Cardiac Education Program
Important Telephone Numbers

Emergency Medical System (Saline County) ......................... 911
Salina Regional Health Center Operator ......................... (785) 452-7000
Salina Regional Health Center Emergency Room ............ (785) 452-7161
3 Southeast Stepdown ..................................................... (785) 452-6644
Intensive Care Unit ......................................................... (785) 452-6855
Cardiac Rehabilitation ..................................................... (785) 452-7588
Hospital Dietitians ......................................................... (785) 452-7832

Physicians and Surgeons
   Dr. Mark Mikinski ..................................................... (785) 827-7261
   Dr. Curtis Kauer ....................................................... (785) 827-7261
   Dr. Karil Bellah ......................................................... (785) 827-7261
   If no answer to above numbers .................. (785) 452-4006

   Dr. John Keleman III ................................................. (785) 452-7562

This information is selective and does not cover all the information about this topic. This information may become outdated because of new scientific knowledge. Do not use this information as a substitute for the recommendations of your doctor or health care provider. If you have questions or need clarification of your condition, call your doctor or other health care provider.
Contents

A ❤ Heart Function, Disease And Treatment
B ❤ Diagnostic Testing
C ❤ Taking Control Of Your Risk Factors
D ❤ Going Home
E ❤ Eating Smart For A Healthy Heart
F ❤ Activities and Exercises
G ❤ Emotional Recovery
H ❤ Medications
I ❤ Advance Directives
J ❤ Glossary of Terms/Community Resources
Acknowledgements

This book was developed through the efforts of a multi-disciplinary team of health care professionals at Salina Regional Health Center.

The following individuals contributed by writing sections of the booklet:

Becky Linn, Arin Morrison, Katie Fast, Donna Banman, Cardiac Rehabilitation Unit of Salina Regional Health Center.

Jackie Chisholm, Food Service, Salina Regional Health Center.

Linda Radke, Pharmacy, Salina Regional Health Center.

Phillip Flanders, Salina Psychiatric Services.

Dan Gard, Social Services, Salina Regional Health Center.

Sr. Rose Monica Donnelly, Chaplain’s Department, Salina Regional Health Center.

Graphics and pictures are courtesy of the American Heart Association and the National Institutes of Health.

Thanks also go to the Cardiac staff at St. Mary’s Hospital, Madison, Wis., for their help on the project.

August 1998
1st Revision: August, 1999
2nd Revision: September, 2001
3rd Revision: October, 2002
4th Revision: January, 2004
5th Revision: April, 2005
6th Revision: August, 2006
7th Revision: August, 2008
Understanding how your heart works is important in your recovery from a heart attack or heart surgery. In this chapter, you will be given information on how your heart works, and how heart disease develops. In addition, treatment of heart disease will be discussed.

SECTION 1

❤ The Heart and How it Works

The heart is a hollow, muscular organ that pumps blood, rich in oxygen and nutrients, to all parts of the body. It weighs about one pound and is the size of a human fist. The heart lies in the middle of the chest, slightly to the left. The heart is protected by the breastbone (sternum) and rib cage.

The heart circulates blood throughout the body. Oxygen is carried in the blood. The heart has four chambers. The upper two are called atria, and the lower two are called ventricles. The upper chambers are smaller than the lower chambers. The upper and lower heart chambers are separated by valves which allow blood to flow in one direction. A wall of tissue called
the septum separates the right and left sides of the heart.

Each side of the heart has a special job. The right side receives blood from the body, then pumps it into the lungs where the carbon dioxide is removed and oxygen added. The oxygen-rich blood returns from the lungs to the left side of the heart. The left side of the heart pumps the oxygen-rich blood through the aorta and throughout the body.

Coronary Arteries

In order for the heart to work, the heart muscle needs its own blood supply. The heart’s blood is supplied by the coronary arteries. The coronary arteries come from the aorta. The left coronary artery divides into two major branches, the left anterior descending artery and the circumflex artery. The right coronary artery has no major branches. These main arteries lie on

the surface of the heart and divide into smaller branches which feed the heart with oxygen-rich blood.

SECTION 2

Coronary Artery Disease and Angina Pectoris

Atherosclerosis is a disease process which develops slowly, often starting in childhood. Atherosclerosis slowly blocks coronary arteries. Fatty deposits form on the lining of the arteries. These deposits are called plaque. Plaque makes the artery lining rough, narrow and hard. Blood cells may collect on the plaque and form a blood clot. Plaque and blood clots decrease oxygen to the heart, causing discomfort called angina. Angina may be an advanced warning of a heart attack. It can occur at rest or exercise, day or night, and does not feel the same to everyone.
Symptoms of angina include:
- Tightness, squeezing, pressure, pain, or mild ache in the chest
- Sharp, burning, or cramping pain
- Ache in the neck, jaw, throat, shoulders and back
- Discomfort between the shoulder blades
- Indigestion or heartburn
- Difficulty in catching your breath
- Heaviness, numbness, tingly sensations or pain in either arm, elbow, or wrists

What is the difference between angina and a heart attack?
Angina is caused by a temporary lack of oxygen-rich blood to the heart muscle and does not result in damage to the heart muscle. This type of chest discomfort:
- Usually lasts less than 15 minutes
- Is quickly relieved by nitroglycerine
- May be reduced or alleviated by stopping the activity and resting

A heart attack is caused by a prolonged lack of oxygen-rich blood to the heart muscle. This results in damage to the muscle. The pain of a heart attack:
- Is more severe than angina
- Lasts longer than angina
- Can include symptoms like:
  - shortness of breath
  - sweating

It may be difficult for you to know if your discomfort is angina or if indeed it is a heart attack. If you think you might be having a heart attack, call for emergency medical help at once. It is better to have your symptoms checked out rather than taking the chance of having a heart attack.
Heart Attack

- nausea
- vomiting
✔ Is usually not relieved by nitroglycerine and rest

SECTION 3

❤ Heart Attack

A heart attack occurs when there is a prolonged blockage of a coronary artery. Blood supply to the heart muscle is cut off, and a portion of the heart muscle begins to die. This creates an area of dead tissue called an infarction.

You will hear a heart attack referred to as a myocardial infarction (myo = muscle, cardial=heart, infarction = damage), or MI. The location of the damage to your heart muscle depends on the coronary artery that was blocked.

What causes a heart attack?

In most cases, a heart attack is caused by coronary artery atherosclerosis. Atherosclerosis is a build up of fats, cholesterol, calcium and blood clotting products in the lining of an artery. A heart attack occurs when a small blood clot gets stuck in this narrowed area of an artery causing a complete blockage of the artery. Heart attacks can also result from a prolonged spasm (sudden squeezing) of the coronary artery. When the artery
is completely blocked no blood flow can get through. The muscle fed by the artery begins to die.

**Diagnosis of a Heart Attack**

A heart attack diagnosis is made by assessing:

- ✔ Symptoms (chest pressure, tightness, burning, etc.)
- ✔ History – how you describe your heart attack is very important.
- ✔ Physical exam – changes in the heart function may be heard with a stethoscope.
- ✔ Electrocardiogram (EKG) – may show recent changes.
- ✔ Blood test – certain enzyme levels increase in the blood when there is damage to the heart.
- ✔ Heart function and movement – this can be evaluated through a heart catheterization or echocardiogram.

*Please refer to the Diagnostic Tests chapter in this notebook for a complete description of these tests.*

**How does the heart heal?**

The damaged area of your heart muscle is similar to a bruise. Soon after a heart attack, the body’s white blood cells come to the damaged area to prepare for healing. You often have a slight fever during this time. A period of four to six weeks is required for the heart muscle to heal. The damaged muscle is gradually replaced by firm scar tissue. Small blood vessels around the damaged area become larger and new vessels form to increase the blood supply to the area. This is called collateral circulation.

Your heart attack might have decreased your heart’s power to pump. This may cause you to feel tired and weak. However, the heart muscle can be conditioned like other muscles in your body. In most cases, after a period of healing and rehabilitation, you will feel stronger and be able to return to your previous activities.

**Why should I seek medical attention quickly?**

Your doctor has several different ways to reduce the damage of a heart attack. One of these is a medicine called thrombolytics. The most common thrombolytic agents are:

- ✔ Tissue Plasminogen Activator (TPA)
- ✔ Tenecteplase (TNKase)

These medicines have the ability to dissolve blood clots. They are given into a vein in the arm. If given quickly enough, these substances may prevent permanent damage to the heart or reduce the amount of damage.

However, the medicine must be given in the first few hours after onset of heart attack symptoms. The effectiveness of the drug is decreased if the symptoms have been present for more than 6 to 8 hours.
Treatment Options

The treatment you receive in the hospital is designed to support your heart’s healing process. Rest is important in order to decrease the work of the heart and allow it to heal. You will usually have a short stay in the intensive care unit where you are closely monitored. Medication and oxygen will be given. As you recover, you will be transferred to a regular room. A program, in which you gradually increase your activities, will be explained to you by the hospital nursing and cardiac rehabilitation staff. It is important for you to let your nurses know if you have any type of chest pain or pressure.

Angioplasty

Angioplasty is performed in the cardiac catheterization lab. You will be given medications to help you relax and medication as needed for any pain or discomfort. It is important for you to be awake to move and breathe deeply when asked by the cardiologist.

Angioplasty is performed with a special balloon-tipped catheter that is inserted through a tube (sheath) in your groin. The cardiologist passes this catheter across the narrowed space in the artery and inflates the balloon. This balloon pushes the fatty plaque against the vessel wall thus allowing more blood flow through the artery. It is important to remember during each inflation of the balloon, blood flow is restricted through the artery and heart muscle thus poten-
HeArt fUnCtIon, DISeASe AnD treAtment

tially causing “angina” type symptoms.

Stent
In certain instances following angioplasty, the cardiologist may decide to insert a stent inside the coronary artery. The stent, usually made of stainless steel, functions as a scaffold to hold open the inside of the coronary artery. Frequently, your doctor will choose to use a drug-eluting stent, sometimes called a “coated” or “medicated” stent. These stents have been coated with a drug to prevent reblocking of the artery. The stent is on a balloon catheter. When the balloon is inflated, the stent expands and presses the fatty plaque against the wall of the vessel. The balloon is deflated and removed, with the stent remaining in place keeping the artery open.

After angioplasty or stenting, you will return to your room in the ICU. The nurse will frequently check your pulse and blood pressure. The nurse will also look for bleeding at the insertion site. A small sample of blood will be drawn frequently. Blood thinning medicine is adjusted according to the blood count. The sheaths in the groin will be removed when the blood clotting time is in a safe range.

Implantable Cardioverter-Defibrillator
An implantable cardioverter-defibrillator system (often called an ICD) is a small electronic device that’s implanted in the body. The ICD continuously monitors your heartbeat and is like a small computer. Although it does not prevent irregular beats, if it senses dangerous or a prolonged rapid heartbeat, it delivers one or more shocks to the heart, restoring a normal rhythm.

Coronary Artery Bypass Graft Surgery
Surgery may be needed to treat your heart disease. In this procedure, a vein (the saphenous vein) from your leg and/or artery (the internal mammary artery) from your chest will be used to build new pathways for blood to flow. The artery and vein will be attached above and below the blocked artery. This will increase blood flow and oxygen to your heart muscle.

The surgery is a long process, lasting four to six hours. Many heart team members will be involved with your surgery. The team includes: lead surgeon, physician assistant surgeon, the operating nurses, chaplain/pastor, anesthesiologist, perfusionist, nurse practitioner, ICU nurses, respiratory therapist, cardiac rehabilitation nurses and the step-down nurses and staff.

The surgery begins with the preoperative nurse coming to your room to shave your chest and legs. An IV will be placed, and the nurse will give you relaxing medications. Your family will be able to spend time with you before going to surgery. The Chaplain may also come visit. You will be taken to
the operating room where the anesthesiologist will begin preparing you for surgery. At this time, special tubes and wires may be placed to monitor your vital signs during surgery and recovery. To work on the heart, the heart surgeon will make an incision down the middle of the chest and through the breastbone. At the same time, the physician assistant will be removing vein from your leg for grafting to the heart. This is usually done through a small incision at the knee and ankle using a tiny camera and a tv screen. This endoscopic technique reduces discomfort and the risk of infection.

Heart surgery is often performed with the heart beating, but sometimes a heart-lung machine is needed to support the body’s circulation and rest the heart.

After the grafts are complete, the surgeon closes the chest by wiring it together with stainless steel wire. The wire works as a “cast” to hold the bone together so it can heal properly.

Immediately after surgery, you will go to the Intensive Care Unit (ICU). You will be connected to many tubes and wires. Each is important to your recovery. As your body begins to heal, the tubes and wires will be removed.
The usual tubes include:

- A breathing tube is in the trachea. It is connected to a ventilator to help you breathe until you are more awake and can breathe on your own. You will not be able to speak while this tube is in place.
- A stomach tube is used to keep the stomach empty.
- Chest tubes are used to drain fluid from the chest cavity.
- Pacing wires are placed to support the heart rhythm if needed.
- An arterial line measures blood pressures continuously. Blood may be drawn from an arterial line.
- A pulmonary artery catheter measures heart pressures.

You will move to a step-down unit usually the day after surgery, and will recover there for 1 to 2 more days.

Bypass surgery, angioplasty and stenting do not cure coronary artery disease. These treatments provide a new supply of blood to the heart. To prevent progression of coronary disease, it is important to follow a program of risk factor modifications.

This includes:

- Follow a low-fat diet
- Exercise regularly
- Stop smoking
- Lose weight
- Control your blood pressure and cholesterol
- Find ways to manage stress
- Control your diabetes

### Heart Valve Surgery

The four valves of the heart are made of thin, strong flaps of tissue. The valves open and close as the heart pumps. Surgery may be recommended to repair diseased valves.

The most common valves to be replaced are the aortic and mitral valves. There are two different types of valve replacements: the mechanical valve and the biological tissue valve. The mechanical valves are made of metal or plastic in a variety of designs. This type of valve typically never needs to be replaced, but does require lifetime use of a medication known as Coumadin/Warfarin. This is blood thinner that prevents blood clot on the valve. Biological tissue valves are made of animal tissue that has
been chemically treated. The tissue valve is similar to your natural heart valve and is tolerated well by your body. This type of valve requires NO blood thinner use, but is less durable and may need to be replaced in your lifetime.

Valve surgery requires a full team of people and a process similar to bypass (see previous section). However, the use of the heart-lung machine is necessary in valve surgery.

**Valve Surgery Patient Information**

If you have had valve repair or replacement surgery, there are some additional guidelines for you to follow.

1. If you are on anticoagulant therapy (Coumadin):
   A. You will be given a guidebook explaining the use of this medication. It helps to prevent blood clots from forming on your valve (also refer to the Medications chapter of this notebook).
   B. We recommend you order a medical identification bracelet or necklace. Ask a nurse or the cardiac rehab staff for an order form.
   C. Your doctor will arrange for follow-up blood work (Protime with INR). This test checks your blood to make sure you are taking the right amount of blood thinner.
2. Before having any dental work done, including teeth cleaning, let your dentist know you have had valve surgery. Your doctor or your dentist may order an antibiotic for you to take before your appointment.
3. Be aware of the signs and symptoms of bacterial endocarditis (infection around the heart valve). These include:
   - chills/sweating
   - poor appetite/weight loss
   - joint pain
   - fatigue and weakness
   - temperature greater than 100 degrees F.
4. Carry the valve card that you received from the health center and valve company with you at all times.

**SECTION 6**

**Peripheral Vascular Disease**

Peripheral vascular disease (PVD) is a common circulation problem in which the arteries that carry blood to the legs or arms become narrowed or clogged. PVD is sometimes called peripheral arterial disease, or PAD. Many people also refer to the condition as “hardening of the arteries.”

Peripheral vascular disease is a condition in which the arteries that carry blood to the arms or legs become narrowed or clogged. This interferes with the normal flow of blood, sometimes causing pain but often causing no symptoms at all.
The most common cause of PVD is atherosclerosis (often called hardening of the arteries). Atherosclerosis is a gradual process in which cholesterol and scar tissue build up, forming a substance called “plaque” that clogs the blood vessels. In some cases, PVD may be caused by blood clots that lodge in the arteries and restrict blood flow.

The most common symptom of PVD is painful cramping in the leg or hip, particularly when walking. This symptom, also known as “claudication,” occurs when there is not enough blood flowing to the leg muscles during exercise. The pain typically goes away when the muscles are given a rest.

Other symptoms include:

- Leg or hip pain during walking, that stops when you rest
- Numbness, tingling or weakness in the legs
- Burning or aching pain in feet or toes when resting
- Sore on leg or foot that won’t heal
- Cold legs or feet
- Color change in skin of legs or feet
- Loss of hair on legs

Who is at risk for PVD?

The disease affects everyone, although men are somewhat more likely than women to have PVD. Those who are at risk are:

- Over the age of 50
- Smokers
- Diabetic
- Overweight
- People who do not exercise
- People who have high blood pressure or high cholesterol
- People who have a family history of heart or vascular disease

Diagnosing PVD

The most common test for PVD is the ankle-brachial index (ABI), a painless exam in which a special stethoscope is used to compare the blood pressure in your feet and arms. Based on the results of your ABI, as well as your symptoms and risk factors for PVD, the physician can decide if further tests are needed. When the ABI indicates that a person may have PVD, other imaging techniques may be used to confirm the diagnosis, including duplex ultrasound, magnetic resonance angiography (MRA) and computer tomography (CT) angiography.

SECTION 7

❤ Sudden Cardiac Death

What is sudden cardiac death?

Sudden cardiac death (also called sudden death) is death resulting from an abrupt loss of heart function (cardiac arrest). The victim may or may not have diagnosed heart disease. The
time and mode of death are unexpected. It occurs within minutes after symptoms appear. The most common underlying reason for patients to die suddenly from cardiac arrest is coronary heart disease.

**What causes sudden cardiac death?**

All known heart disease can lead to a cardiac arrest and sudden cardiac death. Most of the cardiac arrests that lead to sudden death occur when the electrical impulses in the diseased heart become rapid (ventricular tachycardia) or chaotic (ventricular fibrillation) or both. This irregular heart rhythm (arrhythmia) causes the heart to stop beating suddenly. Some cardiac arrests are due to extreme slowing of the heart (bradycardia).

**Can the cardiac arrest that causes sudden death be reversed?**

Brain death starts to occur in just four to six minutes after someone experiences cardiac arrest. Cardiac arrest is reversible in most victims if it’s treated within a few minutes with an electric shock to the heart to restore a normal heartbeat. This process is called defibrillation. A victim’s chance of survival is reduced by 7 to 10 percent with every minute that passes. Few attempts at resuscitation succeed after 10 minutes.

**What are treatments for survivors?**

If a cardiac arrest was due to ventricular tachycardia or ventricular fibrillation, survivors are at risk for another arrest, especially if they have underlying heart disease. Survivors of cardiac arrest must have all causes corrected to prevent future episodes. Possible causes include myocardial ischemia (is-KE’mé-ah), arrhythmia, etc. Possible tests and treatments include:

- Cardiac catheterization
- Electrophysiology (EP) study
- Coronary artery bypass surgery
- Balloon angioplasty or PTCA
- Antiarrhythmic medicine
- Implantable cardioverter/defibrillator (ICD)
- Implantable pacemaker
- Heart transplant
Diagnostic Testing

In This Chapter

- **Chest x-ray** .....................B1
- **EKG** ..............................B1
- **Echocardiogram** .............B2
- **Exercise Stress Tests** ......B2
- **TEE (Transesophageal Echocardiogram)** .............B2
- **Holter Monitor** ...............B3
- **Electrophysiology (EP) Study** ....................B3
- **Cardiac Catheterization** ..B4

Your doctor can diagnose possible heart problems after listening to your symptoms, observing changes in your EKG and reviewing other tests. Please visit with your doctor if you have any questions about tests you may have done.

SECTION 1

- **Chest X-Ray**
  A chest X-ray is a photograph that reveals the size of your heart as well as any problems you may have with your lungs. X-rays are taken in the radiology department or at the bedside. Your doctor may order more than one X-ray in order to follow your progress.
  You can eat and drink before a chest X-ray.

SECTION 2

- **Electrocardiogram**
  This test records on paper the electrical signals traveling through the heart muscle. This pattern helps your doctor to find any damage or strain on your heart. You will have several EKGs during your hospital stay.
  You may eat or drink before this test.
SECTION 3

♥ Echocardiogram

An echocardiogram, also called an echo, is a test that takes moving pictures of the heart with sound waves. This test is done to help your doctor find out if you have problems with your heart. You will lie on your side or back. Your heart’s movements can be seen on a video screen. You can watch this during the test. You may eat and drink before this test.

SECTION 4

♥ Exercise Stress Tests

A stress test, sometimes called a treadmill or exercise test, determines how well your heart handles work. There are several types of tests that doctors can do to stress your heart. These include a thallium/cardiolite test, stress echo, or medicine stress test (Persantine/Dobutamine). With a medicine stress test you do not walk on a treadmill. Medicine is given to you to act as a “stress” on your heart. With the other tests you will walk on a treadmill. As your body works harder during the test, it requires more fuel and your heart has to pump more blood. The test can show if there is a lack of blood supply through the arteries that go to the heart. Taking a stress test also helps your doctor know the kind and level of exercise that is right for you.

You will be asked to not eat any food, use any tobacco, alcohol, or caffeine before the test. You will be hooked up to equipment to monitor your heart. After the doctor has visited with you, you will get on the treadmill and walk slowly in place. The treadmill tilts so you feel like you are walking up a small hill. It changes speed to make you walk faster. Your doctor will be with you to watch for any possible problems. If you need to, you can stop the test at any time.

If your doctor has ordered a Stress Echo, you will have resting pictures taken like a regular echo before the walking part of the test and quickly after the walking portion is done. If you are having a thallium/cardiolite stress test you will need to have an IV in one of your veins. The X-ray technologist will give a radioactive material through this IV about one minute before you are done walking. You will go to X-ray for follow up pictures after the walk portion of the test is done. Resting image X-rays may be taken before the stress test or several hours after the exercise portion.

SECTION 5

♥ Transesophageal Echocardiogram (TEE)

The TEE is a special type of heart exam where doctors obtain ultrasound...
pictures of the heart from a probe which is positioned in the esophagus (the tube that goes from the mouth to the stomach). Since the esophagus lies close to the heart, the TEE allows very clear pictures of the heart structures and blood flow. Only specially trained doctors will do this test. You should not eat or drink anything for six to eight hours before the test. Your doctor will explain this test to you.

The doctor will spray your throat with medicine to numb it. You may be given medicine to help you relax throughout the procedure. A long probe about the width of a little finger is inserted by the doctor into the mouth. As you swallow, the tube is slowly directed into the esophagus. You may feel the probe moving, but it is generally not painful. A small transducer at the tip of the probe sends ultrasound waves that reflect (echo) off the various parts of the heart. The pictures are shown on a television screen. If you are having this test as an outpatient, you will want to have a friend or relative with you to take you home after the procedure.

After the test, you should not eat or drink anything for about one hour, or until your throat is no longer numb and your gag reflex has returned.

SECTION 6

**Holter Monitoring**

In some cases, a physician may want to know what happens to a person’s heart rate over a longer period of time than can be measured with an electrocardiogram in a single office visit. The Holter monitor provides a means of recording an ECG continuously on a small cassette tape, usually for 24 hours, while the patient goes through their usual daily activities.

A patient undergoing a Holter monitoring test will be asked to wear a small cassette recorder on a shoulder strap or belt. The continuous ECG reading is produced via several electrical wires from the recorder that are attached to the patient’s chest under clothing. Information on the heart rate is recorded on a cassette tape, which later will be played back through a computer, analyzed, and printed out in the same manner as a standard ECG.

SECTION 7

**Electrophysiology (EP) Study**

An electrophysiology study is used to find the cause of irregular heart rhythms and determine the best treatment for you. During the test, the physician will stimulate your heart muscle in an attempt to reproduce your irregular heart beat.
This study involves inserting several catheters through a tiny incision in your groin and threading them through your veins and into your heart. While the catheters are in place, your heart rhythm will be recorded and an electrical map of your heart will be made.

SECTION 8

Cardiac Catheterization

This test is a common, relatively painless procedure. The most common catheterization is called a coronary angiogram. It is done by a doctor to help identify artery, valve or muscle problems with the heart. Your doctor will explain possible risks and benefits of this test. Be sure to ask any questions you might have.

You will be told to not eat or drink anything several hours before the test. You will be taken to the cardiac catheterization lab. The staff will explain what will happen as they are setting up the equipment. You may be given medicine to help you relax, but you will be awake for this test. Your doctor numbs a spot on your groin or arm. A thin tube, or catheter, is inserted into an artery up to the heart. Special fluid goes through the catheter so arteries show up well on the x-ray. Many x-rays will be taken. You may be asked to hold your breath or cough. By studying the x-ray, the doctor can see any problems with your coronary arteries.

After the test, the doctor will review the initial test results with you and your family. A staff member will apply direct pressure for 15 to 30 minutes where the catheter was inserted to make sure there is no internal bleeding. You will be taken to the recovery room, then back to your room. You will be instructed to lie quietly on your back for 6 to 8 hours. If an Angio-Seal (collagen plug) is used to seal the hole made in the femoral artery in the groin, you may be able to sit up within two hours of the procedure and begin walking within four hours. If the catheter was inserted in your groin, you will be asked not to move your leg to prevent bleeding.

After the test, tell your nurse if:

- You feel any chest pain or discomfort at the insertion site.
- The arm or leg used for insertion becomes numb or cold.
- You feel warmth or wetness around the insertion site, a sign that you may be bleeding.

Your doctor will discuss your test results with you and your family later in the day. Treatment options will be reviewed at this time. Please refer to the Heart Functions, Heart Disease chapter for more information on specific treatment options.
Taking Control of Your Risk Factors

In this chapter

- **Heart Healthy Living** ........C1
- **Uncontrollable Risk Factors** ....................C1
  - Family History
  - Age
  - Gender
- **Controllable Risk Factors** ......................C2
  - High Blood Pressure
  - Smoking
  - High Cholesterol
  - Lack of Exercise
  - Stress
  - Diabetes
  - Obesity
  - Obstructive Sleep Apnea
- **Making Changes** .............C13

While recovering from your heart attack or heart surgery, look toward the future. You can help prevent future heart problems by reducing risk factors that may have contributed to your heart disease.

SECTION 1

- **Heart Healthy Living**
  1. Identify your heart risks, such as high blood cholesterol, high blood pressure, smoking, lack of exercise and high stress lifestyle.
  2. What can you do to reduce these risks? Changing one risk factor will have a positive effect on others.
  3. Establish priorities and set realistic goals for yourself.
  4. Use this notebook and the staff of The Heart Center as well as your physicians to get started and guide you through successful change.

SECTION 2

- **Uncontrollable Risk Factors**
  Uncontrollable risk factors cannot be changed. You must live with them.
TAKING CONTROL OF YOUR RISK FACTORS

However, it is important to be aware of what they are, because they may increase your risk of coronary heart disease.

✔ Family history of stroke, vascular disease or coronary artery disease
✔ Age
✔ Gender (male/female)

If one or more of these uncontrollable risk factors applies to you, it’s even more important to change the controllable risk factors.

Family History
If your parents, grandparents or siblings have heart disease or vascular disease, or have suffered a stroke, your risk of heart attack increases. The younger family members were when they developed these health problems, the greater your risk. In addition, you may also inherit a tendency for high blood cholesterol levels.

Age
The older you get the greater your chance of developing heart disease. Coronary artery disease is associated with aging. The longer we live, the longer our arteries are subject to the wear and tear of daily living. They are also exposed to other risk factors, like high blood pressure, and diabetes that contribute to the development of heart disease.

