

# MOUNTAIN STATES HEART CARE



## UNDERSTANDING AND MAINTAINING HEART DISEASE



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# HEART ATTACK

Occurs when a blockage in the coronary arteries prevents muscle cells in the heart from receiving necessary oxygen, causing the cells to die.



# WHAT IS A HEART ATTACK?

When there is a blockage in the coronary arteries, the heart muscle cells do not receive necessary oxygen and begin to die. This process is commonly referred to as a “heart attack” or a myocardial infarction (MI). This damage can occur in a matter of minutes. The blockages may be caused by a buildup of fat, cholesterol and other substances. You may hear these blockages referred to as plaque. When one of these plaques breaks open, a blood clot forms, blocking necessary blood flow to the heart muscle, and the muscle begins to die. Damage increases the longer an artery remains blocked. Once that muscle dies, permanent heart damage occurs.

## What does it feel like?

Some of the most common symptoms are:

- Chest pain or discomfort
- Pain in the upper body, such as neck, jaw, upper back or arms
- A squeezing feeling or tightness in the chest
- Difficulty breathing or shortness of breath
- Sweating
- Nausea or vomiting
- Dizziness or light-headedness

As with men, a woman’s most common heart attack symptom is chest pain or discomfort. However, women are more likely than men to experience extreme fatigue, shortness of breath, nausea and/or vomiting, and back or jaw pain.

## What should I do if I think I’m having a heart attack?

Call for help. Call 9-1-1 or the rescue squad right away. **Do not drive yourself.** Early treatment within the first few hours of a heart attack can save your life. It can also reduce the damage caused by the heart attack.

## What will happen when I arrive at the hospital?

When you arrive having the symptoms of a heart attack, emergency care is delivered immediately. You will be taken to a room for an examination. While this is occurring, you will be connected to a heart monitor, and an electrocardiogram (EKG) will be obtained. This procedure is painless and allows us to monitor and assess the heart’s electrical activity. It may also assist in determining the extent of damage from the heart attack.

You may have an IV inserted into a vein in your arm. This procedure allows us to draw blood as well as give medications that may be necessary to your treatment while in the hospital.

While in the hospital, you may have an oxygen cannula or a mask to deliver supplemental oxygen.

Keep in mind that many of these procedures are occurring at once.

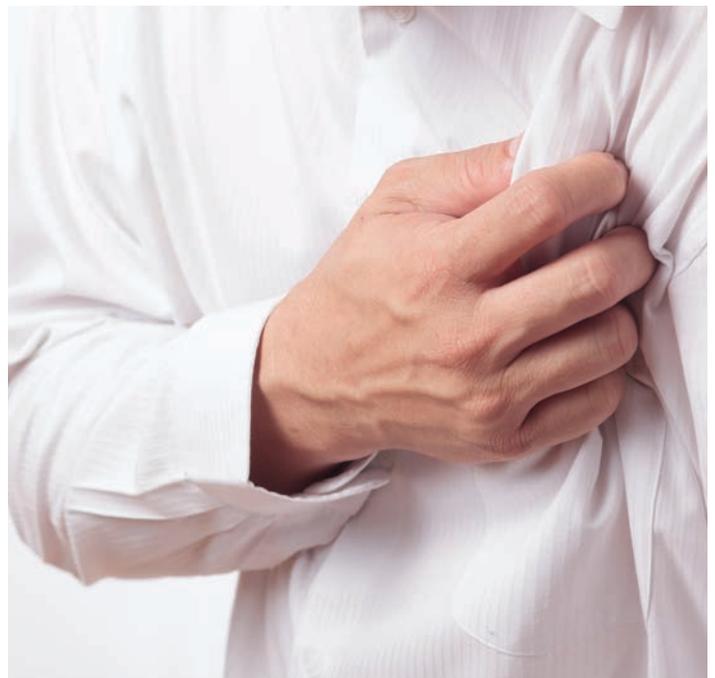
## What other tests may be performed?

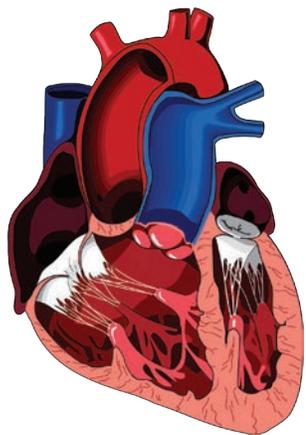
### Cardiac enzymes and troponins

When heart damage occurs, the body releases enzymes into the bloodstream. These enzymes will rise and fall throughout the heart attack. We will perform blood tests every few hours for several days. These tests can assist the physician in determining when the damage has stopped.

### Cardiac catheterization

Your doctor may determine that a cardiac catheterization is necessary. This procedure is performed in the cardiac catheterization laboratory. While there, a spot in your groin or arm will be numbed and a small tube (sheath) will be placed in an artery. A catheter is then threaded through this sheath and contrast or dye is injected. This test allows your doctor to actually see images of your heart and blood vessels. The images will show the amount of blockage in the heart arteries that supply blood to the heart muscle.



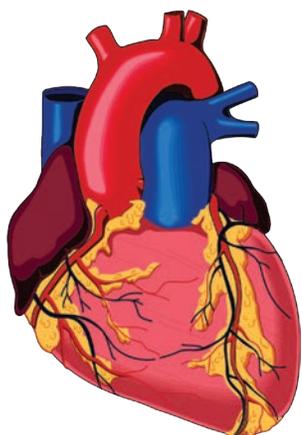


# HOW DOES MY HEART WORK?

## Heart Chambers:

The heart is a muscle that pumps blood to the entire body. It has four chambers—two on the right and two on the left. The two chambers on the right side of the heart receive blood from the body and pump it to the lungs, where it picks up oxygen. From the lungs, the blood enters the left side of the heart and is pumped to the body. There are four valves in the heart, which keep the blood flowing in one direction.

When the valves do not work the way they should, the heart must work harder to perform its job.



## Coronary Arteries:

Coronary arteries are blood vessels that lie on the surface of the heart and carry blood and oxygen to the heart muscle. These arteries start at the aorta and are called the right and left coronary arteries.

The right coronary artery supplies the right side of the heart. The left coronary artery divides into two main branches that supply the left side of the heart. One branch, the left anterior descending, supplies the front wall of the heart. The second branch, the circumflex, supplies the back and side walls of the heart. All of the arteries further divide into smaller branches so blood supplies the entire heart muscle with oxygen.

## What is heart failure?

Heart failure means your heart isn't pumping blood as it should. The heart must work harder to keep up with the body's need for blood and oxygen.

Heart failure is a condition that usually takes place slowly. It most often develops following an injury to the heart such as heart attack, high blood pressure, disease or infection of the heart muscle, or heart valves that aren't working properly. The injured heart muscle is weakened and must work harder to keep up with the body's needs for blood and oxygen. This can result in the heart becoming enlarged (cardiomyopathy). It can also result in the tired feeling many people experience first. Unfortunately, people may ignore this rundown feeling or think these symptoms are normal symptoms of aging.

