After Your Heart Attack

- Understanding Heart Attacks
- Managing Your Recovery
- Making Changes for a Healthier Heart
You’ve Had a Heart Attack

Having a heart attack may be the scariest thing you’ve ever gone through. But now the worst is over, and it’s time to start your recovery. You probably have lots of questions: What should I do to get better? How will my life change? How can I prevent another heart attack? This booklet helps answer these questions. It gives information to help you understand your heart problem and your treatment. It also explains what you can do to reduce your chances of having another heart attack.

Your Health After a Heart Attack

A heart attack is a shortage of blood to the heart due to blockage in one or more blood vessels. Many things can lead to a heart attack. Fortunately, you can control most of these things by making changes in the way you live. Thanks to such lifestyle changes and better treatments, more people than ever are surviving and thriving after a heart attack. Read on to learn how you can be one of them.

Notes to Family and Friends

You can help your loved one cope after a heart attack. Boxes throughout this booklet give tips on what you can do. To start, support your loved one while he or she is in the hospital:

- Ask the healthcare providers any questions you or your loved one have. Keeping a list of questions can be helpful.
- Make sure you understand all treatments discussed and instructions given.
Your Recovery Plan

While you’re in the hospital, healthcare providers will create a plan to help you recover. You play a key role in making this plan successful.

- **Your treatment team:** You’ll have several healthcare providers working with you. These will likely include your primary care provider, a cardiologist, cardiac nurses, a dietitian, and others. The members of your treatment team will provide guidance as you begin your recovery.

- **Your treatment:** You’ll have tests and treatments to aid your recovery and help prevent another heart attack. You may also start a cardiac rehabilitation program (see page 10) to help make your heart healthier.

- **Your role:** The members of your treatment team will do what they can to get you on the road to good health. But you play the biggest part in your recovery. It’s up to you to work with the team and follow your plan. And after you leave the hospital, you’re the one who must make the lifestyle changes needed to help prevent another heart attack. Don’t worry—you’ll have help along the way. And keep in mind that if you commit to these efforts, you’re helping yourself have a stronger heart and a healthier future.

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A Healthy Heart and Its Arteries

To understand your treatment, it helps to know how your heart works and what happens during a heart attack. The heart is a muscle that pumps blood throughout the body. Like other muscles, it needs a steady supply of oxygen to function. Blood carries oxygen to the body through blood vessels called arteries. Blood is supplied to the heart by coronary arteries, which run along the surface of the heart.

Arteries Fuel the Heart Muscle

The amount of oxygen the heart muscle needs depends on how hard it’s working. For example, exercise makes the heart beat faster, increasing the muscle’s need for oxygen. Healthy coronary arteries can easily meet this need. They have smooth, flexible walls that can adjust for changes in blood flow.

The aorta carries blood from the heart to the rest of the body. The coronary arteries branch off the aorta.

The left main coronary artery divides into two branches:

- The left anterior descending coronary artery supplies blood to the front and left side of the heart.
- The circumflex coronary artery supplies blood to the back, left side, and bottom of the heart.

The right coronary artery supplies blood to the right side and bottom of the heart.

A healthy coronary artery.
Buildup to a Heart Attack
Disease inside the coronary arteries can restrict the normal flow of oxygen to the heart muscle. **Atherosclerosis** is a buildup of **plaque** (a fatty substance composed of cholesterol and other particles) in blood vessels. In the coronary arteries, this is called **coronary artery disease (CAD)**. As CAD progresses, it can lead to a heart attack.

Plaque Fills Artery Walls
CAD causes the coronary arteries to stiffen, making artery walls less able to expand. It can also damage the lining of the arteries. The damaged lining can attract even more plaque. Stiff artery walls combined with plaque buildup can prevent enough blood from getting through to the heart muscle.

A Damaged Artery
Buildup of plaque starts to damage the walls of the artery. The buildup reduces blood flow to the heart muscle. At this stage, you most likely won’t feel symptoms. Note: This buildup typically occurs in more than one artery.

A Narrowed Artery
As plaque keeps building up, the heart muscle doesn’t get enough oxygen-rich blood. This occurs especially during exercise or activity. This is when you may feel **angina** (temporary discomfort in or near the chest caused by the decreased blood flow). Angina is a warning sign that you are at risk of a heart attack.

A coronary artery with plaque.