Gender
Men have a higher risk of developing heart disease than women. However, after menopause the risk for women begins to catch up with men. Estrogen, the female hormone, seems to play a protective role by raising the “good” cholesterol, high density lipoprotein (HDL).

SECTION 3

💖 Controllable Risk Factors
Controllable risk factors are those you have some control over by changing your habits. The good news is that changing one behavior usually has an impact on several of your risk factors. These risk factors include:

✔ High blood pressure (hypertension)
✔ Smoking
✔ High blood cholesterol levels (high fat diet)
✔ Lack of exercise
✔ Stress
✔ Diabetes
✔ Obesity
✔ Obstructive Sleep Apnea

High Blood Pressure
High blood pressure (hypertension) may damage artery walls and speed plaque buildup. It also makes the heart have to work harder. It is best to keep your resting blood pressure below 140/90.

What you can do ...
✔ take medicines as prescribed, even when you feel well.
✓ quit smoking
✓ exercise regularly
✓ eat a low-salt (sodium) diet
✓ control your stress
✓ lose weight, if needed

Smoking
Cigars, cigarettes, pipes, and smokeless tobacco all contain nicotine. Nicotine, a highly addictive drug, has three immediate physical effects: it increases heart rate, elevates blood pressure, and constricts blood vessels. Unlike the increased heart rate from physical activity, the increased heart rate caused by nicotine continues even when the person is at rest.

Smokeless tobacco: Spit tobacco and snuff are not safe alternatives to smoking. The amount of nicotine absorbed from smokeless tobacco is 3 to 4 times greater than the amount from a cigarette.

Smokers also have carbon monoxide in their blood, which reduces the oxygen available for your body to use. It also makes your blood more likely to clot, and increases the build-up of plaque in the arteries. Your risk of heart disease goes up directly with the number of cigarettes you’ve smoked over your lifetime. Even smoking as few as four cigarettes a day can damage your blood vessels. Your risk of heart disease begins to go down as soon as you quit. Also, avoid second-hand smoke. It produces the same harmful poisons as smoking.

What You Can Do ...
✓ Quit smoking (classes and support groups help)
✓ Ask your doctor about nicotine replacement
✓ Control your stress (try deep breathing ... instead of a cigarette)
✓ Exercise regularly (go for a walk when you have the urge to smoke)

Initial Steps to Quitting
When a cardiac event brings you to the hospital, your physician will counsel you to quit smoking. This is an ideal opportunity to make this your “Quit Day”. Your physician may also prescribe oral medication or nicotine replacement to help support your smoking cessation efforts.

No matter how much or how long you’ve smoked, your risk of heart disease goes down when you quit. The
following steps need to begin immediately after you are discharged from the hospital:

1. Make your home a non-smoking environment
2. Make your vehicle a non-smoking environment
3. Do not buy any more cigarettes, packs or cartons
4. Do not carry cigarettes, matches or lighters on your person (pockets, purses)
5. Tell everyone you know that you’ve quit
6. Drink water or fruit juice instead of coffee
7. Substitute healthy activities/foods in place of the cigarette
8. Avoid temptation by staying away from situations you associate with pleasurable smoking

Tips to help you quit!
1. For the first few days after you quit, spend as much free time as possible in places where smoking is prohibited — libraries, museums, theaters, churches.
2. Avoid alcohol, coffee and other beverages that you associate with smoking.
3. Strike up a conversation instead of a match for a cigarette.
4. If you miss the sensation of having a cigarette in your hand, play with something else — a pencil, a paper-clip, a marble.
5. If you miss having something in your mouth, try cinnamon sticks or celery.
6. Avoid temptation by staying away from situations you associate with pleasurable smoking.
7. Find new habits and develop a non-smoking environment around you.
8. Tell everyone that you are now a nonsmoker.
9. Avoid resuming the habit by anticipating future situations/crises that might lead to smoking and assert your reasons for not giving in.
10. Take deep rhythmic breaths (similar to smoking) to relax.
11. Remember your goal and the fact that the urge will eventually pass.
12. Think positive thoughts and avoid negative ones.
13. Brush your teeth.
14. Do brief exercise (stretches, knee bends, a short walk.)
15. Call a supportive friend.
16. Compile a list of “Urge Activities” and start at the top when it hits.
17. Eat several small meals. This maintains constant blood sugar levels and helps prevent the urge to smoke. Avoid sugary or spicy foods that trigger a desire for cigarettes.
18. Above all, reward yourself. Plan to do something fun for doing your best.

When you get the “crazies”
1. Keep oral substitutes handy: carrots, pickles, apples, celery,
raisins, gum.

2. Take 10 deep breaths, hold the last one while lighting a match. Exhale slowly and blow out the match. Pretend it is a cigarette and put it out in an ashtray.

3. Take a shower or bath if possible.

4. Learn to relax quickly and deeply. Make yourself limp, visualize a soothing, pleasing situation, and get away from it all for a moment. Concentrate on that peaceful image and nothing else.

5. Light a candle, instead of a cigarette.

6. Never allow yourself to think that “one won’t hurt,” because it will.

**What if I smoke after quitting?**

It’s hard to stay a nonsmoker once you’ve had a cigarette, so try everything you can do to avoid that “one.” The urge to smoke will pass. The first 2 to 5 minutes will be the toughest. If you do smoke after quitting:

✓ This doesn’t mean you’re a smoker again — do something now to get back on track.

✓ Don’t punish yourself — you’re still a nonsmoker.

✓ Think about why you smoked and decide what to do the next time it comes up.

**What happens after I quit?**

✓ Sense of smell and taste come back

✓ Smoker’s cough goes away

✓ Food digests more normally

✓ Breathe much easier

✓ Easier to climb stairs

✓ Feel free from the mess, smell and burns in clothing

**Nicotine Replacement Therapy**

Nicotine replacement products are designed to relieve some of the withdrawal symptoms people experience when they quit smoking.

It is necessary with all types of nicotine replacement therapy to follow your doctor’s orders and use these products only as prescribed.

The goal in using nicotine medications is to stop smoking completely. If you plan to take nicotine replacement medications, begin using them on the day you quit. If you continue to have strong urges to smoke or are struggling to stop smoking completely, ask your healthcare provider about additional help.

**Nicotine Patch**

The nicotine patch releases a constant amount of nicotine in the body; the nicotine absorbs right through the skin and into the bloodstream, eventually reaching the brain.

Less nicotine is obtained through the patch than in cigarettes. The patch does not contain all the tars and poisonous gases that are found in cigarettes.

Most nicotine patch products are changed once every 24 hours. The nicotine level in the body stays relatively constant day after day. Always inform your physician that you are
C6 TAKING CONTROL OF YOUR RISK FACTORS

using nicotine patches.
Wearing the nicotine patch lessens the withdrawal symptoms such as tenseness, irritability, drowsiness, and lack of concentration. Some side effects from wearing the patch can include:

- ✓ headache
- ✓ dizziness
- ✓ upset stomach
- ✓ weakness
- ✓ blurred vision
- ✓ vivid dreams
- ✓ mild itching and burning on the skin
- ✓ diarrhea

**Nicotine Gum**
The term ‘gum’ is misleading. Although it actually is a gum-like substance, it contains enough nicotine to reduce the urge to smoke. However, nicotine gum is not chewed like regular gum. Instead, you chew it briefly, till the urge passes, and then ‘park’ it between your cheek and gum until the next urge occurs, then you repeat the process. The nicotine is absorbed through the lining of the mouth.

Like nicotine patches, nicotine gum helps take the edge off cigarette cravings without providing the tars and poisonous gases found in cigarettes. It is a temporary aid that reduces symptoms of nicotine withdrawal after quitting smoking.

Nicotine gum must be used properly in order to be effective. Steps for nicotine gum users to follow include:

- ✓ Stop all smoking when beginning the nicotine gum therapy
- ✓ Do not eat or drink for 15 minutes before using, or while chewing the gum
- ✓ Chew the gum slowly off and on for 30 minutes to release most of the nicotine then ‘park’ it between the cheek and gum to allow the absorption of nicotine into the lining of the cheek
- ✓ Chew enough gum to reduce withdrawal symptoms (10-15 pieces a day but no more than 30 a day)
- ✓ Use the gum every day for a month, then start to reduce the number of pieces you chew a day, chewing only what you need to avoid withdrawal symptoms.
- ✓ Discontinue use of gum after three months.

**Nicotine Inhaler**
The nicotine inhaler is available by prescription only. Although similar in appearance to a cigarette, the inhaler delivers nicotine into the mouth, not the lung, and enters the body much more slowly than the nicotine in cigarettes.

Nicotine inhaler puffs must be done frequently, far more often than with a cigarette. Each cartridge lasts for 80 puffs or approximately 20 minutes of use. A minimum of 6 cartridges per day is needed for three to six weeks,
then the patient starts tapering off. You do not need to inhale deeply to achieve an effect. Small doses of nicotine provide a sensation in the back of the throat similar to cigarette smoke.

The nicotine inhaler mimics the hand-to-mouth behavior of smoking. It may cause throat irritation and coughing.

**Nicotine Nasal Spray**

Nicotine nasal sprays are available by prescription only. The nasal spray is designed to deliver nicotine to the nasal membranes and reaches the bloodstream faster than any other nicotine replacement therapy product. Unlike nasal sprays used to relieve allergy symptoms, the nicotine spray is not meant to be sniffed. It is sprayed once into each nostril once or twice an hour. To use, take a deep breath, hold it, spray once into each nostril and exhale through the mouth.

Nasal sprays can be used in response to stress or urges to smoke and help reduce cravings within minutes. Frequent use during the day is required to obtain adequate nicotine levels. It can cause nose and eye irritation, but these symptoms usually disappear within the first week of use.

**Nicotine Lozenge**

Nicotine lozenge is the newest nicotine replacement product to be approved by the FDA. COMMIT is the only one approved by the FDA for smoking cessation. There are several other unapproved tobacco alternative products that should be avoided.

**COMMIT** comes in the form of a hard candy, and releases nicotine as it slowly dissolves in the mouth. Biting or chewing the lozenge will cause more nicotine to be swallowed quickly and result in indigestion and/or heartburn. The lozenge is available in two strengths to better tailor its use to your need.

- Do not exceed more than 20 lozenges per day.
- Each lozenge will last about 20-30 minutes.
- Do not eat or drink 15 minutes before using the lozenge or while it is in your mouth.
- The most frequent side effects are soreness of the teeth and gums, indigestion, and throat irritation.

**Non-Nicotine Medication**

A non-nicotine pill, Bupropion is available by prescription only. It is designed to treat depression and aids in quitting smoking. Brand names include Wellbutrin and Zyban.

It is recommended to start taking Wellbutrin 1 to 2 weeks before you stop smoking. Avoid drinking alcohol with this medication.

This medication may make you dizzy. Avoid activities which require alertness when using this medication. Call your physician right away if you have severe headaches, increased agitation, confu-
sion, hallucinations or other unusual thoughts or feelings. Allergic reactions to this medication include itching or hives, swelling in face or hands, swelling or tingling in the mouth or throat, tightness in chest, and trouble breathing.

**High Cholesterol**

Cholesterol is a fatty substance your body needs to make cells. Too much cholesterol in your blood can clog your arteries. Low density lipoprotein (LDL) is considered the “bad” cholesterol, as it is the fat commonly found in heart blockages. High density lipoprotein (HDL) is considered the “good” cholesterol because it picks up the excess LDL in your bloodstream and returns it to the liver to be broken down. Triglycerides are another kind of blood fat that contributes to blockages in the arteries.

You should have your cholesterol level checked six to eight weeks after your hospitalization. Recent illnesses, including a heart attack or surgery, can affect a patient’s cholesterol levels in the hospital.

**What you can do …**

- Eat a low fat, low cholesterol diet (lowers total cholesterol and LDL)
- Exercise regularly (raises the HDL)
- Quit smoking (raises the HDL)
- Drink alcohol in moderation, if at all (alcohol can increase triglycerides)
- Take cholesterol-lowering medications if prescribed
- Lose weight if needed
- Monitor your cholesterol level with regular checkups

**Lack of Exercise**

If you do not get regular exercise, your heart may be losing the ability to work well. People who are physically active have fewer heart attacks.

---

**Cholesterol Levels**

It is important for you to know what your cholesterol levels are, and what this number means for you!

The national cholesterol guidelines have the following goals for people with known heart disease:

- **Total Cholesterol < 160 mg/dl**
- **LDL Cholesterol < 100 mg/dl**
- **HDL Cholesterol > 40 mg/dl**
- **Triglycerides < 150 mg/dl**
Regular exercise burns calories, improves muscle tone and helps to maintain ideal weight. Exercise also increases HDL cholesterol (good cholesterol) and is a great way to manage stress!

The Exercise chapter in this book gives specific guidelines for cardiac patients to begin and maintain a safe and progressive exercise program. Also, adding more activity into your daily life helps to lower your cardiac risks.

What you can do ...
✓ Start a regular exercise program
✓ Build more activity into your daily life:
  • take the stairs instead of the elevator
  • park farther away from the entrance of the building
  • walk to errands close to home instead of taking the car
✓ Become involved in an outpatient cardiac rehabilitation program

Stress
Physical and emotional stress cause your brain and adrenals to release hormones and cortisol that can raise your heart rate, blood pressure, cholesterol and triglyceride levels, and may contribute to obesity and abdominal fat. If stressful situations pile up one after another, this long term activation of the hormones can disrupt almost all of your body's processes. The artery walls may be injured thus setting the stage for blockages in the arteries. Low to moderate amounts of stress are healthy, but severe or prolonged stress can do harm.

It is important to identify your body's signs of stress, as these are different for each person. They may include headache, tight muscles, fatigue, back ache, or anxiety. The Emotional Recovery chapter of this notebook has more information on how to beat stress.

What you can do ...
✓ Identify stressful areas such as work, relationships or finances
✓ Don’t expect too much of yourself and others
✓ Learn relaxation techniques
✓ Talk about your problems with a spouse, friend, clergy or professional counselor
✓ Exercise regularly to dispel anger and frustration

Diabetes
Diabetes is a disease in which the body does not produce or properly use insulin. Insulin is a hormone that is needed to convert sugar, starches and other food into energy needed for daily life. Heart disease and diabetes
Taking Control of Your Risk Factors

Go hand in hand. Be aware that:

- According to the American College of Endocrinology, Hemoglobin A1c should be less than 6.5%.
- High blood sugar levels alter the inner lining of the blood vessel, causing plaque buildup. The plaque buildup reduces blood flow to the heart but often does not cause any pain, or angina. Because the low blood flow is pain free, it can cause a lot of damage to the arteries and the heart before it is found. Blood sugar levels should be kept as close to normal as possible.
- Exercise usually makes blood sugar levels go down.
- It is important to test your blood sugar to monitor if you are taking the right amount of diabetes medicine at the right times, to monitor the effect of your meal plan on blood sugar levels, and to see how your level of activities are affecting your blood sugar levels.
- It is important to always keep a fast-acting carbohydrate snack such as fruit juice or glucose tablets handy in case you have a low blood sugar.
- More than 65% of people with diabetes die from heart disease or stroke. Coronary artery disease is the leading cause of death for people with type II diabetes.
- With diabetes, heart attacks occur earlier in life and often result in death. By managing diabetes, high blood pressure and cholesterol, people with diabetes can reduce their risk.

**What you can do...**
- Eat a heart healthy diet (low in fat, cholesterol and simple sugars)
- Exercise daily (exercise acts like insulin, helping the uptake of sugar from the blood to the cells)
- Take medications as prescribed
- Lose weight if needed

**Obesity**

Being overweight increases the risk for heart disease. Anyone who is overweight should try to avoid gaining additional weight. Additionally, if you are overweight with other risk factors (such as high LDL cholesterol, low HDL cholesterol, or high blood pressure), you should try to lose weight. Being overweight causes the heart to work harder to pump blood throughout the body. You can use the body mass index as a reliable indicator of being overweight.

**What is BMI?**

Body Mass Index (BMI) is a number calculated from a person’s weight and height. BMI is a reliable indicator of body fatness for people.

**How is BMI used?**

BMI is used as a screening tool to identify possible weight problems for adults.
The BMI ranges are based on the relationship between body weight and disease and death. Being overweight or obese increases the risk of many diseases and health conditions, including the following:

- ✔ Hypertension
- ✔ Dyslipidemia (for example, high LDL cholesterol, low HDL cholesterol, or high levels of triglycerides)
- ✔ Type 2 diabetes

### Weight Classifications

<table>
<thead>
<tr>
<th>Classification</th>
<th>BMI Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Underweight</td>
<td>&lt;18.5</td>
</tr>
<tr>
<td>Normal</td>
<td>18.5 - 24.9</td>
</tr>
<tr>
<td>Overweight</td>
<td>25.0 - 29.9</td>
</tr>
<tr>
<td>Obesity class 1</td>
<td>30.0 - 34.9</td>
</tr>
<tr>
<td>Obesity class 2</td>
<td>35.0 - 39.9</td>
</tr>
</tbody>
</table>

- ✔ Coronary heart disease
- ✔ Stroke
- ✔ Sleep apnea and respiratory problems
C12 TAKING CONTROL OF YOUR RISK FACTORS

Even a small weight loss (just 10% of your current weight) may help lower the risk of disease. Weight loss can be accomplished through a combination of proper food choices and exercise.

**What you can do ...**

- ✅ Eat a heart healthy diet (taking in fewer calories helps promote weight loss)
- ✅ Exercise regularly (choose low impact exercises like walking, bicycling and swimming, if joint pain is a problem)
- ✅ Set realistic short term goals as well as long term goals (1-3 pounds per week is a safe weight loss goal)
- ✅ Reward yourself when goals are achieved
- ✅ Find a weight loss support group

**Obstructive Sleep Apnea (OSA)**

Sleep apnea is a serious sleep problem. If you have it, you stop breathing for more than 10 seconds at a time many times while you sleep. Another term for this problem is obstructive sleep apnea.

If you have sleep apnea, your body gets less oxygen when you sleep and you don’t sleep well. Common symptoms of sleep apnea are:

- ✅ Loud snoring interrupted with pauses in breathing, followed by loud gasps
- ✅ Not feeling rested when you wake in the morning

- ✅ Morning headaches
- ✅ Tiredness or sleepiness during the day
- ✅ Trouble concentrating
- ✅ Anxiety, irritability, or depression
- ✅ A strong desire to take afternoon naps
- ✅ Sleepiness while driving

Many people who snore do not have sleep apnea, but nearly everyone who has sleep apnea snores. If you snore and feel you do not usually get a good night’s rest, you should ask your health care provider if you might have sleep apnea.

It is very important to treat sleep apnea. Untreated sleep apnea can have very serious long-term effects on your health. There appear to be many links between cardiovascular disease and OSA. The lower amounts of oxygen and the lack of sleep can raise your blood pressure, cause heart irregularities and inflammation, damage the inner lining of the artery wall, and cause blood clotting problems. It may increase your risk of high blood pressure, heart attacks, and sudden death. Effective treatment of sleep apnea may result in normal blood pressure, relief of fatigue, and weight loss.

**What you can do ...**

- ✅ If you think you may have sleep apnea, see your health care provider.
What you can do ...

✔ If you are being treated for sleep apnea, make sure you go to all your follow-up appointments with your health care provider. If you have a significant weight gain, or weight loss or new symptoms, talk to your provider to see if you need to change your treatment.

✔ Maintain a healthy Body Mass Index (proper weight control)

✔ Exercise (according to your health care provider’s recommendations)

✔ Develop good sleeping habits

✔ Avoid excessive alcohol use

SECTION 4

❤ Making Changes

Rehabilitation from heart disease is a lifetime commitment to exercise, eating well and positive lifestyle changes. Even though you may have had procedures that improved the blood flow through the coronary arteries, the underlying process causing your arteries to form blockages has not been stopped or cured. Therefore, you will need to modify your lifestyle to reduce your risk factors.

If you have several changes to make, you may need to set priorities. Discuss this with your doctors, nurses, or cardiac rehab staff. They can help you decide which changes are most important to tackle first. When you are discouraged, focus on how good you will feel once you have successfully made the needed changes. Ask for the support of family members and friends. Or even better, ask them to make the changes with you. It makes it easier for you and will benefit them as well! Set realistic goals. Don’t set yourself up for failure by doing too much too soon.
Going Home

In this chapter

❤ Planning for discharge ...D1
❤ Resuming home activities.........................D1
❤ Your feelings..................D3
❤ Self Care ................................D3
  • Appetite
  • Incision Care and Bathing
  • Support Stockings
  • Coughing and Deep Breathing Exercises
  • Diarrhea/Constipation
  • Travel
  • Driving
  • Weighing Yourself
  • Sexual Activity

❤ Knowing when to get medical help.................D6

Although you may be excited about returning home, it is only natural to have some fears or concerns. This chapter answers many of the questions commonly asked when a heart patient is getting ready to return home from the hospital after a heart attack or heart surgery.

SECTION 1

❤ Planning for Discharge

The care management department is available to talk to you about:

✔ Home care issues
✔ Costs involving medications, equipment
✔ Transportation

Ask your nurse to help in contacting the care coordinator about these issues or other concerns you might have.

SECTION 2

❤ Resuming Home Activities

You are probably excited and a little worried about going home from the health center.

Excitement and worry can tire you out. Plan to spend your first day at home resting. If you have had a heart attack or heart surgery, you will want
to do the following the first two weeks at home:

- Get up and get dressed every morning. Staying in bed or in pajamas may make you feel sad or depressed.

- After heart surgery, your appetite may take up to 8 weeks before returning to normal. During this time, it is important to eat small, frequent meals with protein and vitamin C for wound healing, and to limit sodium (salt) intake.

- Many surgery patients have trouble sleeping at night for a few weeks. This is normal. Make sure you have taken pain medication as ordered if you are uncomfortable. Take short rest periods once or twice a day, but do not sleep so much during the day that you do not sleep during the night.

- Use caution when exercising in the outdoors if the temperature is colder than 35 degrees or hotter than 85 degrees. Ask your physician what is best for you if you have to be in these temperature extremes for any length of time.

- Walking is an important part of recovery. The day after you go home, walk for a few minutes several times a day, follow recommendations outlined by your physician, cardiac rehab staff, and guidelines in the cardiac rehab notebook. You can increase time and intensity as outlined by cardiac rehab staff, or in the cardiac education notebook.

- Attend cardiac rehab sessions when scheduled.

- When sitting, use a reclining position with your legs elevated.

- When getting out of a chair, do not push off with your arms. Scoot to the front of the chair, lean forward, and use your legs to rise out of the chair.

**Restrictions**

- Avoid sitting for periods of time longer than 2 hours.

- After heart surgery, do not lift anything weighing more than 10 pounds for the first two weeks after the date of surgery. You may progress by 10 pounds every two weeks after that. Other cardiac patients should not lift more than 10 pounds until your doctor says it is OK.

Remember, these restrictions are not forever – only until your heart has time to heal. See the Activities and Exercises chapter of the notebook for
more information about your home exercise program.

**Family and Friends**

**Provide Support**

You may not be able to do everything for yourself for awhile. If you had a heart attack, the time it will take to heal will depend on the amount of damage, your general health, and how active you were before your heart attack. If you had surgery, you need to follow your doctor’s orders. Do not try to do it all alone. Ask family and friends for help. Here are some ways they can help you out and feel useful, too:

- Cooking meals
- Buying groceries
- Taking you to appointments
- Heavy yard work
- Housecleaning – especially vacuuming, moving furniture, washing windows

**Return to Work**

Most people are asked to take a 3-6 weeks off from work after heart surgery. Check with your doctor about going back to work. When you may return to work will depend on the kind of work you do as well as the condition of your heart. If you do desk work, you may return to work in about 3 weeks. If you do heavy work, you may be asked to wait 6 weeks to allow healing of your breast bone. Be sure to discuss any concerns about returning to work with your doctor.

If you have had angioplasty, stenting, or a heart attack, your physician may release you to work in a few days or a few weeks. When you may return to work will depend on the kind of work you do and the condition of your heart. Be sure to discuss returning to work with your doctor.

**SECTION 3**

**Your Feelings**

Having a heart attack or going through heart surgery is a major life-changing event and may put you on an emotional roller coaster. You may feel depressed, anxious, angry and a little overwhelmed by changes you need to make. You might get depressed at times after coming home, knowing that you are not yet able to do your usual activities. Watching other family members go to work when you can’t may make you feel guilty. With time, your feelings will level out, and you will feel more like your old self. If you continue to feel depressed or anxious, please discuss these feelings with your doctor or cardiac rehab staff.

More information about your feelings can be found in the Emotional Recovery chapter of this notebook.
D4 GOING HOME

SECTION 4

❤ Self Care

Appetite

Often, people lose their appetite after being in the hospital, especially after heart surgery. This may last up to 8 weeks. During that time, you may want to eat small amounts of food six or more times a day. A healthy diet is important for healing. Try to eat a well-balanced diet of fruit, vegetables, dairy products, lean meats, and whole grains. Try not to add table salt to your meals or use food high in salt. If you continue to have a poor appetite after several weeks, you may need to visit with a dietician about adding vitamins, minerals and calories needed for energy and healing.

The Heart Healthy Eating chapter in this notebook will have more information for you on the best food for you to eat.

Incision Care and Bathing

Your incisions may itch, feel sore, tight or numb for a few weeks. These are all normal signs of healing. You will be given pain medication to take for this discomfort. The top part of your chest incision takes the longest to heal and may remain tender to touch for several months.

Use a liquid soap daily in the shower to clean your incisions. You may wish to place a chair or stool in the shower to conserve your energy. DO NOT take a tub bath where you are sitting in water until your incisions are completely healed. Pat your skin dry with a towel. When bathing, using water that is too hot can cause you to feel light-headed.

Monitor your incision for redness, warmth, pain, and dark drainage. Call your surgeon if you notice any of these symptoms. After your wounds are completely healed, and if you choose to take a tub bath, do not place much pressure on your breast bone when getting into and out of the tub.

If a wound is draining a clear or light color drainage, use gauze to cover the draining area and secure with paper tape. If your wounds are not draining and your skin is dry, you may use a hypoallergenic Vitamin E or lanolin lotion. If you have steri-strips or a layer of glue across your wound, allow them to remain. You may wash over them. When they begin to loosen, you may gently remove them. Remove all strips and/or glue prior to your follow-up appointment with your heart surgeon in 3-4 weeks.
Women are encouraged to wear their bras to help lessen the stress placed on the chest incision. If necessary, pad the chest incision with gauze or tissue to prevent rubbing.

**Support Stockings**

The purpose of wearing elastic stockings is to improve circulation, decrease swelling and to help prevent blood clots. If you have been wearing elastic stockings while in the hospital, you should continue to wear them for the next two weeks. Support stockings should be put on in the morning and taken off at bedtime. These stockings may be worn for more than two weeks after surgery if swelling persists. Call your surgeon if the swelling becomes severe.

**Coughing and Deep Breathing Exercises**

If you have had heart surgery, continue to do your coughing and deep breathing exercises for the first two weeks at home. Use a pillow to brace your chest incision and force yourself to cough. Use your breathing machine (incentive spirometer) at least 4 times daily. These exercises help you recover completely and prevent lung complications.

**Diarrhea/Constipation**

It may be hard to have regular bowel movements after your heart surgery. The stress of surgery, changes in your diet, lack of privacy in the hospital and lack of activity may contribute to this problem. Iron tablets and pain pills may also be constipating. There are several medicines that you may use to help with having a bowel movement. Plenty of fluids including prune juice and other fruit juices may help as well.

It is important to get back to your usual bowel schedule after going home. If you go three to four days without a bowel movement, or have abdominal pain, call your doctor.

Some people have diarrhea after surgery. This may be due to the stool softener. In this case, stop taking the stool softener. If diarrhea continues for more than three days, call your doctor.