Heart failure is a condition affecting four million to five million Americans. It is the most common reason people 65 and older are hospitalized. More than 400,000 new cases of heart failure are diagnosed each year.

## What causes congestive heart failure (CHF)?

When the heart can't pump enough blood, blood backs up in the veins. Fluid builds up, which may cause swelling (edema) in feet, ankles and legs. It is best to sit with your legs elevated as often as possible. Weight gain and shortness of breath (especially when lying down) may follow. The fluid that builds up in the lungs causes congestion. Heart failure is often called congestive heart failure (CHF) because of this congestion in the lungs. Congestive heart failure can get worse if not treated.

## How is heart failure diagnosed?

Only your doctor can tell if you have heart failure. Your doctor may use a number of tests such as lab work and an electrocardiogram (EKG). An echocardiogram may be used to measure ejection fraction (EF). Ejection fraction measures the heart's ability to pump. A normal EF is 50 percent or greater. Most people with heart failure, but not all, have an EF of 40 percent or less.

# HOW CAN MY HEART BE REPAIRED?

## Percutaneous coronary intervention (PCI)

PCI, often referred to as a balloon procedure, may be used to open a blockage. This procedure may be done by advancing a wire over the blockage and then passing a balloon-tipped catheter into place over the blockage. The balloon is then inflated. This compresses the plaque against the vessel walls, creating an opening. The balloon may be inflated several times to increase the size of the opening. The balloon is then deflated and withdrawn.

## Stent

During your PCI, your physician may determine that he or she can treat your blockage by stent placement. Stenting has become fairly common.

A stent is a tiny, wire-mesh tube that is passed over the blockage on a balloon. The balloon is then inflated, expanding the wire stent and compressing the plaque against the walls of the coronary artery. This stent helps to keep the artery open, therefore allowing blood and needed oxygen to get to the heart muscle.

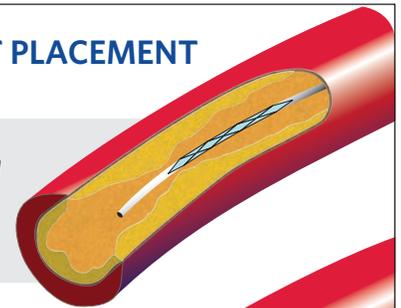
Your physician will decide whether your blockage can be treated with a stent. Factors that affect this decision include but are not limited to artery size, location and number of blockages. In about one-third of patients who have had balloon angioplasty without a stent, the artery that was opened begins to narrow again. This may happen within months of the procedure. This process is called restenosis. Stents help prevent this.

There are two kinds of stents available today: bare metal and drug eluting. A drug-eluting stent is coated with a medication that helps keep the coronary artery from reclosing. Your physician will decide which kind of stent is appropriate in your particular case. Factors that affect this decision may include, but are not limited to, other existing disease processes and size of the vessel. It is very important that patients with either type of stent take their anti-clotting medication as directed by their doctor.

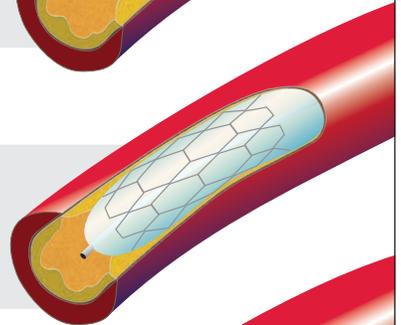
Patients who have angioplasty and stents recover from these procedures much faster than patients who have coronary artery bypass surgery, and they have much less discomfort too.

## PCI WITH STENT PLACEMENT

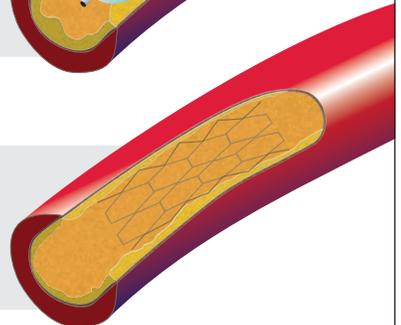
*Balloon catheter with stent inserted into blockage*



*Balloon inflated to open blockage and implant stent*



*Catheter removed leaving stent to keep artery from reclosing*



## Coronary artery bypass surgery

Your physician may decide that the best treatment for you is bypass surgery. This may be determined based on the size, number and location of your blockages. You may need surgery just after your catheterization or your surgery may be scheduled for a later date. During bypass surgery, the blockages are not removed. Using a healthy blood vessel taken from another part of the body, often a vein from the leg or an artery from the arm or chest, a pathway is created around the blockage. These pathways are referred to as grafts. The graft is attached to the coronary artery beyond the blockage. By this process, the blood flows through the graft around the blockage and gets to the muscle tissue where it is needed.

## Medical management

Based on the results of your diagnostic tests, your doctor may choose to treat your heart disease with medication and risk factor reduction.

# WHAT RISK FACTORS CONTRIBUTE TO HEART ATTACKS?

Risk factors are characteristics or behaviors that increase a person's chances of developing coronary artery disease (blocked arteries) or enhance its progression. Most risk factors can be controlled with lifestyle changes, which will reduce your risk of further heart attacks.

## IDENTIFY YOUR RISK FACTORS

- Smoking
- Diabetes
- High blood pressure
- Sedentary lifestyle
- High blood lipids (fats)
- Family history
- Stress
- Obesity/overweight
- Cholesterol (ideal is less than 200)
- Triglycerides (ideal is less than 150)

Additional information about cardiac risk factors may be obtained from your cardiac rehabilitation nurse.

## TESTS FOR YOUR HEART

### Nuclear stress test

A stress test is performed to see how well your heart works while being exercised. You will first have resting images taken before your heart is put to work. Then, you may be asked to walk on a treadmill. While you exercise, you are attached to a computer that records what your heart is doing during the exercise. The rate will increase as you can tolerate it. If you experience chest pain or discomfort at all during this time, be sure to let the person conducting your test know.

If you are unable to walk on a treadmill, a medication will be injected to cause your heart to speed up and work as if it is being exercised. You may feel hot, sweaty or dizzy after the medication is injected. You will be constantly monitored, and a computer will record how your heart works during the test.

After the exercise portion, more images will be taken to see how your blood flows after strenuous activity. From beginning to end, the test usually takes three to four hours.

### Echocardiography (Echo)

Echocardiography, also called an echo, is a test that takes moving pictures of the heart with sound waves. The test usually does not hurt; however, you may feel pressure when the technologist is pressing on your chest to obtain the images. X-rays are not used for these pictures.

You will lie on a bed or stretcher on your back or your left side. The technologist will put gel on a probe and move it over your

chest area. Ultra-high frequency sound waves will pick up images of your heart and valves. Your heart's movements can be seen on a video screen. Digital images are made of the pictures. You can sometimes watch the screen during your test if you want. The test usually takes 20-30 minutes. There are no side effects.