A coronary artery narrowed by plaque buildup.
During a Heart Attack

Plaque can keep building up over time. It can also crack open (rupture), forming a surface that blood clots can stick to. Plaque and blood clots can narrow an artery so much that it blocks blood flow to parts of the heart muscle. This is a heart attack (myocardial infarction, or MI).

Lack of Oxygen Damages Heart Muscle

During a heart attack, the muscle beyond the blockage doesn’t receive oxygen-rich blood. Without enough oxygen, part of the heart muscle is damaged or dies. This can cause a permanent decrease in the heart’s ability to pump blood.

Symptoms of a Heart Attack

A heart attack may have no symptoms (a “silent” MI). More often, symptoms occur, lasting more than a few minutes. They can include:

- Pressure, squeezing, or pain in the center of your chest, neck, jaw, shoulders, arms, or back
- Severe shortness of breath
- Dizziness or faintness
- Nausea and vomiting
- Rapid or irregular heartbeat
- Sweating
- Abdominal pain
- Clammy skin
- Anxiety
- Severe tiredness

Other possible symptoms that are found more often in women include:

- Heartburn
- Severe tiredness
After a Heart Attack

After a heart attack, certain complications can occur. These complications, as well as other factors, can affect how long it takes you to recover.

Possible Complications

Your healthcare team will watch for complications during your recovery. Most occur within a few days after a heart attack. Common complications are:

- **Heart rhythm problems**: Arrhythmias are problems with the pace or pattern of your heartbeat. The heart may beat too quickly or too slowly. Or it may have extra beats or beat in an irregular pattern. A heart rhythm problem can be treated with medication, controlled electric shocks to the heart, or an implanted device.

- **Pumping problems**: Damaged heart muscle keeps the heart from pumping forcefully enough (heart failure). Pumping problems may be treated with medications or surgery, or with heart assist devices that help your heart function while it heals.

- **Inflammation**: The sac (pericardium) that surrounds the heart can become inflamed around the damaged muscle. This condition is called pericarditis. It can cause chest pain. Pericarditis usually goes away in a few days without treatment or with some medication.

Your Recovery

Your recovery will start right away in the hospital. Your healthcare team will likely get you up and moving soon after your heart attack. How long it takes you to fully recover depends on several things. These include how much damage the heart attack caused, what complications occurred, and what treatments were used. It typically takes about 4 to 8 weeks to return to work and regular daily activities. But it may take as long as 3 to 4 months.
Your Care in the Hospital

When you first arrived at the hospital after your heart attack, you were likely checked into the emergency room. You may then have been brought to the **coronary care unit (CCU)** or **intensive care unit (ICU)**. Your hospital stay may last from 1 to 5 or more days. During this time, you’ll have tests and treatments.

**Tests**

You may have many tests during your hospital stay. And you’ll likely have follow-up tests after you leave the hospital. All of these tests give your healthcare team information about how your heart is healing. They also help determine the treatment and rehabilitation that’s best for you.

**Tests in the Hospital**

- **Blood tests** help measure the amount of heart muscle damage. They also check things such as kidney and liver function and cholesterol levels.
- A **blood pressure test** measures the force of blood flow against the arteries. This test is done often during your hospital stay.
- An **electrocardiogram (ECG or EKG)** shows your heart’s electrical activity. It reveals any abnormal rhythm and areas of possible damage.
- An **echocardiogram** shows if the heart is pumping effectively. It also shows areas of possible damage.
- An **angiogram** shows blockages in coronary arteries.

During an echocardiogram, a probe moved over the chest emits harmless sound waves to create a picture of the heart.

**Follow-up Tests**

- An **exercise stress test** measures the heart’s response to physical stress. This test can detect areas of heart muscle that have reduced blood supply.
- **Nuclear scans** show the heart’s blood flow and pumping ability.
Treatments
Medications and special procedures may be used in the hospital, either right after you arrive or while you’re recovering. These methods help restore blood flow and heal arteries.

Medications
Medications can be given to dissolve clots. These are put directly into the bloodstream. The sooner these medications are started, the better the chance of preventing heart muscle damage. Other medications may be prescribed for long-term use. To learn more about heart medications, see pages 16 and 17.

Cardiac Catheterization
This technique uses a long, slender tube (catheter) to diagnose and/or treat a heart artery problem. During catheterization, you may have one or more of the following:

- **Angioplasty** widens a blocked artery. The catheter is inserted into your artery. Then a balloon at the tip of the catheter expands and compresses plaque against the artery wall. The balloon and catheter are removed.