**Travel**

Check with your physician if you want to leave the area within the first three to four weeks after leaving the health center. If you do travel, you should plan stretch breaks every one to one and one-half hours. Stop the car, get out, stand and stretch, then get back in your car and resume your trip.

This helps prevent blood clots and increases your overall circulation.
Driving
Driving restrictions vary from doctor to doctor. For your own safety and the safety of others, do not drive until the doctor says you can. There are several reasons for this:
✔ Your reaction time is slower until you regain your strength. The medicines you take may also slow your reaction time.
✔ If you are on medicine to keep your blood pressure low, you could become dizzy or pass out behind the wheel.
✔ If you were in a crash, hitting the steering wheel could damage your breastbone.
✔ It is still important to wear your seat belt. If you have had heart surgery and the chest belt is uncomfortable, try putting a pillow between you and the chest belt.

Weighing yourself
You should get in the habit of weighing yourself every morning, at about the same time. You should be wearing similar clothing each time you weigh.

If you forget to weigh one morning, skip that day and weigh again the next day. You should record your weight and try to use the same scale every day. Watch for signs of fluid retention, and let your doctor know if you gain two or more pounds in one day or more than five pounds in one week.

Sexual Activity
Resuming sexual activity will vary with each patient. Following a heart attack, angioplasty or surgery, most patients may resume sexual activity two weeks after discharge. If you had surgery, then sexual activity is fine when you feel ready. However, you must take measures to protect your breast bone.

It is best to resume sexual activity after a period of rest, such as in the morning or after a nap. Please feel free to ask your doctor or cardiac rehab staff any questions you have about resuming sexual activity.

More information about sexual activity can be found in the Emotional Recovery chapter of this notebook.

SECTION 5

❤ Knowing When To Get Medical Help
Get help quickly if you have any of the following signs of a heart attack:
✔ Chest pain not relieved by three nitroglycerin in 15 minutes.
✔ Sudden onset of chest pressure, tightness, burning or squeezing.
✓ Discomfort similar to what you had with your heart attack.
✓ Severe shortness of breath
✓ Rapid or irregular heart beat.
✓ Discomfort that occurs at more frequent intervals.

If these symptoms do not go away, get medical help right away. Call 911 or your local emergency number. DO NOT DRIVE YOURSELF TO THE HOSPITAL.

Call your doctor if:
✓ Any of the following changes occur in your incision.
  • redness
  • swelling
  • hot areas
  • hardened areas
  • temperature above 101 F
  • chills
  • green, yellow or white drainage
  • foul smelling drainage

(It is normal to have small amounts of clear or blood-tinted drainage).

✓ You feel shortness of breath at rest, or have increased shortness of breath.
✓ Increased swelling of your feet, ankles or hands.
✓ Needing to use more pillows when sleeping.
✓ Your pulse becomes irregular
  (Constantly fast - over 120, or constantly slow - under 50)

Check with your doctor
✓ Before taking a long car trip (other than your drive home)
✓ Before going to the mountains or a very hot, humid place.
✓ Before resuming certain recreational activities such as bowling, golfing, hunting, hiking, snow and water skiing, basketball, competitive sports.
✓ Before resuming heavy work, shoveling dirt or snow, manual mowing, farm chores, carpentry, construction work.

Before having any dental work done, including teeth cleaning, let your dentist know you have had a heart problem and what medications you are on. Your doctor or dentist may order an antibiotic for you to take before your appointment.
Healthy eating is an important part of healthy living and feeling good. Eating healthier foods more often can improve quality of life. The goal of this chapter is to help you recognize and choose heart-healthy foods, yet still enjoy your favorites. If you need more information, please ask your Dietitian.

SECTION 1
A good understanding of heart-healthy eating begins with an understanding of some key terms.

❤ Lipids in Your Blood

Cholesterol
Cholesterol is a waxy, fat-like substance that is found in all body cells. It is needed for certain body functions. Cholesterol comes from 2 sources:
✔ is produced by the liver
✔ found in foods we eat (dietary cholesterol)

Blood cholesterol is a measurement of both sources, and the body does not know the difference between them. Dietary cholesterol is found only in foods of animal origin such as:
Eating Smart for a Healthy Heart

- Egg yolks
- Organ meats
- Full-fat and reduced-fat dairy products
- Butter
- Shellfish

Cholesterol is not found naturally in fruit, vegetable or grain products. Your blood cholesterol level reflects the cholesterol made by your liver and the amount of cholesterol in the foods you eat. Increases in dietary cholesterol alone do not automatically increase blood cholesterol levels. Often it is the amount of calories and fat, particularly saturated fat that raises blood cholesterol levels.

Since blood cholesterol is waxy and cannot dissolve in water, it is carried through the blood in packages called lipoproteins:
- HDL (high density lipoprotein)
- LDL (low density lipoprotein)

HDL-Cholesterol (High Density Lipoprotein)
HDL takes cholesterol away from the arteries and back to the liver to be removed from the body. HDL may also help remove some of the cholesterol deposited on the artery walls. HDL characteristics include:
- Made by the body; not found in foods.
- Called the “Good” cholesterol. Higher blood levels are best.

Ways to increase HDL-cholesterol include:
- Losing weight
- Increasing physical activity
- Reducing saturated fat intake
- Quitting smoking

LDL-Cholesterol (Low-Density Lipoprotein)
Excess LDL cholesterol can increase the risk of heart disease because it is the LDL-cholesterol that builds up on the artery walls. The type of fats and oils we eat helps control LDL levels. LDL-cholesterol characteristics include:
- Made by the body; not found in foods.
- Called the “Bad” cholesterol. Lower blood levels are best.
- LDL-cholesterol is a better predictor of cardiac risk than total cholesterol.
- Goal of cholesterol-lowering treatment is to lower LDL-cholesterol.

Ways to decrease LDL-cholesterol include:
- Losing weight
- Exercising regularly
- Reducing intake of saturated fat
- Increasing fiber in your diet

Triglycerides
Triglycerides are circulating fats in the bloodstream.
- High levels of triglycerides in the blood are associated with an increased risk of heart disease.
They are produced by the liver from excess calorie intake.
The most common cause of high triglyceride levels is obesity.
Ways to lower triglycerides include:
Reducing fat and sugar intake
Losing weight
Limiting alcohol consumption

SECTION 2

Changing Eating Patterns

Eat Less Fat
The main focus of a low-fat, low-cholesterol diet is to reduce the amount of fat you eat. There are two major types of fat – saturated and unsaturated.

Fats in Foods
Saturated fat raises your blood cholesterol level more than anything else. The best way to lower blood cholesterol is to reduce the amount of saturated fat in your diet.
A saturated fat is usually:
Solid at room temperature
Of animal origin
Saturated fats are found in the highest amounts in meats, butter, and whole or reduced-fat milk and milk products. The visible meat fat and poultry skin are examples of saturated fats.
A few vegetable oils – coconut, palm kernel, and palm oil – are also high in saturated fats. These fats are found in many commercial baked goods such as cookies, crackers, pastries, coffee creamer, and even some frozen dinners. Because these vegetable fats are not visible in foods, (unlike the fat in meats) it is important for you to read food labels.
Research Says...
Eating too many foods high in saturated fat may increase blood levels of LDL and total cholesterol. High blood levels of LDL and total cholesterol are risk factors for heart disease.
Eating foods high in monounsaturated fats may help lower LDL-cholesterol levels and decrease risk of heart disease.
Eating polyunsaturated fats in place of saturated fats decreases LDL-cholesterol levels.
Trans-fatty acids act like saturated fats and raise LDL-cholesterol levels. They may also lower HDL-cholesterol in the blood.

**Trans-fatty acids, or trans-fat**

Trans-fats are made through a process that changes liquid oils to a solid which improves the shelf life and flavor. **Trans-fats and saturated fats are the most dangerous fats in the American diet.**

- Made when manufacturers add hydrogen to vegetable oil—a process called hydrogenation.
- Trans-fat raises LDL cholesterol and lowers HDL.
- Found in vegetable shortenings, and foods made from them. Trans-fats are found in some margarines, cookies, crackers, snack foods, pastries, muffins, cakes and many fried foods such as French fries.
- A small amount of trans-fat is found naturally, mostly in dairy products, some meat and other animal-based foods.
- Daily trans fats intake should be less than 1% of total calories. This calculates to about 1 gram for women and 2 grams for men.

**Unsaturated Fats**

Unsaturated fats are generally of vegetable origin and are liquid at room temperature. Unsaturated fats are classified into two groups:

- **Polyunsaturated** – Good sources are corn oil, sunflower, flaxseed and safflower oils and seeds. Polyunsaturated fats are the main fats found in seafood.
- **Monounsaturated** – Good sources are olive, canola, and peanut oils.

Both polyunsaturated and monounsaturated fats may help lower your LDL cholesterol when you use them in place of saturated fats in your diet.

**Omega-3 Polyunsaturated Fats**

Recent studies show that foods rich in omega-3 polyunsaturated fats offer many benefits. They may help reduce the risk of coronary heart disease, sudden death, abnormal heart rhythms and high triglycerides.

Food sources of omega-3 fatty acids include:

- Fish, especially fatty fish such as mackerel, lake trout, herring, sardines, albacore tuna and salmon.
- Plant sources, especially flaxseed and flaxseed oil, canola oil, soybean oil and nuts.
Strategies to help prevent LDL from rising

1. Increase your consumption of fruit, vegetables, whole grains and beans.

2. Eat fewer animal products that contain cholesterol, such as high fat or reduced fat dairy products, egg yolks, dark meat poultry, poultry skin, shellfish and butter.

3. Limit your intake of trans-fats. These are fats that are in most processed foods which use hydrogenated oils.

4. Limit the amounts of foods you eat that contain fructose, high fructose corn syrup and sugar since these products will cause a rise in your LDL cholesterol and triglyceride readings.

5. Limit intake of saturated fat to no more than 7-10% of total calories. This is 14-18 grams based on an 1800 calorie diet. See the following chart to get an idea of foods high in saturated fat.
Maintain a Desirable Weight

A high-calorie intake that exceeds the body's need for energy contributes to a higher cholesterol level for many people. Replacing high-fat, high calorie foods with lower-fat foods will help you to lose weight.

Eat More Fiber

Studies have shown that eating foods high in fiber, especially soluble fiber, may help lower blood cholesterol and reduce the risk of heart disease. Experts recommend a daily dietary fiber intake of 25-35 grams a day from a variety of sources that include:

- Fruits
- Legumes
- Vegetables
- Whole grain breads and cereals and other products made from whole grains

An increase in fiber intake should come from a variety of food sources, rather than from dietary fiber supplements, to ensure adequate intake of vitamins, minerals and other nutrients. Adequate amounts of liquid (at least 8 - 8oz. servings of a non-caffeinated beverage) should be consumed along with a high fiber intake.

### Food Serving Sat. Fat (g) Where

<table>
<thead>
<tr>
<th>Food</th>
<th>Serving</th>
<th>Sat. Fat (g)</th>
<th>Where</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prime rib</td>
<td>8 oz. slice</td>
<td>32</td>
<td>Restaurants</td>
</tr>
<tr>
<td>Coconut milk</td>
<td>1/2 cup</td>
<td>21</td>
<td>Tropical drinks</td>
</tr>
<tr>
<td>Dried coconut</td>
<td>1 oz</td>
<td>16</td>
<td>Topping, candies</td>
</tr>
<tr>
<td>Coconut oil</td>
<td>1 Tbsp</td>
<td>12</td>
<td>Processed foods</td>
</tr>
<tr>
<td>Palm kernel oil</td>
<td>1 Tbsp</td>
<td>11</td>
<td>Popcorn</td>
</tr>
<tr>
<td>Cake donut</td>
<td>1 donut</td>
<td>11</td>
<td>Bakery</td>
</tr>
<tr>
<td>Ricotta cheese</td>
<td>1/2 cup</td>
<td>10</td>
<td>Italian style foods</td>
</tr>
<tr>
<td>Ground beef</td>
<td>3 oz.</td>
<td>9</td>
<td>Burgers, etc..</td>
</tr>
<tr>
<td>Butter</td>
<td>1 Tbsp.</td>
<td>7.5</td>
<td>Spread, etc..</td>
</tr>
<tr>
<td>Regular cheese</td>
<td>1 oz.</td>
<td>7</td>
<td>Pizza, etc..</td>
</tr>
<tr>
<td>Cream</td>
<td>2 Tbsp.</td>
<td>7</td>
<td>Desserts, coffee</td>
</tr>
<tr>
<td>Ice cream</td>
<td>1/2 cup</td>
<td>7</td>
<td>Dessert</td>
</tr>
<tr>
<td>Cream cheese</td>
<td>2 Tbsp</td>
<td>6</td>
<td>Bagels, desserts</td>
</tr>
<tr>
<td>Croissant/Danish</td>
<td>1 piece</td>
<td>6</td>
<td>Bakery</td>
</tr>
<tr>
<td>Biscuit</td>
<td>1 each</td>
<td>6</td>
<td>Restaurant, home</td>
</tr>
<tr>
<td>Cream soup</td>
<td>1 cup</td>
<td>5</td>
<td>Restaurant, home</td>
</tr>
<tr>
<td>Whole milk</td>
<td>1 cup</td>
<td>5</td>
<td>Dairy goods</td>
</tr>
<tr>
<td>Chicken wings</td>
<td>4 oz.</td>
<td>4</td>
<td>Restaurant, home</td>
</tr>
</tbody>
</table>
Food Sources of Soluble Fiber

Apples  
Barley  
Beans (dried)  
Beets  
Carrots  
Concord grapes  
Cranberries  
Currants (red)  
Gooseberries  
Grapefruit  
Oats (oat bran, oatmeal)  
Oranges  
Peaches  
Pears  
Psyllium Husk  
Plums  
Rye  
Prunes  
Sesame seeds  

Foods That May Reduce Cardiovascular Risks

✔ 25 grams of soy protein per day, any type  
✔ Oats, psyllium seed husks, ground flax seed (2 T/day).  
✔ Garlic  
✔ Grapes (especially red or purple)  
✔ Fish, omega-3 fatty acids....salmon, tuna, mackerel, sardines.  
✔ Phytosterols and stanols found in margarine-like spreads such as Benecol® and Take Control®  
✔ Green Tea  
✔ Nuts, especially soynuts, walnuts, almonds, pecans  
✔ Whole foods such as fruits, vegetables, beans, legumes and whole grains  
✔ Cook with color. Limit your white foods. White foods are generally processed foods...white rice, white refined flour, pasta, starches, white bread, ice cream, cheeses, sugar and salt. Exceptions: egg white, cauliflower, pears, apples, onions, bananas.
# A Guide to Serving Sizes

<table>
<thead>
<tr>
<th><strong>Food Groups</strong></th>
<th><strong>What Counts as a Serving</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bread, cereals, rice, and pastas</strong></td>
<td>1 slice bread</td>
</tr>
<tr>
<td></td>
<td>1/2 hamburger bun, bagel or English muffin</td>
</tr>
<tr>
<td></td>
<td>1 small roll, biscuit, or muffin</td>
</tr>
<tr>
<td></td>
<td>3-4 small or 2 large crackers</td>
</tr>
<tr>
<td></td>
<td>1/2 cup of cooked cereal, rice, or pasta</td>
</tr>
<tr>
<td></td>
<td>1 oz (about 3/4 cup) of ready-to-eat cereal</td>
</tr>
<tr>
<td></td>
<td>1 6-in tortilla</td>
</tr>
<tr>
<td><strong>Vegetables</strong></td>
<td>1/2 cup cooked vegetables</td>
</tr>
<tr>
<td></td>
<td>1/2 cup chopped raw vegetables</td>
</tr>
<tr>
<td></td>
<td>1 cup leafy raw vegetables</td>
</tr>
<tr>
<td></td>
<td>3/4 cup vegetable juice</td>
</tr>
<tr>
<td><strong>Fruits</strong></td>
<td>1 whole fruit such as a medium apple, banana, or orange</td>
</tr>
<tr>
<td></td>
<td>1/2 grapefruit</td>
</tr>
<tr>
<td></td>
<td>1 cup melon or berries</td>
</tr>
<tr>
<td></td>
<td>3/4 cup fruit juice</td>
</tr>
<tr>
<td></td>
<td>1/2 cup canned fruit</td>
</tr>
<tr>
<td></td>
<td>1/4 cup dried fruit</td>
</tr>
<tr>
<td><strong>Milk, yogurt and cheese</strong></td>
<td>1 cup milk</td>
</tr>
<tr>
<td></td>
<td>8 oz yogurt</td>
</tr>
<tr>
<td></td>
<td>1 1/2 oz cheese</td>
</tr>
<tr>
<td><strong>Meats, poultry, fish, dried beans, and peas, eggs, and nuts</strong></td>
<td>2-3 oz. cooked lean meat, poultry, or fish. Count 1 egg or 1/2 cup cooked dried beans as 1 oz lean meat. Two tbsp. peanut butter or 1/3 cup of nuts count as 1 oz of meat.</td>
</tr>
<tr>
<td><strong>Fats, oils and sweets</strong></td>
<td>Use fats and sweets sparingly</td>
</tr>
</tbody>
</table>
SECTION 3

❤ General Guidelines for Heart Healthy Eating

Use at least six servings of whole grain cereals, pasta, and legumes each day.

Include at least five fruits or vegetables each day. Fresh fruits and vegetables make great alternatives to snack food. Use at least two servings of a non-fat or low-fat dairy product each day. The fat in dairy products is approximately 60% saturated. Use low-fat cheese as a meat choice instead of a dairy choice.

Limit meat intake to six ounces or less per day. Select lean beef, pork, poultry, or fish. Think of a three ounce piece of meat as about the size of a deck of cards. Forty percent of the fat found in meat is saturated. Limit high fat meat choices to special occasions.

Limit all added fats, especially sources of saturated fat. Remember to count the fat in baked products and convenience foods.

SECTION 4

❤ Heart Healthy Choices

Breads, rice, cereal and pasta

Choose More Often

❤ Homemade baked goods that use oils sparingly; angel food cake; low-fat crackers* and cookies

❤ Rice, pasta, dried peas and beans

❤ Whole-grain breads and cereals (oatmeal, whole wheat, rye, bran, multigrain, etc.)

❤ Bread sticks, rye crackers*, soda crackers*, bagels, graham crackers, melba toast, hot cereals* and most cold dry cereals*

❤ Go easy on: Store-bought pancakes*, waffles*, biscuits*, muffins*, corn bread

Decrease

– Commercial baked goods*: pies, cakes, doughnuts, croissants, pastries, muffins, biscuits, high-fat crackers and cookies

– Egg noodles

– Breads in which eggs are a major ingredient

* These foods may be high in sodium – Read the label!
Milk, yogurt and cheese

**Choose More Often**
- Fish, poultry without skin, shellfish
- Lean cuts of meat with fat trimmed: beef — round, sirloin, chuck, loin; lamb — leg, arm, loin, rib; pork — tenderloin, leg, shoulder; veal — all trimmed cuts except ground
- Egg whites, cholesterol-free egg substitutes

**Decrease**
- Whole milk, 2% milk, cream, half-and-half, non-dairy creamers, most imitation milk products, whipped toppings
- Whole milk and reduced fat yogurt and cottage cheese* (4% fat and 2% fat)
- All natural cheese* (blue, Roquefort, cheddar, swiss) and ice cream

Meats, poultry, fish and eggs

**Choose More Often**
- Fish, poultry without skin, shellfish
- Lean cuts of meat with fat trimmed: beef — round, sirloin, chuck, loin; lamb — leg, arm, loin, rib; pork — tenderloin, leg, shoulder; veal — all trimmed cuts except ground
- Egg whites, cholesterol-free egg substitutes

**Decrease**
- Fatty cuts of meat: beef — corned beef brisket*, regular ground, short ribs; pork — spareribs, blade roll; goose, domestic duck, organ meats (liver, kidney, sweetbread, brain); sausage*, bacon*, regular luncheon meats*, frankfurters*, roe*, caviar*, sardines*
- Egg yolks

Fruits and vegetables

**Choose More Often**
- Fresh, frozen, canned*, or dried fruits and vegetables

**Decrease**
- Vegetables prepared in butter, cream, or other sauces
Fats and oils

Choose More Often

❤ Baking cocoa
❤ Unsaturated vegetable oils — corn, olive, canola, safflower, sesame, soybean, sunflower
❤ Margarine or shortening made with one of the unsaturated oils listed above
❤ Low-fat or fat-free margarine, mayonnaise, salad dressing*
❤ Go easy on: seeds* and nuts*

Decrease

– Chocolate*
– Butter, coconut oil, palm oil, palm kernel oil, lard, bacon fat, hydrogenated fats
– Salad dressing made with egg yolk*
– Coconut
– Candy

* These foods may be high in sodium — Read the label!

SECTION 5

❤ Label Reading

It may seem like your first two or three trips to the store are time consuming, but remember, you don’t have to change everything you usually buy at once. You can focus on cereals one week, snack foods the next, and meat and milk the next. Each food label carries a section called Nutrition Facts, which summarizes the content of the food.

Some important facts to gather when looking at the food label include the following:

Servings per Container tells how many servings are in the container. For instance suppose you buy a bag of potato chips that has two servings per bag. If you eat the whole bag, you will have to double the calories and fat (and other information) on the label.

Calories tells how many total calories are provided in one serving. Total Fat is expressed in grams per serving.

Saturated Fat and Cholesterol tells you how much is provided in one serving. Saturated fat should be limited to no more than 7-10% of total calories. Trans fat is an unhealthy type of fat. Keep this intake as low as possible.

Sodium tells you how many milligrams of sodium is provided in one serving. Some of you may have been placed on a sodium restricted diet, as well as a low fat diet. If you have been told to “watch the salt,” keep your sodium intake from 1500 to 2000 milligrams per day.

To make healthier food choices, the
food label is a useful tool. You can compare labels of similar food items to make the wisest choice.

Comparison Example: Below are two kinds of milk - one is “reduced fat” the other is “skim” milk. Each serving size is one cup. Which has more calories and more saturated fat?

Which one has more calcium?

Answer: As you can see, they both have the same amount of calcium, but the skim milk has no saturated fat and has 40 calories less per serving than the reduced fat milk.
## SECTION 6

❤ **Fat Content of Selected Food**

<table>
<thead>
<tr>
<th></th>
<th>Calories</th>
<th>Total Fat (Grams)</th>
<th>Saturated Fat (Grams)</th>
<th>Cholesterol (Milligrams)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Milk Products</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>(1 cup)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Whole Milk</td>
<td>150</td>
<td>8</td>
<td>5.1</td>
<td>33</td>
</tr>
<tr>
<td>2% Milk</td>
<td>120</td>
<td>5</td>
<td>2.9</td>
<td>18</td>
</tr>
<tr>
<td>1% Milk</td>
<td>110</td>
<td>3</td>
<td>1.5</td>
<td>10</td>
</tr>
<tr>
<td>Skim Milk</td>
<td>90</td>
<td>Trace</td>
<td>Trace</td>
<td>4</td>
</tr>
<tr>
<td><strong>Cheese</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>(1 ounce)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>American</td>
<td>106</td>
<td>9</td>
<td>5.6</td>
<td>27</td>
</tr>
<tr>
<td>Cheddar or Colby</td>
<td>112</td>
<td>9</td>
<td>6.0</td>
<td>30</td>
</tr>
<tr>
<td>Cream Cheese (2 Tbsp)</td>
<td>100</td>
<td>10</td>
<td>6.2</td>
<td>32</td>
</tr>
<tr>
<td>Mozzarella, part skim</td>
<td>72</td>
<td>5</td>
<td>3.1</td>
<td>15</td>
</tr>
<tr>
<td>Swiss or Provolone</td>
<td>107</td>
<td>8</td>
<td>5.0</td>
<td>26</td>
</tr>
<tr>
<td>Parmesan, grated (2 Tbsp)</td>
<td>46</td>
<td>4</td>
<td>2.0</td>
<td>8</td>
</tr>
<tr>
<td>Monterey Jack</td>
<td>104</td>
<td>8</td>
<td>5.0</td>
<td>25</td>
</tr>
<tr>
<td>Ramono, grated (2 Tbsp)</td>
<td>39</td>
<td>3</td>
<td>1.7</td>
<td>10</td>
</tr>
<tr>
<td><strong>Fats and Oils</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>(1 Tbsp)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Butter</td>
<td>108</td>
<td>12</td>
<td>7.2</td>
<td>31</td>
</tr>
<tr>
<td>Margarine, stick</td>
<td>102</td>
<td>11</td>
<td>2.2</td>
<td>0</td>
</tr>
<tr>
<td>Margarine, tub</td>
<td>90</td>
<td>11</td>
<td>1.9</td>
<td>0</td>
</tr>
<tr>
<td>Lard</td>
<td>108</td>
<td>13</td>
<td>5.0</td>
<td>12</td>
</tr>
<tr>
<td>Canola Oil</td>
<td>123</td>
<td>14</td>
<td>.9</td>
<td>0</td>
</tr>
<tr>
<td>Corn Oil</td>
<td>132</td>
<td>14</td>
<td>1.7</td>
<td>0</td>
</tr>
<tr>
<td>Olive Oil</td>
<td>120</td>
<td>14</td>
<td>1.8</td>
<td>0</td>
</tr>
<tr>
<td>Peanut Oil</td>
<td>120</td>
<td>14</td>
<td>2.3</td>
<td>0</td>
</tr>
<tr>
<td>Coconut Oil</td>
<td>117</td>
<td>14</td>
<td>11.8</td>
<td>0</td>
</tr>
<tr>
<td>Vegetable Shortening, solid</td>
<td>105</td>
<td>13</td>
<td>3.2</td>
<td>0</td>
</tr>
<tr>
<td>Peanut Butter</td>
<td>94</td>
<td>8</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>
Eating Smart for a Healthy Heart

<table>
<thead>
<tr>
<th>Lean Cuts of Beef (3 oz. serving, trimmed after cooking**)</th>
<th>(Grams)</th>
<th>(Grams)</th>
<th>(Milligrams)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beef eye round</td>
<td>143</td>
<td>4.2</td>
<td>1.5</td>
</tr>
<tr>
<td>Beef top round</td>
<td>153</td>
<td>4.2</td>
<td>1.4</td>
</tr>
<tr>
<td>Beef tip round</td>
<td>157</td>
<td>5.9</td>
<td>2.1</td>
</tr>
<tr>
<td>Beef top sirloin</td>
<td>165</td>
<td>6.1</td>
<td>2.4</td>
</tr>
<tr>
<td>Beef top loin</td>
<td>176</td>
<td>8.0</td>
<td>3.1</td>
</tr>
<tr>
<td>Beef tenderloin</td>
<td>179</td>
<td>8.5</td>
<td>3.2</td>
</tr>
<tr>
<td>Beef flank</td>
<td>176</td>
<td>8.6</td>
<td>3.7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lean Cuts of Pork (3 oz. serving, trimmed after cooking**)</th>
<th>(Grams)</th>
<th>(Grams)</th>
<th>(Milligrams)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pork tenderloin</td>
<td>139</td>
<td>4.1</td>
<td>1.4</td>
</tr>
<tr>
<td>Pork boneless sirloin chop</td>
<td>164</td>
<td>5.7</td>
<td>1.9</td>
</tr>
<tr>
<td>Pork boneless top loin roast</td>
<td>165</td>
<td>6.1</td>
<td>2.2</td>
</tr>
<tr>
<td>Pork boneless top loin chop</td>
<td>173</td>
<td>6.6</td>
<td>2.3</td>
</tr>
<tr>
<td>Pork loin chop</td>
<td>172</td>
<td>6.9</td>
<td>2.5</td>
</tr>
<tr>
<td>Pork rib chop</td>
<td>186</td>
<td>8.3</td>
<td>2.9</td>
</tr>
<tr>
<td>Pork boneless rib roast</td>
<td>182</td>
<td>8.6</td>
<td>3.0</td>
</tr>
<tr>
<td>Pork sirloin roast</td>
<td>184</td>
<td>8.7</td>
<td>3.1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ground Meat Products (3 oz. cooked portion, broiled)</th>
<th>(Grams)</th>
<th>(Grams)</th>
<th>(Milligrams)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lowfat ground beef***</td>
<td>149</td>
<td>7</td>
<td>2.7</td>
</tr>
<tr>
<td>Ground beef (95% lean)</td>
<td>132</td>
<td>5</td>
<td>2.0</td>
</tr>
<tr>
<td>Ground beef (90% lean)</td>
<td>169</td>
<td>9</td>
<td>3.5</td>
</tr>
<tr>
<td>Ground beef (85% lean)</td>
<td>204</td>
<td>12</td>
<td>4.7</td>
</tr>
<tr>
<td>Ground beef (80% lean)</td>
<td>228</td>
<td>15</td>
<td>5.9</td>
</tr>
<tr>
<td>Ground pork (80% lean)</td>
<td>252</td>
<td>18</td>
<td>6.6</td>
</tr>
<tr>
<td>Ground turkey</td>
<td>195</td>
<td>12</td>
<td>4.7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Skinless Chicken (3 oz. cooked serving, roasted)</th>
<th>Calories</th>
<th>Total Fat (Grams)</th>
<th>Saturated Fat (Grams)</th>
<th>Cholesterol (Milligrams)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chicken breast</td>
<td>140</td>
<td>3.0</td>
<td>0.9</td>
<td>72</td>
</tr>
<tr>
<td>Chicken leg</td>
<td>162</td>
<td>7.2</td>
<td>2.0</td>
<td>80</td>
</tr>
<tr>
<td>Chicken thigh</td>
<td>178</td>
<td>9.3</td>
<td>2.6</td>
<td>81</td>
</tr>
</tbody>
</table>
Skinless Turkey
3 oz. cooked serving, roasted

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Turkey breast</td>
<td>115</td>
<td>0.6</td>
<td>0.2</td>
</tr>
<tr>
<td>Turkey leg or thigh</td>
<td>159</td>
<td>6.0</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Fish
3 oz. cooked serving

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cod</td>
<td>89</td>
<td>0.7</td>
<td>0.1</td>
</tr>
<tr>
<td>Flounder</td>
<td>62</td>
<td>1.3</td>
<td>0.3</td>
</tr>
<tr>
<td>Halibut</td>
<td>119</td>
<td>2.5</td>
<td>0.4</td>
</tr>
<tr>
<td>Orange Roughy</td>
<td>75</td>
<td>0.8</td>
<td>0.0</td>
</tr>
<tr>
<td>Shrimp</td>
<td>84</td>
<td>0.9</td>
<td>0.2</td>
</tr>
<tr>
<td>Pink Salmon</td>
<td>127</td>
<td>4.0</td>
<td>0.6</td>
</tr>
<tr>
<td>Atlantic Mackerel</td>
<td>223</td>
<td>15.0</td>
<td>3.5</td>
</tr>
</tbody>
</table>

** Trimming meat before cooking will reduce fat content further.
*** Approximate nutritional values for lowfat ground beef made with carrageenan or oat bran (Auburn University and Webb Tech).

