days Before		 □ Drink 2 cartons of Impact supplement if given to you. □ Morning □ Evening/Dinner □ Walk 3 times a day as able. Stop if you have symptoms. □ □ □ □ Practice using your incentive spirometer. □ □ □ □ 	
2 Days Before		 □ Drink 2 cartons of Impact supplement if given to you. □ Morning □ Evening/Dinner □ Walk 3 times a day as able. Stop if you have symptoms. □ □ □ □ Take a shower using your antibacterial soap. □ Practice using your incentive spirometer. □ □ □ □ 	
1 Day Before		 □ Drink 2 cartons of Impact supplement if given to you. □ Morning □ Evening/Dinner □ Walk 3 times a day as able. Stop if you have symptoms. □ □ □ □ Practice using your incentive spirometer. □ □ □ □ □ In the evening, take a shower using your antibacterial soap. □ After your shower, dry with clean towel, then wash with the Chlorhexidine® wipes that were given to you – follow the picture on page 25. • Put on clean pajamas; have clean sheets on the bed. • Do not use any lotion or powder. □ Drink 32 ounces of G2 or Powerade between 10 pm and midnight. □ Stop all solid food when you go to bed, no later than midnight. 	
Day of Surgery		□ ONLY take these medicines – see page 22. Bring the following with you to the hospital: see page 23 for list. Arrive at the hospital at Go to the Registration Desk.	



Pre-Surgical Services Instructions

- Surgery Date: ______ The surgeon's office will contact you regarding your date and time for surgery. Your arrival time will be determined by the surgeon's office and not the hospital. Be aware that the surgeon may have important preoperative instructions for you to follow that could start several days prior to your surgery date. Please read any surgeon's instructions as soon as you get them. If you have any questions regarding your surgery, you must contact the surgeon's office.
- Follow all surgeon's office instructions on **eating and drinking** prior to surgery. Reminder that NOTHING to eat or drink includes ice chips, chewing gum, hard candy, or mints. Do not sip water while brushing your teeth.
- Follow the bathing/shower instructions. See pages 24 and 25.
- Please notify your surgeon's office as soon as possible if you develop any changes in your physical condition (flu-like symptoms, fever, respiratory congestions or new cough). This also includes any rashes, abrasions or skin changes at the surgical site. Avoid activities that could cause abrasions or rashes.

On the Day of Surgery

- Take ALL your usual scheduled/routine medications on the day of surgery EXCEPT:
 - Blood pressure medications that contain ACE inhibitors or ARB blockers
 - Diuretics/water pill ____
 - Diarctics, water |
 - Potassium
 - Herbal/dietary supplements/vitamins
 - Oral hypoglycemics/diabetic medicines/non-insulin injectables
 - Insulin: Note If you use a long acting insulin, take 80% of the usual dose the night before or morning of surgery.
- Continue taking usual scheduled **aspirin** unless instructed not to take by your surgeon.
- Contact your surgeon about the use of blood thinners anti-coagulants, NSAIDS (examples: Advil, Ibuprofen, Meloxicam etc.) and anti-platelet drugs.
- All "diet" drugs should be held for two weeks prior to surgery.
- No smoking on the day of surgery.
- Do not apply any lotions, powders, perfumes, nail polish, make-up or hair spray after bathing.
- All rings, jewelry and any metal must be removed before surgery. Remove all hair pins, barrettes, hair pieces, extensions and wigs.



- It is important to have a family member or friend remain in the waiting room while you are in surgery to meet with the physician after your procedure. Your family will need to check in with the volunteer at the surgery waiting room desk for instructions.
- Leave all valuables, including jewelry, cell phones, computers, etc. at home or with a family member. You must have a picture ID and insurance card upon registration and any co-pay required.
- Please have a family member keep your luggage and / or personal belongings in the car until your room is assigned after surgery.

Please bring the following checked items with you on the day of surgery.

• Valet parking is available, at no cost, at the main hospital entrance starting at 5 a.m.

☐ Driver's license or photo ID, insurance card, Medicare/Medicaid card
☐ Copy of Living Will or Durable Power of Attorney for Health Care
☐ List of date and time current medications last taken
□ Inhalers
☐ Personal toiletries (toothbrush, toothpaste, denture cleanser/cup, denture paste,
deodorant, electric razor, comb)
☐ Cases for eyeglasses/contact lenses and cleaning/storage solutions
☐ Hearing aid and batteries
☐ CPAP machine, settings, and tubing. Clean machine per manufacturer's directions
☐ Incentive spirometer
☐ Important telephone numbers (include person taking you home)
☐ Books, magazines or hobby (like knitting, cards, etc.) (optional)
☐ Earplugs (optional)
☐ Headphones and music (iPod, iPad, etc.) (optional)

Bethesda North:

• 513 865 1171 for the Same Day Surgery Desk (Monday-Friday, 5:30 a.m.-8:00 p.m.)

Follow these instructions carefully. If you have any questions about your visit, please call:

☐ This education guidebook so you can review items with your health care team

We strive to make every hospital visit a well informed and satisfying experience. Our goal is to be exceptional in every way. Please direct any concerns, suggestions or comments about this visit to:

Bethesda North management team - 513 865 5594.

Thank you for choosing TriHealth.



Bathing/Shower Instructions

Pre-Operative Infection Control Measures

At TriHealth, we take a number of steps to prevent infections in our patients. You can help by preparing your skin **the evening before** your surgery according to the following instructions.

Please read this entire instruction sheet first, including the back, before proceeding.

Do not shave the area of your body where the surgery will be performed for 5 days prior to surgery. Report any open areas, rashes or scratches to your surgeon BEFORE your scheduled surgery date.

To help prevent infection, TriHealth has given you disposable cloth wipes moistened with a rinse-free, antiseptic solution called 2% Chlorhexidine Gluconate (CHG).

Do not use this product if you are allergic to Chlorhexidine. Use antibacterial soap to bathe, notify your surgeon, and inform the nurse taking care of you when you come in for surgery.

*If you develop itching while using the wipes, rinse your skin with water and stop using the wipes.

Instructions for Using the 2% Chlorhexidine Gluconate (CHG) Wipes

- 1. The night before your surgery, take a shower or bath and do not apply any lotions or moisturizers to your body.
- 2. After you have thoroughly dried off and before putting on clean pajamas, open the package of wipes.

Do not allow this product to come in contact with your face or genitals.

Do not rinse or apply any lotions, moisturizers or makeup after using the wipes.

Do not flush the wipes down the toilet. Discard in the trash.

3. Use each wipe according to the instructions and diagram on the next page. You may need help from another person for any hard to reach spots. Allow yourself to air dry after using all six wipes.



Instructions for Using the 2% Chlorhexidine Gluconate (CHG) Wipes

Wipe 1: Wipe your neck and chest, including under the breasts.

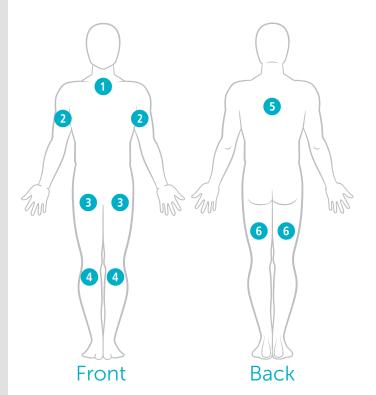
Wipe 2: Wipe both arms, starting each with the shoulder and ending at the fingertips. Be sure to thoroughly wipe the arm pit areas.

Wipe 3: Wipe your right and left hip followed by your groin. Be sure to wipe folds of the abdomen, the umbilicus (belly button) and groin areas.

Wipe 4: Wipe the front of both legs, starting at the thigh and ending at the toes.

Wipe **5**: Wipe your back starting at the base of your neck and ending at your waist line. Cover as much area as possible. Assistance may be needed.

Wipe 6: Wipe back of both legs, starting at the buttocks and ending at the heels.



Incentive Spirometry

Using the incentive spirometer, also called a breathing exerciser, helps you take deep breaths to open the air sacs in your lungs. This can help reduce the chance of developing breathing problems like pneumonia after surgery.

Steps for Use

- 1. Connect the breathing tube to the port on front of the spirometer.
- 2. Hold the incentive spirometer upright.
- 3. Breathe out, then close your lips tightly around the mouthpiece and take in a slow deep breath through your mouth.
- 4. As you take a deep breath, a small blue indicator on the right should be bobbing between the arrows. It is important to breathe in slowly to allow the air sacs in your lungs time to open.
- 5. After you breathe in as deeply as you can, hold your breath for 3 to 5 seconds. Set the goal indicator tab, on the left, at the level that you reached.
- 6. Take out the mouthpiece and breathe out slowly. Relax and breathe normally for a few seconds.
- 7. Repeat these steps for a total of 10 times every 1 to 2 hours. If you start to feel lightheaded or dizzy, slow down your breathing and give yourself more time between deep breaths.
- 8. Cough at the end of each session.

Enhanced Recovery Program

Using Impact Advanced Recovery Nutritional Drink

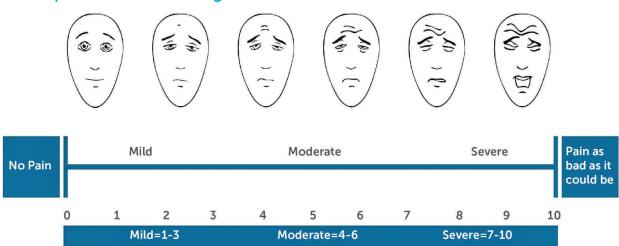
Impact is a supplement used to prepare your body for surgery and help your body heal after surgery.

- Continue your normal diet.
- Begin taking Impact two times daily for five days.
- You can drink Impact with your meals or in between meals as a snack.

Impact has a vanilla flavor and is best served cold. If you prefer, you may flavor Impact by adding 2 tablespoons of flavored syrups or coffee creamer. If you have diabetes, you should use sugar free flavorings.



Post-operative Pain Management



Your pain management after surgery is very important to us. Assessing and evaluating your pain are two key components to treating your pain effectively. The amount of pain from surgery varies from person to person. The goal for your pain management is to maintain a level that is at a "tolerable" or "functional" intensity. You will have pain following your surgery.

- You will be asked to rate your pain on the 0-10 scale (see above).
- Based on your level of pain, you will be given pain medicine to make you feel more comfortable.
- We may use a combination of medications for pain management.
- Narcotic and non-narcotic medicines may be given through your IV, or taken by mouth.
- Pain can also be managed by using alternative measures.
- Being up and moving can also help to reduce pain, however, never get up without calling for help first.
- Healing Touch and relaxation techniques are helpful alternatives to pain medications.
- Music is also a good distraction from the discomfort.
- Managing your pain will help you complete the activities necessary to recover.

You know what works for you. We want you to "Speak Up" for yourself. Let us know early on if you live with chronic pain. We will discuss it with you to find out what works best for you. We will also discuss other therapies that you have found helpful.

The Day of Surgery

Arrival at the Hospital

On the day of surgery, please follow the instructions that you were given from your surgeon's office about your arrival at the hospital. Allow yourself 20 minutes to park and sign in. Complimentary valet parking is available.

- Bethesda North Come in the front door and STOP at the Registration Desk. You will need photo ID and Insurance Card.
- After checking in, you will be directed to the surgery area.
- If you need to urinate upon arrival, please ask if a urine sample is needed before using the bathroom.

Same Day Surgery

- Your privacy is important to the entire health care team. One of our team members
 will welcome you and escort you from our waiting room. Some of the information
 we request may be considered confidential or sensitive, therefore we will invite
 your family member / support person to join you after your initial assessment has
 been completed.
- Valuable items such as dentures, partial plates, contact lenses, hearing aids, glasses, hair pieces and hair pins, all jewelry, all piercings and anything that is not a normal part of your body, must be removed before going to surgery and given to your family. This also includes cell phones, computers/laptops, money, credit cards, jewelry, wallets and purses.

Your Surgery Team

- You will meet with your health care team which includes, but not limited to, your nurse, nursing assistant, surgeon and anesthesia provider.
- We will review your chart. We will confirm any changes or additions that need to be made to your history and health status. This includes Advanced Directives, and the last date and time you took your current medications.
- If any testing still needs to be completed, it will be done at this time.
- We will clip your body hair from your chest, arms and legs. Please do not shave your body hair for 5 days prior to surgery.
- Answer any questions that you or your family may have.



Notes:

Notes:



Heart Surgery and Going Home

Cardiac Surgery Patient Pathway

Day of Surgery

General Information

- Staff will show your family the location of the waiting room.
- Family members should let the volunteer know if they leave.
- Surgery lasts three to six hours. Preparation, going to sleep, and making sure the patient is stable before going to the CVICU may add an hour or two to this time.
- Your surgeon will talk to your family after surgery.
- You will have an ET tube (endotracheal tube)—a tube that goes down the back of your throat and into your lungs to give you oxygen during surgery.
- You cannot talk while the ET tube is in place.
- The ET tube will be taken out when you are able to breathe completely on your own (two to twelve hours after surgery).
- You will be using your lung exerciser every hour after the ET tube is out.
- You will be given a stuffed bear to hold to your chest when you cough.

Diet

• You will be given ice chips after the ET tube is removed.

Activity

- You will be sleepy for the first twelve hours after surgery.
- Your nurse may sit you up in bed.

Comfort

- You will be given pain medicine through your IV and by mouth to keep you comfortable.
- We will ask you to rate your pain from 0 to 10: "0" means no pain and "10" is the worst pain you can imagine.

After Surgery

- You may have temporary pacemaker wires in your chest for three to four days. These will be clipped or removed prior to your discharge from the hospital.
- You will have tubes in your chest to drain any excess blood and fluid for one to two days.
- You will have a tube in your bladder (Foley catheter) to drain your urine for one to two days.
- You will have special intravenous tubes/lines that help us deliver medication or take blood samples. One of these may not be removed until you are ready to leave the hospital.

Heart Surgery and Going Home

Cardiac Surgery Patient Pathway

Days 1 to 5 After Surgery

General Information

- Your family and friends may visit. Your rest is very important, therefore we suggest short visits.
- We recommend two visitors at a time during the first two days or until you are feeling better. We monitor each patient's response to visitors and sometimes suggest fewer if it causes distress for the patient.
- Several tubes and catheters will be removed, usually on day one or two.
- A surgeon visits every day.

Breathing

- You should be using your lung exerciser on your own. Take 10 deep breaths every hour while awake. Follow this with a good, strong cough.
- Hold your bear to your chest when you cough.
- You may still need oxygen.

Diet

- Your diet will change quickly from liquids to a diet that is low in sugar and fat.
- The staff will measure what you eat or drink and your urine output.
- It is normal to have a poor appetite, but we want you to eat.
- Let your nurse know if you have nausea.

Activities for You to Do

- Bathe with help.
- Learn how to care for your incisions.
- Sit in a chair with help for every meal.
- Walk with help three times each day.
- Limit lifting to no more than 5 to 10 pounds.
- Allow for rest between activities.

Comfort

- Take pain medication as needed.
- Tell your nurse when you need pain medication—for pain rated greater than 4 (on a scale of 0 to 10).

Discharge Planning

- A Care Coordinator can help arrange for services after discharge.
- Social Worker can help answer insurance questions.



Cardiac Surgery Patient Pathway

Day of Discharge

General Information

- Your nurse will review your instructions and medications. You will have this book and other papers to refer to at home.
- You and your family will review diet, exercise, self-care and cardiac rehabilitation.
- You will be given contact information to make your first follow-up appointment with the surgeon and to call for questions.

Breathing

• Continue breathing exercises at home, at least 10 repetitions every hour, while you are awake. Follow this with a good, strong cough, while holding your bear.

Diet

- You need good nutrition to help you heal.
- After you recover, follow the diet guidelines taught by the dietitian for a heartsmart diet.
- Eat small meals more often instead of three big meals.