### X-ray

Your physician may request an X-ray of your chest or abdomen to see if there may be something different causing your chest pain. An X-ray is a photograph taken that shows bones and organs, including your heart. It may be able to tell if your heart is enlarged, or if there is a clot in your lungs that may be causing the chest pain.

### Electrocardiogram (EKG)

An EKG records the electrical activity of your heart. An EKG provides information about your heart's rate and rhythm. It also diagnoses ischemia, heart attacks and a variety of other heart conditions.

To perform the test, 12 sensing electrodes are placed on the skin of your arms, chest and legs. Wires are then attached to the electrodes and to a monitor. The monitor displays your heart's electrical activity and records it on paper. A printout is then available for the physician to evaluate.

# WHAT CAN I DO TO PREVENT A HEART ATTACK?

*It is never too late to prevent a heart attack, even if you have already suffered one. Patients should always talk to their doctor about their risk factors for heart disease and how they can reduce those risks. Your doctor may tell you the following:*

- Quit smoking. If you smoke, stop, and if you don't smoke, don't start.
- Eat a healthy diet. Cut back on foods high in fat and sodium, which will aid you in lowering your cholesterol and blood pressure. Pages 13-23 detail how you can reduce calories and sodium intake.
- Control your diabetes.
- Lose weight if you are overweight.
- Control your blood pressure if you have hypertension.

## Cardiac rehabilitation

Your doctor may recommend outpatient cardiac rehabilitation. Cardiac rehabilitation includes exercise and education to help you build strength and learn how to reduce risk factors that may cause heart problems in the future. We offer cardiac rehabilitation programs close to your home, focusing on risk factor modification. Each location includes a variety of exercise equipment, weights and education under the supervision of cardiac nurses, exercise physiologists, dietitians, pharmacists and physicians.

We look forward to working with you. You do have a choice in your continued recovery after your heart attack or cardiac intervention. Please call 844-488-7827 for more information. We will be happy to check your insurance coverage prior to enrollment.

## Exercise

Exercise reduces stress, improves cholesterol levels, helps you lose weight, lowers blood pressure and is a powerful tool in controlling heart failure. It is important to follow your physician's advice about how much exercise is right for you. Choose an exercise you like and can do year-round. Generally, walking, bicycling and swimming are good forms of exercise.

- Wait one to two hours after a meal to begin exercising.
- Always start exercise with a warm-up, five to 10 minutes of stretching or slow walking.
- Your doctor or nurse can help you calculate your target heart rate.

- Exercise at your target heart rate—which is how fast your heart should beat during exercise.
- After exercise, cool down by walking slowly for at least five minutes.

## When to stop exercising

Stop exercising if you have any of these problems:

- Angina (chest pain)
- Severe or unusual fatigue
- Irregular or rapid heartbeat
- Shortness of breath
- Nausea

## Temperature extremes

- Avoid exercising in very hot or very cold temperatures. Avoid activity outdoors when temperatures are below 32 degrees and above 80 degrees.
- During the summer when it is hot and humid, walk early in the morning or late in the day if you are walking outside. Avoid extreme temperatures such as steam baths, saunas, spas and whirlpools until your doctor advises you otherwise.
- Don't exercise when you are ill or have a fever.
- Use the "talk test" while you are exercising; if you are breathing so hard you have difficulty talking, SLOW DOWN.

# LEARNING TO LIVE WITH HEART FAILURE

*If you have been diagnosed with heart failure, there are many things you can do to help yourself.*

## Exercise

### *Learn to balance rest and exercise*

Exercise reduces stress, improves cholesterol levels, helps you lose weight, lowers blood pressure and is a powerful tool in controlling heart failure. It is important to follow your physician's advice about how much exercise is right for you. Choose an exercise you like and can do year-round. Generally, walking, bicycling and swimming are good forms of exercise. Your doctor may recommend cardiac rehabilitation. Cardiac rehabilitation includes exercise and educational programs to help build strength and learn how to manage heart failure.

Here are a few guidelines for exercising:

- Wait 1-2 hours after a meal to begin exercising.
- Always start exercise with a warm-up, five to 10 minutes of stretching or slow walking.
- Your doctor or nurse can help you calculate your target heart rate (see Heart Rate Conversion Table, page 10).
- Exercise at your target heart rate—which is how fast your heart should beat during exercise.
- After exercise, cool down by walking slowly for at least five minutes.

## When to stop exercising

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- Don't exercise when you are ill or have a fever.
- Use the "talk test" while you are exercising—if you are breathing so hard you have difficulty talking, SLOW DOWN.

## Stretches before and after activity

### *Principles of stretching:*

- Breathe slowly, deeply and naturally.
- Think about the area being stretched; feel the stretch.
- Don't stretch too far. Hold a stretch in a comfortable position; it should not hurt to stretch.
- Do not bounce: stretch and hold it.
- Regularity and relaxation are the most important factors in stretching.
- Don't compare yourself with others. Proper stretching means stretching within your own limits, relaxed and without comparisons.
- Stretch before activity and whenever you feel like it.

### **HOW TO STRETCH:**

- Start with an easy stretch.
- Go to a point where you feel a mild tension, relax and hold for 10-15 seconds.

# HOW TO TAKE YOUR PULSE AND DETERMINE YOUR HEART RATE

*Pulse (heart rate) is the number of times your heart beats per minute. Many medications and exercise programs require checking your pulse regularly.*

## Factors affecting heart rate

- Women average five to 10 beats per minute faster than men.
- Emotions, humidity and exercise increase heart rate.
- The heart rate decreases with increasing age.
- The heart rate increases during and after eating.
- The heart rate increases as body temperature increases.
- A change from a lying position to a sitting position raises the heart rate.
- Do not become alarmed if your pulse goes above 100 beats per minute when affected by the above factors.

### How to take your radial pulse

1. Sit down and relax for five minutes before taking a resting pulse.
2. Gently place your second, third and fourth fingers over the radial artery (on the thumb side) to feel a pulsation in your wrist. Never use your thumb to feel a pulse.
3. After locating the beat, count the number of beats for six seconds and then add a zero. Record your pulse rate.

### When to take your pulse

- Before getting out of bed every day
- Before taking certain medications
- Before and after exercise

### Avoid stress

- Plan for regular rest and relaxation, and avoid stress.
- Stress can make your heart beat faster and can raise your blood pressure.
- If you feel stressed, take two-three deep breaths, rest and do something relaxing.

### Angina

Angina is a serious warning sign. It is a message from your heart telling you it is not getting enough blood and oxygen. Angina can feel different to different people. Common symptoms include chest, throat, jaw or arm discomfort, described as pain, tightness, pressure, heaviness, squeezing or burning. If angina occurs, stop your activity, sit down and relax. If nitroglycerin has been ordered, take this medication as your doctor directed.

If the discomfort does not subside within 10 to 15 minutes, or after three nitroglycerin tablets, seek immediate medical assistance.