SECTION 7

❤ Cooking tips for lowering fat
1. Steam, boil, or bake vegetables; or for a change, stir-fry in a small amount of vegetable oil.
2. Season vegetables with herbs and spices rather than with sauces, butter, or margarine.
3. Try lemon juice on salads or use limited amounts of low-fat or fat-free salad dressing.
4. Chicken broth or tomato juice make nice sautes for vegetables.
5. Make gravies after the fat has hardened and can be removed from the liquid.

6. Cook soups, stews, chili, and spaghetti sauces the day before and refrigerate — skim off any solid fat.
7. Or, simmer the meat with the seasonings a day ahead, then refrigerate the stock overnight. The following day, remove the fat that has congealed on the surface of the stock, add the vegetables and cook until tender.
8. To reduce saturated fat use oil instead of shortening whenever possible.
9. Try substituting whole wheat flour for some of the white flour in baked goods.
10. Replace whole milk with skim or 1% milk in puddings, soups, and baked products.

11. Rather than using oil, margarine or butter, substitute an equal amount of applesauce in muffins, quick breads and cakes.

12. In recipes that call for oil as the only liquid, use a combination of half applesauce and half buttermilk.

13. Pureed prunes or baby-food prunes are one of the best fat replacers in baked chocolate goodies such as brownies and cakes. When using prunes to replace butter or oil, use only half of the amount called for in the recipe.

14. Another great idea for chocolate flavor without the fat — use cocoa powder. For each ounce of unsweetened chocolate called for in a recipe, use 3 tablespoons of unsweetened cocoa powder.

15. For a fluffy frosting, use marshmallow cream instead of margarine or butter.

16. Substitute plain low-fat yogurt, blender-whipped low-fat cottage cheese or buttermilk in recipes that call for sour cream or mayonnaise.

17. When you sauté, use no more than one tablespoon of acceptable oils or margarine and prepare in non-stick cookware.

18. Marinate with spices, nonfat yogurt, wine, or lemon juice instead of oil.

19. Chill meat or poultry broth until the fat becomes solid. Spoon off the fat before using the broth.

20. Limit egg yolks to one per serving when making scrambled eggs. Use additional egg whites or egg substitute for larger servings.

21. Substitute egg whites or egg substitute in recipes calling for whole eggs. Use two egg whites in place of each whole egg.

22. Instead of sautéing onions, garlic, or vegetables in oil, microwave them, steam them, use a non-stick spray, or a flavored liquid such as defatted chicken broth or vegetable juice.

23. Instead of placing stuffing inside the bird, cook the stuffing separately to avoid fat absorption. To add flavor as well as moistening the stuffing, use fat-free chicken or turkey stock.

24. Trim the visible fat from meats before cooking.

25. Choose lean cuts of meat. Look for beef labeled with the USDA “Select” grade. Its lower in fat and calories than “Choice” or “Prime.”

26. Leaner cuts of beef are from the loin and round. For pork, lamb, and veal, choose cuts from the loin or leg.

27. Roast, bake, broil, braise, or grill meat, poultry, and fish.

28. Remove skin from poultry before eating.
29. Use non-stick cookware and an aerosol cooking spray so added fat will be unnecessary.
30. Instead of basting with drippings, keep meat moist with wine, broth, fruit juices, or a minimum of margarine or oil-based marinade.
31. Use marinades of lemon juice, wine, flavored vinegar, or fruit juices mixed with herbs when grilling or broiling.
32. Use beans to replace some or all of the meat in dishes such as lasagna, soups, stews, casseroles, meat loaves, and omelet fillings.
33. Broil rather than pan-fry meats such as hamburger, chops, and steaks.
34. Try browning meat under the broiler instead of in a pan.
35. Partially freeze meat and poultry to trim fat and slice thin for stir frying.
36. Use ground turkey breast or ground round for casseroles, spaghetti sauce, chili, and skillet dishes.
37. After browning ground beef or poultry, rinse with hot water and drain in a colander or on a paper towel.
38. Make a favorite cheese-based casserole with a fat-free or reduced fat cheese. Top with a sprinkling of sharp cheddar or grated Romano for more flavor.
39. Use one-third less meat and increase the vegetable additions in casseroles or pasta dishes.
40. Instead of using heavy cream in sauces or soups, use buttermilk or evaporated skim milk.
41. Make more dishes using dried peas or beans.
42. Instead of whipped cream, use low-fat or fat-free vanilla yogurt.
43. Instead of nuts, use Grape-Nuts cereal in baked goods.
44. Instead of regular pie crust, use a graham cracker crust.
45. When making chocolate chip cookies, use the mini chips. You can use half the amount of chips and still get plenty of chocolate flavor.
46. Use low-fat or fat-free cottage cheese in place of ricotta cheese.
47. In place of egg yolk as a thickener, try flour or cornstarch.

SECTION 8

❤ What About Sodium?
Not everyone who has heart disease needs to follow a reduced sodium diet. Ask your doctor if a reduced sodium diet would benefit you. Sodium in the diet comes from several sources; it may be found naturally in food or added during processing, during cooking, or at the table. Highly salted foods often taste salty, but many other foods with natural or added sodium do not.

If you need to watch the sodium in your diet, read the food labels. The amount of sodium is always stated in milligrams per serving. Also learn
to recognize ingredients that contain sodium. Most sodium comes from salt, but many common food ingredients and additives such as baking soda, baking powder, soy sauce, and monosodium glutamate (MSG) also contain sodium.

Take into consideration not only the sodium content of a food, but how much you will eat. Consider the total amount of sodium in a meal, or in a day of meals. If you eat a high-sodium food, choose a low-sodium food to go with it. Many processed foods are higher in sodium than fresh or raw foods because of the sodium used as a preservative. Herb and spice information has been included to enhance the flavor of your meals.

If you are considering using a salt substitute containing potassium chloride, **check with your physician first.** Potassium chloride is not compatible with certain medications that are sometimes prescribed to treat heart disease or high blood pressure - serious side effects could result.
SECTION 9

❤ Herbs and Spices

Use plenty of fresh herbs and spices when cooking to add flavor and interest to meals. A dash of lemon or vinegar adds zest to dishes. Seasoning blends that do not contain salt are widely available. Bottled sauces and dry mixes are generally very high in sodium.

<table>
<thead>
<tr>
<th>Herb or Spice</th>
<th>How it is Available</th>
<th>How it Tastes</th>
<th>How to Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allspice</td>
<td>whole or ground</td>
<td>blend of cinnamon, nutmeg, pie and cloves</td>
<td>meat loaf, pork, veal, carrots, beets, apple pie</td>
</tr>
<tr>
<td>Anise</td>
<td>whole or ground</td>
<td>aromatic, sweet, licorice-like</td>
<td>beets, carrots, baked apples, fruit pies, fruit salad</td>
</tr>
<tr>
<td>Basil, sweet</td>
<td>fresh, whole or ground</td>
<td>aromatic, mild, mint-licorice flavor</td>
<td>Fish or chicken dishes, eggs, peas, carrots</td>
</tr>
<tr>
<td>Bay</td>
<td>dried whole leaves</td>
<td>aromatic, woodsy, pleasantly bitter</td>
<td>vegetable soup, stew, roast beef, add to water when stewing chicken or poaching fish</td>
</tr>
<tr>
<td>Caraway</td>
<td>whole or ground seed</td>
<td>leaves and root delicately flavored seeds sharp, pungent</td>
<td>lamb, pork, meatballs, deviled eggs, noodles, cabbage, cucumbers, cauliflower</td>
</tr>
<tr>
<td>Cardamom</td>
<td>whole or ground; seed</td>
<td>mild, pleasant, ginger like</td>
<td>Swedish meatballs, hamburger, meat loaf, roast beef, sweet potatoes, peas, rice, fruit</td>
</tr>
<tr>
<td>Celery</td>
<td>ground</td>
<td></td>
<td>coleslaw, egg, potato, macaroni salads, rub on pork, chicken, beef, add to chicken or vegetable soup, salmon dishes</td>
</tr>
<tr>
<td>Chervil</td>
<td>fresh; whole</td>
<td>delicate, parsley-like flavor</td>
<td>Omelets, egg dishes, fish, chicken, potatoes</td>
</tr>
<tr>
<td>Herb or Spice</td>
<td>How it is Available</td>
<td>How it Tastes</td>
<td>How to Use</td>
</tr>
<tr>
<td>-----------------</td>
<td>---------------------</td>
<td>------------------------------------</td>
<td>---------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Chili powder</td>
<td>powder</td>
<td>blend of chilies and spices</td>
<td>chili, taco, enchiladas, dips, salad dressings, eggs</td>
</tr>
<tr>
<td>Green bell pepper</td>
<td>flakes</td>
<td>very mild</td>
<td>vegetable soup, meat loaf, hamburgers</td>
</tr>
<tr>
<td>Horseradish</td>
<td>root or ground</td>
<td>hot, pungent</td>
<td>roast beef, steak, beets</td>
</tr>
<tr>
<td>Lemon</td>
<td>peel</td>
<td></td>
<td>fruit dishes, vegetables</td>
</tr>
<tr>
<td>Mace</td>
<td>whole or ground</td>
<td>from the same fruit as nutmeg; has a sweet, warm spicy flavor</td>
<td>fruit dishes, asparagus, carrots</td>
</tr>
<tr>
<td>Marjoram</td>
<td>fresh; whole or ground</td>
<td>faintly like sage, slight mint aftertaste; delicate</td>
<td>meat loaf, roast pork, chicken, omelets, zucchini, carrots, peas, cucumbers</td>
</tr>
<tr>
<td>Mint</td>
<td>fresh, dried</td>
<td>fruity, aromatic, distinctive flavor</td>
<td>fruit punch, lamb stew, peas, heat in fruit juice and pour over fruit</td>
</tr>
<tr>
<td>Mustard</td>
<td>fresh, whole or ground</td>
<td>sharp, hot, very pungent</td>
<td>pork steak, meat loaf, roast chicken, cabbage add 1/2 tsp. dried to the water when cooking carrots, potatoes, cauliflower and asparagus</td>
</tr>
<tr>
<td>Nutmeg</td>
<td>whole or ground</td>
<td>spicy, sweet, pleasant</td>
<td>meat loaf, creamed chicken, carrots, cauliflower, spinach, chicken salad, fruit pies, oatmeal</td>
</tr>
<tr>
<td>Onion</td>
<td>flakes or powder</td>
<td></td>
<td>beef stew, vegetable soup, roast beef, chicken gravy, pork, vegetables, tuna or egg salad</td>
</tr>
<tr>
<td>Orange</td>
<td>peel</td>
<td></td>
<td>chicken, duckling, desserts</td>
</tr>
<tr>
<td>Herb or Spice</td>
<td>How it is Available</td>
<td>How it Tastes</td>
<td>How to Use</td>
</tr>
<tr>
<td>------------------</td>
<td>---------------------</td>
<td>---------------------------------------------------</td>
<td>---------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Oregano</td>
<td>fresh, whole or ground</td>
<td>more pungent than marjoram but similar; reminiscent of thyme</td>
<td>vegetable soup, beef, pork, meat loaf, green beans, chicken, eggs, add 1.2 tsp. to 1/2 C. butter and use for potatoes, fish and bread</td>
</tr>
<tr>
<td>Paprika</td>
<td>powder</td>
<td>delicate, faintly spicy</td>
<td>beef, fish, spareribs, eggs, cauliflower, rice, good for browning chicken and chops</td>
</tr>
<tr>
<td>Parsley</td>
<td>fresh, dried flakes</td>
<td>sweet, mildly spicy, refreshing</td>
<td>soup, beef, pork, meat loaf, casseroles, stew, chicken, duck, fish, eggs, vegetables, salads, salad dressings, rice, noodles</td>
</tr>
<tr>
<td>Pepper, black</td>
<td>whole, ground, cracked</td>
<td></td>
<td>salads, meat, poultry, fish, vegetables</td>
</tr>
<tr>
<td>Pepper, red</td>
<td>crushed</td>
<td>hot, pungent</td>
<td>green beans, ground beef, stew</td>
</tr>
<tr>
<td>Pepper, white</td>
<td>whole or ground</td>
<td>slightly milder than black pepper</td>
<td>light colored foods (fish, chicken, potatoes)</td>
</tr>
<tr>
<td>Peppercorns</td>
<td>green, dried</td>
<td></td>
<td>soak in water 5 minutes, add to brown sauce for meat, mash with butter for vegetables, steak, pork chops, duck, salad dressings</td>
</tr>
<tr>
<td>Peppermint</td>
<td>extract</td>
<td></td>
<td>poultry stuffing, peas, carrots, rhubarb, fruit</td>
</tr>
<tr>
<td>Poppy seed</td>
<td>tiny whole dried seeds</td>
<td>nut-like flavor</td>
<td>noodles, salad dressing, fruit salads, pie crust, breads, rolls cookies</td>
</tr>
<tr>
<td>Herb or Spice</td>
<td>How it is Available</td>
<td>How it Tastes</td>
<td>How to Use</td>
</tr>
<tr>
<td>--------------</td>
<td>--------------------</td>
<td>--------------</td>
<td>------------</td>
</tr>
<tr>
<td>Rosemary</td>
<td>fresh; whole</td>
<td>refreshing, piney, resinous, pungent</td>
<td>vegetable and chicken soups, pork, beef, lamb, chicken, peas, broiled fish, brown gravy</td>
</tr>
<tr>
<td>Sage</td>
<td>fresh; whole or ground</td>
<td>pungent; warm, astringent taste</td>
<td>vegetable soup, roast pork, poultry, pork or veal stuffing, peas, green beans</td>
</tr>
<tr>
<td>Savory</td>
<td>ground</td>
<td></td>
<td>add 1/4 tsp. to 3C bread cubes for stuffing pork, poultry and veal; ground beef, green beans, zucchini, vegetable soup, peas, carrots</td>
</tr>
<tr>
<td>Tarragon</td>
<td></td>
<td></td>
<td>green salads, chicken, veal, fish, eggs, carrots, peas, vegetable soup, pork, coleslaw</td>
</tr>
<tr>
<td>Turmeric</td>
<td>ground</td>
<td>produces a yellow color</td>
<td>pork, beef, add 1/8 tsp. in 1C rice, add to water when cooking noodles and potatoes</td>
</tr>
</tbody>
</table>
Spice Blends

Blends can be made at home to your taste and at less cost. Just be sure the ingredients are extremely well mixed. Blend on high speed in your blender for one minute or pulverize in a small bowl. Spoon into a shaker with large holes and store in a cool, dark place.

Spicy Seasoning

3 T. celery seed
1 T. onion powder
1 tsp. garlic powder
2 T. crushed oregano
1 T. crushed thyme
1 1/2 tsp. ground bay leaf
1 1/2 tsp. ground black pepper
1 1/2 tsp. ground cloves

Mexican Seasoning

6 T. chili powder
2 T. ground cumin
1 1/2 tsp. onion powder
1 1/2 tsp. garlic powder
Optional:
3/4 tsp. thyme
3/4 tsp. oregano
3 tsp. basil
1/2 tsp. pepper

Seafood Seasoning

4 tsp. dried parsley
2 T. dried crushed dill, chives or tarragon
1 1/2 tsp. pepper
1/2 T. dried lemon peel
Optional:
1 1/2 tsp. dried mustard or garlic powder
1 tsp. ginger
Use 2 tsp. per pound of fish and poach in about 1/4 C. water.

Sweet & Sour Sauce

Stir together:
1 tsp. Oriental Seasoning (to the right)
3 T. cornstarch
1/4 C. sugar
Gradually mix in:
2 T. margarine
2 C. water or pineapple juice
1/2 C. vinegar
Heat to boiling, stirring frequently. Reduce heat and simmer 5 minutes. Serve over pork, fish or poultry.

Oriental Seasoning

2 T. onion powder
2 T. garlic powder
2 T. ground ginger
2 T. ground pepper
Use 1/4 to 1/2 tsp. per pound of meat, fish or poultry.

Middle Eastern Seasoning

1 tsp. ground coriander
1 tsp. ground cumin
1 T. turmeric powder
1/4 tsp. ground cloves
1 tsp. paprika
1/4 tsp. cayenne pepper
Use 1/2 to 1 tsp. per pound of meat, fish or poultry

Savory Seasoning

1 1/4 tsp. celery seed
2 T. crushed marjoram
2 T. crushed savory
2 T. crushed thyme
1 T. crushed basil

Herb-Onion Seasoning

1/4 C. instant (dried) minced onion
1 T. sweet basil
1 T. ground cumin
1 T. garlic powder
1 T. cracked black pepper
Hot Spice
2 T. dried savory
1 T. mustard
2 1/2 tsp. onion powder
1 1/2 tsp. curry powder
1 1/2 tsp. pepper
1 1/4 tsp. cumin
1 1/2 tsp. garlic powder

Spice Blend No. 2
12 tsp. onion powder
12 tsp. paprika
6 tsp. garlic powder
3 tsp. basil

Taco Seasoning Mix
2 tsp. instant (dried)
minced onion 1 tsp. chili powder
1/2 tsp. minced garlic
1/2 tsp. cornstarch
1/4 tsp. dried oregano
1/2 tsp. ground cumin
1/4 tsp. crushed dried red pepper
Makes 1 package taco seasoning mix.

Dill & Onion
2 T. dried dill or basil
2 T. onion powder
1 tsp. dried oregano
1 tsp. celery seed
1/4 tsp. grated lemon peel
Pinch pepper

Fine Herbs
3 T. dried leaf thyme
3 T. dried leaf basil
3 T. dried leaf savory
3 T. dried leaf marjoram
3 T. dried rubbed sage
2 T. grated lemon peel

Spice Blend No. 3
1 tsp. dry mustard
1 tsp. onion powder
1 tsp. paprika

Season-All
2 tsp. garlic powder
2 tsp. dry mustard
2 tsp. onion powder
2 tsp. paprika
2 tsp. white pepper
1 tsp. ground celery (or celery seed)
1 tsp. ground thyme

Celery Herb Blend
1/4 C. instant (dried) minced onion
1 T. dill weed
1 tsp. celery seed
1/4 tsp. tarragon

Spice Blend No. 1
3 tsp. dry mustard
3 tsp. onion powder
3 tsp. paprika
1 1/2 tsp. white pepper
1 tsp. garlic powder
1 tsp. thyme
1/4 tsp. basil

Spice Blend No. 4
1 T. garlic powder
1 T. onion powder
1 T. oregano
1/2 tsp. white pepper 2 tsp. ground celery
2 tsp. paprika

Marinades
Marinades enhance the flavor and tenderize leaner cuts of meat. The longer the meat soaks in the marinade, the more flavorful and tender it becomes. For best results use a flat covered dish with enough marinade to cover the meat. Fish can be soaked in a marinade for relatively short periods of time, (15 to 60 minutes). Cubed meat or chicken pieces require 2 to 3 hours in the marinade. A whole piece
of meat or chicken pieces requires 2 to 3 hours in the marinade for best flavor. A piece of meat, weighing 5 to 10 pounds, benefits the most from an overnight soaking in the refrigerator. Use the marinade to baste the meat while cooking and any leftover marinades to make a sauce for serving.

✔️ Remember — Do not use commercial marinades — they are high in sodium.

✔️ If you are watching your waistline, limit the amount of oil in the marinade to 2 tablespoons per pound of meat.

✔️ Liquid smoke can be brushed on prior to grilling as a quick flavor maker. It can also be added to marinades for a smoked flavor.

✔️ Adding wines as part of the liquid in recipes can add distinctive flavors. Don’t use cooking wines since they contain added salt. Add wine at the beginning of cooking because the heat evaporates the alcohol and allows the flavors to blend.

✔️ 1/2 C. wine or less in recipes for stews or casseroles to serve four.

✔️ 1 C. wine per pound meat (subtract the amount from the total liquid in the recipe).

### Beef or Pork Marinade
- 1 1/2 C. wine, flat beer or fruit juice
- 1 T. dry mustard
- 1 tsp. ground pepper
- 1/8 tsp. hot pepper sauce
- 2 cloves garlic, minced
- 2 T. honey, sugar or molasses
- 4 T. marmalade (optional)

### Chicken Marinade
- 1 1/2 C. white wine or pineapple juice
- 1 onion, finely chopped
- 1 clove garlic, minced
- 1/2 tsp. celery seed
- 1/2 tsp. pepper
- 1/4 tsp. thyme, tarragon or rosemary

### Fish & Lamb Marinade
- 1 1/2 C. white wine
- 2-3 T. Lemon juice
- 1/2 tsp. powdered ginger or grated fresh ginger
- 1/2 tsp. grated lemon rind
- 1 small clove garlic, minced

### SECTION 10

❤ Caffeine

Too much caffeine may cause your heart to work harder by increasing your heart rate. It is generally recommended that you limit your caffeine intake to three or four servings per day. A serving is considered 6 ounces of tea or coffee or 12 ounces of soda. Ask your doctor how much caffeine is right for you.
EATING SMART FOR A HEALTHY HEART

SECTION 11

❤ Suggestions for Dining Out

Before you attempt to eat out, be familiar with your meal plan at home. Be able to estimate the fat content for various foods and the portion sizes. Choose a restaurant with a large selection so that you have many alternatives to choose from. You may want to call in advance and ask about food preparation. Decide before you arrive what you will order. At the restaurant, do not be afraid to ask questions about how a food is prepared. Ask for a carry-out bag or share a meal with another if portions are too large. Ask for alternatives and make your preferences known! Some dishes may be able to be served without added salt or fat. Beware of “diet” plates — they may be higher in fat than a well chosen meal. Some restaurants feature light entrees. Read the menu carefully. The following guidelines will help you enjoy eating out while making lower fat menu selections:

Appetizers

✔ Enjoy a seafood cocktail, low-sodium broth, low-sodium vegetable soup, raw vegetables, fresh fruit, or fruit juice.

Entrees

✔ Order foods baked, broiled, steamed, or grilled rather than fried.

✔ Remove the skin from poultry before eating.

✔ Limit meat to a three ounce serving (the amount equal to a deck of cards).

✔ If you have more meat than you need, take the rest home.

✔ Order one meal and split it with a friend. Order an extra salad or soup.

✔ Ask for sauces, gravies, and dressings “on the side” then use sparingly.

✔ Beware of meats that have been frozen (particularly poultry such as sliced turkey or chicken breast). Sodium is often added to frozen meats in order to enhance the flavor and retain moisture.

Soup

✔ Avoid cream soups.

✔ Choose low-sodium broths, consomme, vegetable, rice, or pasta soups.

Salads

✔ Choose green salads and raw vegetables.

✔ Use low-fat or fat-free dressings when possible (They are still high in sodium so use sparingly).

✔ Add bacon, olives, croutons, and cheese sparingly.

✔ Prepared salads such as potato, tuna, pasta, and chicken may be high in fat. Eat them only occasionally and limit the portion size.
Order salad dressing “on the side.”

Try substituting lemon juice for salad dressing.

Sandwiches
Order a sandwich of lean meat, fish, or poultry that is baked, broiled, or grilled (Be sure to ask if the meat was purchased frozen)
Ask that margarine and mayonnaise be served “on the side” then use sparingly.
Mustard, ketchup, and horseradish are good condiments to choose.
Use whole grain breads when possible. - Ask for fruit or vegetables rather than potato chips or french fries.
Order a small hamburger or sandwich

Vegetables
Limit vegetables that are fried or that are prepared with butter or cream sauces.

Starches
Limit french fries, hash browns, au gratin and scalloped potatoes, cornbread, butter rolls, croissants.
Use toppings such as butter, margarine, and sour cream sparingly.

Desserts
Choose sherbet, ice milk, fresh fruit, gelatin, sorbet, angel food cake, or low-fat or fat-free yogurt.

Beverages
Choose skim milk, 1/2 % or 1% milk, coffee, tea, fruit juice, mineral water, or club soda.

Breakfasts
Order cereals with skim or 1% milk.
Choose toast, English muffins, or bagels instead of croissants or biscuits.
Canadian bacon is a leaner choice than regular bacon or sausage.
This chapter is designed to help you understand the importance of activity. It will help you understand how to safely increase your activity level from the hospital bed to a healthy, active lifestyle. Staying active is important for everyone. It is especially important for people who have heart disease.

SECTION 1

Physical Activity and Your Heart

Regular physical activity can help reduce your risk of heart attack and improve your chances of survival if you have a heart attack. However, if you already have heart disease, an exercise program should be started slowly and with caution. Physical activity places an increased demand on the heart by increasing heart rate and blood pressure. This may result in angina if certain activities are performed.