Activities

- Follow the activity plan found in this book.
- Do not lift more than 5-10 pounds (one-half to one gallon of milk).
- Your nurse will review:
 - activity progression
 - returning to work
 - driving
 - sexual activity

Comfort

• You will be given a prescription for pain medication.

Discharge Planning

- A visiting nurse will be arranged for you.
- Please call the surgeon's office 513 865 5120 the next working day for a follow-up appointment to be scheduled within the next 5-10 days.
- If you have any questions or concerns after discharge, call your surgeon's office.

Going Home: Managing Your Care at Home

Call Your Surgeon's Office Between 8 a.m. and 4 p.m. For

- Increased drainage, redness, swelling, or tenderness, from wounds.
- Increased shortness of breath when resting.
- Fever over 100.6°F.
- Heart rate less than 50 or over 110.
- Weight gain more than 2 pounds overnight or 5 pounds in a week.
- Increased leg swelling.

Call 911 Right Away If You

- Have heart pain/discomfort that feels like your pain before surgery but doesn't go away with nitroglycerin or pain medicine.
- Have sudden severe shortness of breath, have rapid heartbeat, fluttering or irregular heartbeat that doesn't go away in 15 minutes.
- Think something is seriously wrong.

Key Points

(for more detail, see following pages)

- Check your incisions daily for signs of infection.
- Shower daily, washing incisions with antibacterial soap. Avoid hot water.
- No tub bath, hot tub, swimming pool.
- Follow walking plan in Activity Log.
- Limit stairs it will make you tired.
- No driving until your surgeon says it's OK. You will receive instructions at your surgeon's first office visit.

- Wear a seat belt with the bear between your seat belt and your chest when riding in a car.
- Check blood sugar if diabetic.
- Do not lift, push, or pull more than 5-10 pounds. If you had robotic or minimally-invasive surgery, it's OK to lift with the arm opposite your surgery site.
- Use your breathing exerciser for 10 repetitions every hour, while awake.
- Check your pulse every day, and record on your Activity Log.
- Check your temperature every day, and record on your Activity Log.
- Weigh yourself every morning after going to the bathroom and before breakfast. Record on your Activity Log.
- Use over-the-counter stool softener or laxative to avoid constipation.
- No smoking or second-hand smoke.
- Call during office hours for medication refills, if needed, during the first 30 days after discharge.
- Listen to your body. If you develop any form of chest discomfort, extreme shortness of breath, dizziness, sudden weakness, or excessive sweating, stop and rest five minutes. Call your doctor if the symptoms do not go away, or if you have these symptoms again.
- Do not allow anyone to visit if they are sick (cough, fever, sore throat, a cold). You are more likely to pick up an infection.



Care of Your Incisions

- Shower daily. Wash incisions with antibacterial soap and warm water.
- Incisions sunburn easily. Protect them from overexposure to sunlight during the first year after surgery. The scar will pigment more (be darker) if exposed to the sun.
- Do not apply any lotions, creams, oils, or powders to your incisions unless prescribed by your cardiac surgeon.
- Use a fresh, clean washcloth to wash your chest incisions, then you may use the same cloth to wash the rest of your upper body. Use a second fresh, clean washcloth to wash the groin or leg incisions, then you may use the same cloth to wash the rest of your lower body.
- Limit showers to 5-7 minutes to avoid fatigue. It may be helpful to use a shower stool.

Care of Your Surgical Leg

If your surgery involved taking a vein from your leg, follow these guidelines:

- Avoid crossing your legs as this impairs circulation.
- Avoid sitting in one position with your feet down or standing for prolonged periods of time.
- It is normal to have some swelling in your leg. Elevate your leg as needed.
 Try to get ankles above the knee, and the knee above the heart.
- When sitting, flex, or pump, your feet up and down to feel the calf muscles squeeze.

• If you continue to have leg swelling, call your surgeon.

Care of Your Arm Incision

If your surgery involved taking an artery from your forearm:

- Avoid lifting over 5 pounds with that arm.
- Avoid taking blood pressure in the affected arm for three months.

Walking

See the walking schedule in the Daily Activity Log at the end of this section.

Follow these guidelines:

- Walk at a comfortable, easy pace.
 As you get stronger, increase to a moderate, steady walking pace.
- Do not walk within one hour after meals.
- Walk on level ground, avoiding hills and grades.
- Walk inside if the temperatures are too hot (over 80 degree) or too cold (below 32 degrees), during extreme humidity or a pollution alert.
- In summer, walk in the cooler part of the day and wear light, loose-fitting clothes.
- In winter, put on hat and gloves and wear a scarf to cover your nose and mouth.
- Carry your cell phone for emergencies.



General Guidelines for Activity

- Hold your bear or put your hands across your chest; do not push up from armrests or pull on something to get up (lifting restriction).
- Use your legs to push up. Use a rocking motion if that helps give you momentum to get up.
- If someone helps you get up, have the person hold onto the waist of your pants, your shoulders, your elbow, or use the gait belt that was sent home with you. Do not let the person pull using your arms.
- When getting into a car, sit down first, and then swing your legs in. When getting out, swing your legs out first, and then stand up.

When Getting up From a Seated Position, Follow These Guidelines

- Avoid low or soft chairs that make it difficult to stand.
- Scoot to the edge of the seat.
- Consider a raised toilet seat.

When Getting Out of Bed, Follow These Guidelines

- First roll to your side, slide your feet off the bed and then use your forearm/ elbow to gently push yourself up to a sitting position.
- Do not pull on someone's arm or have someone pull on your arm to get up.
- Sleeping with your chest elevated on several pillows may be more comfortable at first and makes it easier to get up.

Activities of Daily Living

- Avoid reaching over your head for objects.
- Sit down to put on socks and pants. Bending over and reaching down can place too much strain on your chest.
- Wear comfortable, loose-fitting clothes.
- Women should wear a bra 24 hours a day. Choose a bra that closes in the front. Avoid underwire bras as the wires can rub on your incision.

Lifting

Do not lift, push or pull objects that weigh more than 5-10 pounds until your restrictions are changed by your surgeon. Examples include:

- Car doors
- Purses (8 to 12 pounds)
- Gallon of milk (8 pounds)
- Children
- Pets

Climbing Stairs

- Limit stairs to one or two trips a day at first. Increase as you feel stronger.
- Gently hold on to a handrail. Do not pull yourself up with it.

Checking Your Heart Rate (Pulse)

- Use your fingertips to press gently at your wrist below your thumb or on your neck between your voice box and the big muscle on the side of your neck.
- Use a watch or clock with a second hand and count the number of beats you feel in one minute.



Travel

- No driving for up to three weeks after you leave the hospital. Your surgeon will discuss this at your first office visit.
- Put your bear or a pillow between your seat belt and your chest for comfort when you are a passenger for the first few weeks.
- Limit local rides to 45 minutes. Stop to stretch when you are tired.
- When beginning to drive again, avoid long periods of driving, rush hour traffic and bad weather.

Alcohol

- Alcohol may affect various medicines.
- You should not drink alcohol until approved by your surgeon. You will be much more sensitive to alcohol due to post-surgery anemia.

Diabetes Management

If you have diabetes, continue to check your blood sugar at home. Call your primary care doctor if your blood sugar:

- Is above 200 for 2 times in a 24 hour period.
- The morning blood sugar is above 125 for 2 days in a row.

Cardiac Rehab

Talk to your cardiologist at your first visit about when you can begin cardiac rehab. This education and exercise program can help you make changes that will lower your risk of further heart disease.

Common Concerns After Going Home

It takes four to six weeks to start feeling better. Remember to take all medication as prescribed by your doctor.

Concerns About Chest Incisions

- If an artery in your chest (the mammary artery), was used during your surgery, you may have some numbness near the chest incision. This is normal.
- You may have a lump at the top of your incision. This will go away with time.
- You may notice an occasional clicking or sensation in your chest in the first days after surgery. This should occur less often with time and go away with time. If it gets worse, call your surgeon.
- You may have muscle pain or tightness in your shoulders and upper back between your shoulder blades. This will get better with time.

Constipation and Poor Appetite

Being less active and taking pain medication can make you constipated after surgery.

- Eat plenty of high-fiber foods like fruits and vegetables (see the section on "Eating with Your Heart's Consent") and drink liquids.
- An over-the-counter stool softener, laxative or enema may be used.

It is normal to have a poor appetite. It takes several weeks for your appetite to return. Many patients notice that their sense of taste can be diminished, almost absent or altered. It will return. Some

patients even complain of nausea at the smell of food for a week or two after surgery. A lack of activity also can affect your appetite.

- Try eating five to six small meals each day instead of three larger meals.
- It takes extra calories and protein to heal wounds. Try to eat a high-protein food with each meal.
- If your mouth is dry, try mouthwash, mouth spray, mints, chewing gum, or rinsing with water.

Heart Rhythm—Skipped Beats, Irregular Rhythm

- You may notice an occasional skipped beat or you may be more aware of your heartbeat after surgery. This is normal. If you feel more than five skipped beats each minute, call your surgeon.
- If you notice a fast, irregular heartbeat that does not go away or causes you to feel dizzy or short of breath, call your surgeon.

Depression and Forgetfulness

It is normal to feel a wide range of emotions after surgery. Pain, boredom, limits on your activities, and being out of your normal routine can affect the way you feel.

It is common to feel "down" or discouraged after surgery, when you don't think you are improving as fast as you should. Talk about what is bothering you. Find some activities that you enjoy and are able to do. If the "down" feeling concerns you, talk to your doctor. You may have difficulty concentrating or

be forgetful for a while after surgery. A lack of normal sleep and the use of pain medicines can add to your forgetfulness. This should get better in the weeks after surgery.

Sleep Problems

It's common to have sleep problems in the weeks after heart surgery. You can try:

- Sleeping in a recliner chair.
- Setting a bedtime routine. It helps to go to bed at a regular time and get up at the same time each day. Rest during the day, but limit naps to a half-hour.
- Avoiding foods high in sugar at bedtime.
- Not eating late, heavy meals.
- Drinking herbal tea (Chamomile) at bedtime.
- Avoiding caffeine (coffee, tea, cola) in the evening.
- Taking your pain medicine a half-hour before bedtime to make you more comfortable.
- A 15-minute hot foot bath or a warm shower an hour before bedtime.
- Using earplugs.
- Darkening the room as much as possible. Turn the alarm clock away so you can't see the numbers glaring during the night.
- Getting out of bed and doing a task to make your eyes tired (read a dull book, play solitaire, pick up your knitting or needlework). Don't turn on the television (it is too stimulating).



Sexual Activity

Ask your surgeon at your first follow-up visit about resuming sex. Sexual activity is considered a moderate exercise. When you can climb two flights of stairs without problems, it is usually okay to resume sexual activity.

- Wait one to three hours after a full meal before sexual activity.
- Don't drink alcohol for three hours before sex.
- Don't use positions that cause you to support your weight with your arms for a long period of time.
- If you have chest pain, shortness of breath or skipped heartbeats, stop and rest.

Some medicines can affect sexual activity. If you think this is causing a problem for you, talk to your doctor. Do not stop taking a medicine without talking to your doctor first.

Returning to Work

It will be weeks before you are ready to return to work. It will depend on the type of work you do, your physical condition before surgery, the type of surgery that you had and how well you are healing. Cardiac Rehab can help provide you with the stamina and endurance you need for your workday. Your surgeon will tell you when you can go back to work.

Ask your doctor if you have any work restrictions (e.g., lifting or driving). You may need to provide documentation to your supervisor indicating any work restrictions.

When you are back at work, remember:

- Start slowly. Pace yourself. Returning to work after heart surgery is usually very tiring. Try to start back gradually—talk to your manager about working half days for the first week.
- Make exercise part of your daily routine.
- Remember nutrition. Look for hearthealthy eating options at work.

When To Resume Usual Activities

First 6 Weeks	After 6 Weeks	After 3 Months
Light housekeeping (dusting, setting the table, washing	Continue activities of first six weeks (but	Continue activities of one to three
dishes, folding clothes)	you may be able to tolerate more)	months (but you may be able to
Light gardening	Return to work part-	tolerate more)
(potting plants, trimming flowers)	time if your job does not require lifting, and	Heavy housework (scrubbing floors)
Needlework, reading	returning is approved by your surgeon	Heavy gardening
Cooking meals	Heavy housework	(shoveling snow, digging)
Climbing stairs	(vacuuming, sweeping, laundry)	Sports: football,
Small mechanical jobs	Heavy gardening	soccer, softball, baseball, tennis,
Shopping	(mowing lawn, raking leaves)	bowling, golfing, swimming, water
Attending sports events, church, movies, and	Ironing	skiing, skydiving, hunting
restaurants	Business or recreational travel	Jogging, bicycling
Passenger in car		Weight-lifting,
Walking	Fishing, boating	push-ups
Shampooing hair	Light aerobics (no weights)	Motorcycle riding
Playing cards/games	Walking dog on leash	
	Driving a car or small truck	
	Treadmill, stationary bike (only after you start rehab)	



Daily Activity Log for Open-Heart Surgery Patients

Week 1	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
Dates:							
Walk 1 Walk 2 Walk 3 Walk 4	3 min. 3 min. 3 min. 3 min.	4 min. 4 min. 4 min. 4 min.	5 min. 5 min. 5 min. 5 min.	6 min. 6 min. 6 min.	7 min. 7 min. 7 min.	8 min. 8 min. 8 min.	9 min. 9 min. 9 min.
Breathing Exercises: 10x each hour							
Weight: Call doctor if you've gained 2 lbs/day or 5 lbs/week							
Heart Rate at Rest: Call doctor if <50 or >110 beats per minute							
Check Temperature in Morning: Call doctor if above 100.6° F							
Finger Stick Blood Sugars:							

Daily Activity Log for Open-Heart Surgery Patients

Week 2	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
Dates:							
Walk 1 Walk 2 Walk 3	10 min. 10 min. 10 min.	11 min. 11 min.	12 min. 12 min.	13 min. 13 min.	14 min. 14 min.	15 min. 15 min.	16 min. 16 min.
Breathing Exercises: 10x each hour							
Weight: Call doctor if you've gained 2 lbs/day or 5 lbs/week							
Heart Rate at Rest: Call doctor if <50 or >110 beats per min- ute							
Check Temperature in Morning: Call doctor if above 100.6° F							
Finger Stick Blood Sugars:							



Daily Activity Log for Open-Heart Surgery Patients

Week 3	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
Dates:							
Walk 1	17 min.	18 min.	19 min.	20 min.	21 min.	22 min.	23 min.
Breathing Exercises: 10x each hour							
Weight: Call doctor if you've gained 2 lbs/day or 5 lbs/week							
Heart Rate at Rest: Call doctor if <50 or >110 beats per minute							
Check Temperature in Morning: Call doctor if above 100.6° F							
Finger Stick Blood Sugars:							

Daily Activity Log for Open-Heart Surgery Patients

Week 4	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
Dates:							
Walk 1	24 min.	25 min.	26 min.	27 min.	28 min.	29 min.	30 min.
Breathing Exercises: 10x each hour							
Weight: Call doctor if you've gained 2 lbs/day or 5 lbs/week							
Heart Rate at Rest: Call doctor if <50 or >110 beats per minute							
Check Temperature in Morning: Call doctor if above 100.6° F							
Finger Stick Blood Sugars:							



Notes:

Notes:



Taking your medications as ordered is an important part of keeping your heart healthy. It is important for you and your family to understand the reasons for each medicine and be aware of possible side effects or drug and food interactions that can occur. Many types of medicines are prescribed for heart patients.

After you leave the hospital, your medicines may change. Always make sure you fully understand the changes. It is important to know which medicines to continue and which medicines to stop.