# HEART RATE CONVERSION TABLE

Number of Beats Counted in 15 Seconds	Heart Rate Beats per Minute	Your Limit While Walking
13	52	72
14	56	76
15	60	80
16	64	84
17	68	88
18	72	92
19	76	96
20	80	100
21	84	104
22	88	108
23	92	112
24	96	116
25	100	120
26	104	124 HR TOO HIGH SLOW DOWN
27	108	128 HR TOO HIGH SLOW DOWN
29	116	132 HR TOO HIGH SLOW DOWN
30	120	140 HR TOO HIGH SLOW DOWN



# MEDICATIONS

*It is important to take your medications as prescribed by your doctor. The benefits of medication may be to lower cholesterol or blood pressure, relieve angina, maintain a regular heartbeat or improve your heart's blood flow. Know your medications, their dosages and why they are prescribed. Keep a list. Below is a list of medications and why they are used:*

**Anti-arrhythmics** - irregular heartbeat

**Anticoagulants** - clots (such as Plavix, Effient, Brilinta)

**Antihypertensives** - high blood pressure, heart failure

**Aspirin** - clots

**Beta blockers** - high blood pressure, angina and arrhythmias (such as Coreg, Metoprolol)

**Calcium channel blockers** - high blood pressure, angina, arrhythmias

**Lipid-reducing medications** - high cholesterol, triglycerides (such as statins: Zocor, Lipitor, etc.)

**Vasodilators** - high blood pressure, heart failure

## ACE inhibitor

(Angiotensin-converting enzyme inhibitor)

ACE inhibitors dilate blood vessels and are used to treat hypertension and heart failure.

Your doctor may order lab tests to check your blood before starting this medicine and while you are taking ACE inhibitors.

While taking an ACE inhibitor, you may be instructed to check your urine for protein using a dipstick.

- Avoid sunlight and use sunscreen.
- Check with your physician before taking over-the-counter products for colds, cough or allergies.
- Do not suddenly stop taking this medicine.
- Report mouth sores, rashes, vomiting, diarrhea or other symptoms to your doctor.
- Report to your doctor a frequent dry cough that does not go away.
- Take pills one hour after meals.
- Take your blood pressure regularly.

## Digitalis

Digitalis is a valuable medication and requires careful monitoring by your physician. This may include blood tests. This medication slows and strengthens the heart. Take your pulse before taking digitalis, and if your heart rate is under 60, call your doctor.

Side effects are very common. If nausea, vomiting, diarrhea, fatigue, dizziness or palpitations do not go away, notify your physician. Side effects include:

- Blurred vision
- Change in the rhythm of your pulse while resting
- Confusion
- Constipation
- Diarrhea
- Difficulty passing urine
- Dizziness
- Fever
- Headache
- Loss of appetite, nausea or vomiting
- Ringing in the ears
- Skin bruises easily
- Skin rash
- Sudden increase or decrease in your pulse rate while resting
- Yellow-green "halos" around objects

## Diuretics

These medications (such as Lasix) reduce the amount of water and salt in the body.

- Take early in the day to avoid disturbing sleep with the need to pass urine during the night.
- With some diuretics, you may need to eat foods high in potassium, such as citrus fruits, bananas, prune juice, tomatoes, raisins, dried dates, apricots, beet greens, baked potatoes, yams and molasses.
- Avoid grapefruit juice.

## Nitroglycerin and nitrates

Nitroglycerin (nitro) works to dilate blood vessels and improve blood flow. It is used to treat angina (chest pain). Nitro comes in many forms. The most common are small tablets and paste. Nitro is also available in a spray. One spray of nitro is equal to one nitro pill.

If chest pain occurs, take nitro according to your physician's directions. Place tablets under the tongue and allow them to dissolve (do not swallow). Keep the tablets in the original container. They lose strength when exposed to heat, air and light. Either sit or lie down before taking nitroglycerin tablets as they decrease your blood pressure and may make you dizzy.

The tablet should sting slightly under the tongue. If it does not, replace the medication. (Routinely replace pills every three months.) Nitro spray lasts longer but is more expensive. You can expect a headache with the use of nitro. Generally if three nitro tablets in 15 minutes (one every five minutes) do not relieve chest pain, seek immediate medical attention.

Paste is measured in inches on the paper provided with the tube of medicine.

## Medications

- Bring all medication bottles with you for your first follow-up appointment with your physician.
- Do not restart any medications without checking first with your physician.
- Do not take any over-the-counter medications without checking with your physician.
- Tylenol can be taken as needed.

## When to call your doctor

If you experience the following, call your physician:

- Increased shortness of breath
- Increased cough
- Swelling of legs and feet
- Fatigue/weakness
- Weight gain of three pounds a day or five pounds a week
- Loss of appetite
- Angina (chest pain) unrelieved by three nitroglycerin and rest

## Special points

- To lessen dizziness, stand up slowly.
  - A. Sit or lie down at the first signs of dizziness.
  - B. Go up and down stairs slowly.
- If you have constipation, you may need a stool softener.
- Check labels; avoid alcohol if indicated.
- Keep all medications out of the reach of children.

# GUIDELINES FOR A HEART-HEALTHY LIFESTYLE

The best way to help lower your blood cholesterol level is to make heart-healthy choices (less total fat, saturated fat, cholesterol, trans fats and sodium), achieve and maintain a healthy weight, control your blood sugar, and walk or do another physical activity for at least 30 minutes each day. It is recommended that you follow these dietary guidelines of the American Heart Association and the National Institutes of Health National Heart, Lung and Blood Institute (Adult Treatment Panel III):

- Total calories should be adjusted to reach and maintain a healthy weight.
- Saturated fat intake should be less than seven percent of calories.
- Polyunsaturated fat intake should be less than 10 percent of calories.
- Monounsaturated fat can make up to 15 to 20 percent of total calories.
- Total fat intake should be 20 to 25 percent of total calories.

- Cholesterol intake should be less than 200 milligrams per day.
- Fiber intake should be 25 to 30 grams per day.
- Protein intake should be approximately 15 percent of total calories.
- Sodium intake should be less than 1,500 milligrams per day, which includes the “hidden” sodium content in your food.
- Consume two servings of fish twice a week.
- Avoid trans fats in foods.