Activity following a heart attack should be limited. It is important for the heart muscle to have time to heal. Strenuous physical activity should be avoided during this time. The area of the heart attack will form a scar. If you do strenuous physical activity, the
scar tissue may not heal properly. Activity following heart surgery should also start slowly and be gradually increased. Although your chest incision heals quickly (1 to 2 weeks), your breast bone does not completely heal for three months. Therefore you should limit or even avoid certain activities during this time. See section on Activity Restrictions later in this chapter.

SECTION 2

❤ Recommended Activities

In hospital
During your hospital stay, you will be encouraged to increase your activity. You will progress from self-care activities (eating, bathing) to walking in the hallways. Your heart rate and rhythm will be monitored frequently. The cardiac staff will encourage you to walk 3 to 4 times per day for 3 to 5 minutes, depending on your individual activity tolerance.

Return Home
It will be very important to continue being active when you go home. Upon discharge, cardiac rehab staff will develop an exercise program for you.

FIT Principle
The FIT principle is a guideline for people to follow for a good fitness program.
F: stands for frequency, how often a person exercises,
I: stands for intensity, how hard a person exercises,
T: stands for time, how long a person exercises.

2007 American Heart Association Recommendation: “To promote and maintain health, all healthy adults aged 18 to 65 years need moderate-intensity aerobic physical activity for a minimum of 30 minutes on five days each week... In addition, every adult should perform activities that maintain or increase muscular strength and endurance a minimum of two days each week.”

“Moderate-intensity aerobic activity, which is generally equivalent to a brisk walk and noticeably accelerates the heart rate can be accumulated toward the 30 minutes minimum by performing bouts each lasting 10 or more minutes.”

A sample exercise program
Follow the exercise, stretching and activity guidelines that are given in the rest of this section. Note: The recommended activity level will vary from person to person.
1. Do pre-exercise stretches.  
(see stretching guidelines, Page F4).
2. Warm-up: Before each exercise session, always perform 2 to 5 minutes of slower-paced activities that allow your heart rate to increase slowly.
   - **Week 1:** Walk/cycle for 5-8 minutes, two times per day. Try to improve time by adding 1-2 minutes each day.
   - **Week 2-4:** Walk/cycle for 20 minutes, two times per day. Continue to increase time, adding 2 minutes each day.
   - **Week 5-6:** Walk/cycle for 30 to 60 minutes, once per day. Continue to increase exercise time as tolerated.

   *The goal is to continue to walk/cycle continuously for 30-60 minutes 5 to 7 days per week as a long-term exercise program.*
3. Cool-down: Here again, slow your pace down during the last few minutes of exercise. This lets your heart rate slow down gradually.

**Daily activities recommended after discharge**

In addition to your exercise routine, you will also be doing your usual daily activities. You may be asking yourself “How long until I can get back to my old activities?” This is a good question. You need to understand that you won’t be returning to your normal activities directly after leaving the hospital. But as you gradually progress, you will be able to tolerate more activity at a safe level.

**Activities that are recommended include**

- ✓ Personal Care: hygiene
- ✓ Light household or workshop tasks
- ✓ Activities on your exercise plan: walking, cycling, etc.
- ✓ A gradual return to special activities and hobbies

The chart on page F5 will help you in selecting appropriate activities during your recovery. Each activity is given a MET level.

1 MET =

The amount of work the body performs at rest

The chart lists the activities into four categories: light activities, light-moderate activities, moderate activities, and moderate-heavy activities.
Stretching Guidelines

- Try to perform each stretch at least once per day. Always perform stretches before and after your exercise session.
- Always stretch with a slow, steady motion. Do not bounce or jerk your body! Just stretch until you feel a slight pull and then hold.
- For best results, hold each stretch 10 to 20 seconds.
- Do not hold your breath while stretching.

Stretching is an important part of your exercise program. It can reduce muscle soreness, prevent injuries and increase flexibility. Stretching is extremely important after heart surgery to assist in relieving muscle tightness and improving your range of motion. Stretching can be performed many times throughout the day. If you experience any discomfort while stretching, stop! Then, try moving on to the next stretch.
**Activities and Met Levels**

<table>
<thead>
<tr>
<th>Light Activities (1-2 Mets)</th>
<th>Moderate Activities (3-4 Mets)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Self Care</strong></td>
<td><strong>Self Care</strong></td>
</tr>
<tr>
<td>Lying, sitting</td>
<td>Warm shower, standing</td>
</tr>
<tr>
<td>Tub bath, sitting</td>
<td></td>
</tr>
<tr>
<td>Eating</td>
<td></td>
</tr>
<tr>
<td><strong>Work/home</strong></td>
<td><strong>Work/Home</strong></td>
</tr>
<tr>
<td>Writing</td>
<td>Walking 3 mph</td>
</tr>
<tr>
<td>Typing</td>
<td>Mowing lawn (riding)</td>
</tr>
<tr>
<td>Folding wash</td>
<td>Grocery shopping, vacuuming</td>
</tr>
<tr>
<td></td>
<td><strong>Recreation</strong></td>
</tr>
<tr>
<td></td>
<td>Sexual activity</td>
</tr>
<tr>
<td></td>
<td>Slow dancing</td>
</tr>
<tr>
<td></td>
<td>Golfing with pull cart</td>
</tr>
<tr>
<td><strong>Light-Moderate (2-3 Mets)</strong></td>
<td><strong>Moderate-Heavy (5-8 Mets)</strong></td>
</tr>
<tr>
<td><strong>Self Care</strong></td>
<td><strong>Self Care</strong></td>
</tr>
<tr>
<td>Warm shower, sitting</td>
<td>Hot shower, standing</td>
</tr>
<tr>
<td>Dressing</td>
<td>Climbing Stairs</td>
</tr>
<tr>
<td></td>
<td><strong>Work/Home</strong></td>
</tr>
<tr>
<td></td>
<td>Mowing lawn (walking)</td>
</tr>
<tr>
<td></td>
<td>Hoeing, digging</td>
</tr>
<tr>
<td></td>
<td>Chopping wood</td>
</tr>
<tr>
<td></td>
<td>Remodeling</td>
</tr>
<tr>
<td><strong>Recreation</strong></td>
<td><strong>Recreation</strong></td>
</tr>
<tr>
<td>Playing Cards</td>
<td>Dance-aerobic</td>
</tr>
<tr>
<td>Knitting</td>
<td>Biking outdoors</td>
</tr>
<tr>
<td>Reading in a chair</td>
<td>Golfing, carrying clubs</td>
</tr>
<tr>
<td></td>
<td>Hunting</td>
</tr>
</tbody>
</table>

**Remember:** The amount of energy it takes to perform these activities is based on many factors. Consider the following: your current fitness level; weather conditions; familiarity and efficiency in performing the task; and speed at which you perform the activity. The ability to PACE yourself during a task is of key importance! You can do a higher level of activity if you’re only doing it for a short amount of time, at a slower pace.
SECTION 3

❤ Strategies for Conserving Energy

This section is designed to help you conserve energy and decrease the workload placed on your heart. These guidelines are most important early in your recovery, but some people may need them long term.

By using these techniques, you may be able to safely complete specific tasks and have more energy for other activities. In addition, there are suggestions for decreasing unnecessary stress on your heart.

Set Priorities

Decide which tasks must be done and be willing to say “NO” and/or delegate certain tasks.

Plan ahead

Avoid rushing and trying to “Beat the clock.”

Pace Yourself

Work at a relaxed, moderate speed. You’ll be surprised at your ability to get a task done when you slow down your pace. Alternate between difficult and easy tasks and divide long jobs into several shorter tasks to conserve your energy.

Rest Periods and Relaxation

Plan rest periods frequently during the day. Rest periods should be taken in a sitting position with legs elevated or in a lying position.

Body Mechanics and Work Methods

Sit while working to reduce the amount of energy a task requires. Avoid bending, stooping, and reaching to reduce fatigue. Perform tasks at the proper work height. Avoid tasks which require extended overhead arm work. Example: washing windows, hanging laundry, painting, changing light bulbs, etc.

Stand and sit erect to increase the oxygen flow to your lungs and reduce the workload on your heart. Go up and down stairs only as necessary (if you are able). Stay on that level and rest awhile before using the stairs again. Avoid using your arms to pull yourself up. Lift with your legs, not your back. When carrying objects, keep them close to your body. Avoid activities requiring continued contractions of your muscles, such as, gripping a steering wheel for prolonged periods of time, holding heavy boxes, and pushing or pulling furniture around or opening stuck windows.
**Activity Guidelines**

Watch for cardiac signs of intolerance to activity. If any of these signs occur, stop activity immediately and rest.

- Heaviness, tightness, pressure or pain in the chest, neck, jaw, or arms
- Dizziness, lightheaded feeling or fainting spell
- Shortness of breath or not able to talk while performing activity
- Extreme fatigue
- Excessive sweating
- Nausea or vomiting

**Saving Energy During Self-Care**

**Bathing and Showering**

- Sit while showering on a chair or stool
- Use water of moderate temperature for easy breathing
- To avoid bending from the waist, use cross-leg method to wash and dry feet or a long-handled scrub brush
- Avoid over exertion by taking rest periods
- Shower the night before to save energy the next morning.

**Dressing**

- Have a dressing area where all clothes can be easily reached
- Before dressing, gather all clothes, shoes, etc. or set out the night before

**Cooking**

- Organize cabinets: store frequently used items at heights between your shoulder and hip level. If this is not possible, place these items in front of the cabinets.
- Eliminate clutter. If you do not use something very often, put it in those hard to reach places.
- Gather all needed items at the beginning of meal preparation.
- Sit at the table or on a stool at the counter top to prepare food.
- Use a rolling kitchen cart to transport dishes and/or food.
- Slide heavy items on the counter top or dish up hot items from the stove rather than carrying heavy pots and pans.

**Laundry**

- Avoid having a laundry day. Spread out over several days.
- Keep soap in smaller, more manageable containers.
Activities and Exercise

✅ Use a rolling cart or ask for help to transport laundry to and from the laundry room.
✅ Sit at a table to fold clothes.
✅ If you have a clothesline, position it so that it is no higher than shoulder height.
✅ Hang clothes immediately so they don’t require ironing.
✅ If you do have to iron, do it sitting and on a day that you are not washing.

Housekeeping

✅ Make one side of the bed at a time to eliminate unnecessary steps around the bed.
✅ For chores such as dusting, vacuuming, and mopping, start at one side of the room and work your way around.
✅ Vacuuming and mopping are harder tasks to complete. Do them slowly and only for a short period of time.
✅ Make use of step-saver floor cleaners that eliminate the waxing process.
✅ For table setting, organize everything you need on a rolling cart, set one side of the table at a time and work your way around the table, use the same procedure to clear the table.
✅ Sit at the sink to wash dishes.
✅ If you don’t have a dishwasher, let dishes drip dry in the sink.

Grocery Shopping

✅ Take a list to store so that you don’t forget items as you go through the store.
✅ Use a grocery cart so you won’t have to carry items.
✅ Bag cold items together so that those are the only bags that “have to” come in.
✅ Don’t try to carry too much in at once. Use a rolling cart to help transport groceries into the house.
✅ Use a grocery store that sacks and carries groceries to your car.

Driving

✅ Consult your physician before you resume driving.
✅ Use a car with automatic transmission if available.
✅ Avoid rush hour traffic, busy streets, and driving during bad weather.
✅ On long trips, share driving and stop every hour to stretch.

Bench Work

✅ Avoid prolonged holding of tools. Stop and rest hands frequently.
✅ Use clamps to stabilize objects.
✅ Sit at a workbench whenever possible to reduce energy output.
✅ Arrange workbench whenever possible to reduce energy output.
✅ Arrange workbench so all tools are within easy reach. Get rid of items you don’t use.
Slide heavy boards and equipment or use a cart. Don’t carry them.

Make sure room is well ventilated when using paints and finishes.

**Household Repairs**
- Avoid getting into cramped positions like under a sink or in a closet.
- Sit on the floor or on a stool instead of crouching when working at a low level.
- Use a long handled roller for ceiling and high walls when painting.
- Learn to delegate household repairs if a job is difficult for you.

**Lawn Work and Gardening**
- Consult your physician about your individual limits before performing yard work.
- Avoid extremes of heat, cold, and humidity. Dress accordingly. In the summer, try to do outdoor work in the early morning or evening when it is cooler.
- Use a power mower or riding mower.
- Avoid pushing the mower up inclines.
- Use long handled trimmer for grass edges to avoid bending or crawling.
- Do not try to groom the entire lawn in one day.
- Take frequent rest breaks.

Switch positions frequently during gardening work. Use a stool for weeding.

Do not hesitate to hire outside help for strenuous yard work or delegate it to family.

**Snow shoveling**
- Elderly persons, people with hypertension and those with heart disease SHOULD NOT shovel snow or use a snow blower.
- Consult your physician before attempting any snow removal.

## SECTION 4

### Activity Restrictions

**Activity Restrictions for Individuals with Heart Disease**

*Avoid the following activities:*

1. Holding your breath. Examples: weight lifting, constipation.
2. Physical activity immediately after meals. Wait 60 minutes after eating to perform activity.
3. Reducing circulation. Example: sitting for extended periods without elevating legs to waist or heart level.
4. Smoking, alcohol or drug use. These activities reduce the amount of oxygen available and make your heart work harder.
5. Activities in extreme outdoor temperatures. (Refer to information above).
### Temperature and Weather Activity Guidelines

#### Cold Weather Precautions
- ✔ Avoid physical activity outdoors if the temperature is below 35 degrees Fahrenheit or if the wind chill makes the temperature less than 35 degrees Fahrenheit.
- ✔ Be aware of wind speed and direction before walking/exercising outdoors. Begin with the wind against you and finish with the wind to your back.
- ✔ Protect your face and mouth with a scarf or mask to avoid symptoms of shortness of breath or angina.
- ✔ Dress in layers when exercising outdoors to adjust to changes in your body temperature.
- ✔ Wear a hat/cap to prevent heat loss.

**Reminder:** Activities in extreme temperatures increase the amount of work placed on the heart and cardiovascular system. Always remember to reduce your levels of intensity when exercising in these environments.

#### Warm Weather Precautions
- ✔ Avoid temperatures above 85 degrees Fahrenheit or humidity greater than 80 percent.
- ✔ Exercise in an indoor area with air conditioning or a cool, well ventilated environment.
- ✔ Drink a minimum of 8 8-oz. glasses of water or caffeine-free beverages a day. Increasing the amount of fluids consumed will prevent dehydration, as your body can lose up to 2 liters of fluid an hour during activity in hot weather.
- ✔ Dress in light, cotton or breathable fabrics to increase the evaporation of perspiration and increase heat loss from the body.

6. Hot showers, baths or whirlpools. Extreme temperatures can place an increased workload on the cardiovascular system.
Activity Restrictions Following Surgery

1. Do not lift more than 10 pounds for the first 2 weeks after surgery. You may progress by 10 pounds every 2 weeks. Also avoid bending, pulling, pushing or straining. When getting out of a chair, do not push off with your arms. Scoot to the front of the chair and use your legs to rise out of the chair. Your breast bone (sternum) will take approximately three months to heal.

2. When sitting up, use a reclining position with legs elevated. Avoid sitting for periods of time longer than 2 hours.

3. You may resume driving when your doctor gives you permission. Avoid driving for long periods of time.

4. You may resume sexual activity in 3-4 weeks. Use positions that do not place stress on your chest incision.

Activity Restrictions Following Heart Attack

1. Avoid pulling, pushing, or lifting more than 10 pounds unless your doctor allows you to lift more.

2. Your doctor may restrict you from driving for two weeks.

Activity Restrictions Following Angioplasty (PTCA) and/or Stent Placement

1. Take it easy for the first 2-3 days following the procedure. Avoid pulling, pushing or lifting more than 10 pounds.

Going to Higher Altitudes for Heart Patients General Guidelines

At higher altitudes the air pressure is lower making it harder for your lungs and heart to provide oxygen to your body. This can lead to shortness of breath and fatigue. If you have symptoms at home, the symptoms will likely be worse when you travel to higher altitudes. If you have angina (heart pain) due to blocked heart arteries, higher altitudes may cause it to be more often, last longer, and come on with less activity.

If travel plans include higher altitudes:

- Know the specific altitude where you will be staying.
- Know what activities are planned. If is very important to limit your activities to those you feel okay doing at home. Riding in a car or train may be well tolerated; but hiking, walking distances, canoeing or skiing may not be.
- Keep your plans flexible enough that if you have problems you can change your plans/location.

The body can adapt to higher altitudes with time. Some of the changes
occur within 48 hours, but it can take up to three months to fully adapt. To help you adapt, the doctor may suggest you spend one or two days at a lower altitude than your final destination.

Prepare in advance for your trip by:
✔ Plan activities that you do at home easily. Know the activities that you don’t do regularly.
✔ If you feel your symptoms have worsened (shortness of breath, chest pain) you should be seen by your doctor prior to your trip.
✔ Take your medicine as prescribed on your trip. A fresh supply of nitroglycerin tablets/spray is also important to take if you have coronary artery disease.
✔ Update and take with you a medicine and drug allergy list.
✔ Locate the closest hospital in the area where you will be staying.

Even patients without medical illness can have symptoms at higher altitudes. These may include altitude sickness which often presents as a headache, severe breathing problems or dizziness. Dehydration at higher altitudes is also common because of decreased humidity. One needs to make sure that one drinks fluid while at higher altitudes. Sunburn, due to being closer to the sun, is also common at higher altitudes. Use sun block to avoid sunburn.

Each person is different and needs to discuss with their doctor the specific concerns based on their medical problem/destination/activity plans. It is unknown how the altitude will affect you. Your travel party must accept that if you have heart symptoms, your plans may need to change. Listen to your body.

SECTION 5

❤ Monitoring Activity Levels

In this section you will learn how to monitor yourself when being active.

It is important to exercise at a comfortable pace. You should be able to carry on a conversation while exercising. In addition, there are three more ways to assist you in monitoring your activity level: taking your pulse; rating your perceived exertion; and listening to your body’s cues.

Taking Your Pulse

Taking your pulse or heart rate will tell you how hard your heart is working. Your heart rate is the number of times your heart beats in a minute. If your doctor has given you a Target Heart Rate, you can adjust your activity level accordingly.

Note: A majority of heart patients are on medications that will alter your heart rate. Therefore, using your heart rate for monitoring your level of activity might not be the best way.
Finding a pulse

Two ways to determine your heart rate:

1. The **wrist pulse** located on the thumb-side can be felt using your index finger and middle finger of your opposite hand. (Do not use thumb). Apply a light, firm pressure to the area between the bone and the tendons.

2. The **carotid pulse** in your neck can be found on either side of your windpipe. Place your finger in the groove between the windpipe and the neck muscle. Be careful not to press too firmly!

   **Count the number of beats you feel in a 10-second period.** The conversion table will help you determine your heart rate for 1 minute.

### Conversion Table

For Heart Rates

Count your pulse for 10 seconds and multiply that number by 6.

<table>
<thead>
<tr>
<th>Beats in 10 seconds</th>
<th>Beats in 1 minute</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>48</td>
</tr>
<tr>
<td>9</td>
<td>54</td>
</tr>
<tr>
<td>10</td>
<td>60</td>
</tr>
<tr>
<td>11</td>
<td>66</td>
</tr>
<tr>
<td>12</td>
<td>72</td>
</tr>
<tr>
<td>13</td>
<td>78</td>
</tr>
<tr>
<td>14</td>
<td>84</td>
</tr>
<tr>
<td>15</td>
<td>90</td>
</tr>
<tr>
<td>16</td>
<td>96</td>
</tr>
<tr>
<td>17</td>
<td>102</td>
</tr>
<tr>
<td>18</td>
<td>108</td>
</tr>
<tr>
<td>19</td>
<td>114</td>
</tr>
<tr>
<td>20</td>
<td>120</td>
</tr>
<tr>
<td>21</td>
<td>126</td>
</tr>
<tr>
<td>22</td>
<td>132</td>
</tr>
<tr>
<td>23</td>
<td>138</td>
</tr>
<tr>
<td>24</td>
<td>144</td>
</tr>
<tr>
<td>25</td>
<td>150</td>
</tr>
</tbody>
</table>

**Note:** You may need to pause during exercise to be able to count your pulse. Your pulse rate will begin to slow down when you stop your activity. So, you should find your pulse as quickly as possible.
Rating Your Perceived Exertion

Perceived exertion is the total amount of exertion or physical fatigue you feel during activity. You should determine this rating based on all bodily feelings (breathing, muscle fatigue, weakness, etc.). Try to estimate as accurately as possible.

When you exercise, your perceived exertion should range from 11 to 14. You should not exercise at a rating of “hard” or 15. If so, reduce your activity level.

6
7 Very, very light Warm-up
8 and
9 Very light Cool-down

10
11 Fairly light Exercising
12
13 Somewhat hard
14
15 Hard
16
17 Very hard Overdoing
18
19 Very, very hard
20

 Symptoms
Listening to your body is the safest way to measure your activity level.

 Signs and symptoms of overexertion
✓ Excessive shortness of breath
✓ Excessive sweating
✓ Nausea
✓ Angina, chest discomfort, irregular heart beat
✓ Lightheadedness, dizziness
✓ Excessive fatigue

These symptoms are all good reasons to slow down or maybe even stop. You should seek medical advice if these symptoms occur.
SECTION 6

❤ Benefits of Exercise

As a cardiac patient, it is important that you understand the benefits of regular exercise. Regular, brisk physical activity can help reduce your risk of having another heart attack. Regular exercise can also improve the quality of your life and how you feel. Exercise can help you do more without the chest discomfort or shortness of breath that you may have experienced.

Listed below are a variety of reasons why exercise is beneficial to you.

Improved fitness
- ✔ Greater stamina
- ✔ Increased strength and flexibility
- ✔ Helps heart and lungs be more efficient

Reduced risk of further heart disease
- ✔ Improves blood cholesterol levels
- ✔ Lowers blood pressure
- ✔ Decreases body weight
- ✔ Lowers blood sugars
- ✔ Lowers stress and improves coping
- ✔ Improves ability to sleep

Exercise plays an important role in your Heart Healthy Lifestyle! And, exercise also plays an important role in many other health concerns, including cancer, arthritis, diabetes and osteoporosis.

SECTION 7

❤ Exercise Options

There are many exercise options available to you. Ask yourself the following questions in order to determine what options best meet your needs.
- ✔ Would I benefit from a supervised

Consider: You may also choose to join a Health Club or exercise in a Home Exercise Program. The activity guidelines here will assist you in beginning an exercise program. Remember to talk with your physician when starting activities that are not addressed here.

For more information about your exercise program, contact your the cardiac rehab staff.
exercise program?

✓ Do I prefer to exercise outdoors or in my home?
✓ What exercise equipment options do I have available?
✓ Would I benefit from peer support?
✓ What type of exercise program fits my lifestyle and schedule?
✓ Do I have additional education needs?

Answers to the above questions will determine if you would benefit from a supervised outpatient cardiac rehabilitation program or an independent home exercise program.

Outpatient Phase II Rehabilitation

Outpatient Phase II Rehabilitation begins shortly after your hospital discharge and usually continues until your activity goals have been achieved. A Phase II program will include monitoring of heart rate, rhythm, blood pressure, and symptoms. You will receive instruction in your exercise program. In addition you will have the chance to learn lifestyle modification through educational classes.

Please talk with your cardiac rehabilitation staff about entering a program like this.

After the Phase II program, you can enter the maintenance phase of cardiac rehabilitation or Phase III. The cardiac rehabilitation staff will help find a site that offers this program in your area.

SECTION 8

❤ How Do I stay Motivated?

Staying motivated to exercise will be the hardest thing you do. But it is the most important!

✓ Have variety in your exercise routine.
✓ Select exercise you enjoy!
✓ Make exercise a part of your daily routine.
✓ Exercise with a partner!
✓ Select a time of day that works with your schedule.
✓ Listen to music, read, or watch TV while exercising.
✓ Use exercise as a “Time-Out” in a stressful day.
✓ Chart your exercise on a calendar!
✓ Join an exercise group or class.

Note: Try not to miss more than two days of exercise in a row. If you stop for awhile, restart at a slower pace and for a shorter length of time.
Recovery following a heart attack or heart surgery is an emotional as well as a physical process. In this chapter common feelings experienced during your recovery and suggestions for how to cope will be presented.

SECTION 1

Common Emotions

Feelings of fear, anger, and sadness are common when a person has been diagnosed with heart disease. It is normal to worry that your body will not be the same or to have fears of the future.

You may feel helpless as family members become what you consider overprotective. This may cause you to feel put down or feel like a cripple. Remember they too have been through a frightening time. Try to understand one another and share what you are feeling.

How you deal with these emotions is one of the most important parts of your recovery. Thinking positive thoughts will help you to overcome difficult times and to regain confidence. The first step is to accept the fact that you have heart disease. Then find out what you can do to make positive lifestyle changes in order to gain control of heart healthy living.
SECTION 2

★ Feelings

Sometimes people find it difficult to identify their feelings. This can cause frustration when you are trying to communicate with your loved one. The charts below are provided to assist you and your significant other to identify your current feelings.

<table>
<thead>
<tr>
<th>My Feelings (patient)</th>
<th>My Feelings (significant other)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concerned</td>
<td>Concerned</td>
</tr>
<tr>
<td>Angry</td>
<td>Angry</td>
</tr>
<tr>
<td>Inadequate</td>
<td>Inadequate</td>
</tr>
<tr>
<td>Useless</td>
<td>Useless</td>
</tr>
<tr>
<td>Restless</td>
<td>Restless</td>
</tr>
<tr>
<td>Nervous</td>
<td>Nervous</td>
</tr>
<tr>
<td>Irritable</td>
<td>Irritable</td>
</tr>
<tr>
<td>Foolish</td>
<td>Foolish</td>
</tr>
<tr>
<td>Old</td>
<td>Old</td>
</tr>
<tr>
<td>Hurt</td>
<td>Hurt</td>
</tr>
<tr>
<td>Worthwhile</td>
<td>Worthwhile</td>
</tr>
<tr>
<td>Desirable</td>
<td>Desirable</td>
</tr>
<tr>
<td>Relieved</td>
<td>Relieved</td>
</tr>
<tr>
<td>Loved</td>
<td>Loved</td>
</tr>
<tr>
<td>Hopeful</td>
<td>Hopeful</td>
</tr>
<tr>
<td>Afraid</td>
<td>Afraid</td>
</tr>
<tr>
<td>Anxious</td>
<td>Anxious</td>
</tr>
<tr>
<td>Frightened</td>
<td>Frightened</td>
</tr>
<tr>
<td>Trapped</td>
<td>Trapped</td>
</tr>
<tr>
<td>Uptight</td>
<td>Uptight</td>
</tr>
<tr>
<td>Harassed</td>
<td>Harassed</td>
</tr>
<tr>
<td>Worried</td>
<td>Worried</td>
</tr>
<tr>
<td>Tense</td>
<td>Tense</td>
</tr>
<tr>
<td>Uncomfortable</td>
<td>Uncomfortable</td>
</tr>
<tr>
<td>Disgusted</td>
<td>Disgusted</td>
</tr>
<tr>
<td>Guilty</td>
<td>Guilty</td>
</tr>
<tr>
<td>Embarrassed</td>
<td>Embarrassed</td>
</tr>
<tr>
<td>Empty</td>
<td>Empty</td>
</tr>
<tr>
<td>Wrung-out</td>
<td>Wrung-out</td>
</tr>
<tr>
<td>Exhausted</td>
<td>Exhausted</td>
</tr>
<tr>
<td>Sad</td>
<td>Sad</td>
</tr>
<tr>
<td>Confused</td>
<td>Confused</td>
</tr>
<tr>
<td>Helpless</td>
<td>Helpless</td>
</tr>
</tbody>
</table>
SECTION 3

❤️ Role Reversal

Prior to this event, most patients led very busy lives with long work hours, meetings, and travel. Your level of activity will be limited initially. Role reversal becomes an issue as other family members come and go, assuming temporarily the duties that once belonged to you.