You will be given general information about your medicines. Please talk with your pharmacist or doctor for more information if you have any questions or concerns.

General Tips on Taking Medicines

- Make sure all your doctors are aware of all the medications you are taking. This includes medicines from other doctors, over-the-counter and herbal products.
- Check with your pharmacist or doctor for drug interactions before taking over-the-counter or herbal medicines.
- Always carry a current list of medications in your wallet.
- Read information that comes with each medicine and know why you are taking it.
- Take your medicine exactly as ordered.
- Know whether to take medicines with food or on an empty stomach and if

- you should avoid any foods.
- Be aware of possible side effects of each medication.
- Talk to your doctor if you have financial concerns about paying for your medicine.
- Make sure you understand any changes your doctor has made to your medicines.

Your Heart Medications

Listed on the next page are common types of heart medications. Before discharge, your nurse will review your medications with you. For more information, go to the page number listed after each medicine.



Heart Medicines	Prescribed For	What They Do	Possible Side Effects
ACE-Inhibitors and ARB Agents page 49	high blood pressure heart failure heart attack	relax blood vessels reduce heart's workload	dry cough, dizziness, drowsiness, sensitivity to the sun
Antiarrhythmics page 50	irregular heart rhythms rapid heart rate	control heart rhythm and rate	drowsiness, lightheadedness or fainting, swelling of hands and feet
Beta Blockers page 51	angina high blood pressure heart failure heart attack	slow heart rate reduce heart's workload	tiredness, shortness of breath, trouble sleeping, impotence
Blood-Thinning Agents (including aspirin) page 52	angina heart failure heart procedure heart attack	thin blood, reduce risk of blood clots and heart attack	stomach irritation, unusual bleeding, bruising
Calcium Channel Blockers page 53	angina high blood pressure heart rhythm problems	relax blood vessels reduce heart's workload	headache, dizziness, swelling of ankles, constipation
Diuretics page 54	high blood pressure heart failure	reduce blood volume by removing excess sodium and water	muscle cramps, dry mouth, ringing in ears, dizziness or lightheadedness
Lipid-Lowering Agents page 55	high cholesterol	lower the amount of cholesterol made by the liver	muscle pain or soreness, stomach and intestinal upset
Nitrates (such as Nitroglycerin) page 56	angina	relax blood vessels reduce heart's workload	headache, lightheadedness, flushing



ACE-Inhibitors

Ramipril (Altace)

Lisinopril (Prinivil, Zestril)

Enalapril (Vasotec)

Captopril (Capoten)

Benazapril (Lotensin)

Moexipril (Univasc)

Quinipril (Accupril)

Trandolapril (Mavik)

Fosinopril (Monopril)

Perindopril (Aceon)

Angiotensin II Receptor Blockers

Losartan (Cozaar)

Valsartan (Diovan)

Candesartan (Atacand)

Irbesartan (Avapro)

Olmesartan (Benicar)

Azilsartan (Edarbi)

Telmisartan (Micardis)

Eprosartan (Teveten)

Combination

Lotrel (Benazapril & Amlodipine) Hyzaar (Hydrochlorthiazide & Losartan)

Uses

These drugs are used to reduce blood pressure (hypertension), and for congestive heart failure and kidney disease. These medicines can affect kidney function, so your doctor will get labs to monitor your kidneys.

Instructions

Take this drug exactly as prescribed. Take it at the same time(s) each day. Do not suddenly stop taking this drug without talking to your doctor. If you miss a dose, take it as soon as you remember but not if

it is within 8 hours of the next dose. If it is within 8 hours, skip the missed dose and resume your usual dosing schedule. Do not take two doses at one time to catch up. Females: Do not take this medicine if you are pregnant or breast-feeding. Notify any doctor or dentist that you are on this medication before you have any surgery.

Side Effects

Dizziness, drowsiness, dry cough, sensitivity to the sun.

Call Your Doctor If

- You have swelling of the face, lips, tongue or throat—call 911 if you are having difficulty breathing.
- You develop chest pain.
- You develop extreme weakness.
- You develop an irregular heartbeat.
- You develop yellowing of skin or eyes.
- You develop a dry cough that continues beyond a few days.

Food and Drug Interactions

Check with your pharmacist or doctor before taking any over-the-counter cough, cold, allergy, or diet drugs. Check with your pharmacist or doctor before taking any over- the-counter pain/ fever relievers that contain ibuprofen or naproxen (NSAIDs). Tell them about any other drugs you are taking. Ask them to check for any drug interactions.

This medication should be taken with plain water.

Antiarrhythmics

Amiodarone (Cordarone, Pacerone) Propafenone (Rythmol) Sotalol (Betapace) Dronedarone (Multaq) Dofetilide (Tikosyn)

Uses

These drugs are used to slow the heart rate, or to treat irregular heart rhythms.

Instructions

Take this drug exactly as ordered. Take it at the same time(s) each day. Sustained-action or long-acting tablets or capsules must be swallowed whole and must not be crushed. Do not suddenly stop taking this type of drug without talking to your doctor. If you miss a dose, take it as soon as you remember but not if it is within 8 hours of the next dose. If it is within 8 hours, skip the missed dose and resume your usual dosing schedule. Do not take two doses at one time to catch up.

Count your number of heartbeats per one minute each morning. If your number of heartbeats in one minute is less than 60, call your doctor to check if you should take your medicine.

Side Effects

This medicine may make you feel dizzy or faint, especially if you get up quickly after sitting or lying down. Swelling of hands and feet may occur.

You may experience fatigue, constipation or dry mouth. Amiodarone (Cordarone, Pacerone) also may cause increased sensitivity to the sun.

Call Your Doctor If

- You develop hives, itching, rash.
- You develop severe dizziness.
- You develop severe nausea.
- You develop trouble breathing.
- You develop irregular heartbeat, slow heartbeat, or palpitations.
- You develop lower leg swelling or unexplained weight gain.
- You develop chest pain.
- · You develop difficulty walking.
- You develop blurred vision.

Other changes may occur when using these medications. If you have questions about these changes, call your doctor or pharmacist.

Food and Drug Interactions

Check with your pharmacist or doctor before taking any over-the-counter cough, cold, allergy, or diet drugs. These meds contain decongestants that increase blood pressure and heart rate. Diet drugs contain stimulants that increase heart rate and blood pressure. Tell them about any other drugs you are taking. Ask them to check for any drug interactions.



Beta Blockers

Atenolol (Tenormin, Tenoretic)
Carvedilol (Coreg)
Metoprolol (Lopressor, Toprol XL)
Sotalol (Betapace)
Bisoprolol (Zebeta, Ziac)
Bystolic (Nebivolol)

Uses

These drugs are used to slow the heart rate (pulse) and lower blood pressure (hypertension). They can also be used for the treatment of angina (chest pain), tremors or migraine headaches. These drugs protect your heart by decreasing the amount of work your heart has to do.

Instructions

Take this drug exactly as ordered. Take it at the same time(s) each day. Sustained-action or long-acting capsules must be swallowed whole and must not be crushed. Do not suddenly stop taking this drug without talking to your doctor. If you miss a dose, take it as soon as you remember but not if it is within 8 hours of the next dose. In this case, skip the missed dose and then follow your usual dosing schedule. Do not take two doses at one time to catch up.

Count your number of heartbeats for one minute before each dose. If your number of heartbeats in one minute is less than 60, call your doctor to see if you should take your medicine.

Side Effects

These drugs may make your feet and hands more sensitive to cold weather. Talk to your doctor if you have a decrease in sex drive because the doctor may be able to change your medicine. Since beta blockers slow your heart rate, they may make you feel tired. This tiredness usually lasts 2-3 weeks until your body adjusts to the new medicine.

Call Your Doctor If

- You are diabetic and have increased episodes of low blood sugar.
- You have dizziness when standing up.
- You develop a harsh cough.
- You develop trouble breathing.
- You develop nausea or vomiting.
- You develop swelling of feet or lower legs, or unexplained weight gain.
- You develop chest pain.

Other changes may occur when using these medications. If you have questions about these changes, call your doctor or pharmacist.

Food and Drug Interactions

Check with your pharmacist or doctor before taking any over-the-counter cough, cold, allergy, or diet drugs. These meds contain decongestants that increase blood pressure and heart rate. Diet drugs contain stimulants that increase heart rate and blood pressure. Tell them about any other drugs you are taking. Ask them to check for any drug interactions. This drug can be taken with or without food.

Blood-Thinning Agents

Aspirin

Clopidrogrel (Plavix)

Enoxaparin (Lovenox)

Warfarin (Jantoven, Coumadin)

Prasugrel (Effient)

Ticagrelor (Brilinta)

Dabigatran (Pradaxa)

Rivaroxaban (Xarelto)

Apixiban (Eliquis)

Edoxaban (Savaysa)

Fondaparino (Arixtra)

Dalteparin (Fragmin)

Uses

These medications are used to prevent blood clots. They may be used to treat or prevent complications from blood clots such as heart attack, stroke or pulmonary embolus.

Instructions

- Aspirin should be taken with food to decrease stomach irritation.
- Take Plavix with a full glass of water.
- Lovenox, Arixtra and Fragmin are injections. Follow the instructions.

Take at the same time every day. If you miss a dose one day, do not double your dose the next day. Alert any physician or dentist taking care of you that you are on this medication.

A Special Note About Plavix, Brilinta and Effient

If you are taking one of these meds because you have a drug-coated stent, missing a dose for even a few days can cause the stent to become blocked. Research shows you need to take these meds for at least one year after stent

placement. If you cannot afford it, discuss this with your doctor before you stop taking it.

Side Effects

Easy bruising, prolonged bleeding.

Call Your Doctor If

- You develop an allergic reaction (rash, itching, or hives).
- You develop bloody diarrhea, tarry stools, blood in vomit or urine.
- You develop swelling of the lips.
- You develop trouble breathing.
- You develop a sudden severe headache.
- You develop confusion or numbness on the face, arm or leg.
- You develop chest pain.
- You have unusual bleeding or bruising.

Food and Drug Interactions

Check with your doctor or pharmacist before taking any over-the-counter medications that contain aspirin, ibuprofen, naproxen, or any other NSAID. Also check with your doctor or pharmacist before taking any over-the-counter herbal products. Avoid alcohol, which increases your risk of bleeding.

Warfarin

- Take at the same time every day.
- Do not start or stop medications, including vitamins and herbs, without double-checking with your doctor.
- Call your doctor if your diet changes, you have nausea or vomiting, or diarrhea.

Blood tests will be done regularly to adjust your dose.



Calcium Channel Blockers

Diltiazem (Cartia XL, Cardizem, Tiazac) Verapamil (Calan, Isoptin) Amlodipine (Norvasc) Nifedipine (Procardia, Adalat CC) Felodipine (Plendil) Isradapine (Dynacirc)

Uses

These drugs are used to slow the heart rate (irregular heart beat) and reduce blood pressure (hypertension). They can also be used for the treatment of chest pain (angina).

Instructions

Take this drug exactly as ordered. Take it at the same time(s) each day. Sustained-action or long-acting tablets or capsules must be swallowed whole and must not be crushed. Do not suddenly stop taking this drug without talking to your doctor. If you miss a dose, take it as soon as you remember but not if it is within 8 hours of the next dose. If it is within 8 hours, skip the missed dose and resume your usual dosing schedule. Do not take two doses at one time to catch up.

Count your number of heartbeats per one minute each morning. If your number of heartbeats in one minute is less than 60, call your doctor to check if you should take your medicine.

Side Effects

This medicine may make you feel dizzy or faint, especially if you get up quickly after sitting or lying down. Swelling of hands and feet may occur. You may have fatigue, constipation or dry mouth. This usually

gets better over time as you adjust to the new medicine.

Call Your Doctor If

- You develop hives, itching, rash.
- You develop severe dizziness.
- You develop severe nausea.
- You develop irregular heartbeat.
- You develop swelling of feet or lower legs, or unexplained weight gain.
- You develop chest pain.

Other changes may occur when using these medications. If you have questions about these changes, call your doctor or pharmacist.

Food and Drug Interactions

Check with your pharmacist or doctor before taking any over-the-counter cough, cold, allergy, or diet drugs. These meds contain decongestants that increase blood pressure and heart rate. Diet drugs contain stimulants that increase heart rate and blood pressure. Tell them about any other drugs you are taking. Ask them to check for any drug interactions. Avoid grapefruit juice if taking Felodipine, Nifedipine, Verapamil, Amlodipine.

Diuretics

Loop Diuretics

Furosemide (Lasix)
Torsemide (Demadex)
Bumetanide (Bumex)

Thiazide Diuretics

Hydrochlorothiazide (Hydrodiuril) Chlorothiazide (Diuril) Metolazone (Zaroxolyn) Spironolactone (Aldactone) (potassium sparing)

Uses

Diuretics are "water pills" that remove excess water from the body by increasing urination. Diuretics are used to treat fluid retention and swelling (edema), high blood pressure, congestive heart failure or other conditions as determined by your doctor.

Instructions

Take this drug exactly as ordered. This medication increases the frequency of urination. Take the last dose of the day before 6 p.m. If you miss a dose, take it as soon as you remember unless it is almost time for the next dose. In that case, skip the missed dose and take the next one as directed. Do not take double doses.

Side Effects

You may have dizziness and lightheadedness. Rise slowly from a sitting or lying position. These drugs may increase sun sensitivity. Other effects include nausea, vomiting, diarrhea, rash, muscle cramps, dry mouth, thirst and weakness. Thiazide diuretics can affect blood sugar; diabetics may need to adjust

medications. Thiazide diuretics can also worsen gout.

Diuretic medicines may drive potassium from your body. Your physician may prescribe a potassium-rich diet (i.e. bananas, oranges) or potassium supplement. You may need blood tests to monitor your potassium level.

Call Your Doctor If

- You develop an allergic reaction, such as hives, rash, itching, or trouble breathing.
- You develop severe nausea, vomiting or diarrhea (decreases potassium).
- You develop muscle cramps (it may be a sign of low potassium).
- You develop severe thirst (dehydration).
- You have ringing in your ears or hearing loss (loop diuretics).
- You develop weakness or dizziness.

Food and Drug Interactions

Many drugs interact with these medicines and can possibly cause side effects. Check with your pharmacist or doctor before taking any over-the-counter cough, cold, allergy, or diet drugs. Tell them about any other drugs you are taking. Ask them to check for any drug interactions.



Lipid-Lowering Agents

Statins

Simvastatin (Zocor)

Pravastatin (Pravachol)

Atorvastatin (Lipitor)

Lovastatin (Mevacor)

Fluvastatin (Lescol)

Rosuvastatin (Crestor)

Simvastatin & Ezetimibe (Vytorin)

Niacin, Atorvastatin & Tricor (Trilipix)

Pitavastatin (Livalo)

Nicotinic Acid

Niacin (Niaspan, Niacor)

Cholesterol Absorption Inhibitor

Ezetimibe (Zetia)

Fibrates

Gemfibrozil (Lopid) Fenofibrate (Tricor)

Bile-Acid Binding Resins

Colestipol (Colestid)

Colesevelam (Welchol)

Fish Oil (Lovaza, Maxepa)

This is general information about lipidlowering agents with a focus on statins. Please consult your pharmacist or doctor for details on a specific product.

Uses

These medications are used to lower cholesterol and triglyceride levels when diet and exercise alone have not lowered them enough. Reducing cholesterol and triglycerides helps prevent strokes and heart attacks. Each class of lipid-lowering agent can be used alone or in combination with another agent.

Instructions

Take these drugs exactly as ordered.

Extended-release products must not be crushed. If you miss a dose, take it as soon as you remember unless it is almost time for the next dose. In that case, skip the missed dose and take the next one as directed. Do not take double doses.