- A **stent** holds a blocked artery open. The catheter is inserted into your artery. Then the stent, a small wire mesh tube, is moved into the artery and expanded by a balloon. The balloon and catheter are removed and the stent stays in place to keep the artery from narrowing again.

Coronary Artery Bypass Graft Surgery
This surgery is sometimes called CABG (“cabbage”). A blood vessel (graft), typically taken from your arm or leg, is attached to your heart. This vessel allows blood to bypass, or go around, blockages in the original vessel and flow to healthy heart muscle.
Leaving the Hospital

It’s time to go home from the hospital. Before you leave, your healthcare provider will tell you how to manage your recovery at home. Be sure you have all the information you need. Also, ask your healthcare provider how to join a cardiac rehabilitation (rehab) program.

Asking Questions

Now’s the time to ask any questions you have. Your questions might include:

■ What changes should I make in my diet and exercise habits?
■ What symptoms should I look out for?
■ What medications do I need?
■ Will I need further tests?
■ When can I return to work?
■ When can I drive? Be active? Have sex?
■ How can I get help managing payment for my medical care?

Joining a Cardiac Rehab Program

Cardiac rehab helps you recover after a heart attack. These programs help you learn how to make changes to improve your health and reduce your chances of having another heart attack. You might start a program while you’re in the hospital. If not, ask your healthcare provider about finding a program to join after you leave the hospital. For help locating a cardiac rehab program, visit www.aacvpr.org and search for “Patient Resources.”

Knowing When to Get Medical Help

Since you’ve had a heart attack, your risk of having another is increased. Before you leave the hospital, ask your healthcare provider what symptoms to watch for. (See page 6 for the symptoms of a heart attack.) Keep in mind that the symptoms of a second heart attack may be different from those of the first. Most important, remember that the faster you get help during a heart attack, the less damage will likely be done to your heart. If you think you’re having another heart attack, call 911 right away. Don’t wait longer than 5 minutes.
Back at Home

You’re probably relieved to be back in a familiar place. But you may also feel some fear. After all, you were carefully monitored at the hospital. Now you’re on your own—what should you do? Your goal for the first week or so is to take it easy. Then, slowly return to your regular activities. To ease the transition, allow yourself to rely on family and friends for support, and be easy on yourself.

Let Friends and Family Support You

Don’t try to do it all alone. Ask family or friends for help. They’ll be glad to do something to show their concern. They can even help by simply spending time with you. Try the following:

- Let others help with chores such as washing dishes or preparing meals.
- Ask a family member to join you in relaxing activities such as playing games or watching movies.
- Spend time with any little ones in your life, such as children or grandchildren. Read books or do puzzles with them.

Be Easy on Yourself

As you begin your recovery, don’t push yourself too hard. Remember, you’re healing physically and emotionally. Be sure to do the following:

- Avoid activity that causes chest pain or uncomfortable shortness of breath.
- Wait an hour after eating before being active. Avoid exertion, excitement, and exposure to cold after a heavy meal.
- It’s common to feel down after a heart attack. So if you’re feeling low, don’t beat yourself up. Take your recovery one day at a time. And don’t give in to these feelings by staying in bed. Be sure to get up and get dressed each morning.

Notes to Family and Friends

Help your loved one ease into recovery with these tips:

- Offer to drive your loved one to medical appointments.
- Help your loved one remember to take medications.
- Encourage your loved one to gradually be independent.
- Spend time relaxing with your loved one. You don’t have to just sit around—try going for a walk.
Identifying Your Heart Risks

You’re on the road to recovery. Now it’s time to think about preventing another heart attack. Keep in mind that the treatment you’ve had since your heart attack is not a “cure.” It will help you be healthier, but you still have to work to decrease your chances of having another heart attack. To do this, you need to reduce your heart risks. These are problems that may have caused your CAD (see page 5) and can make it worse. The biggest risks to your heart are described on these pages. Pages 14 and 15 give tips on managing these risks.

Getting Started

■ Be aware of heart risks you can’t change. These include advanced age, family history of heart attack, and gender (men are at higher risk than women). Race is also a factor. For instance, African Americans are at higher risk than Caucasians.

■ Focus on what you can do to reduce each of the risks that you can change. In many cases, a change you make to reduce one risk also reduces others.

■ Make an action plan to guide you through these changes (see pages 14 and 15).