This reversal of roles may cause you to feel guilty and useless. Hospital bills and lack of income may cause you to feel hopeless. You might even wonder if the world would be better without you. While these feelings are normal and natural, they are temporary. It is also normal to move past feeling this way as you begin to resume your usual activities.

The healing period may seem to pass slowly, but once healing has occurred, you can gradually resume your normal routine. Hopefully you will have made healthy changes in your routine that make heart healthy living your daily choice. Every step you can take to lessen your risks is a positive step toward controlling your future wellness and happiness.

SECTION 4

❤️ Intimacy & Communication

Acknowledging and admitting the feelings that you are experiencing is the place to begin. Communication is extremely important at this time. Close, intimate relationships are built on the open sharing of feelings. This openness can be lost with the stress and worry going on in your life. Spend time listening to one another.

Take turns talking. Be honest and hear each other’s concerns. Do not interrupt or criticize. Remember this is a difficult emotional time for everyone; you, your family, and your friends.

Talker/Listener TIPS

1. Choose a time and place to talk.
2. As the talker, share three feelings; starting with “I feel...”
3. As the listener; concentrate on verbal and nonverbal messages.
4. As the listener; concentrate on what is being said, not on what you are going to say.
5. When the talker is finished; count to five.
6. Listener then shares their understanding of what was said.
7. Reverse the roles.
SECTION 5

♥ Depression

It’s a natural reaction during your recovery to feel down occasionally. Feeling unhappy is a normal reaction to loss or other unpleasant experiences. But when these feelings are severe or keep coming back, depression may be present. Depression is an illness that can affect a person’s body as well as the mind. It affects the way you feel, think, and act.

**Common Signs of Depression**

✔ Feel empty, worthless, hopeless
✔ Unable to find pleasure in anything
✔ Loss of warm feelings for family and friends
✔ Difficulty concentrating
✔ Change in appetite
✔ Cry easily
✔ Irritability about matters once taken in stride
✔ Change in sleep pattern
✔ Suicidal thoughts

Depressed people try to pretend that nothing is wrong, because they don’t understand what’s going on inside them. It is important to talk about your feelings to a family member or friend. Depression is not a sign of weakness or lack of self-control. It is an illness that can be treated so that you can experience the fullness and joy of life.

SECTION 6

♥ Stress

Stress is about how you react to the events that cause changes in your life. Stress, also, is a natural reaction of the body to any demands placed upon it. These demands may be pleasant (such as the birth of a baby) or unpleasant (like losing your checkbook). Although physical demands such as removing yourself from danger are certainly “stressors”, psychological demands (worry, embarrassment, deadlines, getting a promotion) are seen as the major stressors of modern times. How successfully we deal with our daily stress determines to a large part our general health and happiness.

To manage stress, you need to know what causes your stress and how it makes you feel. When under stress, adrenaline flows, breathing speeds up, the heart rate increases, blood pressure rises, and blood-clotting mechanisms are activated to protect the body against possible injury.

The first step in managing stress is identifying the stressors in your life. What is stressful to one person, may be relaxing to another. Each person’s stressors are unique to that individual.

**Possible stressors include:**

✔ Computers
✔ Traffic or trains
✔ New job or loss of job
Parenting issues
Running late
Retirement
Disorganization
Illness
Over-scheduling
Telemarketers
Car trouble

The next step in stress management is changing your response to a stressful event. Situations are rarely stressful in and of themselves. Stress is something we create in our minds by how we perceive a situation. An example of this follows:

Amy was leaving work one afternoon to go to a dentist appointment. When she got to her car she found that she had a flat tire.

Response #1: Amy was angry that this had happened. Now she wouldn't be able to get to the appointment on time and she didn't know how to change a tire, so she had to call someone to do it for her. Her husband was out of the office when she called for his assistance. Amy yelled at him when he got home from work that evening about his whereabouts. She then yelled at her son about why he could not do his homework himself as she slammed the refrigerator door closed.

Response #2: Amy was not happy that she had a flat tire, however she was relieved that the car was in the parking lot and that she wasn’t stranded on the side of the road. Also in assessing her situation, she was glad that it was a nice sunny day, and thank goodness it wasn’t raining. She also thought about the missed dental appointment and realized that she didn’t want to have her teeth cleaned that day anyway. She called her husband at work for assistance but he was out of the office. “Oh, well,” Amy shrugged, “work requires him to be out of the office a lot.” She went back to work and found a co-worker who was happy to change the tire for her. That evening when her son asked for help with his homework, Amy gave him a hug and said, “I had trouble with this too when I was in school. Let’s see if we can figure it out.”

Obviously, you can tell that Response #2 was a much healthier and less stressful response to that particular situation. Amy’s anger was misdirected. She was letting her response to a stressful situation ruin both her and her family’s evening.

Stress Management Coping Skills

- Do something you enjoy every day
- Exercise
- Take one day at a time
- Balance work and relaxation
- Learn to say “no”
- Be a positive thinker
- Lower your expectation
- Set realistic goals
- Get adequate sleep
Changing behaviors is a process that takes time and lots of practice. You may not be able to control all the events in your life but you can change your emotional response!

The following list is for you to identify your own personal stress symptoms. As you become more aware of how you react to stress, you will then be able to identify stressful situations earlier. Stress management skills can then be utilized.

My Stress Symptoms
___ Restlessness, fidgeting
___ Feeling exhausted, fatigued
___ Nailbiting
___ Withdrawal from people
___ Anger, irritable, resentful
___ Aggression
___ Can’t concentrate
___ Sleeping too much, or not enough
___ Grind teeth
___ Back tightens up or aches
___ Headaches
___ Face feels hot, flushed
___ Neck, shoulders tighten, ache
___ Heart beats faster
___ Stomach upset, nausea
___ Legs get shaky or tight
___ Head or feet feel cold or sweaty
___ Tapping fingers, feet
___ Crying
___ Undereating; overeating
___ Chain smoking
___ Hair twisting; tossing
___ Desire to run away
___ Decreased productivity

50 Proven Stress Busters
1. Get up 15 minutes earlier in the morning to avoid the morning mishaps that start your day with stress.
2. Don’t put up with something that doesn’t work right. If your toaster or shoelaces are a source of constant aggravation, fix them or get a new one!
3. Simplify, simplify, simplify!
4. Schedule a realistic day. Allow plenty of “breathing time” between appointments.
5. Forget about counting to 10. Count to 100 before doing something or saying anything that could make matters worse.
6. Prepare for the morning the evening before. Save time by preparing lunches, or laying out your clothes.
7. Be prepared to wait. A magazine can make a wait for a train or an appointment much more pleasant.
8. Make friends with non-worriers. Nothing can get you into the habit of worrying faster than associating with worriers.
9. Take a refreshing bath or shower to relieve tension.
10. Stand up and stretch now and then if you have to sit for a long period of time.
11. Select an environment (work, home, leisure) that matches your personal needs. If you hate desk jobs, don’t accept a job that requires you to sit at a desk all day.
If you hate to talk politics, don’t associate with people who love the subject.
12. **Learn to live** one day at a time.
13. **Eliminate destructive talk**! “I’m too old to.....”, or “I’m too fat to....”
14. **Be flexible**. Some things are worth not doing perfectly, and some issues are best resolved with compromise.
15. **Have a forgiving view of things**. Accept the fact that we live in an imperfect world.
16. **Be optimistic**. Most people are doing the best they can.
17. **Don’t rely on your memory**. Writing a note only takes a moment.
18. **Make duplicates of all keys**. (And label them!) Bury a house key in a secret spot and carry an extra car key in your wallet.
19. **Relax your standards**. The world will not come to an end if the grass doesn’t get mowed this weekend.
20. **Count your blessings**. For every one thing that goes wrong, there are probably 50 to 100 blessings.
21. **Wear earplugs**. If you need to find some quiet and junior needs to practice his tuba, pop in some earplugs....and smile.
22. **Get enough sleep**! “Sometimes I wake up grumpy, and sometimes I let him sleep.”
23. **Organize your things** so that you always know exactly where things are.
24. **Every day do something** you really enjoy.

25. Add an ounce of love to everything you do.
26. **Talk it out**. Discussing a problem with a trusted friend can clear confusion.
27. **Use your weekend time for a change of pace**. If your work week is fast-paced and full of people and deadlines, seek peace and solitude during your days off.
28. **Take care of today the best you can**, and the tomorrows and yesterdays will take care of themselves.
29. **Do one thing at a time**. When you are busy with a project, concentrate on doing that project, and forget everything else you have to do.
30. **Allow yourself time**, every day, for privacy, quiet and thinking.
31. **If an unpleasant task faces you**, do it early in the day and get it over with.
32. **Learn to delegate** responsibilities to others.
33. **Practice preventive maintenance.**
   Your car, appliances, home and relationships will be less likely to break down “at the worst possible moment.”

34. **Eliminate or restrict** the caffeine and sugar in your diet.

35. **Whatever you want to do tomorrow, do today;** and whatever you want to do today, do now! Procrastination is stressful.

36. **Plan ahead!** Don’t let the gas tank get below one-quarter tank, and don’t wait until you are down to the last stamp to buy more.

37. **Ask questions.** Take a few moments to repeat back directions, or what you think someone wants you to do. This can save you hours!

38. **Say “no” to extra projects,** social activities, and invitations that you know you do not have the time or energy for.

39. **Unplug your phone,** if you want some time without interruption.

40. **Turn “needs” into preferences.**
   Our basic physical needs are food, water and keeping warm and dry. Everything else is a “preference.” Don’t get attached to preferences.

41. **Check your breathing** throughout the day, and before, during, and after a high-pressure situation. If you find your stomach muscles are knotted and your breathing is shallow, relax all your muscles and take several deep, slow breaths. Note how when you’re relaxed—both your abdomen and chest expand when you breathe. When feeling stressed, most people breath short, shallow breaths. Stale air is not expelled, oxygen doesn’t get to the tissues, and muscle tension results.

42. **Write down your thoughts and feelings** in a journal. This will help you put things into perspective.

43. **Try the following yoga technique when you feel the need to relax.**
   Inhale deeply through your nose to the count of eight. Then with lips puckered, exhale slowly through your mouth to the count of sixteen. Concentrate on the long sighing sound and feel the tension dissolve.

44. **Do something for someone else!**

45. **Focus on understanding** rather than on being understood, and loving rather than being loved.

46. **Do something that will improve your appearance.** Looking better can help you feel better.

47. **Accept the fact that you don’t have to own everything you admire!**

48. **Laugh out loud and often:** this is a great way to lighten your mood.

49. **Break down large jobs** into smaller ones.

50. **Keep a calendar** with everyone’s appointments listed in one place.

**Change**

Change, whether important or trivial, planned or unplanned, makes demands upon our energy for coping and adapting. When we allow too much change into our lives at one time and we aren’t able to cope with the stress, illness can result. With your recent cardiac event, you may have been asked to
make some changes in your lifestyle. This may cause you some stress. Use the tips below to help you deal with this in a positive way.

✔ Give yourself time to bounce back
✔ Expect and recognize the anxiety that may accompany change
✔ Maintain a normal routine as much as possible
✔ Believe that change can be positive
✔ Choose to be proactive rather than reactive

**Worry**

Webster’s dictionary defines *worry* as “something you can’t do anything about.” Whereas, a *concern* is something that you can have an effect on. It is important for you to differentiate the difference between “worry” and “concern”.

For example: You are worried that you will be involved in a plane crash. Is there anything that you personally can do to prevent that from happening? Obviously not, so why worry?

On the other hand, what if you are worried about getting cancer. There are many things that you can choose to do to reduce the chances of this happening. Eating right, exercising, and having regular screenings and check-ups from your physician are just a few. With this example, you have switched a *worry* to a *concern*!

*If you find yourself frequently worrying, ask yourself the*

**Use the following tips to help you worry less!**

✔ Look at the situation as a concern and decide what action you can take
✔ Look at the bright side and see humor when possible
✔ Believe in a higher power
✔ Keep active with hobbies and other interests
✔ Think positive

**Anger**

Keeping anger inside can create many different health problems. However, venting anger can ruin a relationship. If you are prone to “bottling up” or “blowing up”, maybe the following tips can help.

✔ Make a list of things you are angry at and describe the situation with the injustices and the possible solutions. Reread the list a day or two later and see if it helps you put things into perspective.
Be aware of the word “should” in your vocabulary. Sometimes we get angry because people don’t act like they “should”. It is unfair to think that everyone should live up to our own personal standards.

Exercise!! It is a great way to give the body a physical release.

Don’t think of a conflict as a win-lose situation. Focus instead on solving the problem rather than “who is right”.

Remember that everyone makes mistakes—even you.

Be willing to admit to your own mistakes. Know that you may have unintentionally contributed to the problem.

Avoid mentions of the past.

Timing is everything! Know when you should postpone your discussion because emotions are getting in the way of good communication.

**Relaxation Techniques**

Relaxation techniques can help you manage your stress. They help you learn about your body, how it reacts, and what you can control. Practiced on a daily basis, these techniques can give you increased energy and a sense of well-being.

The following relaxation techniques require a quiet setting. They are best practiced for 10-20 minutes daily. Set aside a regular time during each day for relaxation. Once you recognize your stress warning signs, you can use these techniques to help you calm down. These techniques are also useful prior to an anticipated stressful time.

**Relaxed Breathing**

1. Sit comfortably in a chair, loosen any restrictive clothing, uncross arms and legs.
3. Feel your chest and stomach rise and fall with each breath. Say the word “relax” each time you breathe out.
4. If your thoughts drift, have them, and then focus back to your breathing and say “relax”.

**Progressive muscle relaxation**

1. Sit comfortably in a chair, loosen any restrictive clothing, uncross arms and/or legs.
2. Close your eyes and take a few deep, slow breaths.
3. Beginning with your feet and working up the body, you will be tightening and relaxing muscle groups.
4. Tighten or flex your feet and lower legs, hold the tight feelings for a few seconds and then relax those muscles.
5. Be aware how your muscles feel when tense and relaxed.
6. Continue tensing and relaxing your calves, thighs, back, shoulders, arms, head and neck.
7. This exercise should take about 15-20 minutes.

**Guided imagery**

The idea behind this exercise is to induce relaxation by visualizing a relaxing scene.

1. Close your eyes and relax, become aware of your breathing, slow and easy.
2. Begin thinking about a relaxing, comforting place. You may be relaxing on a beach and can feel the sun on your body.
3. Let your mind capture the relaxing place.
4. Try to picture what you would see, hear and smell.
5. Let yourself be there and enjoy it.

**SECTION 8**

**Resuming Sexual Activity**

Concerns about resuming satisfying sex may include fear of not being able to perform, fear that sex will put too much stress on the heart, even fear of dying. While the fear is real, the incidence of death is not supported in medical research. Incisions following bypass surgery may affect sexual attractiveness or body image. Stress, worry and tiredness can even affect our desire for sex.

Intercourse is only one part of being intimate. Don’t push yourself into sex before both of you are ready. Remember to hug, kiss, and touch first to help you both feel close. Then, once you have shared your concerns and you both feel ready for sex, start slowly.

If you have had heart surgery, know that your incisions won’t open and your breastbone won’t come apart during intercourse. You should try positions that put less strain on your chest. Avoid twisting movement and positions that use the arms for support for the first 4-6 weeks. Plan at least a 20 minute rest following intercourse.

Physical demands of sexual activity are equal to the energy it takes to climb two flights of stairs. Sexual foreplay in a relaxed place helps you to have a more gradual increase in
your heart rate and blood pressure. Orgasm, the period during which the heart works hardest, lasts about 15-20 seconds.

**Hints**
- Choose a relaxed, quiet place with a comfortable room temperature
- Be rested; choose when you wake up in the morning or after a nap
- Remember that you don’t have anything to prove...take your time.
- Wait an hour after eating, exercising or bathing
- If you have angina; stop and take a nitro. If the angina goes away, you may resume sex.
- Do not use Nitroglycerin if you have used any of the erectile dysfunction drugs (i.e. Viagra, Levitra, Cialis). Go to the emergency room if you have angina and have used any of these drugs.

---

**Attitude**

The longer I live, the more I realize the impact of attitude on life. Attitude, to me, is more important than facts. It is more important than the past, than education, than money, than circumstances, than failure, than success, than what other people say or do. It is more important than appearance, giftedness or skill. It will make or break a company ... a church ... a home. The remarkable thing is we have choices every day regarding the attitude we will embrace for that day. We cannot change our past ... we cannot change the fact that people will act in a certain way. We cannot change the inevitable. The only thing we can do is play on the one string we have, and that is our attitude. I am convinced that life is 10 percent what happens to me and 90 percent how I react to it.

— by Chuck Swindoll
In This Chapter

❤ General Guidelines ..........H1
❤ Angiotensin Converting Enzyme (ACE) Inhibitors ......................H4
❤ Angiotensin Receptor Blockers ..................................H5
❤ Antiarrhythmics .............H6
❤ Anticoagulants ................H7
❤ Antiplatelets ..................H9
❤ Beta Blockers ..............H10
❤ Calcium Channel Blockers ..................................H12
❤ Digitalis ................................H13
❤ Diuretics ........................H14
❤ Combination Drugs .......H16
❤ Lipid Lowering Agents ..............H16
❤ Nitrates ........................H19
❤ Potassium Supplements ..........H22
❤ Pain Relievers ............H23
❤ Over-The-Counter Medications ..................H24

The medicines that you have been given are an important part of the treatment plan. This chapter provides guidelines and information about many heart medications.

It is important for you to follow the medication regimen your doctor has prescribed. Let your doctor or the Cardiac Rehab staff know if you have any concerns about taking your medications.

SECTION 1

❤ General Guidelines For Taking Medication

The following guidelines are meant to help prevent mistakes in taking medication. Please follow them carefully.

✔ Never take medication in the dark.

✔ Always read the labels on your medication bottles.

✔ Take exactly as ordered by your doctor. Do not skip doses or take extra. Bad effects can happen from taking too much or too little of a medication.

✔ Do not give your medication to someone else and do not take any medication not prescribed for you.

✔ Make sure to tell all doctors or
dentists what medications you are taking.

- Some medications should be taken with food and some should be taken on an empty stomach. Know how your medication needs to be taken.
- If you are taking a long-acting or sustained release form of a medication, you must swallow it whole. Do not break, chew, or crush before swallowing.
- For liquid medications use a measuring spoon or specially marked device. Do not use your silverware.
- Check with your doctor or pharmacist before taking any over-the-counter or non-prescription medications.
- Know what side effects or reactions to report to your doctor.
- Always carry a list of medications with you. Include the name, strength, and dose of both prescription and non-prescription medications, including natural or herbal drugs. Also include if you have any allergies and the reaction. This can be very important in an emergency. The Cardiac Rehab staff can provide you with a medication wallet card and help you fill it out.
- Refill your medication before you are completely out. Plan ahead for weekends and holidays.
- Have all your prescriptions filled at the same pharmacy. This will allow your pharmacist to better screen for drug interactions.
- If you are worried you might forget to take your regular medicine, a medicine chest (pillbox) can help you remember when to take your medication.

What you should know about each of your medications
1. Name & strength of each medication.
2. Why are you taking each medication?
3. How much and how often do you need to take it?
4. How long will you need to take it?
5. Possible side effects or reactions. What do you do if side effects occur?
6. Does the medication interact or interfere with any of your other medicines, over-the-counter products or alcohol?
7. Are there any special instructions?
8. How should you store your medication?
9. What do you do if a dose is missed?

CAUTION
Do not discontinue your medications without contacting your doctor, even if you feel better.
Grapefruit Juice/Drug Interactions

Grapefruit juice can interact with some prescription medications. If you are taking any of the following medications, it is recommended that you decrease or eliminate grapefruit in your diet.

**Medications that can Interact with grapefruit juice**

<table>
<thead>
<tr>
<th>Medication name</th>
<th>Possible effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diazepam (Valium)</td>
<td>Increased sedation</td>
</tr>
<tr>
<td>Alprazolam (Xanax)</td>
<td></td>
</tr>
<tr>
<td>Triazolam (Halcion)</td>
<td>Increased or prolonged sedation</td>
</tr>
<tr>
<td>Lovastatin (Mevacor)</td>
<td>Headaches, muscle pain</td>
</tr>
<tr>
<td>Atorvastatin (Lipitor)</td>
<td>gastrointestinal complaints</td>
</tr>
<tr>
<td>Simvastatin (Zocor)</td>
<td></td>
</tr>
<tr>
<td>Amlodipine (Norvasc)</td>
<td>Increased adverse effects</td>
</tr>
<tr>
<td>Felodipine (Plendil)</td>
<td></td>
</tr>
<tr>
<td>Nicardipine (Cardene)</td>
<td></td>
</tr>
<tr>
<td>Nifedipine (Procardia, Adalat)</td>
<td></td>
</tr>
<tr>
<td>Nimodipine (Nimotop)</td>
<td></td>
</tr>
<tr>
<td>Nisoldipine (Sular)</td>
<td></td>
</tr>
<tr>
<td>Verapamil (Isoptin, Calan, Verelan, Covera HS)</td>
<td></td>
</tr>
<tr>
<td>Cyclosporine (Sandimmune, Neoral)</td>
<td>Increased gastrointestinal complaints (Nausea, stomach pain)</td>
</tr>
<tr>
<td>Tacrolimus (Prograf)</td>
<td></td>
</tr>
<tr>
<td>Prednisone</td>
<td></td>
</tr>
<tr>
<td>Carbamazepine (Tegretol)</td>
<td></td>
</tr>
<tr>
<td>Estinyl Estradiol (Estiny)</td>
<td></td>
</tr>
<tr>
<td>Itraconazole (Sporonox)</td>
<td></td>
</tr>
<tr>
<td>Quinidine (Cardioquin, Quinaglute, Quinidex)</td>
<td></td>
</tr>
<tr>
<td>Caffeine</td>
<td></td>
</tr>
<tr>
<td>Viagra (Sildenafil)</td>
<td></td>
</tr>
<tr>
<td>Cialis (Tadalafil)</td>
<td></td>
</tr>
<tr>
<td>Cilostazol (Pletal)</td>
<td></td>
</tr>
<tr>
<td>Amiodarone (Cordarone)</td>
<td></td>
</tr>
<tr>
<td>Colchicine</td>
<td></td>
</tr>
<tr>
<td>Bupropion (Zyban, Wellbutrin)</td>
<td></td>
</tr>
<tr>
<td>Propafenone (Rythmol)</td>
<td></td>
</tr>
<tr>
<td>Escitalopram (Lexapro)</td>
<td></td>
</tr>
<tr>
<td>Venlafaxine (Effexor)</td>
<td></td>
</tr>
</tbody>
</table>
10. Does the medication require any monitoring (i.e. blood tests)?

Storage of Medications

- KEEP OUT OF REACH OF CHILDREN
- Store in a cool, dry place.
- Keep away from heat or sunlight.
- Keep in the original container, tightly capped. Do not mix different medications in one bottle.
- Do not remove labels, these will contain directions and any special information.
- Do not store in the refrigerator unless directed by your pharmacist or doctor.
- Do not keep in the bathroom, near a sink, or in any damp place. Heat or moisture may cause the medication to break down.
- Discard any medication that you have been instructed not to take any more or any medication that is expired.

What to do if you miss a dose?

If you’ve missed a dose, take it as soon as possible. If several hours have passed or if it is nearing the time for the next dose, DO NOT DOUBLE THE DOSE IN ORDER TO “CATCH UP,” just skip the missed dose and continue your usual schedule. If you miss more than one dose or you have questions call your doctor.

SECTION 2

❤ Angiotensin Converting Enzyme (ACE) Inhibitors

Angiotensin is a substance in the body that causes blood vessels to narrow. ACE inhibitors reduce the production of angiotensin by blocking the enzyme, angiotensin converting enzyme. This allows the blood vessels to relax, for a reduction in blood pressure and increase in blood and oxygen supply to the heart.

Uses for ACE Inhibitors include treatment of high blood pressure (hypertension), congestive heart failure, and to protect the kidneys of diabetic patients.

Examples of ACE Inhibitors

- Benazepril (Lotensin)
- Captopril (Capoten)
- Enalapril (Vasotec)
- Fosinpril (Monopril)
- Lisinopril (Prinivil, Zestril)
- Moexipril (Univasc)
- Perindopril (Aceon)
- Quinapril (Accupril)
- Ramipril (Altace)
- Trandolapril (Mavik)

Things to Remember

- DO NOT take other medications unless you discuss them with your doctor or pharmacist. This especially includes over-the-counter medications for appetite control, asthma, colds, cough, hay fever, or sinus problems since they may increase your blood pressure.
- DO NOT take salt substitutes or
medications containing potassium while taking ACE inhibitors, unless prescribed by your doctor.

ACE inhibitors may cause your body to retain potassium. Signs of too much potassium are: confusion, irregular heart/beat, nervousness, weakness, heaviness of the legs, and numbness or tingling in the hands, feet or lips. Check with your doctor if any of these signs occur.

You may become dizzy or light-headed while taking ACE inhibitors. Make sure you know how you react to this medication before driving an automobile or operating machinery. Alcohol may make this effect stronger.

Dizziness, lightheadedness, or fainting may occur if you exercise or if the weather is hot. Heavy sweating may cause you to lose too much water and lower your blood pressure. Use extra care during exercise in hot weather.

If you are taking captopril or moexipril, take on an empty stomach one hour before meals.

Possible Side Effects

- Dry cough
- Loss of taste
- Nausea or vomiting
- Headache
- Unusual tiredness
- Diarrhea
- Dizziness or lightheadedness

Skin rash

CAUTIONS

Tell your doctor if you are taking captopril or fosinopril. These medications may interfere with some medical tests.

Notify your doctor immediately if any of the following occur: fever and chills, hoarseness, trouble in breathing or swallowing, or swelling of the face, mouth, hands or feet.

SECTION 3

Angiotensin II Receptor Blockers (ARBs)

Angiotensin Receptor Blockers (ARBs) are similar to ACE Inhibitors. They block the action of angiotensin by blocking the binding of angiotensin to the receptor. This results in a relaxation of blood vessels and a reduction in blood pressure.

ARBs are used to treat high blood pressure and may have benefit in patients with congestive heart failure and to protect the kidneys of diabetic patients.

Examples of Angiotensin Receptor Blockers

- Candesartan (Atacand)
- Eprosartan (Teveten)
- Irbesartan (Avapro)
- Losartan (Cozaar)
- Olmesartan (Benicar)
- Telmisartan (Micardis)
H6 MEDICATIONS

- Valsartan (Diovan)
  Combination products with a diuretic such as hydrochlorothiazide are also available.
  - Irbesartan + Hydrochlorothiazide (Avalide)
  - Losartan + Hydrochlorothiazide (Hyzaar)
  - Valsartan + Hydrochlorothiazide (Diovan HCT)

**Things to Remember**

✔ Don’t use potassium supplements or salt substitutes containing potassium without checking with your physician first.
✔ You may take these medicines with or without food.
✔ This medication may make you dizzy or drowsy. Avoid driving, using machines, or doing anything else that could be dangerous if you are not alert.

**Possible Side Effects**

▼ Back pain
▼ Cough, stuffy or runny nose, sore throat
▼ Headache
▼ Dizziness
▼ Notify your physician if you have any of these side effects:
▼ Allergic reaction: itching, hives, swelling in face or hands, swelling or tingling in mouth or throat, tightness in chest, trouble swallowing

▼ Change in how much or how often you urinate
▼ Chest pain
▼ Fast or slow heartbeat
▼ Lightheadedness or fainting
▼ Swelling in the hands, ankles or feet

**SECTION 4**

❤ **Antiarrhythmics**

When your heart has an irregular rhythm your body may not receive all the blood and nutrients it needs. Antiarrhythmics help correct irregular rhythms and increase your heart’s efficiency.