Side Effects

Gastrointestinal side effects are common. These drugs can affect the liver, so periodic blood tests are required.

Combinations of statins plus either fibrates, nicotinic acid or ezetimibe may be needed, but can increase the risk of serious muscle pain, and can sometimes lead to kidney failure.

Niacin can cause flushing, tingling or a sensation of warmth when you first start taking it. These effects usually decrease with continued use.

Call Your Doctor If

- You develop muscle pain or tenderness, especially if you have a fever or feel fatigued.
- You have allergic reactions such as hives, rash, or trouble breathing.
- You develop extreme weakness in your arms or legs.

Food and Drug Interactions

Many drugs interact with these medicines and can possibly cause side effects. Check with your pharmacist or doctor before taking any over-the-counter cough, cold, allergy, or diet drugs. Tell them about any other drugs you are taking. Ask them to check for any drug interactions.



Nitrates

Isosorbide Mononitrate (Imdur, Ismo, Monoket) Isosorbide Dinitrate (Isordil) Nitroglycerin Patch (Nitrodur, Nitroderm) Nitroglycerin SL Tab (Nitrostat) Nitroglycerin SL Spray (Nitrolingual) Nitroglycerin Ointment

Uses

This medication helps relax the blood vessels and improves blood flow. Nitroglycerin is used to treat chest pain.

Instructions

Take these drugs exactly as ordered. Extended-release products must not be crushed. If you miss a dose, take it as soon as you remember unless it is almost time for the next dose. In that case, skip the missed dose and take the next one as directed. Do not take double doses.

For tablets, keep in the original, brown bottle. Keep with you at all times. At the first sign of chest pain, sit or lie down and place one tablet or spray under your tongue and allow it to dissolve. If there is no relief after 5 minutes, take another tablet or spray. If there is no relief after 3 tablets or sprays, call 9-1-1.

Topical patches are often removed at bedtime to allow a drug-free time period. This helps prevent building a tolerance to the drug.

Side Effects

Nitroglycerin can cause headaches, dizziness, flushing, rapid heartbeat, nausea, or vomiting. Headaches are often a sign that the medication is working. Treat headaches with Tylenol (Acetaminophen). Rise slowly from a sitting or lying position to prevent dizziness and lightheadedness.

Call Your Doctor If

- You develop a severe headache.
- You have dry mouth.
- You develop a rash.
- You have blurred vision.
- You have new chest pain relieved by nitroglycerin tablets or spray.
- You have chest pain not controlled with your medication.

Call 9-1-1 if you have chest pain unrelieved by 3 doses (tablet or spray) of nitroglycerin.

Food and Drug Interactions

Do not take Viagra, Cialis or Levitra with nitroglycerin. When taken together, your blood pressure may get too low. Certain drugs for migraines and high blood pressure may interact with nitroglycerin. Do not drink alcohol with this medication. Check with your pharmacist or doctor before taking any over-the-counter cough, cold, allergy or diet drugs. Tell them about any other drugs you are taking. Ask them to check for any drug interactions.



Pain Medications

Hydrocodone/Acetaminophen (Vicodin) Oxycodone/Acetaminophen (Percocet) Tramadol/Acetaminophen (Ultracet) Oxycodone (Roxicodone) Tramadol (Ultram)

Uses

These medications are painkillers (analgesics). They contain a combination of a narcotic analgesic and acetaminophen (Tylenol) to treat moderate to severe pain.

Instructions

Take these medications exactly as prescribed. Take only for the condition for which they were prescribed. Do not take more or take for a longer time than prescribed. Do not take more than 3,000 mg of acetaminophen (Tylenol) per day. Make sure you understand how much Tylenol each pain tablet contains and how many tablets you can take per day.

Side Effects

These medications may make you dizzy or drowsy. Do not drive or operate machinery unless you are fully alert. They may also cause nausea, vomiting or constipation. Take with food to minimize stomach upset. A stool softener or Senna may help relieve constipation.

Call Your Doctor If

- You develop a rash.
- You experience trouble breathing.
- You have trouble urinating.
- You have ringing in your ears.
- You develop depression or hallucinations.
- You have a rapid heartbeat.
- You develop bloody or dark urine.
- You develop yellowish skin or eyes.

Food and Drug Interactions

Check with your pharmacist or doctor before taking any over-the-counter cough, cold, allergy or diet drugs. Tell them about any other drugs you are taking. Ask them to check for any drug interactions.

Talk to your health care provider if you are taking sedatives, antihistamines, antidepressants or nerve medicines. Do not drink alcohol while taking this medication, as the combination may cause liver damage.

With the exception of Tylenol, these medications are controlled substances. It is illegal to give them to anyone else.

Notes:



Improve your heart health by eating foods low in fat (especially saturated fat), and sodium. Making healthy food choices can lower blood pressure, weight and cholesterol levels. The guidelines in this booklet are a next step toward reaching these goals.

Make a Change and Take It to Heart

Changing your diet and sticking with the changes can be difficult. It is easier if you make changes slowly. It may take several months of diet and lifestyle changes to see a drop in your blood cholesterol levels. By sticking with new eating habits, you will help your heart and the rest of your body.

If you follow your diet closely on most days, you may eat small amounts of food high in fat for special occasions. The same is true for food high in sodium unless you have congestive heart failure or kidney disease. In those cases, you always should avoid high-sodium foods, since they can cause serious problems.

Your dietitian can help you make changes in your diet. If you are taking cholesterol-lowering medication, diet works with the medicine to help bring your cholesterol levels down.

The Diet-Heart Connection

Cholesterol is a waxy material that is made and stored by your body. You also get extra cholesterol from all animal and other food products. It is used for building cells. If your blood cholesterol level is high, you are more likely to develop atherosclerosis, a buildup of fatty substances along your artery walls. You cannot control the amount of cholesterol your body makes, but you can choose the types of fat you include in your diet. If you lower the amount of cholesterol in your body, you may be able to slow down or prevent atherosclerosis.

Lose Weight if You Are Overweight

If you were told you need to lose weight, your dietitian can help you find ways to lose weight safely. Fad diets are not the answer. Fast weight loss is not good for your health. You should not lose more than one to two pounds a week. In most cases, you should not try to lose weight before or right after surgery.

You may not need a special weightloss diet. If you eat less fat and smaller portions of food, you will take in fewer calories and lose some weight.





You can start reducing the amount of sodium in your diet by not adding extra salt at the table and not cooking with it. In addition, try to eat fewer processed foods:

- Salted snack foods
- Processed meats (such as hot dogs, lunch meats and sausage)
- Canned soups
- Frozen dinners

Limit Your Sodium Intake

Sodium is a mineral that helps control the amount of water in your body. Too much sodium can cause your body to hold extra fluid. This makes the heart work harder and can affect your blood pressure.

This can be a problem if the heart already has been damaged. The American Heart Association recommends limiting sodium to no more than 2,000 milligrams per day.

Sodium is found in everything you eat. The amount found naturally in fresh fruits, fresh vegetables and fresh meat usually is not a concern. Most of the sodium in your diet comes from the sodium that is added when food is processed and from salt you add to your food.

Salt-Free Seasoning Ideas

You can add flavor to food without adding salt. Try adding herbs and spices to foods. Try mixing different flavors like chicken with orange sauce or meatloaf with pineapple.

Also consider using homemade seasoning mixes or any of the Dash salt-free seasoning mixes. Some salt substitutes are made with potassium chloride. Check with your doctor before using any salt substitute made with potassium chloride.

Studies have shown that after 8 to 12 weeks on a lower-sodium diet, people actually prefer less salty foods.



Salt-Free Seasoning for Meat, Fish and Poultry				
Beef	bay leaf, dry mustard powder, bell pepper, marjoram, fresh mushrooms, nutmeg, onions or onion powder, pepper, sage or thyme			
Chicken	green pepper, lemon bell, marjoram, fresh mushrooms, paprika, parsley, poultry seasoning, sage or thyme			
Fish	bay leaf, curry powder, dill, dry mustard powder, bell pepper, lemon juice, marjoram, onions or paprika			
Lamb	curry powder, garlic or garlic powder, mint, mint jelly, pineapple or rosemary			
Pork	apple, applesauce, garlic or garlic powder, onions or sage			
Veal	bay leaf, curry powder, ginger, marjoram or oregano			

Salt-Free Seasoning for Vegetables				
Asparagus	garlic or garlic powder, lemon juice, onions or vinegar			
Carrots	dill, ginger, honey, marjoram, mint or thyme			
Corn	bell pepper, nutmeg or fresh tomato			
Cucum- bers	chives, dill, garlic or vinegar			
Green beans	lemon juice, marjoram, nutmeg, pimiento or sweet basil			
Greens	onion or onion powder, pepper or vinegar			
Peas	bell pepper, mint, fresh mushrooms, onion or parsley			
Potatoes	dill, bell pepper, mace, onions, paprika or parsley			
Squash	brown sugar, cinnamon, ginger, mace, nutmeg or onion			
Tomatoes	basil, marjoram, onions or oregano			

Why You Should Limit Foods With Fat Trans Unsaturated Fats

The amount and kind of fat in your diet affects how your body makes and uses cholesterol. Large amounts of any fat, but especially saturated fat, tend to raise your cholesterol. Try to limit the total amount of fat in your diet to only about a third of your calories. Choose monounsaturated and polyunsaturated fat over saturated fat whenever possible.

Unsaturated Fat

Monounsaturated and polyunsaturated fats may help control your cholesterol level. These fats are liquid at room temperature. Most vegetable oils are unsaturated.

Oils high in monounsaturated fat:

• Olive, canola, peanut and sesame oils

Oils high in polyunsaturated fat:

• Soybean, corn, sunflower, safflower, flaxseed, walnut oils and fatty fish oils

Saturated Fat

No more than one-third of your fat intake should be saturated, or 10 grams per day. They are solid at room temperature. Animal fats tend to be high in saturated fat. Ways to limit saturated fat include to trim fat from meat, remove skin from chicken and turkey, and eat smaller portions. Try to avoid high-fat animal products such as butter, lard, gravies, sauces and whole-milk dairy products.

Vegetable oils high in saturated fat include coconut oil, palm oil, palm kernel oil and cocoa butter (found in chocolate).

Trans unsaturated fats (or "trans fats") should be limited in the diet. Snack foods and baked goods made with "partially hydrogenated vegetable oil" or "vegetable shortening" are sources of trans fats. Other sources of trans fats include crackers, cookies, french fries, fast foods. and fried foods. Choose tub or liquid margarine, or trans fat-free spreads. Use olive oil or canola oil when cooking.

Eat Plenty of Fruits, Vegetables and Grains

Fruits, vegetables and whole grains taste good and are good for you. They are full of vitamins and minerals and other natural ingredients that your body needs. They can help fill you up because they are high in fiber. Some kinds of fiber also may help lower your cholesterol level.

Soluble Fiber binds with cholesterol and removes it from the body. Some foods high in soluble fiber include apples, broccoli, dried beans, lentils, oatmeal, pears and raisins.

Insoluble Fiber ("roughage") adds bulk to stools and helps prevent constipation and promotes regularity. Foods high in insoluble fiber include bran cereals, cauliflower, fruits and vegetables with edible skins, dried beans and peas, nuts and seeds.

Gradually increase your fiber intake to 20 to 35 grams of fiber per day. Adding high fiber foods too quickly can cause cramping, gas and diarrhea.



Eating From the Major Food Groups

On the following pages you will find charts listing many common foods. The foods are listed in three columns, showing how you should use them in your diet. Use these charts to help you make your food choices.

Foods in the *Good Choices* column are very low in fat and sodium. Unless you are on other diet restrictions, you can eat these foods every day.

Foods in the *Use in Moderation* column contain some fat. Many of these foods are an important part of a heart-healthy diet.

You can use them, but you need to limit the portion or how often you eat them.

Foods in the *Not Recommended* column should not be a regular part of your diet. They are either very high in fat or sodium. Limit food choices from this group to twice a month—less is even better.

Foods that are marked with an "*" are high in sodium, but are low in fat. In addition to eating good foods, drink 8 to 10 glasses of water or fluids each day. Drinking water helps prevent constipation and keeps your body hydrated. If fluids have been restricted by your doctor, follow the restricted fluid amounts.



Bread, Cereal, Rice and Pasta

6 to 9 servings per day

Suggested serving size: 1 slice bread (1-ounce slice) 1/2 cup rice, pasta (cooked) 4 to 6 soda crackers
1/2 cup starchy vegetables, cooked
Each serving in the first column contains:
80 calories, 3 grams protein
15 grams carbohydrate
1 gram fat

Good Choices	Use in Moderation	Not Recommended
Bread White, wheat, rye, French, Italian, raisin, pumpernickel Bagels (made without egg) Plain dinner rolls Buns, hamburger or hot dog Tortillas, corn or flour (made without lard, not fried) Fat-free tortillas Cereal Cooked cereal Dry cereal (except those made with fat, coconut or chocolate) Grains/Rice/Pasta Rice, white or brown Bulgar Barley Pasta (spaghetti, macaroni, rotini, etc.) Noodles (made without egg) Crackers/Snacks Angel food cake Pretzels, unsalted Popcorn (made without salt or fat) Melba Toast Matzo (made without egg) Fat-free crackers that are low in salt, or have "unsalted tops"	Bread Biscuits, muffins, pies, cakes, corn bread and cookies, made with allowed ingredients** (with no more than 3 grams of fat per serving) Cereal Low-fat granola cereals Grains/Rice/Pasta Egg noodles (limit to 1/2 cup per day) Crackers/Snacks Graham crackers Soda crackers, unsalted	Egg or cheese breads Croissants Biscuits, muffins and corn bread made with whole milk or whole eggs Butter rolls Tortillas made with lard or other saturated fat Self-rising flour* Cereal Cereal made with chocolate, nuts or coconut Granola cereals Grains/Rice/Pasta Pasta and rice mixes made with animal fat, hydrogenated fat or a lot of sodium Stuffing mixes Crackers/Snacks Snack crackers high in salt and fat (especially saturated fat) Fried snack foods (chips, etc.) Egg matzo Donuts and sweet rolls Cakes, pies, cookies and other baked products that are high in fat or made with eggs, butter or whole milk products

^{*}High in sodium but not high in fat.



^{**}Look for good and moderate choices under "Fats" on page 70.

Vegetables

3 to 5 servings per daySuggested serving size:1 cup raw leafy vegetables1/2 cup other vegetables, cooked or raw

Each serving in the first two columns contains:
25 calories, 2 grams protein
5 grams carbohydrate



Good Choices Use in Moderation Fresh, Frozen (plain) or Onions Regular tomato sauce* Canned (unsalted, "no **Parsnips** Spaghetti sauce (check salt added" or rinsed) Peas** labels for fat content Peppers since they vary by Artichoke brand) (green, red, orange, Asparagus Rinsed regular canned Bamboo shoots yellow) Potatoes** vegetables* Beans (green or wax) Beets Radishes Broccoli Rutabagas Brussels sprouts Snow peas (pea pods) Sprouts Cabbage Squash, pumpkin Carrots Not Recommended Sweet potatoes** Cauliflower Celery Tomato Sauerkraut* Corn** Tomato or vegetable Pickles* Cucumbers juice, tomato sauce Vegetables made in Eggplant (unsalted brine (salt water)* or no salt added) Greens (spinach, beet, Vegetables made with Water chestnuts kale, turnip, collard, Zucchini butter, cream, eggs, mustard, dandelion, meat, fat, bacon or Swiss chard) other Lettuce ingredients to be Lima beans** avoided Mixed vegetables Regular tomato or Mushrooms vegetable juice* Okra



^{*}High in sodium but not high in fat.

^{**}Starchy vegetables are higher in calories and carbohydrates.