Risk Factors You Can Change

☐ High Blood Pressure

High blood pressure (hypertension) means your blood pushes too hard against your artery walls. This can damage the vessels and lead to heart disease, heart attack, stroke, and other serious problems. Long-term trends in your blood pressure are more important than any single reading. In general, resting blood pressure should be no higher than 120/80. For more information, visit www.nhlbi.nih.gov/hbp.

☐ High Cholesterol

Cholesterol is a type of fat (lipid) that’s carried in the blood. Your body makes cholesterol, and you get it from certain foods. The body needs some cholesterol to stay healthy. But high cholesterol raises your risk of heart attack by increasing plaque buildup in the blood vessels. In general, healthy cholesterol levels are:

■ **Total cholesterol**: lower than 200

■ **HDL** (high-density lipoprotein) or “good” cholesterol: 50 or higher in women, 40 or higher in men

■ **LDL** (low-density lipoprotein) or “bad” cholesterol: lower than 100

■ **Triglycerides** (fat carried by cholesterol): lower than 150

To find out more, visit heart.org/cholesterol.
Diabetes

With diabetes, your body has trouble using a sugar called glucose for energy. As a result, the sugar level in your blood becomes too high. Without treatment, high blood sugar can damage arteries. This damage raises your risk of atherosclerosis (see page 5). As a result, your risk of heart disease and heart attack greatly increases. For more information, visit www.diabetes.org.

Smoking

Smoking is the single worst thing you can do for your arteries and heart. It reduces the blood's oxygen supply, injures artery walls, and raises your heart rate and blood pressure. It also makes the blood more likely to clot. All of these things increase risk of heart attack. But when you quit smoking, these risks start to decrease right away! For information on quitting, visit www.smokefree.gov.

Being Overweight

If you're overweight, you're asking your body to handle more than it should. Extra weight can make your heart work too hard. It can also raise your blood pressure and cholesterol, and increase your risk of diabetes. All of these things increase your risk of heart attack. For information on losing excess weight, visit www.nih.gov and search for “Aim for a Healthy Weight.”

Lack of Exercise

Your heart muscle, like your other muscles, works best when it's active. Without exercise, your heart is weaker and less able to handle stress put on it. With even mild to moderate exercise, your heart gets stronger. And exercise helps prevent heart attack by helping manage weight, diabetes, high blood pressure, and high cholesterol. For more information on exercise, visit heart.org and search for “exercise.”

Stress, Anger, and Depression

Stress, anger, and depression don’t just affect your peace of mind. They can increase your heart rate, blood pressure, and even your cholesterol! They can also make you want to eat and smoke more, and be less active. All of these things increase your risk of heart attack. For more information on emotions and your heart, visit heart.org and search for “emotions.”
Your Heart Risk Action Plan

This chart outlines key steps you should take to keep each of these risk factors under control. As you achieve these goals, check them off. Then go to the pages indicated for more information on managing each risk factor.

<table>
<thead>
<tr>
<th>High Blood Pressure</th>
<th>Diabetes</th>
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</thead>
<tbody>
<tr>
<td>☐ Take blood pressure medications as instructed.</td>
<td>☐ Take diabetes medications or insulin as instructed.</td>
</tr>
<tr>
<td>☐ Test your blood pressure as often as directed.</td>
<td>☐ Test your blood sugar as directed by your doctor or dietitian.</td>
</tr>
<tr>
<td>☐ Reduce daily sodium intake to 1,500 mg, if directed.</td>
<td>☐ Have regular medical follow-up.</td>
</tr>
<tr>
<td>☐ Exercise 150 minutes or more a week.</td>
<td>☐ Exercise 150 minutes or more a week.</td>
</tr>
<tr>
<td>☐ Quit smoking.</td>
<td>☐ Take a diabetes education class to learn about diet, exercise, and other ways to help manage your condition.</td>
</tr>
</tbody>
</table>

For more information on managing your blood pressure, see the following:
- Taking Your Medications . . . . . . page 16
- Eating Heart-Healthy Foods . . . page 20
- Exercising for Your Heart . . . . . . page 24
- Coping with Stress, Anger, and Depression . . . . . . . . . . . . page 28

For more information on managing diabetes, see the following:
- Taking Your Medications . . . . . . page 16
- Eating Heart-Healthy Foods . . . page 20
- Exercising for Your Heart . . . . . . page 24