**Examples of Antiarrhythmics**

- Amiodarone (Cordarone)
- Disopyramide (Norpace, Norpace CR)
- Dofetilide (Tikosyn)
- Flecainide (Tambocor)
- Ibutilide (Corvert)
- Mexiletine (Mexitil)
- Moricizine (Ethmozine)
- Procainamide (Pronestyl, Procan)
- Propafenone (Rhythmol)
- Quinidine (Quinidex, Quinaglute)
- Tocainide (Tonocard)

**Things to Remember**

✔ Do not miss taking a dose and do not take more than what is ordered.
✔ Take at evenly spaced times at the same time every day.
✔ Do not stop taking unless ordered by your doctor.
Do not confuse quinidine with quinine. These are different medications with different uses. Quinine is a medication used to treat nighttime leg cramps.

It is best to take these medications with meals unless otherwise directed so by your doctor or pharmacist.

Sensitivity to sunlight may occur while you are taking Amiodarone. Use sunscreen and protective clothing until tolerance is determined.

Possible Side Effects

- All Antiarrhythmics: Nausea, vomiting, diarrhea, constipation, worsening of heart rhythm, dizziness, fainting, fatigue, confusion, loss of appetite, rash.
- Amiodarone: Halos around lights, sensitivity to lights, blurred vision, dry eyes, blue-gray skin color, numbness and tingling in hands and feet, hair loss, shortness of breath, coughing.
- Disopyramide: Difficult urination, chest pain, dry mouth or throat, muscle weakness, rapid weight gain, decreased sexual ability.
- Flecainide: Headache, tremor, abdominal pain, ringing in ears, edema, change in taste, dry mouth, blurred vision, difficulty focusing, depression, incoordination.
- Mexiletine: Stomach pain, tremor, depression, palpitations (pounding in chest), joint pain, blurred vision, incoordination, ringing in ears.
- Moricizine: Palpitations, dizziness, nausea, trouble breathing, headache.
- Propafenone: Stomach pain, dry mouth, anxiety, drowsiness, incoordination, palpitations (pounding in chest), blurred vision, edema, weakness.
- Procainamide: Fever, chills, joint pain, skin rash, sore mouth, gums, or throat, unusual tiredness or weakness, trouble breathing.
- Quinidine: Bitter taste, flushing, stomach pain or cramping, blurred vision, severe headache, ringing in ears, trouble breathing, fainting.
- Tocainide: Tingling, tremor, blurred vision, sweating, drowsiness, confusion, headache.

SECTION 5

 ✓ Anticoagulants

Anticoagulants interfere with the clotting ability of your blood. They are often called blood thinners, but they don’t really thin the blood. They lengthen the time it takes your blood to clot. They are used to prevent clot formation in arteries, veins, heart chambers, and on artificial heart valves. They will not dissolve blood clots that have already formed, but they do prevent clots from enlarging.
Dosing of anticoagulants varies widely between individuals. Your dose is determined by a blood test called the prothrombin time (protime or PT), which measures how fast your blood clots. The PT is then converted to a standardized ratio and reported at the International Normalized Ratio (INR). Your INR will be determined during regular visits to your doctor.

Dosage changes may occur based on the results of this blood test. Tell your doctor if you have missed any doses, which could affect the test results.

The most widely used anticoagulant is: Warfarin (Coumadin)

**Things to remember**

- ✓ Take your anticoagulant exactly as prescribed, and at the same time every day. It may be helpful to keep a daily record of the time you take it.
- ✓ Inform all of your doctors, dentists, pharmacists, and nurses that you are taking an anticoagulant. If you are having dental work or other procedures done, special precautions may be necessary to prevent bleeding.
- ✓ Carry identification stating which anticoagulant you are taking and your dosage.
- ✓ If your doctor prescribes aspirin along with your anticoagulant, it is important to take the same dose of aspirin every day. Do not take additional aspirin for pain or fever, use acetaminophen instead. Aspirin increases the blood thinning action of anticoagulants, so it is very important to take the same dose every day.
- ✓ Limit your alcohol intake. Drinking too much alcohol may change the way your anticoagulant works. If you have questions about drinking alcohol, please ask your physician.

**CAUTION**

1. Anticoagulants can interact with many other medications, resulting in an increase or decrease in effectiveness. Do not start or stop taking any other medication without consulting your doctor or pharmacist. This includes common over the counter medications such as aspirin, ibuprofen (Advil), and naproxen (Aleve).
2. The effect of your anticoagulant depends on the amount of vitamin K in your body. Vitamin K is found in meats, dairy products, and green leafy vegetables (like broccoli, cabbage, collard greens, kale, lettuce, and spinach) as well as in some multiple vitamins and nutritional supplements. It is best to have about the same amount of vitamin K in your diet every day. Do not make radical changes in your diet. Also check with your doctor if you are unable to eat for several days or if you have continuing stomach upset, diarrhea, or fever.
3. If you miss a dose and realize it that same day, take it as soon as possible. If you don’t remember until the next day, do not take the missed dose and do not double the next one. Doubling doses could cause bleeding.
4. Do not begin taking warfarin during pregnancy, and do not become pregnant while taking it. It may cause birth defects.

Possible Side Effects
Notify your doctor immediately if any of the following occur:
- Red or black tarry stools
- Red or dark brown urine
- Back pain, abdominal pain or swelling
- Dizziness
- Unexplained nosebleeds
- Severe or constant headaches
- Vomiting of blood or material that looks like coffee grounds
- Excessive bleeding from gums when brushing teeth, or excessive bleeding or oozing from cuts.
- Unexplained bruising or purplish areas on the skin.
- Unusually heavy or unexpected menstrual bleeding.
- Skin rash or itching

The Cardiac Rehab staff can show you a video and give you additional information on what you need to know while you are taking Warfarin (Coumadin).

SECTION 6

❤ Antiplatelets
Platelets are components of the blood that clump together to help form blood clots. Antiplatelet medications interfere by preventing platelets from sticking together. They help prevent the formation of blood clots within the heart or blood vessels. Antiplatelets are often used after heart surgery.

Examples of Antiplatelets
- Dipyridamole (Persantine)
- Aspirin (Ecotrin, Ascriptin, Bufferin, Bayer, etc.)
- Dipyridamole + Asprin (Aggrenox)
- Ticlopidine (Ticlid)
- Clopidogrel (Plavix)
- Cilostazol (Plendil)

Things to remember
✔ Check with your doctor to see if you can take aspirin for other reasons (headache, fever). This applies whether you are prescribed aspirin, dipyridamole or ticlopidine.
✔ Store aspirin in a tightly closed bottle in a cool, dry place. If aspirin has a strong vinegar smell, it has broken down and should be discarded.
✔ If aspirin upsets your stomach, take it with food or an antacid. Buffered or enteric coated aspirin can also be used.
MEDICATIONS

- Dipyridamole is most effective taken on an empty stomach with a full glass of water. If this method upsets your stomach, this drug may be taken with food.
- If you are on ticlopidine, this medication should be taken with a meal or snack.
- Clopidogrel can be taken without regard to meals.

CAUTION
Ticlopidine may lead to increased bleeding. Report an unusual bleeding or dark-colored stools to your doctor. Make sure your doctors and dentists are aware you are on this medication. Lab tests are required during treatment with ticlopidine. These may include blood counts and liver function tests.

Possible Side Effects
Dipyridamole, Ticlopidine and Clopidogrel
- Dizziness, light-headedness, or fainting
- Stomach cramping, nausea, vomiting, diarrhea
- Weakness
- Headache
- Flushing, skin rash, itching

Aspirin
- Abdominal pain, nausea, vomiting
- Bloody or black tarry stools
- Vomiting of blood or material resembling coffee grounds
- Skin rash, hives, itching
- Ringing in the ears

SECTION 7

Beta Blockers
Beta blockers work by affecting the response of various parts of the body to nerve impulses. The heart’s response is to reduce heart rate and the strength of muscle contraction. By lowering the heart’s need for blood and oxygen, the heart can work more efficiently.

Beta blockers are used to treat high blood pressure (hypertension), relieve chest pain (angina), correct irregular heart rhythms (arrhythmias), and prevent additional heart attacks in patients who have had a heart attack.

Examples of Beta blockers
- Acebutolol (Sectral)
- Atenolol (Tenormin)
- Betaxolol (Kerlone)
- Bisoprolol (Zebeta)
- Carvedilol (Coreg)
- Labetalol (Trandate, Normodyne)
- Metoprolol (Lopressor, Toprol XL)
- Nadolol (Corgard)
- Nebivolol (Bystolic)
- Penbutolol (Levatol)
- Pindolol (Visken)
- Propranolol (Inderal, Inderal LA)
- Sotalol (Betapace)
- Timolol (Blocadren)

Things to Remember
- DO NOT stop taking this medication without first checking with your doctor. Some conditions
(such as chest pain) may become worse when the medication is stopped suddenly.

✔ When getting up from a lying or sitting position, you may become dizzy or faint. If this occurs, getting up slowly may help. Alcohol may make this effect worse.

✔ You may become more sensitive to cold temperatures, especially if you have blood circulating problems. Dress warmly during cold weather and be careful during prolonged exposure to cold.

✔ Ask your doctor about checking your pulse or heart rate. If it is much slower than your usual rate (or less than 50 beats per minute), check with your doctor.

✔ If you are taking the extended-release capsule or tablet form of metoprolol or propranolol, swallow the capsule or tablet whole. DO NOT crush, break, or chew before swallowing.

✔ If you are taking sotalol, take on an empty stomach one hour before meals.

✔ Labetalol, metoprolol, and propranolol are most effective taken with a meal or a snack.

✔ Acebutolol, atenolol, betaxolol, bisoprolol, nadolol, and pindolol may be taken without regard to food.

---

**CAUTION**

1. You may become dizzy, drowsy, or lightheaded while taking this medication. This side effect often goes away after the first few weeks of therapy. Make sure you know how you react to this medication before driving an automobile or operating machinery.

2. This medication may reduce or prevent chest pain resulting from exercise or physical exertion. This may tempt you to “over do” it. Make sure you discuss with your doctor a safe level of exercise for you.

3. If you are a diabetic, beta blockers may cause your blood sugar levels to fall. This medication may also cover up signs of low blood sugar, and changes in the heart rate.

4. DO NOT take other medications unless you discuss them with your doctor or pharmacist. This especially includes over-the-counter medications for appetite control, asthma, colds, cough, hay fever, or sinus problems since they may increase your blood pressure.

**Possible Side Effects**

- Difficulty breathing
- Chest pain
- Cold hands or feet
- Unusually slow heart rate
- Depression
- Nightmares
- Skin rash
H12  MEDICATIONS

- Swelling of ankles, feet, or lower legs
- Decreased sexual arousal or impotence
- Dizziness or lightheadedness
- Drowsiness
- Nausea or vomiting

**Alpha/Beta Blocker**

Carvedilol (Coreg) is a drug that has both the properties of a beta-blocker and an alpha-blocker. Both actions decrease blood pressure. Carvedilol can be used to treat high blood pressure or in combination with other medications to treat congestive heart failure. Carvedilol must be taken with food to reduce the risk of too low blood pressure.

**Examples of Calcium Channel Blockers**

- Amlodipine (Norvasc)
- Diltiazem (Cardizem, Cardizem SR, Cardizem CD, Dilacor XR, Tiazac)
- Felodipine (Plendil)
- Isradipine (Dynacirc)
- Nicardipine (Cardene, Cardene SR)
- Nifedipine (Adalat, Adalat CC, Procardia, Procardia XL)
- Nimodipine (Nimotop)
- Nisoldipine (Sular)
- Verapamil (Calan, Calan SR, Isoptin, Isoptin SR, Verelan)

**Things to Remember**

✓ **DO NOT** stop taking this medication without first checking with your doctor. Some conditions (such as chest pain or irregular heart rhythms) may become worse when the medication is stopped suddenly.

✓ **DO NOT** take other medications unless you discuss them with your doctor or pharmacist. This especially includes over-the-counter medications for appetite control, asthma, colds, cough, hay fever, or sinus problems since they may increase your blood pressure.

✓ If you are taking diltiazem or verapamil, ask your doctor about checking your pulse or heart rate. If it’s much slower than your usual rate (or less than 50 beats
per minute), check with your doctor.

✓ You may get a headache during the first week or two of taking this medication. This effect is more common if you are taking nifedipine. This should become less noticeable after a while. If it continues, see your doctor.

✓ When getting up from a lying or sitting position, you may become dizzy or faint. If this occurs, getting up slowly may help. Alcohol may also make this effect worse.

✓ If you are taking the extended-release capsule or tablet form of diltiazem, nicardipine, nifedipine, nisoldipine, or verapamil, swallow the capsule or tablet whole. DO NOT crush, break or chew before swallowing.

✓ Avoid taking calcium channel blockers with grapefruit products.

**CAUTION**

Chest pain resulting from exercise or physical exertion is reduced or prevented with this medication. This may tempt you to “over do” it. Make sure you discuss a safe level of exercise with your doctor.

**Possible Side Effects**

▼ Difficulty breathing
▼ Irregular or unusually fast or slow heart rate
▼ Chest pain
▼ Swelling of ankles, feet, or lower legs
▼ Dizziness or lightheadedness
▼ Flushing or feeling of warmth
▼ Nausea
▼ Skin rash

**SECTION 9**

❤ **Digitalis**

Digitalis medication is used to improve the strength and pumping action of the heart or to control the rate and rhythm of the heart. Digitalis helps your heart beat stronger and keeps it from beating too fast. This will lead to better blood circulation.

**Examples of Digitalis**

- Digoxin (Digitek, Lanoxin, Lanoxicaps)
- Digitoxin

**Things to Remember**

✓ Take exactly as your doctor has ordered it and at the same time every day. Do not stop taking it because you feel better.

✓ If you miss a dose and remember within 12 hours, take as soon as you remember. However, if it is more than 12 hours after your scheduled dose, do not take the missed dose and do not double the next dose. Continue your usual schedule. If you have any questions or miss more than one dose, call your doctor.

✓ Ask your doctor about checking your pulse or heart rate. Your
Your doctor may want to know if your rate is slower or faster than usual.

Your doctor may recommend a low-sodium (low salt) diet and a potassium supplement. Choose foods that are low in sodium and high in potassium and emphasize them in a well-balanced diet.

Your doctor may check the amount of Digoxin in your body with a blood test.

Check with your doctor or pharmacist before taking any over-the-counter medications. They could change the way your digitalis works.

Possible Side Effects

- Irregular heartbeat or changes in pulse (slow heart rate)
- Loss of appetite
- Nausea/vomiting
- Lower stomach pain
- Diarrhea
- Unusual tiredness or weakness
- Slow or irregular heartbeat
- Vision changes such as flashes or flickering of light, sensitivity to light, seeing things larger or smaller than they are, blurring, color changes (yellow or green) and seeing halos or borders on objects
- Drowsiness
- Confusion
- Depression
- Headache

- Fatigue, muscle weakness

These side effects may be signs that there is too much medication in your body. Contact your doctor immediately. Your dose may need to be changed. Once you and your doctor have determined the correct dose, you usually will not experience side effects if you take Digoxin exactly as prescribed.

SECTION 10

Diuretics (“Water Pills”)

Diuretic medication reduces the amount of sodium and water in the body by increasing the flow of urine. Sodium can cause your body to retain extra water which can cause your hands and feet to swell. Your heart has to work harder to pump the extra water throughout your body, which can raise your blood pressure. By losing the extra water, your heart will not have to work as hard and your blood pressure can be controlled.

Diuretics will not cure your high blood pressure but will help control it. You must continue to take it, even if you feel well, if you expect to keep your blood pressure down.

Diuretics are sometimes combined with other medications used to treat high blood pressure into a single pill.

Potassium-depleting diuretics allow potassium to be excreted in urine.
Examples of potassium-depleting diuretics
- Acetazolamide (Diamox)
- Benidroflumethiazide (Naturetin)
- Bumetamide (Bumex)
- Chlorthalidone (Hygroton)
- Chlorothiazide (Diuril)
- Ethacrynic Acid (Edecrin)
- Furosemide (Lasix)
- Hydrochlorothiazide (Hydrodiuril, HCTZ, Esidrex)
- Hydroflumethiazide (Diucardin)
- Indapamide (Lozol)
- Methylclothiazide (Enduron)
- Metolazone (Zaroxolyn)
- Polythiazide (Renese)
- Torsemide (Demadex)
- Trichlormethiazide (Naqua)

Potassium-sparing diuretics do not allow potassium to be lost in urine.

Examples of potassium-sparing diuretics
- Amiloride HCl (Midamor)
- Eplerenone (Inspra)
- Spironolactone (Aldactone)
- Triamterene (Dyrenium)

Examples of combination diuretics
- Amiloride/Hydrochlorothiazide (Moduretic)
- Spironolactone/Hydrochlorothiazide (Aldactazide)
- Triamterene/Hydrochlorothiazide (Dyazide, Maxzide)

Things to remember:
- ✓ You may notice an increase in urine or frequency of urination.

To keep this from affecting sleep:
A. If you are to take a single dose each day, take it in the morning after breakfast.
B. If you are to take more than one dose a day, take the last dose no later than 6 p.m.

✓ There is no need to change how much fluid you drink while taking diuretics.

✓ If you take a potassium-depleting diuretic, your doctor may want you to eat or drink foods that have a high potassium content, or instruct you to take a potassium supplement.

✓ If you take a potassium-sparing diuretic, it will probably not be necessary for you to take extra potassium medication. Check with your doctor first.

✓ Dizziness, or lightheadedness may occur, especially when getting up from a sitting or lying position. Getting up slowly may help. Alcohol may make this effect worse.

✓ Sensitivity to sunlight may occur. Use sunscreens and wear protective clothing until tolerance is determined.

✓ Do not take other medications without your doctor’s approval. This includes nonprescription medicines for appetite control, asthma, colds, cough, hay fever or sinus problems.
**Possible side effects**

- Dry mouth*
- Thirst*
- Irregular heart beat*
- Nausea, vomiting*
- Mood changes*
- Muscle cramps or pain*
- Unusual weakness or tiredness*
- Loss of appetite
- Joint pain
- Impotence
- Sensitivity to sunlight
- Skin rash or hives
- Unusual bleeding or bruising

*Signs of potassium loss. Notify your doctor.

### SECTION 11

#### Combination Drugs

Combination drugs are pills that contain two or more medicines in one tablet. They offer the advantage of decreasing the number of pills that one takes and decreasing cost. Below is a list of some combination drugs.

**ACE Inhibitors + Diuretics**

- Benazepril + HCTZ (Lotensin HCT)
- Captopril + HCTZ (Capozide)
- Enalapril + HCTZ (Vaseretic)
- Lisinopril + HCTZ (Prinzipide, Zestoretic)
- Moexipril + HCTZ (Uniretic)

**Beta Blocker + Diuretic**

- Atenolol + Chlorthalidone (Tenoretic)
- Bisoprolol + HCTZ (Ziac)
- Metoprolol + HCTZ (Lopressor HCT)
- Nadolol + Bendroflumethazide (Corzide)
- Propranolol + HCTZ (Inderide)
- Timolol + HCTZ (Timolide)

**Calcium Channel Blocker + ACE Inhibitor**

- Amlodipine + Benazepril (Lotrel)
- Bisoprolol + HCTZ (Ziac)
- Metoprolol + HCTZ (Lopressor HCT)
- Nadolol + Bendroflumethazide (Corzide)
- Propranolol + HCTZ (Inderide)
- Timolol + HCTZ (Timolide)

### SECTION 12

#### Lipid Lowering Medications

High levels of cholesterol and/or triglycerides in the blood may block blood vessels and increase the risk of developing heart or blood vessel disease. Lipid lowering agents work best when used along with a low-cholesterol, low-fat diet.

**How they work**

HMG-CoA reductase inhibitors are used to lower the levels of cholesterol and triglycerides in the blood. They do this by reducing the production of cholesterol by the body and by increasing the rate at which the body removes cholesterol from the blood.
Examples of Lipid Lowering Medications

A. HMG-CoA Reductase Inhibitors
- Atorvastatin (Lipitor)
- Lovastatin (Mevacor)
- Pravastatin (Pravachol)
- Simvastatin (Zocor)
- Fluvastatin (Lescol)
- Rosuvastatin (Crestor)

Things to remember
- You should follow a proper diet and exercise program in addition to taking your medication.
- Lovastatin should be taken with your evening meal. If you are taking it twice a day, it should be taken with the morning and evening meals.
- Simvastatin should be taken once daily in the evening (without regard to meals).
- Atorvastatin or Rosuvastatin can be taken any time of the day without regard to meals.
- Fluvastatin and Pravastatin should be taken at bedtime without regard to meals.
- Notify your doctor if you develop unexplained headache, muscle pain, tenderness or weakness, nausea, vomiting, or diarrhea, particularly if accompanied by a fever or general body discomfort.
- Lab tests may be required during treatment. These tests may include blood counts, cholesterol level, liver function tests, and eye exams (for lovastatin only).

CAUTION
Do not take these medications if you are pregnant.

Possible Side Effects
- Nausea, vomiting, diarrhea, constipation, gas, indigestion
- Headache, dizziness, weakness, sleeplessness
- Cold or flu-like symptoms, cough
- Rash, itching
- Muscle pain, chest pain, fever, blurred vision

B. Bile Acid Sequestrants

How they work
These drugs are used to lower cholesterol. They do this by binding to bile acids in your intestines and preventing their absorption. Your body must replace these bile acids by converting cholesterol to bile acids.

Examples
- Cholestyramine (Questran)
- Colestipol (Colestid)
- Colesevelam (Welchol)

Things to remember
- Bile acid sequestrants are most effective when used with a low cholesterol, low saturated fat diet.
- They may interfere with the action of other drugs taken at the same time. Take other medications either 1 hour before or 4 to 6 hours after the bile acid sequestrants.
They should be taken just before eating or with meals.

They may cause constipation. A laxative, stool softener or drinking liquids may be helpful.

Periodic lab tests will be required during treatment. Tests may include blood count, triglycerides, and cholesterol.

**DO NOT** take the powder or granules in the dry form. It must be mixed with any beverage, very liquid soups or cereals, or pulpy fruits (applesauce or crushed pineapple).

Increase your daily intake of liquids while taking this medicine.

### Possible Side Effects
- Severe constipation, fatty or black stools, gas, belching, nausea, vomiting, heartburn, diarrhea, loss of appetite
- Headache, anxiety, dizziness, fatigue
- Asthma, wheezing
- Itching, hives
- Unusual bleeding from gums or rectum
- Deficiencies of fat soluble vitamins A and D

### C. Fibrin Acid Derivatives

**Examples**
- Gemfibrozil (Lopid)
- Fenofibrate (Antara, Lofibra, Tricor, Triglide)

These drugs lower blood levels of triglycerides and cholesterol by decreasing the production of triglycerides by the body and by increasing the rate of excretion of cholesterol.

### Things to remember
- Take gemfibrozil 30 minutes before the morning and evening meals.
- They are most effective when used with a low cholesterol, low saturated fat diet.
- It may cause dizziness or blurred vision - use caution when driving.
- Lab tests may be required during treatment. These may include blood counts, cholesterol and triglycerides, liver function tests, and blood glucose levels.
- Take Fenofibrate once daily with food.

### Possible Side Effects
- Stomach upset, vomiting, nausea, diarrhea, constipation
- Headache, dizziness, fatigue
- Rash, itching, eczema
- Sore throat, fever, chills, muscle pain or soreness

### D. Zetia

Zetia is a medication that lowers cholesterol. It works by blocking the absorption of cholesterol from your intestines during digestion. It lowers total cholesterol and LDL, but is most effective when added to another cholesterol medication.
Examples
• Zetia + Zocor (Vytorin)

Things to remember
✔ You should follow a heart-healthy diet and exercise program in addition to taking your medication.
✔ Lab tests will be required during treatment. These tests may include cholesterol and triglyceride levels and liver function tests.
✔ Vytorin should be taken in the evening without regard to meals.

Possible Side Effects
▼ Diarrhea, abdominal pain
▼ Fatigue, dizziness, headache
▼ Muscle pain, chest pain, joint pain, back pain
▼ Sore throat, cough

E. Nicotinic Acid (Niacin)
Niacin (in large doses) reduces cholesterol and triglyceride levels.

Examples
• Niaspan
• Niacor

Things to remember
✔ Skin flushing and a sensation of warmth, especially of the face and upper body, may occur. Itching, tingling, and headache may also occur. These effects usually last 30 to 60 minutes after taking a dose and usually decrease as you continue to take the medication.
✔ If you have persistent or bother-

some flushing, taking 325mg of aspirin a half hour before each dose of niacin may help prevent this. Check with your doctor before trying this.
✔ Take niacin with meals.
✔ Take extended release niacin at bedtime.
✔ When getting up from a lying or sitting position, you may become dizzy or faint. If this occurs, getting up slowly may help.

Possible Side Effects
▼ Flushing, itching, tingling, sensation of warmth.
▼ Abdominal pain, nausea, vomiting, diarrhea
▼ Dizziness, headache

SECTION 13
❤ Nitrates
Nitrates are useful in either relieving the pain of angina (chest pain) attacks or reducing the number of such attacks. Nitrates relieve chest pain by improving the supply of blood and oxygen to the heart by widening the walls in your blood vessels.

The most common nitrates are nitroglycerin and isosorbide. They are available in the following forms:

Nitroglycerin
• Sublingual tablets (Nitrostat)
• Long-acting tablets and capsules (Nitro-bid)
H20  MEDICATIONS

- Ointment, topical (Nitro-bid, Nitrol)
- Spray, translingual (Nitrolingual)
- Transdermal patch (Minitran, Nitro-Dur, Transderm-Nitro, Nitrodisc, Deponit)

Isosorbide
- Sublingual tablets (Isordil)
- Chewable tablets (Sorbitrate)
- Oral tablets (Isordil Titrados, Sorbitrate, ISMo, Monoket)
- Long-acting tablets/capsules (Isordil Tembinds, Sorbitrate SA, Imdur)

Things to remember
1. Sublingual tablets — Nitroglycerin or Isosorbide
   ✓ When you start to feel an angina attack, sit down, then place a tablet under your tongue and let it dissolve. Do not crush, chew or swallow. If angina is not relieved in 5 minutes, dissolve a second tablet under your tongue. If pain is not relieved within another 5 minutes, dissolve a third tablet. If you still have pain after taking three tablets, call 911 or your local emergency number. Do not drive yourself to the hospital.
   ✓ It may be used 5 to 10 minutes before you begin an activity that normally causes your angina.

2. Translingual spray — Nitroglycerin
   ✓ Spray onto or under the tongue. Do not inhale spray. At the onset of an angina attack, spray 1 or 2 doses onto oral mucosa. No more than 3 doses are recommended within 15 minutes. If you still have pain after 3 doses, call 911 or your local emergency number. Do not drive yourself to the hospital.
   ✓ It may be used 5 to 10 minutes before you begin an activity that normally causes your angina.

3. Sustained release capsule or tablet — Nitroglycerin or Isosorbide
   ✓ These forms are used to prevent angina attacks. They will not relieve chest pain that has already started. Long-acting forms should be taken on a regular schedule. If you miss a dose, take it as soon as you remember if your next dose is not scheduled within six hours. Do not double the dose in order to “catch up.”
   ✓ Storage: Keep in the original container. Keep the container closed tightly. Store at room temperature. Protect from moisture. Unused nitroglycerin tablets should be discarded 6 months after the original bottle is opened. Do not put any other medications in the nitroglycerin bottle.
 swallow whole. Do not break, crush or chest long-acting tablets or capsules.