Fruit

2 to 4 servings per day

Suggested serving size:

1/2 cup unsweetened juice or canned fruit

1 medium piece of fresh fruit

1 cup diced melon

2 pieces dried fruit

Each serving in the first two columns contains:

60 calories, 0 grams protein 15 grams carbohydrate



Good Choices		Use in Moderation
Fresh, Frozen, Canned Apple/apple juice/ apple cider Applesauce Apricot/apricot nectar Banana Blackberries Blueberries Boysenberries Cantaloupe Casaba melon Cherries Cranberries/cranberry juice Dates Figs Fruit cocktail Grapefruit/grapefruit juice Grapes/grape juice Guava Honeydew melon Kiwi Mandarin oranges Mango Nectarine Orange/orange juice	Papaya Peach/peach nectar Pear/pear nectar Persimmon Pineapple/pineapple juice Plums Pomegranate Prunes/prune juice Raisins Raspberries Rhubarb Strawberries Tangerine Tangelo Watermelon Avocados (limit to 1/2 per day)	Not Recommended Coconut





Milk, Yogurt and Cheese

2 to 3 servings per day Suggested serving size: 1 cup skim or fat-free milk Each serving in the first column contains: 90 calories, 8 grams protein 12 grams carbohydrate 1 gram fat

Good Choices	Use in Moderation	Not Recommended
Milk and Milk Drinks Skim milk 1/2% milk 1% milk Canned evaporated skim milk Skim milk powder (nonfat dry milk) Fat free or low fat, unsweetened soy milk (calorie and protein content may vary) Nut-based or plant-based "milks", except for refrigerated coconut milk (choose fat free or low fat, if available; calories, protein and fat may vary) Fat-free half-and-half (such as Land O' Lakes brand) Fat-free coffee creamers Yogurt, nonfat (plain or with fruit, Greek) Fat-free yogurt-based drinks (calorie content may vary) Fat-free sour cream Milk Desserts Fat-free puddings Frozen desserts with 0 to 2 grams of fat per serving (such as yogurt, ice milk, or fat-free ice cream) Cheese Fat-free and low-fat cheeses with 1 gram of fat or less per serving	Milk and Milk Drinks (no more than 4 ounces per day selected from the following) 2% milk Buttermilk made from low-fat or skim milk* Canned evaporated low-fat milk (plain, with fruit, frozen) Refrigerated coconut milk Canned "light" coconut milk Cocoa made with low-fat milk and cocoa powder Milk Desserts Homemade custard and pudding made with low-fat milk and amount of egg allowed Frozen desserts with 3 to 5 grams of fat per serving size (such as low-fat ice cream or low-fat frozen yogurt) Low-fat or reduced-fat sour cream with no more than 3 grams of fat per serving Cheese Cheese having between 2 to 5 grams of fat per serving (such as low-fat cottage cheese,* part skim milk cheese, feta cheese, farmer's, mozzarella, neufchatel)	Milk and Milk Drinks Whole milk Buttermilk made from whole milk Canned evaporated whole milk Condensed milk Eggnog Imitation or filled milk Yogurt made from whole milk Cream (light, coffee, whipping) Half-and-half Sour cream Drinks made with whole milk (malts, milk shakes, lattes, cappuccino, etc.) Cocoa made with whole milk, chocolate or cocoa butter (homemade or instant) Milk Desserts Custard and pudding made with whole milk or more eggs than allowed Ice cream, ice milk or other frozen desserts made with cream, coconut or palm oil, other restricted ingredients, or containing more than 5 grams of fat per serving Cheese Cream cheese Cheese with more than 5 grams of fat per serving Specialty cheese containing sausage

^{*} High in sodium but not high in fat



Meat, Poultry, Fish, Dried Beans, Eggs and Nuts

No more than 5 to 6 ounces per day

- Trim off fat before cooking, choose lean cuts.
- Bake, broil, microwave, braise, poach roast or grill meat without adding extra fat.
- Limit beef and pork to 2 servings per week.

Each serving in the second column contains:

55 calories, 7 grams protein0 grams carbohydrate3 grams fat



Good Choices Use in Moderation Not Recommended These have more than These have 1 gram of Even though these are 5 grams of fat per ounce fat or less per serving good choices, portions must still be limited. They and less than 1 gram of (with more than 2 grams saturated fat. They also have between 2 and 5 saturated fat) or are high grams of fat per ounce in cholesterol or sodium. are low in sodium. and up to 2 grams of saturated fat. Seafood Egg whites Egg substitutes with no Roe, caviar Seafood Anchovies, sardines cholesterol Fish canned in oil Dried beans, peas, lentils Fish (plain), fresh or Fried fish frozen Fish, canned in water, Breaded frozen fish rinsed Poultry Shellfish (clams, crab, Duck oysters, lobster, shrimp, Goose Squab scallops) not fried and not served with "Avoid" Poultry skin ingredients on page 70 Veal Poultry Breast White meat if possible, Commercial ground veal no skin Pork Cornish hen Bacon Chicken Boston butt Turkey, fresh, frozen, Commercial ground pork ground breast Rib chops Game Sirloin roast Rabbit Spareribs Squirrel Sausage, bratwurst, metts Venison (lean)

Meat, Poultry, Fish, Dried Beans, Eggs and Nuts (Continued)

Good Choices	Use in Moderation	Not Recommended
You do not have to give up meat entirely, but watch the portions you eat. Aim for 3-ounce servings. It is OK to eat red meat occasionally. Aim for 2 servings per week, 3 ounces each serving. Choose lean meats. Eat heart-healthy fish such as salmon, tuna, mackerel and lake trout 2 to 3 times a week, in 3- to 4-ounce servings.	Cutlets Leg (round, rump) Loin (roast, chops, sirloin) Ribs (chops, steaks) Shanks Shoulder (roast, steak, breast) Pork Ham (lean center slices)* Loin (chops, roast) Tenderloin Beef Ground beef, lean (from round or sirloin) Roasts (sirloin tip, round, rump, arm) Steaks (flank, shoulder, round, tenderloin) Chipped beef Processed Meat Luncheon/deli meats and hot dogs with no more than 5 grams of fat per ounce* Lamb Roast and steak (leg) Chops (loin, rib, shoulder) Eggs Whole eggs or egg yolk (limit to one per day) Miscellaneous Tofu (soybean curd) Peanut butter (limit to 1 tbsp. daily) Nuts, unsalted (limit to one small handful a day) Soy meat substitutes, such as Garden burgers, Boca burgers, etc.	Beef Any well-marbled meat Brisket Corned beef Rib roast, rib steak Club steak Porterhouse steak T-bone steak Commercial ground beef or hamburger Processed Meat Regular cold cuts, hot dogs, luncheon/deli meats Light or reduced-fat meats or hot dogs with more than 5 grams of fat per ounce Lamb Breast Commercial ground lamb Organ Meats Liver Kidney Brain Heart Tongue Miscellaneous Frozen, prepared meat and entrée items with more than 7 grams of fat per serving

^{*} High in sodium but not high in fat



Fats

No more than 3 tablespoons per day

(This includes any fat used in processing or preparing food)

Suggested serving size:

- 1 tablespoon regular salad dressing
- 1 teaspoon margarine, oil, mayonnaise
- 1 tablespoon nuts and seeds

Each serving in the second and third columns contains:
45 calories, 0 grams protein
0 grams carbohydrate
5 grams fat

Good Choices	Use in Moderation	Not Recommended
These items have less than 2 grams of fat per serving and less than 1 gram of saturated fat. Fat-free fat substitutes (such as Butter Buds and Molly McButter) Fat-free mayonnaise, margarine, cream cheese, salad dressing, sour cream, coffee creamer Salad dressings with less than 2 grams of fat per serving* Fat-free whipped topping	These items have up to 5 grams of fat per serving but less than 1 gram of saturated fat. Oils (Monounsaturated) Olive oil Canola oil Peanut oil Oils (Polyunsaturated) Sunflower seed oil Safflower oil Corn oil Soybean oil Sesame seed oil Cottonseed oil Flaxseed oil Margarine (first ingredient listed is liquid vegetable oil) Mayonnaise with 2 to 5 grams of fat per serving (and made with one of the oils listed above) Nondairy creamers made with one of the oils listed above (such as Coffee Rich)	These items have the same amount of fat as items in the second column, but they are higher in saturated fat. Oils Coconut oil Cocoa butter Palm and palm kernel oil Hydrogenated oil Fats Butter Margarine made with a high percentage of saturated fat or made with animal fat (lard or butter) Vegetable shortening Roquefort, Bleu cheese or other salad dressings made with fats to avoid Sour cream Imitation sour cream made with fats in this column Cream (light, coffee, whipping, nondairy whipped topping)

^{*} High in sodium but not high in fat



Fats (Continued)

Good Choices	Use in Moderation	Not Recommended
Use unsaturated oil or monounsaturated fats when baking. When baking a cake, substitute applesauce, baby food prunes or pureed prunes for cooking oil.	Low-fat sour cream with no more than 3 grams of fat per serving Reduced-fat cream cheese Nuts and Seeds Nuts, unsalted—almonds, walnuts, peanuts, pecans (limit to 1 tablespoon daily) Seeds, unsalted—sesame, sunflower (limit to 1 tablespoon daily)	Creamers containing coconut and/or palm oil Half-and-half Cream cheese (containing 5 or more grams of fat per serving) Lard, bacon, bacon fat, salt pork Chicken fat Beef fat, suet Chitterlings Coconut milk

Miscellaneous

Good Choices	Use in Moderation	Not Recommended				
Beverages Decaffeinated drinks (tea, coffee, soft drinks, fruit drinks, Postum) Coconut water, unsweetened Soups Fat-free, low-salt broth or bouillon Soups made with allowed ingredients Candy, Sugar and Desserts Fat-free baked desserts Hard candies Gum drops Marshmallows Plain sugar candies Jam, jelly, marmalade Sugar, sugar substitute Honey, molasses, syrups Gelatin Sherbet, fruit ices Angel food cake, meringues Seasonings and Sauces All herbs and spices made without salt Vinegar Liquid Smoke	Beverages Alcoholic beverages only with doctor's permission Caffeinated drinks, if allowed by doctor (coffee, tea, soft drinks that contain caffeine; cocoa if made with allowed ingredients)** Seasonings, Sauces and Condiments Ketchup, mustard (limit to 1 tablespoon daily)* Sauces such as soy, steak, BBQ, Worcestershire (limit to 1 teaspoon daily)* Salt substitutes made with potassium chloride should be used only with doctor's permission	Beverages Gatorade or other "energy" drinks* Any beverage containing ingredients to avoid** Soups Regular canned, dried or dehydrated soups Soups containing ingredients to avoid*** Candy and Desserts Candy or desserts made with chocolate or coconut Caramels or candy made with butter or cream Cakes, pies, cookies, frozen desserts made with ingredients to avoid*** Seasonings and Sauces Seasoning salt* Monosodium glutamate* Hollandaise sauce and other sauces containing fat or other ingredients listed under "Avoid"*** Canned gravy, sauces or instant mixes Meat tenderizer containing sodium* Salt, sea salt, Kosher salt				

^{*}High in sodium but not high in fat. **See guidelines under "Milk," page 67.

^{***}Look for good and moderate choices under "Fats," page 70.



Seven Ways to Size Up Your Servings

Measure food portions so you know exactly how much food you are eating. When a food scale or measuring cups are not handy, you can still estimate your portion. Remember:



3 ounces of meat is about the size and thickness of playing cards









A medium apple or peach is about the size of a tennis ball.









1 ounce of cheese is about the size of 4 stacked dice.









1/2 cup of ice cream is about the size of a racquetball or tennis ball.









1 cup of mashed potatoes or broccoli is about the size of your fist.







6

1 teaspoon of butter or peanut butter is about the size of the tip of your thumb.







1 ounce of nuts or small candies equals one handful.





1oz

Eating Out

Choose foods with care when eating out. Often you can ask for foods that are not on the menu (such as skim milk, or margarine instead of butter). You also can ask for food to be made with no extra fat or salt. Remember, just because a portion is large or an item comes with the food ordered (such as gravy, sauces and whipped toppings) does not mean you have to eat it. Ask for the chef to leave off the sauces and gravies. Order the smaller-sized portion if available.

Eating healthfully at fast-food restaurants can be a challenge. Therefore, it is best to limit how often you eat fast-food, but when you do, try to choose healthier options. Many fast-food restaurants have nutrition information on web sites or menus.

Choose a small hamburger or grilled chicken sandwich instead of a double or triple cheeseburger. Some fast-food restaurants offer side salads and low-fat or fat-free salad dressings. Avoid fatty sandwich toppings, such as bacon, mayonnaise and cheese—choose lettuce, tomato, onion, ketchup and mustard instead.

Avoid "supersizing," which can add significant amounts of fat and calories to your meal. For example, an extralarge soft drink (48 ounces) adds about 450 calories, and an extra-large order of french fries (7 ounces) adds about 600 calories to your meal.

Appetizers

Choose fruit, fruit juice, fresh vegetables with low-fat dip or salad with low-fat or fat-free dressing. Avoid cheeses, fried foods or high-fat dips and spreads.

Soups and Salads

Choose plain fruit salads, gelatin salads or vegetable salads. Use fat-free dressing or a small amount of regular oil-based dressing (such as Italian, French or vinaigrette) served on the side (dip your fork into the dressing and then spear the salad). Avoid salads made with cream cheese, mayonnaise, sour cream, bacon, high-fat meats or eggs. Avoid cream soups and chowders, as these soups are high in fat and salt. Some vegetable and chicken-based soups can be low in fat.

Entrees

Choose baked or broiled fish (without fat added), grilled or roasted chicken or turkey (do not eat the skin), lean veal, pork or beef (limit the amount to 3 ounces. If the portion served is large, you can share it with someone or take some home for another meal.

Starches

Select a baked potato with margarine, unbuttered rice, noodles or other pasta, plain rolls or bread. Avoid buttered noodles and rice, rice pilafs or wild rice dishes, au gratin, scalloped, fried, buttered or mashed potatoes.

Vegetables

Ask for vegetables made without fat. Avoid vegetables that are buttered, creamed or made with fat or cheese.



Desserts

Choose fruit ice, low-fat ice cream, frozen yogurt, sherbet or angel food cake. Avoid pies, cakes, cookies, ice cream, puddings and custard.

Beverages

Choose skim or 1% milk, coffee, unsweetened tea, juices (made with 100% juice) or diet soft drinks. Alcoholic beverages and drinks made with caffeine are allowed if approved by your doctor and used in moderation. Avoid whole milk and drinks made with ice cream.

Shopping and Cooking Tips

Read Food Labels

Make a habit of reading labels before buying food. Use them to compare different foods and different brands, and to make better food choices. Many foods are labeled as "low-fat," "lean," "low saturated fat," and "light". Some of these foods may be good choices, while others may not. The nutrition information on the label will tell you the difference.

Serving Size—Pay close attention to serving size. If you eat twice that serving size you will get twice the amount of nutrients, calories, and fat per serving.

% Daily Value—This column is just a general guide. It is based on a person who eats 2,000 calories per day. It shows what percentage of the daily recommended amount of nutrients you would get in one serving of the food. Since you may eat more or less than 2,000 calories per day, these numbers may not be correct for you.

Ingredient Listings

These are the ingredients that are found in the product. They are listed in decreasing order of how much is in the food. The number next to the ingredient is the number of grams of that ingredient in a serving size.

Avoid foods made with ingredients high in saturated fat or sodium. In general, look

for foods with no more than 3 grams of fat per 100 calories or no more than 30 percent of the total calories coming from fat. Saturated fat should be one gram or less.