For more information:

The American Heart Association  
1-800-AHA-USA1  
[www.heart.org](http://www.heart.org)

Academy of Nutrition and Dietetics  
1-800-366-1655  
[www.eatright.org](http://www.eatright.org)

## SAMPLE MENU FOR A HEART-HEALTHY LIFESTYLE

(<20-30 percent fat; <7-10 percent saturated fat; <200mg cholesterol; high-fiber, low-salt diet)

### BREAKFAST

Fresh orange  
Oatmeal, 1/2 cup  
Scrambled egg substitute, 2 oz.  
Whole-wheat toast, 1 slice  
Jelly  
Skim milk, 1 cup  
Coffee/tea

### LUNCH

Grilled fish, 4 oz.  
Small baked potato  
Green beans, 1 cup  
Tossed salad  
Italian dressing, 1 tsp.  
Peach slices  
Whole-grain roll  
Iced tea/coffee

### DINNER

Broiled skinless chicken breast, 4 oz.  
Wild rice, 1/2 cup  
Carrots, 1/2 cup  
Fresh strawberries  
Low-fat frozen yogurt, 1/2 cup  
Whole-wheat bread  
Skim milk, 1 cup  
Iced tea/coffee

Calories: 1,800; Protein: 124 grams; Carbohydrates: 235 grams; Cholesterol: 145 mg; Sodium: 1,500 mg; Fiber: 38 grams; Total Fat: 40 grams; polyunsaturated fatty acid (PUFA): 13 grams; monounsaturated fatty acid (MUFA): 12 grams; Saturated Fat: 8 grams; Total Fat: 19%; PUFA: 7%; MUFA 6%; Saturated Fat: 4%

# SELECT FOODS LOW IN CHOLESTEROL AND SATURATED FATS

FOOD GROUP	RECOMMEND	USE SPARINGLY	AVOID
<b>Meat, Poultry, Fish, Eggs and Nuts</b> (up to 8 ounces of meat, poultry, fish per day)	Lean cuts of meat, chicken and turkey without skin; all varieties of fish; egg whites and egg substitutes	Goose, duck and nuts. Limit egg yolks to 2 per week and limit red meats to 4 or fewer servings per week (4 oz. per serving), 97 percent fat-free luncheon meat	Processed meats; bacon, hot dogs, sausage, hamhocks and bologna; prebreaded or fried items; organ meats; liver, kidney and heart
<b>Milk Products</b> (2 or more servings per day; 3-4 for pregnant or breastfeeding women)	Skim, 1/2 percent and 1 percent milk and milk products; nonfat dairy products; dry milk, low-fat yogurt, frozen yogurt, ice milk, 1 percent cottage cheese, fat-free cheeses, fat-free sour cream and sherbet	"Light" cream cheese and "light" sour cream, buttermilk, 2 percent cheese and reduced-fat cheese	Whole and 2 percent milk, condensed sweetened milk, regular evaporated milk and sour cream; hard cheese: Swiss, American, cheddar; ice cream, whipping cream and cream
<b>Fats and Oils</b> (small amount)	Canola, olive, corn, peanut, safflower, sunflower, soybean, cottonseed and sesame oils; fat-free spray butter, fat-free mayonnaise and fat-free salad dressings	Light salad dressings, light mayonnaise, avocados, olives, light and soft margarine	Butter, lard and salt pork; coconut, palm and palm kernel oils; hydrogenated margarines and shortenings; saturated fat, bacon fat and trans fats; regular salad dressings; regular mayonnaise
<b>Fruits and Vegetables</b> (5-plus servings per day)	All varieties: fresh, frozen, dried; canned fruits without sugar; canned vegetables with no salt added	Canned fruit in heavy syrup	Coconut; vegetables prepared in butter, cream or sauce
<b>Meat Alternatives</b>	Dried beans and peas: kidney, lima, soy, pinto, navy, black, peas, chickpeas, black-eyed, lentils and vegetarian-cooked beans; tofu and soy-based foods	Nuts and seeds, unsalted, dry roasted: peanuts, walnuts, pecans, macadamia, almonds, sunflower and pumpkin seeds; peanut and soy butters canned; beans, vegetables and soups	Those prepared with meat fat
<b>Breads, Cereals, Pasta, Rice and Beans</b> (6-11 servings per day)	Whole-grain breads, crackers and cereals; pasta, rice, dried peas and beans; plain baked potato, English muffins; bagels; pita, oatmeal, rye, pumpernickel	Frozen waffles or pancakes, granola-type cereals, and oat bran cereals made with coconut oil, restaurant bread or rolls	Biscuits, croissants, pastries; crackers made with saturated oils; egg noodles; egg and cheese breads; muffins, doughnuts. Products with lard, butter, beef fat, palm oil, coconut oil and hydrogenated vegetable oils.
<b>Snacks</b> (in very limited amounts)	Angel food cake, low-fat frozen yogurt, sherbet, sorbet, jello; fresh and canned fruit without sugar; graham and animal crackers; fig bars, fruit juices, cocoa powder, popcorn and pretzels	Fruit cobblers, homemade cakes, cookies and pies prepared with unsaturated oils, light ice cream	Ice cream; fried foods: potato chips, corn chips, cheese curls; chocolate; buttered popcorn; pies, cakes, cookies and snack cakes
<b>Miscellaneous</b>	Vinegar, mustard, herbs, spices, ketchup; fresh garlic or ginger; garlic and onion powders; Italian seasoning and Mrs. Dash		

# A HEALTHY DIET

*Reducing the amount of salt, calories and fat that you consume can have a positive effect on your cholesterol and triglyceride levels, blood pressure and more.*

## Seven simple ways to reduce calories and/or fat

1. Brown meats by boiling or cooking in nonstick pans with little or no oil.
2. Chill soups, stews, sauces and broths: lift off congealed fat (saves 100 calories per tablespoon of fat removed).
3. Trim fat from meat and remove skin from poultry.
4. Use water-packed canned products (canned fish, canned fruits).
5. In recipes for baked products, the sugar can often be reduced by 1/4 to 1/3 without harming the final product. Cinnamon and vanilla also give the impression of sweetness.
6. Use fresh fruit whenever possible. If canned fruit must be used, select water-packed varieties, fruit in own juice or drain heavy syrup from canned fruits.
7. For sauces and dressings, use low-calorie bases (vinegar, mustard, tomato juice, fat-free bouillon) instead of high-calorie ones (cream, fats, oils, mayonnaise).

## Seven ways to reduce your salt intake

1. Use other spices during cooking, such as garlic, oregano and Mrs. Dash.
2. Rinse all canned vegetables before cooking. Cook in fresh water.
3. Avoid processed foods, such as lunch meats, frozen dinners and crackers.
4. Keep salt off the table. Avoid adding salt to prepared meals.
5. Be aware that nearly all foods contain some salt, including bread and milk. Read labels carefully to keep salt intake to less than 1,500 mg per day.
6. Eat fewer fast foods, which have high amounts of salt.
7. Soups have high amounts of salt, and usually have at least two servings per can. Stick to only one serving, or buy sodium-free soups.

## CHOLESTEROL GUIDELINES

These are guidelines for healthy adults. Speak with your doctor about the right levels for you. For example, if you have been diagnosed with heart disease, your doctor may recommend that your LDL be less than 70 mg/dL.