<table>
<thead>
<tr>
<th>High Cholesterol</th>
<th>Smoking</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Get your cholesterol tested and take medications to lower cholesterol as directed.</td>
<td>☐ Set a quit date for within the next month.</td>
</tr>
<tr>
<td>☐ Cut back on foods high in cholesterol, saturated fat, and trans fat.</td>
<td>☐ Talk to your doctor about medications and programs that can help you quit smoking.</td>
</tr>
<tr>
<td>☐ Exercise 150 minutes or more a week.</td>
<td>☐ Keep in mind that quitting smoking can improve your blood pressure, cholesterol, and other heart risks.</td>
</tr>
<tr>
<td>☐ Quit smoking.</td>
<td>☐ Kicking the Smoking Habit . . . page 18</td>
</tr>
</tbody>
</table>

For more information on managing your cholesterol, see the following:
- Taking Your Medications . . . . . . page 16
- Eating Heart-Healthy Foods . . . page 20
- Exercising for Your Heart . . . . . . page 24

For more information on quitting smoking, see the following:
- Kicking the Smoking Habit . . . page 18
Being Overweight

☐ Work with your healthcare provider to plan a healthy diet.
☐ Exercise 150 minutes or more a week.
☐ Use a log to track your eating and activity habits. Keeping a record can help you identify patterns and chart your weight loss.

For more information on managing your weight, see the following:
  - Eating Heart-Healthy Foods . . . page 20
  - Exercising for Your Heart . . . . page 24

Stress, Anger, and Depression

☐ Set realistic goals—and don’t try to do too much.
☐ Keep in mind that you can’t control all events, but you can control your reaction to them.
☐ Stay in touch with others, including family and friends.
☐ Exercise 150 minutes or more a week.

For more information on managing stress, anger, and depression, see the following:
  - Exercising for Your Heart . . . . page 24
  - Coping with Stress, Anger, and Depression . . . . . . page 28

Lack of Exercise

☐ Work with your healthcare provider to create an exercise program that’s right for you.
☐ Join a cardiac rehab program near you.
☐ Exercise 150 minutes or more a week.

For more information on getting more exercise, see the following:
  - Exercising for Your Heart . . . . page 24

Hints for Making Changes

Making changes to your lifestyle can be hard. These tips can help make it easier:

- Encourage family members and friends to make changes with you. This makes it easier for you and benefits them, too.
- Don’t set yourself up for failure by doing too much too soon. It’s best to feel comfortable with one change before making another.
- When discouraged, focus on how good you’ll feel once you’ve made a change.
- Join a cardiac rehab program. It can help you put together a plan to manage each of your heart risks.
Taking Your Medications

You’ll likely have to take several types of medications after a heart attack. In fact, you’ll probably take medications for the rest of your life. You may wonder: Do I really need to take all that medication? The answer is yes! Pills, injections, or skin patches can be a vital part of healing after a heart attack. And medication can help prevent another heart attack in the future.

Getting Started

■ Ask your doctor to explain what your medications are, what they do, and how to take them.
■ Talk to your doctor about what medication side effects to expect. If a side effect bothers you, doesn’t go away, or gets worse, call your doctor.
■ Ask your doctor or pharmacist about possible interactions between medications. And ask before taking any nonprescription medications or supplements.
■ Tell your doctor if you have concerns about the cost of your medications.

Types of Medications

Your medications may include:
■ **Aspirin** and other anticoagulants to help prevent blood clots.
■ **Beta-blockers** to help slow the heart rate and lower blood pressure.
■ **Statins** to help reduce cholesterol levels.
■ **Nitroglycerin** to help reduce the heart’s workload and improve blood flow through the heart.
■ **ACE inhibitors** to help control blood pressure and reduce heart strain and weakening of the heart muscle.

Hints for Taking Medications

■ Use a pillbox to store all the pills you need for the week.
■ To be sure you don’t skip or repeat a dose, write down when you take your medication.
■ Never stop taking your medication, or change the dosage, without your doctor’s knowledge. This can be dangerous to your heart.
Medications for Related Conditions

Your doctor may recommend medications for conditions that increase your heart risks. These conditions include high blood pressure, diabetes, and high cholesterol. You might also take medications for depression (see page 29).

**Medications for high blood pressure:** High blood pressure is one of the most serious risks for heart attack. Medication is typically an important part of treatment. Be aware that it might take a while to find the best medication or dosage for you. And you may need to take a combination of medications. Once you and your doctor have found the right medication plan, follow these tips:

- Don’t stop taking high blood pressure medication suddenly. This can make your blood pressure shoot up quickly.
- Keep in mind that medication lowers blood pressure best when you’re also eating heart-healthy foods and getting regular exercise.