Trans Fat—

The lower the number, the better.
If this number is not listed

8 servings per container Serving size 2/3	
Amount per serving Calories	230
	Daily Value
Total Fat 8g	109
Saturated Fat 1g	59
Trans Fat 0g	
Cholesterol Omg	09
Sodium 160mg	79
Total Carponydrate 37g	139
Dietary Fiber 4g	149
Total Sugars 12g	
Includes 10g Added Sug	ars 20 9
Protein 3g	
Vitamin D 2mcg	109
Calcium 260mg	209
Iron 8mg	459
Potassium 235mg	69

separately on the label, add up the grams of saturated fat, monounsaturated fat and polyunsaturated fat. The difference between this number and the Total Fat listed can tell you how much trans fat is in one portion of that food.

Manufacturers' Terms

Here are definitions of terms commonly used by manufacturers:

Sodium Free—less than 5 mg of sodium per serving

Salt Free—meets the requirements for "Sodium Free" (see above)

Very Low Sodium—35 mg or less sodium per serving

Low Sodium—140 mg or less sodium per serving

Reduced Sodium—at least 25 percent less sodium when compared with the "regular" product

Less Sodium—at least 25 percent less sodium when compared with the "regular" product

Light in Sodium—50 percent less sodium per serving when compared with the "regular" product

Unsalted, Without Added Salt, No Salt Added— no salt is added during processing

Fat Free—contains a trivial amount of fat, saturated fat or cholesterol

Low Fat—3 grams of fat or less per serving

Low Saturated Fat—1 gram of saturated fat or less per serving

Low Cholesterol—20 mg of cholesterol or less per serving

Light—the product contains one-third fewer calories or half the fat of the

"regular" product. If the food gets onehalf or more of its calories from fat, there must be a reduction of 50 percent of total fat or calories (the term "light" also can mean color or texture).

Lean—less than 10 grams of fat, with less than 4 grams of saturated fat, and less than 95 mg of cholesterol per 3-1/2 ounce serving (or 100 gram serving)

Extra Lean—less than 5 grams of fat, with less than 2 grams saturated fat, and less than 95 mg cholesterol per 3-1/2 ounce serving (or 100 gram serving)

Follow These Guidelines When Selecting Convenience Foods

Frozen Meals—meals should contain less than 600 mg of sodium and less than 10 grams of fat, or a single entree with less than 250 mg of sodium and less than 3 grams of fat

Sweets—one serving should contain less than 140 mg of sodium and 3 grams of fat or less

Snack Foods—one serving should contain less than 140 mg of sodium and 3 grams of fat or less

Cheese—one serving should contain less than 250 mg of sodium and 5 grams of fat or less per ounce



Healthy Substitution

 Do not fry. Instead, dip meat in skim milk, plain yogurt, egg substitute or egg white, then dip into bread crumbs and bake.

Substitute Monounsaturated and Polyunsaturated Fats for Saturated Fats

- If a recipe calls for 1 cup margarine or butter, substitute 3/4 cup unsaturated oil.
- If a recipe calls for 1 cup solid shortening, substitute 2/3 cup unsaturated oil.
- If a recipe calls for 1 tablespoon margarine, *substitute* 2-1/4 teaspoons unsaturated oil.

Chocolate

- Regular chocolate contains saturated fat. Cocoa powder can be used instead, since most of the fat has been removed.
- If a recipe calls for 1 ounce unsweetened baking chocolate, substitute 3 tablespoons cocoa powder plus 1 tablespoon allowed oil.

Eggs

Substitute egg whites or egg substitutes for whole eggs:

- If a recipe calls for 1 whole egg, substitute with 2 egg whites or 1/4 cup egg substitute, or 1 egg white plus 1 teaspoon oil.
- If a recipe calls for 1 egg yolk, substitute with 1 tablespoon cornstarch, flour or arrowroot per 1/2 cup of liquid.

Heart-Healthy Recipes

Here are some low-fat, low-salt recipes to get you started.

Meat Dishes

Oven-Fried Parmesan Chicken

4 boneless, skinless chicken breast halves
1 cup nonfat plain yogurt
3/4 cup plain bread crumbs
4 tablespoons Parmesan cheese
2 tablespoons flour
1 tablespoon paprika
pinch cayenne pepper
1 teaspoon onion powder
1/2 teaspoon garlic powder
Nonstick cooking spray

- 1. Place the chicken in yogurt and refrigerate. Preheat oven to 450° F.
- 2. Mix the remaining ingredients (except cooking spray) in a Ziploc bag. Place the chicken in the bag and shake one piece at a time.
- 3. Place chicken on prepared baking sheet and lightly spray the top with nonstick spray. Bake 20 minutes or until chicken is fork-tender and juices run clear.

Makes 4 servings.
Nutrition facts per serving:
280 calories
34 grams protein
16 grams carbohydrates
4 grams fat
1 gram fiber
74 mg cholesterol
80 mg calcium
2 grams iron
316 mg sodium



Recipe Source: Nutrition Council of Greater Cincinnati nutritioncouncil.org



Lemon-Herb Roast Chicken

Vegetable oil spray

1/2 tablespoon dried thyme, crumbled

1/2 teaspoon dried basil, crumbled

1/2 teaspoon pepper

1/4 teaspoon salt

4-pound roasting chicken

2 medium garlic cloves, minced

1 lemon, cut into wedges

1 bay leaf

1/2 medium onion

1/2 cup dry white wine (regular or nonalcoholic)



- 1. Preheat the oven to 350° F. Lightly spray a roasting pan and rack with vegetable oil spray.
- 2. In a small bowl, stir together the thyme, basil, pepper and salt.
- 3. Discard the giblets and all the visible fat from the chicken. Rub the outside of the chicken with the herb mixture. Put the chicken with the breast side up on the rack in the roasting pan. Put the garlic, lemon, bay leaf and onion in the chicken. Pour the wine into the pan.
- 4. Lightly spray the outside of the chicken with vegetable oil spray.
- 5. Bake for 20 minutes per pound, or until the internal temperature reaches 180° F or the juices run clear when a thigh is pierced with a sharp knife.
- 6. Let rest for 15 minutes before carving. Discard the skin before serving the chicken.

Makes 6 servings.
Nutrition facts per serving:
188 calories
31 grams protein
1 gram carbohydrates
0 grams fiber
102 mg cholesterol
4.5 grams total fat
1 gram saturated fat
1 gram polyunsaturated fat
1.5 grams monounsaturated fat



210 mg sodium

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Chicken and Vegetable Soup

- 1 pound boneless, skinless chicken breasts, all visible fat discarded
- 1 medium zucchini, thinly sliced
- 1 medium red bell pepper, chopped
- 1-3/4 cups fat-free, low-sodium chicken broth
- 2 ounces dried no-yolk egg noodles
- 1/2 cup frozen whole-kernel corn
- 1/2 cup water
- 1/2 teaspoon dried thyme, crumbled
- 4 or 5 medium green onions (green and white parts), finely chopped (about 1/2 cup)
- 1/4 cup finely snipped fresh parsley
- 1 tablespoon olive oil
- 1/2 teaspoon salt
- 1/4 teaspoon pepper
- 2 tablespoons shredded or grated Parmesan cheese
- 1. Cut the chicken into bite-size pieces.
- 2. Heat a Dutch oven over medium-high heat. Remove from the heat and lightly spray with vegetable oil spray (being careful not to spray near a gas flame). Cook the chicken for 2 to 3 minutes, or until no longer pink on the outside, stirring constantly. Transfer the chicken to a plate.
- 3. Lightly spray the Dutch oven with vegetable oil spray (no need to wipe clean first). Cook the zucchini and bell pepper for 2 minutes, or until just beginning to brown lightly on the edges, stirring constantly.
- 4. Stir in the broth, noodles, corn, water, and thyme. Increase the heat to high and bring to a boil. Reduce the heat and simmer, covered, for 10 minutes.
- 5. Stir in the chicken and any accumulated



juices. Cook for 3 minutes, or until the chicken is no longer pink in the center. Remove from the heat.

- 6. Stir in the remaining ingredients except the Parmesan.
- 7. To serve, ladle into bowls. Sprinkle with the Parmesan.

Makes 4 servings.

Nutrition facts per serving:

268 calories

31 grams protein

21 grams carbohydrates

4 grams fiber

68 mg cholesterol

6 grams total fat

1.5 grams saturated fat

1 gram polyunsaturated fat

3 grams monounsaturated fat

436 mg sodium



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Fish Dish

Baked Herbed Fish with Rice

6 cups cooked rice

1-1/2 lbs. catfish, cod, orange roughy, haddock or other filleted fish

1 teaspoon oil

pinch of salt

1 teaspoon thyme or tarragon

1 teaspoon minced garlic

3/4 cup fresh or frozen chopped onion

1 cup white wine or skim milk (not both) sprinkle of paprika

- 1. Start cooking rice. Preheat oven to 400° F.
- 2. Place fish fillets in baking dish. Combine oil with thyme, salt and garlic. Spread over fish. Top with onions. Pour wine or milk over the fish.
- 3. Bake for 10 to 15 minutes or until fish flakes with a fork.

Makes 4 servings.

Nutrition facts per serving:

(includes 1-1/2 cups rice per serving):

528 calories

47 grams protein

73 grams carbohydrates

2 grams fiber

2 grams fat

93 mg cholesterol

147 mg calcium

433 mg iron

211 mg sodium

Recipe Source: Nutrition Council of Greater Cincinnati www.nutritioncouncil.org

Vegetarian Dishes

Glazed Sweet Potatoes

2 medium sweet potatoes 1/2 cup unsweetened apple juice or cider

- 1. Wash and cut potatoes into chunks.
- 2. Place in small saucepan, cover with water and bring to a boil.
- 3. Boil for 10 to 15 minutes or until tender. Drain and let cool slightly.
- 4. When cool enough to touch, slip off skin. Add apple juice and cook over low heat until the liquid forms a shiny glaze.

Makes 3 servings.

Nutrition facts per serving:

188 calories

2 grams protein

44 grams carbohydrates

2.7 grams fiber

0 grams fat

0 mg cholesterol

25,000 IU vitamin A (498% RDA)

25 mg vitamin C (42% RDA)

36 mg calcium

1.6 mg iron

22 mg sodium

Recipe Source: Nutrition Council of Greater Cincinnati www.nutritioncouncil.org



Baked Fries with Creole Seasoning

4 medium unpeeled russet potatoes (1-1/4 to 1-1/2 pounds)

Creole or Cajun Seasoning:

1/2 teaspoon chili powder

1/2 teaspoon ground cumin

1/2 teaspoon onion powder

1/2 teaspoon garlic powder

1/2 teaspoon paprika

1/2 teaspoon black pepper

1/4 teaspoon salt

1/8 teaspoon cayenne (optional)

Vegetable oil spray

- 1. Cut the potatoes into long strips about 1/2" wide. In a large bowl, soak for 15 minutes in enough cold water to cover by 1."
- 2. Meanwhile, in a small bowl, stir together the seasoning ingredients. Set aside. Preheat the oven to 450° F. Lightly spray a large baking sheet with vegetable oil spray.
- 3. Drain the potatoes and pat dry with paper towels. Spread the potatoes in a single layer on the baking sheet. Lightly spray the tops with vegetable oil spray. Sprinkle with the seasoning mixture.
- 4. Bake for 30 to 35 minutes or until crisp.

Makes 4 servings.
Nutrition facts per serving:
106 calories
4 grams protein
27 grams carbohydrates
3 grams fiber

0 mg cholesterol 0 grams total fat 150 mg sodium



This recipe is reprinted with permission from "The New American Heart Association Cookbook," Seventh Edition, Copyright ©2004 by the American Heart Association. Published by Clarkson Potter/Publishers, a division of Random House, Inc. Available from booksellers everywhere.

Mashed Sweet Potatoes for One

1 medium sweet potato

1 to 2 tablespoons orange or pineapple juice

1/8 to 1/4 teaspoon cinnamon, nutmeg or ginger

- 1. Wash sweet potato and pierce it several times with a fork, then place on a paper towel
- 2. Microwave for approximately 6 minutes or until cooked through. Let sit for 1 to 2 minutes.
- 3. Cut open and mash with juice and seasonings to taste.

Makes one serving.

Nutrition facts per serving:

120 calories

2 grams protein

29 grams carbohydrates

2.7 grams fiber

0 grams fat

0 grams cholesterol

25,000 IU vitamin A (498% RDA)

25 mg vitamin C (42% RDA)

29 mg calcium

1.6 mg iron

21 mg sodium

Recipe Source: Nutrition Council of Greater Cincinnati www.nutritioncouncil.org



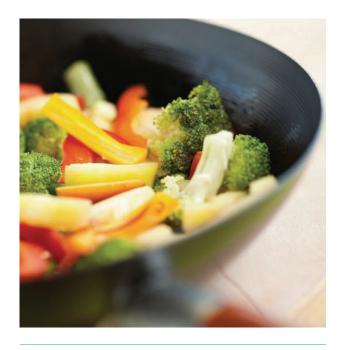
Basic Stir-Fried Vegetables

- 1 tablespoon oil
- 1 teaspoon ground ginger
- 1 teaspoon minced garlic
- 1 lb. vegetables (see suggested combinations)
- 1 teaspoon cornstarch
- 2 tablespoons water
- 1/4 cup to 1/2 cup chicken or vegetable broth
- 1 tablespoon reduced-sodium soy sauce 1/2 teaspoon sugar
- 1. Clean and chop or slice vegetables for cooking or use pre-cleaned and chopped varieties.
- 2. Combine broth, soy sauce, ginger and sugar in a small bowl. Combine water and cornstarch in a separate small bowl.
- 3. In a large skillet sprayed with nonstick spray, heat oil. Add garlic and stir-fry for about 30 seconds. Add vegetables according to their cooking times. Stir-fry until crisp tender.
- 4. Add broth mixture. Simmer, covered, until vegetables are done. Thicken sauce with cornstarch paste. Serve with steamed rice.

Makes 4 servings.

Nutrition facts per serving
(includes 1 cup steamed rice):
250 calories
4 grams fat

Recipe Source: Nutrition Council of Greater Cincinnati www.nutritioncouncil.org.



Suggested Combinations for Basic Stir-Fried Vegetables

- Cabbage, onions, green pepper, fresh mushrooms, carrots and snow peas
- Chinese cabbage and dried mushrooms
- Broccoli, fresh mushrooms and carrots
- Zucchini, green pepper, mushrooms, onions and tomatoes
- Cauliflower and fresh mushrooms

Desserts

Chocolate Oatmeal Cookies

1-1/2 cups firmly packed light brown sugar 1/2 cup sifted unsweetened cocoa

powder

1/2 cup fat-free milk

1/4 cup acceptable stick margarine, softened

1/4 cup pureed dried plums or unsweetened baby food dried plums

2 teaspoons vanilla extract

1-3/4 cups all-purpose flour

2-1/2 teaspoons baking powder

1/4 teaspoon salt

1-1/2 cups uncooked quick-cooking oatmeal

- 1. Preheat the oven to 350° F.
- 2. In a large mixing bowl, cream the brown sugar, cocoa powder, milk, margarine, dried plums and vanilla.
- 3. In a small bowl, sift together the flour, baking powder and salt. Beat into the brown sugar mixture.
- 4. Stir in the oatmeal.
- 5. Drop by teaspoonfuls onto ungreased baking sheets. (You should have about 60 cookies.)
- 6. Bake for 7 to 9 minutes, or until set in the center (the cookies don't jiggle when gently shaken).

Makes 30 servings. Two cookies per serving.