Total Cholesterol (Low is good!)	Less than 200/mg/dL 200-239 mg/dL 240 mg/dL or above	Desirable Borderline high High
LDL (bad) Cholesterol (Low is good!)	Less than 100/mg/dL 100-129 mg/dL 130-159 mg/dL or above 160-189 mg/dL 190 mg/dL and above	Desirable Near desirable Borderline high High Very high
HDL (good) Cholesterol (High is good!)	60 mg/dL or above Less than 40 mg/dL	Desirable Too low
Triglycerides (Low is good!)	Less than 149 mg/dL 150-199 mg/dL 200-499 mg/dL 500 mg/dL or above	Desirable Borderline high High Very high

# HOW MUCH FAT YOU SHOULD EAT

Your fat intake is limited to about one teaspoon of margarine or its equivalent per meal. The amount of fat that you need depends on the calorie need. Twenty-five percent of your calorie need will amount to 56 grams of fat on a 2,000-calorie diet and 34 grams of fat on a 1,200-calorie diet or as indicated below:

## **CALORIES/DAY 20-25 PERCENT TOTAL CALORIES FROM FAT:**

2,500 calories 56 to a max of 70 grams of fat  
2,200 calories 49 to a max of 61 grams of fat  
2,000 calories 44 to a max of 56 grams of fat  
1,800 calories 40 to a max of 50 grams of fat  
1,600 calories 36 to a max of 45 grams of fat  
1,500 calories 33 to a max of 42 grams of fat  
1,200 calories 27 to a max of 34 grams of fat

*Basically, this means no fried foods, rich sauces or gravies.*

## **Kinds of Fats**

**CHOLESTEROL** – A waxy substance found only in foods of animal origin.

**HYDROGENATION** – A process that converts vegetable oil to a solid fat. Hydrogenated or partially hydrogenated oils contain trans fats and are not recommended. Examples include stick margarine and solid shortening.

**MONOUNSATURATED FATS** – Fats from plants. Examples include canola, olive and peanut oil.

**OMEGA-3-FATTY ACID** – Fatty acids found in fish and flaxseeds seem to protect against some forms of heart disease.

**POLYUNSATURATED FATS** – Fats from vegetable oils. Examples include sunflower, safflower, corn, soybean, cottonseed and sesame seed oil.

**SATURATED FAT** – Fat from animals and some plants (e.g. coconut, palm and palm kernel oil). These raise cholesterol levels.

**TRANS UNSATURATED FATTY ACIDS OR TRANS FATS** – Solid fats produced by hardening liquid vegetable oils (hydrogenation) into shortening and margarines. These fats are usually used to cook french fries and other fried fast foods, and are often used in cookies and pastries. Trans fats raise LDL (“bad”) cholesterol and decrease HDL (“good”) cholesterol.

## **Shopping, preparation and cooking tips**

One of the most important changes you can make is learning to select and prepare foods with little or no fat or oil.

## **12 ways to cut the fat**

1. Bake, boil, broil, grill, steam, roast, braise/simmer, poach or microwave.
2. Sauté vegetables and meat in water, broth or wine instead of butter.
3. Skim off the fat or chill soups, stews, sauces and broths. Lift off the congealed fat (saves 100 calories per tbsp. of fat removed).
4. Trim fat from meat. Remove skin from poultry. (The exception is when roasting a whole chicken or turkey; then remove the skin before carving and serving the meat.) Choose fresh, whole turkeys that have not been injected with fats or broths.
5. Drain off all fat after browning meats.
6. Cook meats at low temperatures (325-350 degrees F). High temperatures seal the fat into the meat.
7. Use water-packed, canned products (canned fish, chicken and fruits).
8. For sauces and dressings, use low-calorie bases (vinegar, mustard, tomato juice, fat-free bouillon) instead of high-calorie ones (cream, butter, oils and mayonnaise).
9. Use fat-free skim, 1/2 percent milk, fat-free evaporated milk and nonfat yogurt, nonfat sour cream and nonfat/low-fat cheeses.
10. Use egg whites or egg substitutes.
11. Choose frozen dinners, entrees and desserts that are made especially for low-saturated fat, low-cholesterol and low-sodium diets.
12. Use 93/7 ground beef or ground poultry. Avoid ground meats if eating out.

# SALT AND SODIUM

Sodium has an important role in the body; however, most Americans consume more sodium than is needed.

## Why should I limit salt?

A diet high in salt can raise your blood pressure or may contribute to fluid retention, which makes your heart work harder, and may cause shortness of breath and swollen legs, ankles and feet.

## How much do I need?

The ideal goal for sodium in your diet is 1,500 milligrams per day. This amount is present naturally in your food and does not mean you can add additional salt. Read food labels and select wisely.

## To limit salt:

- Do not use salt at the table.
- Avoid canned and processed foods: soups, vegetables, meats, cheese, commercial breads, muffins, pastries and instant cereals.
- Omit salty foods such as pickles, olives, sauerkraut, chips, crackers, TV dinners, hot dogs, luncheon meats, sausage, salt pork, chipped and corned beef, and commercial salad dressings.
- Omit high-sodium seasonings: garlic salt, onion salt and seasoning salts, bouillon, soy sauce and “light” salt.
- Omit prepared rice, pasta and dried soup mixes, Hamburger Helper and Shake & Bake-type products.
- Eat fewer convenient, fast foods and restaurant meals.
- Request less salt in your meals when eating out.

## Simple ways to reduce salt:

- Use herbs and spices such as Mrs. Dash, and see spice list on page 10.
- Use fresh garlic and onions or their powders or granules.
- Use fresh or frozen meats, poultry, fish and vegetables; low-sodium luncheon meats, tuna fish and low-sodium cheese.
- Salt can be omitted from any recipe except one containing yeast.
- Avoid recipes that contain substantial amounts of baking powder or baking soda (biscuits, muffins, pancakes and waffles).
- Use low-sodium or unsalted ingredients in recipes (unsalted margarine, low-sodium crackers, low-sodium cereals, low-sodium canned products – soups, tomato sauces).
- Avoid adding salt to boiling water when cooking pasta, vegetables or cereals.
- Read labels. Check for sodium content and replace with fresh, low-sodium products or homemade varieties whenever possible.



# SALT AND SODIUM

## Sodium Content in Foods

FOOD PRODUCT	SODIUM (MG)
One-fourth teaspoon salt .....	500
One teaspoon salt .....	2,300
One teaspoon light salt .....	1,100
One teaspoon salt substitute .....	< 1
One-half package chicken coating mix .....	1,300
One tablespoon soy sauce .....	1,300
One-half 10-inch pizza .....	1,250
One cup packaged macaroni & cheese .....	1,200
Two ounces bologna .....	738
Two all-beef frankfurters .....	1,000
Two chicken frankfurters .....	1,260
One tablespoon bac-o-bits .....	473
One-half dill pickle .....	1,000
One bouillon cube .....	1,000
One-half cup tomato soup .....	790
One can mushroom soup, condensed .....	2,324
**One-half cup chicken noodle soup .....	890
**One-half cup low-sodium chicken noodle soup .....	90
Fast food biscuit (plain) .....	840
One tablespoon beef broth, dry instant .....	3,611
Three-fourths cup canned tuna, sardine, etc. ....	850
Two-thirds cup baked beans .....	750
Four large olives or one-half cup sauerkraut .....	500
One cup instant mashed potatoes .....	485
Eight cracker squares .....	480
Eight unsalted top crackers .....	2
One ounce processed cheddar cheese .....	420
One ounce American cheese .....	644
One teaspoon regular margarine .....	50
One slice bacon .....	76
One-ounce package of dried onion soup mix .....	2,000
Three ounces country ham .....	2,000
Three ounces canned ham .....	900
Three ounces fresh pork roast .....	60
**Two-ounce sausage patty .....	1,020
**Two-ounce pork chop .....	80
Three ounces beef cubes .....	60
Three-ounce hamburger patty .....	60
Three pancakes .....	890
Submarine sandwich .....	3,528
Corned beef on rye bread .....	1,214
**Compare the difference	