**Medications for diabetes or high cholesterol:** If healthy eating and exercise aren’t enough to manage these conditions, your doctor will prescribe medications to treat them. Be sure to take these as directed.

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“Taking my medications is part of my daily routine now.”

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### Keeping Track of Medications

To help you track your medications, keep a list of them along with instructions on how to take them. Be sure to show this list to all of your healthcare providers. Here is an example:

<table>
<thead>
<tr>
<th>Name of Medication</th>
<th>Dose and When to Take It</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aspirin</td>
<td>81 mg once daily (sample dosage)</td>
</tr>
</tbody>
</table>
Kicking the Smoking Habit

If you smoke, quitting is one of the most important changes you can make for your heart. Your risk of heart attack goes down within one day of putting out that last cigarette! And as you go longer without smoking, your risk goes down even more. Quitting smoking isn’t easy, but millions of people have done it—and you can, too. It’s never too late to quit. The information on these pages can help.

Health Benefits of Quitting
Quitting smoking benefits your health in many ways. For instance, quitting:

- Reduces your risk of heart disease, stroke, cancer, lung disease, emphysema, and other smoking-related diseases.
- Improves your blood pressure.
- Increases good cholesterol.
- Gets rid of smoker’s cough.
- Stops smoking-related headaches.
- Helps you avoid pneumonia and bronchitis.

Getting Started
Quitting can be tough, but it’s not impossible. Try these steps to get started:

- List all the benefits of quitting, such as reducing heart risks and saving money. Keep this list handy and review it whenever you feel like smoking.
- Talk to your doctor for advice on quitting. Ask about prescription or over-the-counter products that help curb the urge to smoke. Working with your doctor can help you quit permanently.
- Line up lots of support. Let your friends know you may call them to chat when you’re fending off an urge to smoke.

Making a Plan to Quit
Quitting takes patience and a plan. You can boost your chances of success by deciding on your “quit plan” ahead of time. Plan when you’ll quit, how you’ll deal with urges to smoke, and who you’ll ask to support you. Your doctor and cardiac rehab team can help you develop this plan. Even if you’ve already quit, it’s easy to slip back into smoking. Your plan can help you avoid this and stay off cigarettes for good. In any case, start by setting a date to quit within a month—and do it!
Tips for Quitting Successfully
Try these tips to help you quit successfully—once and for all.

- Join a support group or smoking cessation program. Talking with others about the challenges of quitting can help you get through them. You can also try online resources. Visit www.lungusa.org to learn about the Freedom From Smoking program.

- Keep yourself busy. It's easier to quit when you're distracted. Try walking around the block, drinking a glass of water, or brushing your teeth.

- If you've tried to quit before without success, this time avoid the triggers that caused the relapse.

- Make the most of slip-ups. Try to learn from them, and then get back on track.

Notes for Family and Friends
- Be supportive! Quitting smoking can be difficult and stressful. Be patient with your loved one during this important transition.

- If you smoke, now's a great time to quit. Even if you don't quit, never smoke around your loved one. Secondhand smoke is dangerous to his or her heart.
Eating Heart-Healthy Foods

What you eat and how much you eat has a big impact on your heart health. In fact, eating healthier can improve several of your heart risks at once. For instance, it will help you improve cholesterol and blood pressure levels. And it can help you get to or maintain a healthy weight. Also, if you have diabetes, healthy eating can help you manage it. Read these pages to help you make heart-healthy changes to your diet without giving up all the foods and flavors you love.

Getting Started

■ Talk to your healthcare provider for eating suggestions, such as the DASH diet. Or ask to be referred to a dietitian.

■ Keep in mind that eating healthy is about choosing a variety of foods. Focus on basic foods, like fruits and vegetables, and eat fewer processed foods.

■ Work to create a tasty, healthy eating plan that you can stick to for the rest of your life.

Choose the Right Foods

Aim to make these foods staples of your diet.

■ **Fruits and vegetables** provide lots of nutrients without a lot of calories. At meals, fill half your plate with these foods.

■ **Whole grains** are high in fiber and rich in vitamins and nutrients. Good choices include whole-wheat bread and brown rice.

■ **Lean protein** sources provide protein, a vital building block of your body’s tissues, without a lot of fat. Good examples include fish, skinless chicken, and beans.