Nutrition facts per serving:

100 calories

2 grams protein

21 grams carbohydrates

1 gram fiber

0 mg cholesterol

1 gram total fat

77 mg sodium



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Simply Superb Banana Cream Pie

- 2 cups sliced banana (2 medium bananas)
- 1 chocolate-flavored graham cracker pie
- 1 package sugar-free instant banana pudding mix
- 2/3 cup nonfat dry milk powder
- 1-1/3 cups water
- 1 cup light whipped cream
- 1 tablespoon chocolate syrup
- 1. Layer bananas on bottom of pie crust. In a medium bowl, combine dry pudding mix and dry milk powder. Add water. Mix well using a wire whisk. Blend in 1/4 cup light whipped cream. Pour mixture over bananas. Refrigerate for about 15 minutes.
- 2. Spread remaining 3/4 cup light whipped cream evenly over filling. Drizzle chocolate syrup over top. Refrigerate until ready to serve.

Makes 8 servings.

Nutrition facts per serving: 214 calories 6 grams fat 38 grams carbohydrates 3 grams protein 1 mg cholesterol .7 grams fiber 78 mg calcium .7 mg iron 298 mg sodium

Recipe Source: Adapted by the Nutrition Council of Greater Cincinnati from "Healthy Exchanges Cookbook" by JoAnna M. Lund. www.nutritioncouncil.org

1-2-3 Peach Cobbler

1/2 teaspoon ground cinnamon

1 tablespoon tub margarine

1 tablespoon vanilla extract

1 cup dry pancake mix

2 tablespoons cornstarch

2/3 cup all-purpose flour

1 cup peach nectar

1/4 cup sugar

2/3 cup pineapple juice or peach juice 2 cans (16 oz. each) peaches, packed in juice, drained; or 1-3/4 lb. fresh, sliced peaches

2/3 cup evaporated skim milk

1/4 teaspoon nutmeg

1 tablespoon brown sugar

Makes 8 servings.
Nutrition facts per serving:
271 calories
4 grams total fat
less than 1 mg cholesterol
263 mg sodium
2 grams total fiber
4 grams protein
54 grams carbohydrates

Recipe source: Nutrition Council of Greater Cincinnati www.nutritioncouncil.org

- 1. Combine cinnamon, vanilla, cornstarch, peach nectar and pineapple or peach juice in sauce pan over medium heat. Stir constantly until mixture thickens and bubbles. Add sliced peaches to mixture. Reduce heat and simmer for five to 10 minutes.
- 2. In another sauce pan, melt margarine and set aside. Lightly spray 8" square glass dish with cooking spray. Pour hot peach mixture into dish.
- 3. In another bowl, combine pancake mix, flour, sugar and melted margarine. Stir in milk. Quickly spoon this over peach mixture. Combine nutmeg and brown sugar. Sprinkle on top of batter. Bake at 400° F for 15 to 20 minutes or until golden brown. Cool and cut into 8 pieces.

Notes:

Notes:



You can make lifestyle choices that will help your heart to be stronger and healthier. The following pages will help you to evaluate your controllable risk factors and to take steps to reduce those risk factors in your life. You also will learn about our Cardiac Rehabilitation program, which is designed to put you back on the path to recovery and wellness.

Risk Factor Assessment

Risk factors are those things that helped create your heart disease. You cannot change risk factors such as age, sex, heredity and race. There are risk factors that you can change, however. Making changes to reduce these risk factors can help keep your heart problem from getting worse.

Do you currently use tobacco (smoke, chew or dip)?	NO	YES	packs per day x years
Is your LDL greater than 55, or HDL less than 40 for men and 50 for women, or triglycerides over 150?	NO	YES	Total Triglycerides LDL HDL
Have you ever been told you had high blood pressure?	NO	YES	
Do you exercise less than 30 minutes a day, three times a week?	NO	YES	Frequency Does it make you sweat? Type
Do you have diabetes or central obesity?	NO	YES	
Do you have a family history of heart disease, age 55 or younger?	NO	YES	Family member(s)
Are you overweight?	NO	YES	Height Weight Body Mass Index (see instructions on page 95)
How would you rank your daily stress level?	NO	YES	Low High 1 2 3 4 5
Do you drink alcohol?	NO	YES	How many drinks/week?
Do you have chronic depression?	NO	YES	

The more times you answered YES, the higher your risk for heart disease.



Reducing Risk Factors

Take charge of controllable risk factors:

- Stop tobacco use
- Reduce high cholesterol
- Control high blood pressure
- Manage diabetes and metabolic syndrome
- Lose excess weight
- Exercise
- Manage stress
- Limit alcohol intake
- Seek help for depression

The American Heart Association website is an excellent resource to help you to identify and take action against your risk factors. Visit mylifecheck.org.

Stop Tobacco Use

Tobacco use (cigarette, e-cigarette, vaping, cigar and pipe smoking, snuff and chewing tobacco) is the number one preventable risk factor for heart disease. Quitting is the best thing you can do for your overall health, the health of your arteries, and the health of your family.

Harmful Effects of Tobacco Use Include

- Damages the lining of the coronary arteries, making blockages worse.
- Nicotine causes heart rate and blood pressure to rise and increases risk of blood clots.
- Decreases the amount of oxygen reaching the heart muscle, making your heart work harder.
- Decreases longevity by 13 to 14 years.

- Decreases the ability to exercise.
- Decreases HDL which is your good cholesterol.
- Can cause cancer, chronic bronchitis, asthma, and emphysema.

Tips for Quitting

- Make a firm decision to quit and decide on a date you will quit. Mark it on the calendar and tell people you have quit.
- Find a buddy or friend who will quit with you.
- Make a list of the reasons why you are quitting. Read the list when you feel like smoking.
- Identify daily routines that trigger your desire to light up (drinking coffee, driving to work, stressful situations, being around others who smoke). Be creative and develop new routines.
- Substitute healthy alternatives to smoking, such as carrots or celery sticks, brushing your teeth, or a drink of flavored water when you feel the urge to smoke.
- Exercise as an alternative to smoking.
- Reward yourself with the money you save. The average person spends between \$500-\$3,000 per year on nicotine.

Consider the Different Cessation Aids Available

1. Nicotine replacement therapies such as nicotine patches, lozenges, gum, spray and inhalers. Most can be found over the counter at your drugstore. It is important not to use tobacco products when using these aids. Limit use to a few months.



- 2. Non-nicotine medicine that requires a prescription from your doctor:
- Buproprion hydrochloride (Wellbutrin): It is an antidepressant that reduces withdrawal symptoms and the urge to smoke.
- Varenicline (Chantix): It targets
 nicotine receptors in the brain and
 blocks nicotine from reaching them,
 which reduces the urge to smoke.
- 3. Alternative therapies such as hypnosis, acupuncture, relaxation techniques and tobacco-cessation classes for behavioral change.

You may feel discomfort and withdrawal symptoms as your body rids itself of nicotine. The symptoms will pass in three to five days. Cravings may last longer, so stay active to distract yourself and overcome them. Even if you've tried to quit before, don't give up. Take one day at a time. Many smokers try quitting four to five times before they succeed.

What Happens After You Quit Smoking?

20 minutes

- Blood pressure decreases
- Pulse rate decreases
- Circulation to the hands and feet improve

12 hours

- Carbon monoxide level in blood decreases
- Oxygen level in blood improves

2 weeks to 3 months

- Circulation improves
- Walking becomes easier
- Lung function increases up to 30 percent

1 to 9 months

- Coughing, sinus congestion, fatigue and shortness of breath decrease
- Cilia (fine, cleaning hairs) regain normal function in lungs, increasing their ability to handle mucus, clean the lungs and reduce infection

1 year

 Risk of coronary heart disease is half that of a smoker

5 years

- Risk of cancer of the mouth, throat, esophagus, and bladder is cut in half
- Risk of cervical cancer and stroke return to that of a non-smoker

10 years

- Risk of dying from lung cancer is about half that of a person who is still smoking
- Risk of cancer of the larynx and pancreas decreases

15 years

 Risk of coronary heart disease is reduced to that of a non-smoker

Sources: American Cancer Society; Centers for Disease Control

All benefits are lost by smoking just one cigarette a day, according to the American Cancer Society.



Smoking Cessation Programs/ Resources

Ohio Tobacco Quit-line 1-800-Quit-Now (1 800 784 8669)

TriHealth Integrative Health and Medicine TriHealth Fitness Pavilion 6200 Pfeiffer Road, 513 985 6736

Many additional resources are available through the American Lung Association and American Cancer Society's websites.

Reduce High Cholesterol

High blood cholesterol is also a major risk factor that causes heart disease. Cholesterol can build up in the coronary arteries and cause blockages. The best ways to lower your cholesterol levels are to lower the amount of fat in your diet, exercise on a regular basis and take your medicines as prescribed. Reducing your cholesterol is one of the most controllable risk factors.

Cholesterol is a natural fat-like substance made in the liver. Your body makes 75 percent of the cholesterol it needs, so it doesn't require much from what you eat.

There are two types of cholesterol: HDL (high-density lipoprotein), also known as "good cholesterol" and LDL (low-density lipoprotein) also known as "bad cholesterol."

HDL helps remove bad cholesterol from your blood, helps your body to heal when injured or damaged and helps prevent plaque from building up on the inside walls of your arteries.

LDL is the big ingredient in plaque formation in your arteries. This build-up is what contributes to the blockages or narrowing on the inside of your arteries.

Methods to increase HDL and lower LDL and triglycerides:

- 1. Stop tobacco use
- 2. Lose weight
- 3. Exercise regularly
- 4. Manage stress
- 5. Eat a heart-healthy diet
- 6. Take medicines as ordered by your doctor

Control High Blood Pressure (Hypertension)

About 78 million Americans have high blood pressure. Many people do not know that they have high blood pressure because there are usually no symptoms. That's why hypertension (high blood pressure) is called the "silent killer." Untreated high blood pressure can lead to coronary artery disease (CAD), stroke, heart attack, heart failure, kidney failure, blindness and other medical problems.

Blood pressure is measured in numbers and represents the force of the blood pushing against the artery wall when the heart squeezes (systolic) and when the heart relaxes (diastolic).



Blood Pressure	Meaning
120/80 or less	Normal
120-129/80	Elevated
130-139/80-89	Hypertension stage 1
140/90	Hypertension stage 2
180/120 or higher	Hypertensive crisis

If your blood pressure is 180/120 or higher, you need immediate medical attention. A person with diabetes should have a blood pressure under 120/80.

Many of the steps to help lower your blood pressure also help improve your total health. Here are some things you can do to help lower your blood pressure.

- Stop tobacco use and avoid secondhand smoke.
- Exercise 30 minutes a day.
- Eat healthy foods and limit the amount of salt you eat.
- Control your weight—losing as little as 10 to 20 pounds can help lower your blood pressure.
- Limit alcohol to one to two servings per day.
- Limit caffeine to one to two cups per day.
- Take your medicine at the same time every day.
- Seek diagnosis and treatment for sleep apnea; sleep apnea increases your risk of heart disease.

Manage Diabetes

Diabetes is a disease in which you have too much sugar in your blood (hyperglycemia). It is a lifelong disease that can lead to serious health problems.

Normally, insulin moves sugar from food into the cells. The cells use the sugar for energy. The lack of insulin or the lack of normal response to insulin causes sugar to build up in the blood. The cells are unable to use the sugar for energy. You may be able to control your blood sugar with diet and exercise. As diabetes progresses, some people may need to add pills or insulin shots to control their sugar.

Diabetes is diagnosed when blood sugar levels are too high. Your blood sugar level may be checked by one or more of the following blood tests:

- A fasting blood glucose test with blood sugar above 126 mg/dL
- A random blood glucose test with blood sugar above 200 mg/dL
- A hemoglobin A1c blood glucose test 6.5% or above (5.7% to 6.4% is considered prediabetes)

High blood sugar damages the walls of the artery and narrows the pathway of blood flow. Heart disease may then occur, as well as damage to many other organs including the brain and kidneys. With proper care of your disease you can greatly reduce the risk of these health problems.

Outpatient Diabetes Resources

There are many diabetic resources available to you to assist you in managing your diabetes as an outpatient. These Include:

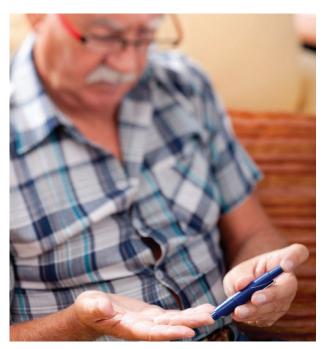
- Diabetes self-management education
- Medical nutrition therapy
- Annual review classes
- Prediabetes classes

To make an appointment with a diabetes educator and dietitian call:

- Bethesda North Hospital 513 569 6777
- Good Samaritan Hospital 513 569 6602
- McCullough-Hyde Memorial Hospital 513 524 555

For helpful tips on diabetes care, check out:

www.trihealth.com/diabetes www.diabetes.org



Lose Excess Weight

Obesity is linked to many diseases that put you at risk for heart disease, diabetes, high cholesterol and high blood pressure. Your heart must work harder to supply blood to the extra weight. The key to weight loss is to eat or drink fewer calories than you burn. Diet and exercise can help you do this. If you are overweight, just a 10 percent weight loss will help your heart.

Determine If You Have Central Obesity

BMI (body mass index) is as accurate as waist circumference in assessing risk of disease. Research shows that as a person's BMI or waist circumference increases, so does insulin resistance as well as triglycerides and higher blood sugar concentration in the blood. This means you have a higher risk of developing diabetes and increased risk of developing heart disease. (See chart on next page.)

One way to determine if you have central or abdominal obesity is to measure your waist in inches across your stomach at the level of your belly button. Women with a waist measurement of 35 inches or bigger, or men with a waist measurement of 40 inches or bigger, have central obesity.

Body Mass Index (BMI) Chart

Find your height and weight on the chart to determine your body mass index. An ideal range is 19 to 24. A BMI over 25 puts you at risk for high blood pressure, stroke, osteoarthritis, heart disease and certain cancers. A BMI of 25 to 29.9 is considered overweight and a BMI of 30 or higher is considered obese. For people whose BMI may be higher due to large bone structure or greater muscle mass, the waist circumference measurements described on the previous page will help determine whether you are truly at higher risk for serious diseases.

Ht. (In.)	Body Weight (pounds)																
58	91	96	100	105	110	115	119	124	129	134	138	143	148	153	158	162	167
59	94	99	104	109	114	119	124	128	133	138	143	148	153	158	163	168	173
60	97	102	107	112	118	123	128	133	138	143	148	153	158	163	168	174	179
61	100	106	111	116	122	127	132	137	143	148	153	158	164	169	174	180	185
62	104	109	115	120	126	131	136	142	147	153	158	164	169	175	180	186	191
63	107	113	118	124	130	135	141	146	152	158	163	169	175	180	186	191	197
64	110	116	122	128	134	140	145	151	157	163	169	174	180	186	192	197	204
65	114	120	126	132	138	144	150	156	162	168	174	180	186	192	198	204	210
66	118	124	130	136	142	148	155	161	167	173	179	186	192	198	204	210	216
67	121	127	134	140	146	153	159	166	172	178	185	191	198	204	211	217	223
68	125	131	138	144	151	158	164	171	177	184	190	197	203	210	216	223	230
69	128	135	142	149	155	162	169	176	182	189	196	203	209	216	223	230	236
70	132	139	146	153	160	167	174	181	188	195	202	209	216	222	229	236	243
71	136	143	150	157	165	172	179	186	193	200	208	215	222	229	236	243	250
72	140	147	154	162	169	177	184	191	199	206	213	221	228	235	242	250	258
73	144	151	159	166	174	182	189	197	204	212	219	227	235	242	250	257	265
74	148	155	163	171	179	186	194	202	210	218	225	233	241	249	256	264	272
75	152	160	168	176	184	192	200	208	216	224	232	240	248	256	264	272	279
76	156	164	172	180	189	197	205	213	221	230	238	246	254	263	271	279	287
ВМІ	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
	Desirable Range					Ove	erwei	ght			Obe	sity/Ir	ncreas	sed H	ealth	Risk	

Exercise

Exercising frequently is one of the best things you can do for your heart. Cardiovascular fitness allows the heart and blood vessels to supply the body with the oxygen it needs during rest and exercise. A fit person will be able to carry out daily activities with little or no fatigue. You also will be able to respond to physical and emotional stress without an excessive increase in heart rate and blood pressure. Check with your doctor before beginning any exercise program to see if you have any exercise restrictions.