# SPICE UP YOUR LIFE

## Herbs and spices

## Use in these foods to enhance flavor instead of salt

Allspice .....	stews, soups, ground meats, barbecue sauce, tomatoes, sweet potatoes and fish
Basil .....	beef, lamb, seafoods, soups, stews, stewed or fresh tomatoes, sauces and Italian dishes
Bay leaves .....	meats, poultry, soups, stews and spaghetti dishes
Chives.....	salads, sauces, soups, stews, fish, meats and vegetables
Cinnamon .....	fruits (especially apples), breads, pork, fish, squash and sweet potatoes
Chili powder .....	ground meats, casseroles, corn, seafood, French dressing and soups
Cloves.....	fruits, roasted meats, squash and baked fish
Curry powder.....	lamb, chicken, fish, beef and vegetables
Garlic (no salt) .....	casseroles, meats, salads, vegetables and tomato dishes
Ginger.....	chicken, oriental vegetables, fruits and pork
Lemon or lime juice.....	vegetables, meats, fish, seafoods, salads and fruit
Mace.....	hot breads, fruit salads, fish and veal
Marjoram .....	lamb, salmon, eggplant and green salad
Mustard (dry) .....	ground meats, fish, salads, sauces, beans and chicken
Nutmeg .....	cottage cheese, eggs, fruits and vegetables
Oregano .....	soups, stews, Italian casserole, steaks, seafoods and tomatoes
Paprika .....	chicken, fish, meats, baked potatoes, coleslaw and wax beans
Parsley .....	salads, broiled meats, baked and stewed meats, poultry, soups, tomato and tomato sauces
Rosemary .....	meats, fish, poultry, dressing, potatoes, peas and lamb
Sage .....	turkey, dressing, poultry and fish
Tarragon.....	salad dressings, marinades, sauces, fish, meats and poultry
Thyme.....	fish, meats, poultry, vegetables and rice

- Herbs and spices, in addition to flavor, may also provide phytochemicals, which may be heart-healthy, fight cancer or enhance the immune system.
- A physician should approve salt substitute. Potassium chloride is found in many salt substitutes. Too much potassium can be harmful if you have kidney problems or if you are taking certain medications. Some substitutes or “light” salts contain salt and you may not actually reduce your sodium intake if you use too much.



# READING FOOD LABELS

Nutrition facts on food labels can help you make wiser food choices.

## Example: Dry packaged noodle soup mix

Nutrition Facts		
Serving Size: 1/2 package and 1 teaspoon seasoning		
Serving Per Container: 2		
Amount Per Serving		
<b>Calories</b> 180	Calories from Fat 60	
% Daily Value		
<b>Limit these nutrients</b>	<b>Total Fat</b> 7g	11%
	Trans Fat 1g	
	Saturated Fat 4g	20%
	<b>Cholesterol</b> 0g	0%
	<b>Sodium</b> 810mg	34%
	<b>Total Carbohydrate</b> 26g	9%
	Dietary Fiber 1g	4%
	Sugars 2g	
<b>Get enough of these nutrients</b>	Protein 4g	
	Vitamin A 0%    Calcium 0%	
	Vitamin C 0%    Iron 6%	
*Percent Daily Values based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:		
	<b>Calories</b>	<b>2,000</b>
Total Fat	Less than	65g
Sat Fat	Less than	20g
Cholesterol	Less than	300mg
Sodium	Less than	2,400 mg
Total Carbohydrate		300mg
Dietary Fiber		25g

**Quick guide to % DV:**  
**5% or less is low**  
**20% or more is high**

### Noodle Ingredients:

Enriched flour, partially hydrogenated vegetable oil (contains one or more of the following oils: canola, soybean, corn, cottonseed, palm), salt

- Check the serving size on the label. This example is a 1/2 package and 1 teaspoon seasoning.
- Look at the calories in a serving size. This soup has 180 calories per serving. Servings per package are two. Therefore, if you eat the whole amount you eat 360 calories (180 X 2 = 360 calories).
- Look at the grams of fat in the serving size (7 grams fat).
- Look at the "calories from fat per serving." This food is one-third fat (60 calories out of 180).
- Look at the saturated fat (4 grams per serving) and cholesterol (0 milligrams per serving). This is a high saturated fat ratio food; that is, more than half the fat is the undesired saturated fat (4 grams saturated fat out of 7 grams). Plus, there is 1 gram of the "bad" trans fat.
- Look at the sodium (810 milligrams per serving). This is a high-sodium food (if a food contains 400 milligrams sodium or more per serving it is considered high-sodium). Eating the whole amount is 1,620 milligrams sodium (810 x 2 = 1,620 milligrams).
- Look at the ingredient label. This product may contain palm oil, which is a saturated fat to be avoided. Choose instead a product that is made with canola, olive, corn, soybean, or any polyunsaturated fatty acid (PUFA) or monounsaturated fatty acid (MUFA) oil.
- **READ THE LABELS!** Let nutrition facts help you make wiser food choices. Instead of the above noodle soup, choose one that is lower in saturated fat and trans fat and lower in sodium.

# RECIPE SUBSTITUTIONS

## If Your Recipe Calls For:

## Substitute the Following:

1 cup butter .....	3/4 cup soft margarine, 2/3 cup vegetable oil or 1 cup of applesauce
2 tablespoons margarine .....	2 teaspoons oil, if just for flavor 2 tablespoons butter buds or use spray butter
1 cup shortening or lard .....	3/4 cup vegetable oil or 1 cup of applesauce
Whole milk .....	fat-free skim milk or 1% milk
1 cup sour cream .....	1 cup fat-free sour cream or 1 cup fat-free yogurt or 1 cup fat-free buttermilk
1 cup heavy/light cream .....	1 cup evaporated skim milk or fat-free Half and Half
Regular salad dressing .....	fat-free salad dressing
Cream cheese .....	fat-free cream cheese or plain yogurt
Cheese .....	fat-free cheese
Creamed soup .....	low-fat, reduced-sodium soup
1 ounce (1 sq.) baking chocolate .....	3 tablespoons cocoa powder + 1 tablespoon vegetable oil
1 egg .....	2 egg whites or 1/4 cup egg substitute
Bacon .....	turkey bacon, lean ham, Canadian bacon or textured soy bacon (omit if on low-sodium diet)
Sausage .....	93/7 ground skinless turkey breast
Regular bouillon or broth .....	low-sodium bouillon or broth

# WHERE TO FIND RECIPES

Maintaining a healthy diet is key to heart health. The American Heart Association provides heart-healthy recipes, videos and articles. Please visit [recipes.heart.org](http://recipes.heart.org).