4. **Topical nitroglycerin ointment**
   - Nitroglycerin ointment is used to prevent angina. It works too slowly to relieve pain that has already started. Occasional use of sublingual tablets may be necessary.
   - Carefully read the instructions before using.
   - The ointment comes with measuring papers. Use them to measure the length of the ointment and to apply the ointment to the skin. Do not use your fingers.
   - The ointment can be applied to any area on the skin (not just the chest). Preferably, apply it to an area of skin with little or no hair. Do not rub or massage ointment into the skin. When reapplying ointment, remove any ointment remaining from the previous dose. Rotate application sites to prevent contact dermatitis.

5. **Transdermal nitroglycerin patches**
   - Nitroglycerin patch is used to prevent angina attacks. It will not relieve chest pain that has already started. Occasional use of sublingual tablets may be necessary. Carefully read the instructions before using.
   - Apply the patch once each day to a skin site free of hair and not subject to excessive movement. Do not apply patch to the forearms or below the knees. Avoid cuts or irritations. Rotate application site slightly each time to avoid skin irritation.
   - Your physician may have you apply or remove patch at specific times of the day.

**CAUTION**

Patients who use nitrates must talk to their doctor before using any of the erectile dysfunction drugs (Viagra, Cialis, Levitra). There are several medical conditions that prevent a person from using these medications safely. Using these medications together (even hours or days apart) can lower blood flow to the heart arteries, causing a heart attack. If you have symptoms of angina or a heart attack and have used any of these drugs, you should not use your nitroglycerin. Go to the nearest Emergency Room for treatment.

You must always tell your doctor all the medications you are taking (including over-the-counter medicines) so that problems can be avoided.

**Possible side effects**

- Nitrates may cause headaches, a feeling of fullness in the head, flushing or redness of the skin. These side effects are usually temporary and disappear on their own. If they persist, consult your doctor.
You may feel dizzy, light-headed or faint, especially when getting up from a lying or sitting position. Remember to get up slowly. Alcohol may also make this effect worse.

Other effects: blurred vision, dry mouth, appetite loss, skin rash/itching, rapid heartbeat, nausea, vomiting, restlessness.

**SECTION 14**

**Potassium Supplements**

Potassium supplements are used to treat or prevent low potassium blood levels when dietary intake is too low. Low potassium levels may also be caused by illness or treatment with certain drugs (diuretics, or “water pill,” for example). Potassium is most frequently supplied as:

**Examples of potassium supplements**

- Slow-K
- K-Tab
- K-lyte
- K-Dur
- Kor-Con
- K-lor
- Klotrix
- Micro-K
- Kaon-Cl
- Ten-K

Potassium chloride is available in liquid, powder, capsule and tablet form.

**Things to remember:**

- Some people find that potassium supplements taste unpleasant or cause stomach discomfort. Taking this medication after meals or with food and a full glass of water will lessen stomach upset.

- Do not chew or crush tablets, always swallow them whole. Oral liquids, soluble powders and effervescent tablets should be mixed or dissolved in 4 to 8 ounces of cold water or juice. Drink the mixture slowly.

- Tell your doctor or pharmacist if you are taking or if you are planning to take any over-the-counter or prescription medications with potassium supplements.

- The following drugs and drug classes may interact with potassium supplements:
  - Salt substitutes
  - Anticholinergics (Banthine)
  - Spironolactone (Aldactone)
  - Triamterene (Dyrenium)
  - Amiloride (Midamor)
  - Captopril (Capoten)
  - Lisinopril (Prinivil, Zestril)
  - Enalapril (Vasotec)
  - Benazepril (Lotensin)
  - Quinapril (Accupril)
  - Fosinopril (Monopril)
  - Ramipril (Altace)
  - Moexipril (Univasc)

- Notify your doctor if you experience tingling of the hands and feet, unusual tiredness or weakness, a feeling of heaviness in
the legs, severe nausea, vomiting, abdominal pain or black stools.

Possible side effects:
- Nausea, vomiting, diarrhea
- Stomach discomfort, pain, or gas
- Skin rash
- Confusion
- Irregular heartbeat
- Unusual tiredness or weakness
- Numbness or tingling in hands or feet

SECTION 15

❤ Pain Relievers

Combination medicine containing narcotic analgesics and acetaminophen (Tylenol) are used to relieve pain after heart surgery. When used together, this combination may relieve pain better than either medication used alone.

Examples of oral analgesic combinations

Codeine and acetaminophen
- Tylenol #2
- Tylenol #3
- Tylenol #4

Hydrocodone and acetaminophen:
- Lorcet
- Lortab
- Hydrocet
- Norco
- Vicodin
- Vicodin ES

Oxycodone and acetaminophen:
- Percocet
- Roxicet
- Endocet
- Tylox
- Oxycet
- Propoxyphene and acetaminophen: Darvocet-N 50, Darvocet-N 100, Wygesic

Things to remember:
✔ Take exactly as prescribed by your physician. If you think that your medicine is not relieving pain, check with your doctor before increasing the dose.
✔ Take with food to avoid possible nausea or vomiting.
✔ A stool softener or fiber laxative may be helpful since narcotic analgesics (especially codeine) may cause constipation.
✔ If you feel dizzy or faint when getting up from a sitting or lying position, get up slowly. Other sedating medicines may make this effect worse.
❌ DO NOT drink alcoholic beverages while taking a narcotic analgesic.
❌ DO NOT take other pain medication unless you discuss them first with your doctor. Avoid taking any medicines that contain acetaminophen or a narcotic.
CAUTIONS
You may become dizzy, drowsy, or light-headed, or feel an exaggerated sense of well-being while taking this medication. Make sure you know how you react to this medicine before driving a car or before operating machinery.

Notify your doctor immediately if any of the following occur: severe confusion, drowsiness or weakness, seizures, diarrhea, prolonged nausea or vomiting, shortness of breath or trouble breathing, increased sweating, skin rash, or cold, clammy skin.

Possible side effects
- Dizziness or lightheadedness
- Drowsiness
- Nausea or vomiting
- Loss of appetite
- Weakness
- Blurred vision
- Constipation
- Dry mouth
- Nightmares

Please ask your doctor or pharmacist which medications are acceptable for you to take. Show them a list of the prescription medications you are taking.

The most commonly purchased OTC products are pain relievers, antacids, cold/allergy products and vitamin supplements. Below is a list of various OTC products and instructions on their use with your heart medications.

Pain Medications
The most commonly used pain medications are aspirin, acetaminophen and ibuprofen. Through each of these medications will relieve pain, you should use caution in selecting one to use.

✓ Acetaminophen (Tylenol) is a good choice for the occasional relief of pain, headache or fever. If you have a need for regular pain control, such as the pain from arthritis, talk to your doctor. Limit total daily doses to 4000mg.

✓ Aspirin (Anacin, Bayer, Bufferin, Ecotrin, Empirin) is used to treat fever, pain and inflammation. You may already be taking a low dose of aspirin to prevent the formation of blood clots. Your doctor may tell you to avoid taking additional aspirin. Some OTC products contain aspirin as an ingredient, such as Alka-Seltzer. You should read an OTC product’s label or ask your pharmacist if aspirin is an ingredient. The Cardiac Rehab staff can provide you with a list of...
common medications that contain aspirin.

**Ibuprofen** (Advil, Bayer Select, Motrin OB, Nuprin) is a non-steroidal anti-inflammatory drug (NSAID) that is also used to treat fever, pain, and inflammation. Ibuprofen, and the newer NSAIDS naproxen (aleve) and ketoprofen (Orudis KT), may increase your blood pressure or decrease the amount of urine you eliminate. If you are taking a diuretic, beta-blocker, or angiotensin converting enzyme inhibitor (ACEI), you should use acetaminophen instead of a NSAID.

**CAUTION**
If you are taking Warfarin (Coumadin), you should avoid using aspirin or NSAID products. These medications may increase the blood thinning action of Warfarin and can increase the risk of bleeding.

**Allergy/Cold Medications**
Care in choosing an appropriate allergy or cold medication is important. Many oral preparations contain a decongestant to help clear a stuffy nose or head. Decongestants, like phenylephrine, phenylpropanolamine, and pseudoephedrine, may increase your heart rate or blood pressure by narrowing the blood vessels. You need to avoid using a combination cold product that contains a decongestant, unless you’ve discussed it first with your doctor. If you need temporary relief of sinus pressure, a nasal decongestant (Afrin, Dristan, Duration, Neo-Synephrine) may be used. Follow the product’s directions closely.

**Antacids**
You may already use an antacid to relieve indigestion or heartburn. However, an antacid may interact with your prescribed medications or diet restrictions. When selecting an antacid, you should choose a “low sodium” or “sodium free” product to avoid increasing the amount of sodium in your diet. Antacids that contain either no sodium or only small amounts are: Aluminum hydroxide, Di-Gel, Gas-X, Gelusil, Milk of Magnesia, Mylanta, Riopan, Rolaid Sodium Free, Trilacac, and Tums. Avoid any antacids that have sodium bicarbonate as an ingredient. Products you should not use are: Alka-Seltzer, Bromo-Seltzer, Gaviscon and Sodium Bicarbonate. If you’re unsure about the sodium content of an antacid, check with your pharmacist.

**CAUTION**
Antacids may reduce the absorption of other medications when taken together by binding to them or changing the acidity of the stomach. Medications that may be affected by antacids are: Allopurinol, Atenolol, Digoxin, Iron supplements and Quinidine. If you need to take an ant-
Acid while on one of these prescription medications, you should separate each dose by two hours or more.

**Herbal and Natural Supplements**

Some supplements sold as natural and herbal products can contain ingredients that may interfere with the medications you are taking. It is not a good idea to take over-the-counter or health food supplements without checking with your doctor or pharmacist first.

**Fish Oil Capsules**

In some people, part of having high lipid levels includes having high triglycerides. Fish oil capsules have been shown to lower high triglycerides. It is important to talk with your doctor before taking fish oil capsules. Taking the proper dose is required to lower triglycerides. The only side effects reported are “fish” burps and mild stomach upset.

Omacor is a fish oil supplement available only by prescription. Many others are available without a prescription.

**Vitamins**

Some vitamin supplements may be prescribed by your physician. They may or may not require a prescription. Always follow the directions your doctor gives you. Do not take more than the recommended amount each day.

The following lists examples of vitamins and their actions:

**Examples of vitamins and their actions**

- ✔ Vitamin C and Vitamin A – may promote wound healing
- ✔ Folic Acid, Vitamin B6, and Vitamin B12 lowers the level of homocysteine in the body. Too much homocysteine may contribute to heart disease.
- ✔ Do not use over-the-counter niacin as a substitute for prescription niacin.
Advance Directives

In this Chapter

- **What is an Advance Directive** ......................... I1
- **Durable Power of Attorney for Health Care** ............... I2
- **Living Will and Patient Self-Determination** .......... I3
- **Pre-hospital Do Not Resuscitate** ........................ I3
- **File of Life** ............................................. I3

You have the right to information about your medical condition, diagnosis, prognosis and possible treatments. You also have the right to refuse any treatment, including life-saving medical treatment. It is important to remember that these directives only take effect when you can no longer make your own health care decisions. As long as you are able to give “informed consent” your health care providers will rely on you and not on your advance directives.

SECTION 1

- **What is an Advance Directive?**

  Advance directives are papers that state a patient’s choices for treatment. This includes decisions like refusing treatment, being placed on life support, and stopping treatment at a point the patient chooses. It also includes requesting life-sustaining treatment.

  There are several kinds of Advance Directives. These include a Living Will, Patient Self-Determination, Durable Power of Attorney for Health Care and
a Pre-Hospital Do Not Resuscitate form. Salina Regional Health Center has the forms available upon request.

You do not need a lawyer in order to make an advance directive.

If you do make advance directives, you should discuss them with your physician. You are responsible for making copies available to him/her and all other doctors who care for you. You should also discuss and share copies of your advance directives with your family members. It is always a good idea to keep copies yourself.

Remember, you must bring a copy of your advance directives with you each time you are admitted to Salina Regional Health Center. It is not advisable to complete an advance directive when there is not time for family discussion, patient/physician discussion and thoughtful reflection.

If you wish to change your mind about your advance directives at a later date, you may do so. Anytime advance directives are changed, please make sure all parties involved are told and all old copies are returned and destroyed.

SECTION 2

Durable Power of Attorney for Health Care

A durable power of attorney for health care is a form in which a person gives someone else the right to make decisions about their health care. This person is called an “agent.” An agent cannot be a physician or other health care provider (including people who work, own or are directors for hospitals and other health care institutions unless the health care provider is related by blood or marriage to the person signing the document). The person you want as your agent must agree to be your agent.

The agent is given the power to make health care decisions. You should select a person(s) knowledgeable about your wishes, values, religious beliefs, in whom you have trust and confidence and who knows how you feel about health care. Your physician could not be your agent, unless related to you. Specific instructions can be given to the agent. The agent and the health care providers must follow the patient’s wishes. They must also respect any wishes that are stated in the Living Will or Patient Self Determination or other Advance Directives.

You could choose to have more than one agent. The alternate agent will act for you if your primary agent is unavailable, unable or unwilling to act. Your alternates have the same decision-making powers as the primary agent.

To be effective, the document must be notarized or witnessed by two adults who are not related to you and
who will not inherit from the person signing the document. They also cannot be health care providers directly involved in the patient’s care.

SECTION 3

**The Living Will or Patient Self Determination**

The law allows any competent adult to sign a Living Will or Patient Self Determination form for themselves only. This form states that life-sustaining procedures should be withheld or withdrawn. This only goes into effect when the patient can no longer make decisions. Medical procedures which are necessary to provide comfort or pain relief are not considered “life-threatening procedures.”

For the Living Will or Patient Self Determination form to be effective, two physicians must personally examine the patient and determine that the patient has a terminal illness. The physicians must agree that death will occur whether or not the medical procedure or intervention is done. The form is not effective if the patient is pregnant. In Kansas, the Living Will or Patient Self Determination form must be notarized or signed by two witnesses. Advance Directives completed at Salina Regional Health Center are notarized, not witnessed.

The witnesses must be two adults who are not related to the person making the Living Will or Patient Self Determination form, and who will not inherit from the person. They also must not be financially responsible for the patient, or a health care provider directly involved in the patient’s care.

SECTION 4

**Pre-Hospital DNR Request Form**

The pre-hospital Do Not Resuscitate form lets you prohibit medical procedures outside the hospital. For example, if your heart stops beating and you do not want any medical procedure to restart it, or if you stop breathing and do not want emergency medical people to try to restart your breathing. Your doctor must sign the pre-hospital Do Not Resuscitate form. This DNR form needs to be given to the emergency medical personnel if they are called. If you have any questions, please contact your physician.

SECTION 5

**File of Life**

The File of Life is a kit that includes a medical information card, a door sticker, the magnetized holder for the card, and an instruction sheet. Its purpose is to provide immediate access to important health information to law enforcement or emergency medical technicians.
With File of Life, you complete a medical information card and store it in a special holder that is attached to the outside of your refrigerator. When responding to emergency calls, emergency workers look for the File of Life door sticker. When they see it, they go straight to the refrigerator and find the information they need to begin treatment without delay.

For more information, talk to the cardiac rehab staff or contact:

Saline County Commission on Aging
245 N. 9th
Salina, KS 67401
785-827-9818
Glossary of Terms

In This Chapter

❤ Common Medical Terms.. J1
❤ Community Resources.... J6
❤ Bibliography................... J8

While you are in the hospital and during your recovery from your heart attack or surgery, you will be given information about various heart tests and treatments. The list of words below define some of the terms that you may hear and not understand. Please ask if you want more information.

A

AEROBIC EXERCISE Activity that uses large muscle groups that use oxygen. This type of activity helps reduce the risk of heart disease. Walking, biking and swimming are examples of aerobic exercise.

ANEURYSM Weakness of the wall of an artery, vein, or heart muscle forming a balloon-like bulge.

ANGINA PECTORIS (Angina) Chest discomfort or pain you feel when the heart muscle is not getting enough oxygen-rich blood. Angina usually feels like a burning, squeezing, tightness, heaviness, or pressure in the chest, neck, jaw, arms, or back. It can also take the form of unusual shortness of breath.

ANGIOGRAM: (Cardiac Catheterization) A procedure where a catheter is threaded through a blood vessel leading to the heart.
Information on blood flow and pressures is obtained and areas of coronary artery narrowing or blockage are revealed. The catheter is inserted into an arm or groin blood vessel and guided to the heart. Radiopaque dye is then injected through the vessel, revealing blood flow under x-ray. The procedure is done under local anesthetic and a mild sedative may be given. For more information see Page B3.

**ANGIOPLASTY** (PTCA - Percutaneous Transluminal Coronary Angioplasty)
A procedure that enlarges narrowed coronary arteries, thereby increasing blood flow to the heart muscle. For more information, see Page A8.

- **Stent** a mesh-like cylindrical device placed in a coronary artery over a balloon-tipped catheter. It is expanded by the balloon at the site of coronary artery narrowing and, when left in place, helps hold open the walls of the vessel.

**AORTA** The large main artery that carries blood from the heart to the rest of the body. For more information, see Page A9

**AORTIC VALVE** The heart valve between the left ventricle and the aorta. It has three flaps, or leaflets.

**ARRHYTHMIA** An abnormal heart rhythm.

**ARTERIOLES** The small branches of your arteries.

**ARTERY** A thick-walled blood vessel which carries oxygen-rich blood from the lungs to the rest of the body.

**ATHEROSCLEROSIS** *(Arteriosclerosis)* The process of a build-up of fatty substances such as cholesterol (plaque), on the inner walls of an artery. This causes the arteries to become narrowed and blood flow is reduced. This is commonly called “hardening of the arteries.”

**ATRIA (Singular: Atrium)** The two upper, smaller chambers of the heart that receive blood before being passed to the ventricles.

**B**

**BACTERIAL ENDOCARDITIS** A bacterial infection of the heart lining or valves.

**BLOOD PRESSURE** The force of pressure exerted by the heart in pumping blood. Blood pressure readings tell how hard your heart is working to pump blood through your body. The top number (systolic) is the pressure in your arteries while your heart is contracting. The bottom number (diastolic) is the pressure in your arteries when your heart is relaxed.
CALCIFIED The process by which tissue becomes hardened as calcium is deposited to it.

CALORIE A unit of measure that represents the amount of energy that is in food.

CAPILLARIES Very tiny blood vessels that distribute oxygen-rich blood to body tissues.

CARDIAC ARREST The term used when the heart stops beating.

CARDIOLITE/THALLIUM SCAN A test in which cardiolite or thallium, radioactive isotopes, is injected in a vein during exercise and is absorbed by the heart muscle. A camera scans the heart to see which parts of the heart absorbed the dye. For more information, see Page B2.

CARDIOMYOPATHY Condition of the heart in which the heart is enlarged and has decreased function in the heart muscle.

CARDIOPULMONARY RESUSCITATION (CPR) A combination of chest compression and mouth to mouth breathing during cardiac arrest to keep oxygen-rich blood flowing to the heart muscle and brain until an adequate heartbeat returns.

CARDIOVERSION A procedure in which electric current is delivered to the heart to restore a normal heart rhythm.

CAROTID ARTERY A major artery in the neck that leads to the brain.

CATHETERIZATION (See Angiogram)

CHOLESTEROL A fat-like substance present only in food from animal sources such as dairy products, meat, fish, poultry, animal fats, and egg yolks. The cholesterol present in your blood is from cholesterol you eat plus what your body makes in the liver.

CLAUDICATION Pain in the legs, related to inadequate blood flow, that occurs with work or exercise.

CONGESTIVE HEART FAILURE (CHF) The condition that develops when a weakened heart is no longer able to pump effectively. This results in blood backing up in the veins leading to the heart. Excess fluid may collect in various parts of the body causing swelling (edema).

CORONARY ARTERIES Arteries arising from the aorta that arch down over the top of the heart, branching out to provide oxygen-rich blood to the heart muscle.

CORONARY ARTERY DISEASE (CAD) Conditions that cause narrowing of the coronary arteries so oxygen-rich blood flow to the heart is reduced.

CORONARY THROMBOSIS A clot in a coronary artery, which may cause a heart attack.
**D**

**DEFIBRILLATOR**
See ICD.

**DIPYRIDAMOLE NUCLEAR IMAGING TEST** *(Persantine Test)*
A test which evaluates the blood supply to the heart muscle during exercise. It is done on persons who are unable to perform adequate levels of exercise on a treadmill. Resting and post exercise scans are compared. For more information, see Page B2.

**E**

**ECHOCARDIOGRAPHY** *(Echo)*
A diagnostic test using ultrasound to record information about the heart. After high frequency sound waves are transmitted into the body, echoes return from the heart and are electronically plotted and recorded producing a visual picture of the heart’s size, shape, and movements. For more information, see Page B2.

**ELECTROCARDIOGRAM** *(EKG)*: A tracing of the electrical activity of the heart. For more information, see Page B1.

**ENZYME** *(cardiac)*
A chemical substance in the heart muscle cells. During an injury to the heart, these enzymes are released into the blood stream. A blood test of these enzymes may help determine whether a heart attack has occurred.

**H**

**HEART ATTACK** *(myocardial infarction, MI)*
Death of, or damage to part of the heart muscle due to lack of oxygen-rich blood supply.

**HIGH DENSITY LIPOPROTEIN** *(HDL)*
A type of cholesterol believed to transport fat away from the tissues to the liver, where it can be removed from the bloodstream. Called the “good cholesterol.”

**HOLTER MONITOR**
A small EKG monitor which allows continuous monitoring of a patient’s heart rhythm either in the hospital or as the wearer goes about daily activities. The rhythm is recorded for 24 hours on a cassette tape and read by a doctor.

**HYPERTENSION** *(High Blood Pressure)*
A chronic increase in blood pressure above its normal range.

**I**

**ICD** *(Implantable cardioverter defibrillator)*
A device implanted in the abdomen or chest wall that delivers an electric shock to the heart muscle to restore a normal rhythm and rate when the heart is beating (or fibrillating) at a rapid rate.

**ISCHEMIA**
Decreased blood flow to an organ, usually due to obstruction of an artery.
**LOW DENSITY LIPOPROTEIN** (LDL) A carrier of cholesterol in the blood. It can easily become stuck along blood vessel walls, and is called “bad cholesterol.”

**MITRAL VALVE** The valve between the left atrium and ventricle. It has two flaps or leaflets.

**MYOCARDIUM** The muscular wall of the heart. It contracts to pump blood out of the heart and then relaxes as the heart refills with blood.

**PACEMAKER** (Artificial) A device placed in your upper chest that regulates the heart rate.

**PLAQUE** Deposit of substances in the inner lining of the artery wall.

**SHEATH** The introducer sheath is a small catheter in which the angioplasty or diagnostic catheters are threaded.

**STENT** A tiny, latticed metal tube that is placed in an artery during angioplasty to hold the artery open.

**STRESS TEST** *(Exercise Stress Test or Treadmill Test)* Procedure of evaluating and recording the heart’s response during exercise. For more information, see Page B2.

**SUDDEN CARDIAC DEATH** Death that occurs unexpectedly and shortly after the onset of symptoms.

**TRANSESOPHAGEAL ECHOCARDIOGRAM** *(TEE)* A procedure where ultrasound pictures of the heart are obtained by placing a probe into the esophagus. For more information, see Page B2.

**THROMBOLYTIC AGENT** A medicine, that when given into a vein in the arm or directly into a coronary artery, may dissolve the blood clot that is blocking blood flow. The most commonly used are TPA (tissue plasminogen activator) and TNKase.

**TRICUSPID VALVE** The valve between the right atrium and ventricle. It has three flaps or leaflets.

**TRIGLYCERIDE** A fatty substance found in foods and also made by the body from alcohol, certain sugars, and fat.
Cardiovascular Community Resources

American Red Cross .......................................................... www.redcross.org

▼ Cardiopulmonary Resuscitation (CPR) classes ................................................... 827-3644
The adult CPR course teaches how to access the emergency medical system and how to deal with an adult suffering from a heart attack, stroke, airway obstruction, respiratory arrest or cardiac arrest. Students use workbooks and DVDs. They also practice skills on manikins under the supervision of a certified instructor.

▼ Automated External Defibrillation (AED) ........................................................... 827-3644
This course focuses on the use of typical automated external defibrillator equipment. Students receive hands-on simulation, lectures and live and video demonstrations. This course content is in combination with the adult CPR course.

▼ Injury Control Modules ...................................................................................... 827-3644
The Red Cross offers a series of one-hour, awareness-level modules on topics to avoid major health risks. The six module topics include:

- **Your Heart Matters** — Targeting key lifestyle factors, such as smoking, diet and exercise, this module helps people take steps to adopt healthier behaviors and reduce the risk of coronary heart disease.
- **Ergonomics** — Participants learn to reduce the risk of repetitive stress injuries by improving posture, rearranging work areas, using proper tools and doing simple exercises. Tips on prevention-program planning help you make this a continuing safety effort.
- **Slips, Tips, & Falls** — Topics include the causes of accidents and remedies for common hazards, plus practical advice on shoe selection, ladder safety and injury prevention programs.
- **Back Injury Prevention** — Beginning with back anatomy, participants assess the causes of their back pain and learn how posture, stretching and safe lifting skills can reduce the risk of injury.
- **Workplace Violence Awareness** — Realistic scenarios help participants recognize and reduce the risk of impending workplace violence and learn ways to improve their personal safety and security.
- **Managing Stress** — Discussions focus on the causes of stress to help individuals recognize their stressors and develop practical stress-reduction strategies for work and personal lives.

▼ Family Care Giving Modules ............................................................................. 827-3644
The Red Cross offers a series of one-hour courses to assist persons who find themselves having to care for a loved one at home. The 9 one-hour modules include:

- **Home Safety, General Caregiving Skills, Positioning and Helping Your Loved One Move, Assisting with Personal Care, Healthy Eating, Caring for the Caregiver, Legal and Financial Issues, Caring for a Loved One with Alzheimer’s Disease and Dementia**

The Red Cross also offers a book/DVD combo that includes information on all the topics listed above for $24.95
Web-Based First Aid, CPR, and AED .............................................................. 827-3644
People can learn the skills they need to respond to emergencies through blended learning, an environment that accommodates individual learning styles and needs. The first part of the training is taken online, and the second part of the course is led by a Red Cross-trained instructor.

Saline County Public Health Department
Telephone .............................................................................................................. 826-6600
The Saline County Public Health Department offers a variety of services such as blood pressure screening and home health services.

American Heart Association ........................................ www.americanheart.org
Kansas Affiliate...................................................................................................(785) 272-7056
5375 SW 7th
Topeka, Kansas 66606

Mended Hearts (National) ........................................ www.mendedhearts.org
For persons with heart disease, their families, friends and other interested persons.

Other Local Support Groups
Information on all local support groups is found in the Salina Journal’s Lifestyle section on the first Sunday of each month.

Central Kansas Foundation .............................................................. 309-0918
Freedom From Smoking
Freedom From Smoking is a smoking cessation class offered through the Salina Area Tobacco Prevention Partnership. It is an 10-week class that is offered several times throughout the year. Call the above number for specific dates and times.

Smoking Quitline ..............................................................1-877-448-7848 or www.smokefree.gov
This is a hotline to talk with an information specialist about quitting smoking. An informational packet will be sent to those who call.

Kansas Tobacco Quit Line ..............................................................1-866-Kan-Stop or www.kanstop.org


**Bibliography**

American Diabetes Association

American Heart Association

Centers for Disease Control and Prevention: Department of Health and Human Services

Dr. Curtis Kauer, Cardiologist, Mowery Clinic


Kansas Department of Health and Environment


National Cancer Institute

Salina Regional Health Center Cardiothoracic Discharge Instructions