Make Exercise a Permanent Part of Your Life

It is important to design a lifelong home exercise routine. Walking is one of the easiest and most convenient options, but there may be others you enjoy. Cardiovascular exercise should be continuous and rhythmical. It should be done at a comfortable pace. The "no pain, no gain" principle does not apply. If you stick with a regular, consistent program, you can expect these rewards:

- More energy and endurance (stamina) throughout the day
- Improved appearance
 - -a slimmer, trimmer body
 - better blood flow throughout your body
 - -better posture
- Weight loss
 - -less body fat
 - -increased muscle tone
- Decreased appetite following exercise
- Lower heart rate and blood pressure
- Stronger heart muscle: the more you use your heart muscle, the stronger it becomes
- Improved use of oxygen in the body.
 The ability of the body to use oxygen effectively is considered by many to be the best measure of overall fitness
- Better sleep at night
- Stronger bones and a lower risk of osteoporosis
- Better resistance to illness
- Decrease in LDL and increase in HDL
- Lower stress, anxiety and depression

How to Design an Exercise Program

Your exercise plan should be based on the FITT principle:

Frequency of training Intensity of training Time of training Type of training

Get approval from your doctor before starting your program.

Frequency

According to national guidelines, adults need 30 minutes of moderate physical activity five times a week. People who only exercise "every once in a while" have a greater risk of exercise-related heart attack compared to those who work out more regularly, according to a report from the American Heart Association.

Intensity

You will get the most benefit for your heart when you exercise hard enough to get your heart rate (pulse) 20-30 points above resting, or as directed by your doctor.

Exercise should be at a comfortable, yet moderate, level.

Your doctor may recommend a specific number (pulse rate) for how fast your heart should beat for safe exercise. This is called your target heart rate. Slow down if you get above this heart rate. If you are not in cardiac rehab, ask your doctor about your target heart rate. Exercising above your target heart rate increases the risk of problems and is not advised for people with heart disease.

There are two ways to tell if you are working out safely:

Talk Test: Moderate Intensity: You should be able to talk normally while exercising. Vigorous Intensity: If you are too short of breath to carry on a conversation, you are working too hard. Slow down.

Target Heart Rate: You should keep your target heart rate within the range given to you by your doctor or cardiac rehab staff. Generally, 75-80 percent of maximum heart rate is considered adequate. The formula for calculating your maximum heart rate = 220 – your age.



Time

If you are just starting an exercise program, begin with five to 10 minutes of exercise, four times a day. Add five minutes more each week until you are able to do 30 to 60 minutes once a day, most days, every week.

Type

The best kind of exercise is aerobic. This exercise is done by using your arms and/or legs in a continuous, rhythmic movement in order to increase your heart rate (pulse).

Aerobic activities include:

- Aerobics
- Dancing
- Skating (ice or roller)
- Bicycling/Stationary bike
- Hiking
- Swimming
- Jogging/Walking
- Rowing

Pick an aerobic exercise that you enjoy, as you will most likely keep doing it on a regular basis. Other activities (sports, gardening, shopping, housework, etc.) help improve your overall fitness, but will not improve your heart health for longterm benefits.

Tracking Your Progress

One of the best ways to monitor your progress is to write down what you do. Keep track of:

- Weight (record once a week)
- Blood pressure (if you have a homemonitoring kit)
- Minutes of exercise each day
- Symptoms (are you having any symptoms that would be of concern? If so, be sure to contact your doctor.)
- Glucose values (for people with diabetes)



How to Exercise

Each exercise session should start with a warm-up and stretching, and end with a cool-down and stretching. Wear comfortably fitting shoes with good support. The shoes should not rub or chafe against your feet.

Warm-Up

A warm-up helps the body prepare for aerobic exercise by slowly raising the body's temperature and pulse. This is best done by walking or bicycling slowly for five to ten minutes. Warm-up may include stretching to improve your flexibility and prevent injuries. To stretch properly, stretch the muscle and hold that position for 10 to 30 seconds (don't bounce). Breathe normally during the stretch and do not hold your breath.

Aerobic Exercise

Aerobic exercise can make all the muscles in your body stronger, including your heart. See types of aerobic exercise in the previous column.

Cool-Down

The reason for a cool-down is to help the body return to a resting state. End your exercise session by slowing down your exercise for five minutes. Then repeat the stretching exercises that you did during your warm-up. This takes away the waste products that build up during exercise and helps reduce muscle soreness.

The cool down time slowly lowers you heart rate and blood pressure, helps prevent injuries and reduces the pooling

of blood in your legs. Some experts believe this is the most important part of your workout.

Stop exercising and tell your doctor if you have any of these symptoms during, or even several hours after, exercise:

- Lightheadedness or dizziness
- Chest discomfort
- Rapid heart beat
- Jaw, arm, or upper back discomfort
- Nausea
- Unusual shortness of breath
- Sudden weakness
- Severe or unusual fatigue or sleepiness
- Severe discomfort of any kind

Hints for a Successful Exercise Program

- 1. Set short- and long-term goals for yourself. Reward yourself when you meet them.
- 2. Frequently review how exercise benefits you.
- 3. Exercise with music or in front of the television.
- 4. Wait one hour after eating before exercising.
- 5. Pick an exercise you like that fits into your lifestyle.
- 6. Exercise with a friend for both safety and motivation.
- 7. Follow the walking guidelines on the next page.



Walking

When you first come home from the hospital, you should begin to walk daily, as allowed by your doctor. If you are feeling extremely tired and ill on a given day, you can skip that day. Walk at a comfortable, easy pace.

Follow these guidelines:

- Do not walk within one hour after meals.
- Walk on level ground, avoiding hills and grades.
- Walk inside if the temperatures are too hot or too cold, or during extreme humidity or a pollution alert.
- In summer, walk in the cooler part of the day and wear light, loose-fitting clothes.
- In winter, put on hat and gloves and wear a scarf to cover your nose and mouth.
- Always carry an ID with you and don't walk in secluded places.
- Carry your cell phone for emergencies.

Listen to your body. If you develop any form of chest discomfort, extreme shortness of breath, dizziness, sudden weakness or excessive sweating, stop and rest five minutes or until the symptoms go away. Call your doctor if the symptoms do not go away completely, or if you have these symptoms again.

As your body grows stronger after you leave the hospital, you should increase to a moderate, steady walking pace. Follow your doctor's orders or the instructions given to you.

Limit Alcohol Intake

If you drink alcohol it should only be done in moderation. This means an average of one to two drinks a day for men, and one drink a day for women.

A drink of alcohol is equal to:

- 1.5 ounces 80-proof distilled spirits (liquor)
- 12 oz. beer or wine cooler
- 4 oz. wine

Drinking more than one to two servings of alcohol a day relaxes the heart muscle too much and limits the amount of blood the heart feeds itself. When you drink too much alcohol, the heart muscle cannot pump or squeeze as strongly. Extra fluid can build up inside the heart, causing it to stretch or get bigger. The extra pressure on the heart muscle weakens the heart, eventually causing congestive heart failure (buildup of fluid in the heart and lungs).

Drinking large amounts of alcohol increases blood pressure, cholesterol and triglyceride levels. This causes atherosclerosis, or hardening of the arteries.

Current research does not support the consumption of wine or any form of alcohol as a way to improve overall heart health. The action of all heart medication may be changed with drinking alcohol. If you have questions about using alcohol, please discuss this with your doctor.



Stress

Many people try to avoid stress as much as possible; others thrive on it. No matter what you do, stress is unavoidable. Any change, even positive or good change, brings some stress. Stress is the body's way of dealing with change. Once you begin to view stress as a part of normal life, you can begin to recognize and learn to deal with it better.

Long-term stress that you do not deal with properly may become bad for your health and may help cause heart disease by:

- Increasing blood pressure
- Increasing heart rate
- Increasing cholesterol levels
- Increasing blood sugar levels

Some possible symptoms of stress are:

- Irritability
- Bowel problems
- Tense muscles in the jaw, neck and shoulders



- Depression
- Mood swings
- Sleep problems
- Stomach problems

People who successfully deal with stress in their lives feel more relaxed. Some effective stress management techniques include:

- Exercise
- Meditation
- Use of guided imagery
- Muscle relaxation
- Listening to music
- Deep-breathing techniques
- Visiting with friends
- Taking time to do an activity you enjoy
- Reading a book
- Stress-management class or support group

The best way to manage stress is to practice healthy habits such as eating a nutritious diet, exercising, avoiding alcohol and drugs and getting six to eight hours of sleep each night.

Cardiac Rehabilitation

The TriHealth Cardiac Rehabilitation program guides you in making lifestyle changes that will help your heart. The purpose of cardiac rehabilitation is to help people return to everyday life. An important goal is to prevent a heart attack and halt or slow disease progression. Cardiac rehab focuses on these main areas:

- Exercise to make you stronger
- Education about your heart problem
- Advice on healthy habits
- Assistance with making life changes, such as losing weight or quitting smoking
- Counseling to help you cope with depression and learn how to deal with stress

The patients in the program will be a lot like you. Anyone with heart disease, regardless of age, will benefit from cardiac rehab. It is proven that if you complete a cardiac rehab program you are less likely to have any recurrent cardiac issues, even years down the road.

People who go to cardiac rehab include those who have had heart disease such as angina or heart failure, a recent heart attack, recent heart surgery, cardiac intervention such as balloon angioplasty or stent placement, or a heart transplant.

The Two Phases of Cardiac Rehabilitation

Phase I – Inpatient

While you are in the hospital, the Phase I nurse (heart educator) may see you and your family. This education starts after you have been treated for a heart problem. The nurse will teach you about your specific heart condition and risk factors that caused your heart disease. You will be given written material.

You may watch a video or attend a class about your heart problems and

treatments. The Phase I nurse also will explain the outpatient Phase II cardiac rehab program, which is designed to help your heart get healthy again and help you reduce your risk factors. You will receive written information regarding entry into a program.

Phase II – Immediate Outpatient

Upon discharge from the hospital, you will receive a referral for the cardiac rehab program. The program is usually 3 sessions a week for up to 3 months. Most insurance policies will cover hospital-affiliated outpatient programs.

At each session, you will be monitored closely by a cardiac rehab nurse and an exercise physiologist. A personal exercise plan will be developed based on your needs, abilities and goals. These exercise classes are fun, upbeat and slightly challenging.

Group classes and individual education play a big role in the Phase II program. Weekly educational classes also are offered.

Class topics include:

- Heart disease
- Risk factors
- Lifestyle changes and goal setting
- Nutritional counseling
- Stress management
- Exercise guidelines



Goals for Phase II:

- Improve your energy level by strengthening your heart with exercise
- Provide education about lifestyle changes that will keep your heart healthy
- Reduce the fear and anxiety about increasing your activities and exercise
- Assist you in making social, emotional and psychological adjustments to your heart disease and lifestyle change

Cardiac Rehabilitation at the TriHealth Fitness & Health Pavilion 513 985 6776

Good Samaritan Cardiac Rehabilitation Western Ridge 513 862 2837

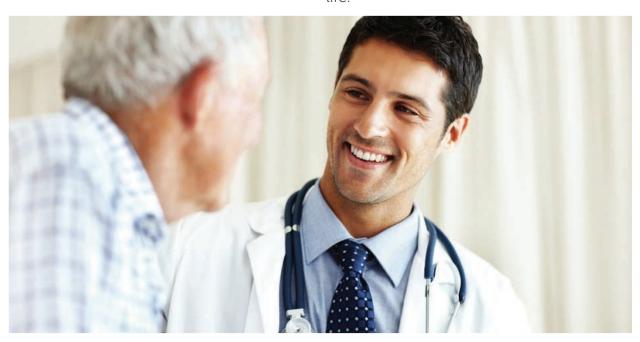
McCullough Hyde Cardiac Rehab 513 524 5445

The Cardiac Rehab Team

You are the most important member of the team! Your commitment to take care of yourself is the key to your recovery and ongoing heart health. The cardiac rehab team involves health care providers who are trained to guide your recovery. Your team includes:

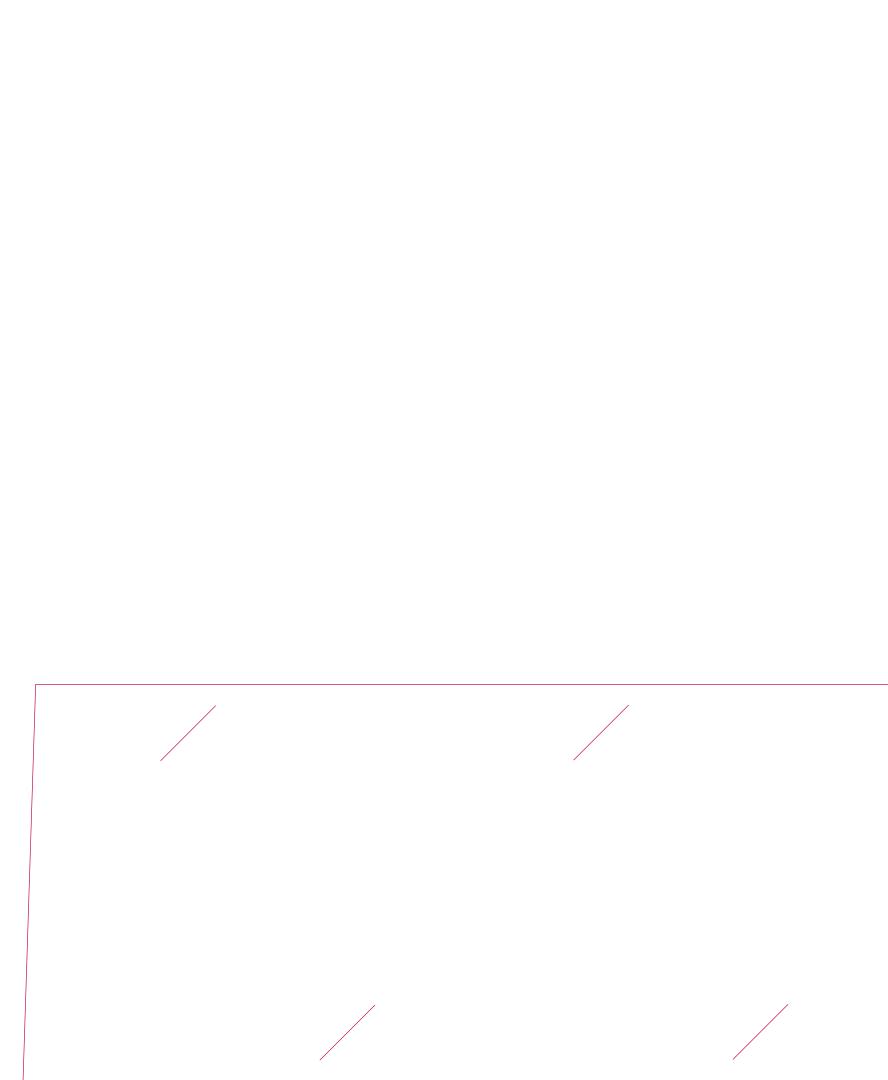
- You
- Your family
- Doctors (your family doctor, cardiologist and/or heart surgeon)
- Cardiac nurses
- Exercise physiologists
- Dietitians

Coming back after a heart attack, heart surgery or a diagnosis of heart disease can be challenging for many reasons. Take advantage of the program classes and work with your health care team to design your own plan to lead a healthier life.



Notes:







TriHealth.com/heart