# DINING OUT THE SMART WAY

## Eat smart while you dine

- Take charge. Request what you want.
- Control portion sizes by ordering smaller, healthier appetizers or senior meal portions, or share super-size orders.
- Request low-fat substitutions.
- If the portion size is huge, set aside a portion to take home before you eat.
- Avoid butter, gravy, cheese and cream sauces.

## Sorting through the maze of restaurant menus

**Look for:** Low-fat preparation

- Baked, broiled, grilled, garden fresh, in its own juice, poached, roasted, steamed

**Look out:** When eating out, these words can be a sign of a high-fat/high-calorie meal

- Au fromage, au gratin, basted, butter sauce, braised béarnaise, casserole, cheesy sauce, creamed, creamy sauce, crispy, escalloped, fried, hash, hollandaise, marinated (in oil), blackened, Parmesan, pastry crust, pot pie, prime, sautéed, stewed, stir-fried, stuffed
- Watch out for hidden sodium
- Au jus, broth, cocktail sauce, cured, pickled, smoked, soy sauce, teriyaki, tomato paste

## Life in the fast lanes

**INSTEAD** of danishes, croissants or doughnuts

**CHOOSE** bagels or English muffins

**INSTEAD** of jumbo cheeseburger (or hamburger)

**CHOOSE** grilled chicken or turkey sandwich with lettuce, tomatoes and mustard

**INSTEAD** of fried chicken nuggets

**CHOOSE** chicken soft taco

**INSTEAD** of French fries

**CHOOSE** baked potato

**INSTEAD** of regular potato chips

**CHOOSE** low-sodium pretzels or baked potato chips

**INSTEAD** of regular pizza, meat lovers, stuffed crust

**CHOOSE** vegetarian pizza

**INSTEAD** of ice cream

**CHOOSE** nonfat frozen yogurt, sherbet, fruit sorbet, fruit ice, popsicle or frozen cool whip

**INSTEAD** of regular soft drinks, milkshakes, punch, whole milk, 2% milk

**CHOOSE** water (with or without lemon), unsweetened ice tea, skim milk, diet drinks, flavored non-calorie sparkling water, juice spritzer (half fruit juice and half sparkling water), reduced sodium tomato or V-8 juice

## Healthier choices for choosing fast foods

### BREAKFAST

- Fresh fruit or juice
- Whole grain: bread, cereal, bagel, English muffin, oatmeal, pancakes (easy on butter, syrup, honey, jelly)
- Skim milk
- Egg substitute or egg white omelets
- Nonfat yogurt (add fruit or cereal)

### LUNCH AND DINNER

Appetizers:

- Steamed seafoods, fresh fruit, fresh garden salads with lemon juice, vinegar, nonfat or low-fat dressings

Entrée:

- Baked, broiled, steamed, poached or lightly sautéed lean meats

Side dishes:

- Steamed vegetables
- Pasta with red sauce or with vegetables (primavera)
- Mustard, salsa, Mrs. Dash or spices, nonfat sour cream or nonfat yogurt instead of sour cream or butter
- Garden salad made from 100 percent fresh vegetables (go easy on toppings such as deli meats, bacon, eggs, cheese and croutons)
- Fat-free, low-fat, lemon-juice based and vinegar-based dressings on the side
- Go easy on bread with butter

Dessert:

- Fresh fruit
- Fat-free frozen yogurt
- Fruit sorbet
- If you must have a dessert, SHARE

# MORE IMPORTANT INFORMATION

## What can you eat when you get the munchies?

### Heart-healthy snacks

#### 1. FRUITS AND VEGETABLES

(plain or with low-fat dips) will give you vitamins, minerals and fiber with few calories.

#### 2. CALCIUM SOURCES

Nonfat yogurt (add dry cereal, low-fat granola or fruit), fruit shake with skim milk (use bananas, berries, peaches or your favorite fruit). Add a dash of cinnamon, nutmeg, vanilla or almond extract as desired. String cheese, nonfat cheese with low-fat crackers or cheese toast, nonfat frozen yogurt.

#### 3. CARBOHYDRATES

Angel food cake, animal crackers, vanilla wafers, bagel with or without fat-free cream cheese, cereal with skim milk, fig bars, frosted mini wheats, strawberry or raisin squares, frozen juice bars, graham crackers, ginger snaps, low-fat granola bars, melba toast, popcorn—air-popped or 94 percent fat-free microwave, pretzels, rice cakes.

#### 4. PROTEIN SOURCES

Trail mix, soy nuts, nuts, seeds (sunflower, pumpkin) (watch portion size), peanut butter (watch portion size), nonfat cheeses, cold cuts (97 percent fat-free varieties such as turkey, chicken, 98 percent fat-free bologna).

*Caution: For weight management, limit quantity, amount and portion size of snack.*

### Fiber

When eaten as part of a low-fat diet, fiber can help lower your blood cholesterol. Food contains two main types of fiber:

1. Soluble fiber may help lower blood cholesterol and blood sugar levels and reduce your risk of heart attack.
2. Foods high in soluble fiber: oat bran, oatmeal, beans, peas, rice bran, barley, citrus fruits, strawberries, apple pulp.
3. Insoluble fiber may reduce your risk of heart disease, although not yet proven. It holds onto water, which helps prevent constipation and reduces your risk of hemorrhoids and diverticulosis.
4. Foods high in insoluble fiber: whole-wheat breads and cereals, bran cereals, rye, rice and barley grains, cabbage, brussel sprouts, cauliflower, beets, carrots, turnips, apple skin.

### Alcoholic beverages\*\*

Moderate consumption of any alcoholic beverage (red or white wine, beer or spirits) can be heart-healthy. Moderate means one drink a day for women, two for men.

- Equivalent to one drink (1/2 ounce pure alcohol):  
12 ounces beer
- 1-1/2 ounces 80 proof spirits (bourbon, gin, rum, scotch, tequila, vodka and whiskey)
- 4 ounces wine (red, white, rose)

Do not drink at all if you have:

- High blood pressure
- High blood triglycerides
- Liver disease
- Ulcers
- Severe acid reflux
- Sleep apnea

\*\*A physician should approve the use of alcohol, especially if you are taking certain medications.











# THE MOUNTAIN STATES CARDIOLOGY FAMILY

Mountain States Heart Care has locations throughout Northeast Tennessee and Southwest Virginia.

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Dickenson Community Hospital  
Franklin Woods Community Hospital  
Indian Path Medical Center  
Johnson City Medical Center  
Johnson County Community Hospital  
Johnston Memorial Hospital  
Laughlin Memorial Hospital  
Niswonger Children's Hospital  
Norton Community Hospital  
Russell County Medical Center  
Smyth County Community Hospital  
Sycamore Shoals Hospital  
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