■ **Low-fat dairy** provides calcium, protein, and vitamin D without a lot of saturated fat. Try skim milk, lowfat cheese, and nonfat yogurt.

■ **Healthy fats** can be good for your heart in small amounts. They raise your levels of HDL (good) cholesterol. Unsaturated fats, such as those found in olive oil, nuts, and fish, are good choices. Try to have at least two servings per week of fatty fish, such as salmon, mackerel, and tuna. Fatty fish contains omega-3 fatty acids, which are especially good for your heart. Flaxseed is another source of heart-healthy fat.
Read Food Labels
Healthy eating starts at the grocery store. Be sure to pay attention to food labels on packaged foods. Look for products that are high in fiber and protein, and low in saturated fat, cholesterol, and sodium. Avoid products that contain trans fat. And pay close attention to serving size. For instance, if you plan to eat two servings, double all the numbers on the label. For more information on reading food labels, visit www.cfsan.fda.gov/~dms/foodlab.html.

Prepare Food Right
A key part of healthy cooking is cutting down on the fat and salt you add to foods. This doesn’t mean you have to sacrifice flavor or spend lots of time in the kitchen. There are many quick, easy ways to cook healthy. To start, use a cookbook with low-fat, low-sodium recipes. Also, try the tips below.

- Remove fat from meat and skin from poultry before cooking.
- Skim fat from the surface of soups, stews, and sauces. Chilling first makes this easy.
- Broil, boil, bake, grill, steam, or microwave food without adding fat. Cover the food or add a little water to keep it moist.
- Use nonstick sprays or cookware.
- Add ingredients that spice up your food without loading it up with calories, fat, or sodium. For low-fat, high-taste condiments, try horseradish, hot sauce, mustard, nonfat salad dressings, and vinegar. For salt-free herbs and spices, try basil, cilantro, cinnamon, pepper, and rosemary.

This label shows nutrition information for a serving of minestrone soup.

<table>
<thead>
<tr>
<th>Nutrition Facts</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Serving Size</strong> 1 cup (240g)</td>
</tr>
<tr>
<td><strong>Servings Per Container</strong> 2</td>
</tr>
<tr>
<td><strong>Amount Per Serving</strong></td>
</tr>
</tbody>
</table>
| Calories 100 | Calories from Fat 20%
| % Daily Value* |
| **Total Fat** 2g | 3% |
| Saturated Fat 0g | 0% |
| Trans Fat 0g | 0% |
| **Cholesterol** 0mg | 0% |
| **Sodium** 70mg | 3% |
| **Total Carbohydrate** 17g | 6% |
| Dietary Fiber 3g | 12% |
| Sugars 5g | |
| **Protein** 4g | |

Vitamin A 70% • Vitamin C 20%
Calcium 15% • Iron 8%

*Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs.
More About Eating Heart-Healthy Foods

Eat Right When Eating Out
Many restaurants now offer heart-healthy choices. Even if they don’t, you can enjoy dining out and still eat healthy by following these tips:

- Avoid breaded, deep-fried entrees and side dishes.
- Request that meat, chicken, or fish be grilled or broiled to reduce fat.
- Have dressings or sauces served on the side, and limit cream sauces.
- Ask for your order to be cooked without cheese and with no added salt.
- Consider asking for a meatless version of an item on the menu.

Be Smart About Alcohol
News reports about drinking alcohol can be confusing—is it good or bad for your heart health? In short: if you drink, the American Heart Association recommends an average of one drink per day for women, and one to two drinks per day for men. (One drink can equal one 12-ounce beer or 4 ounces of wine.) So follow these guidelines, and avoid excess alcohol. Also, keep in mind that if you don’t already drink, you don’t need to start.

Notes for Family and Friends
- If you prepare meals for your loved one, make them heart-healthy. Go food shopping together. Help your loved one read labels and select healthy foods.
- Keep in mind that changing eating habits can be hard, but it’s critical to your loved one’s health. And if you join in, the diet changes your loved one makes can benefit you, too!
More Tips for Healthy Eating

Following are more steps you can take to improve your eating habits. For further information on choosing the best types and right amounts of foods to eat, visit www.choosemyplate.gov.

- **Limit saturated fats and avoid trans fats.** Saturated fats raise your levels of bad cholesterol. So keep these fats to a minimum. They’re found in foods such as fatty meats, whole milk, cheese, and palm and coconut oils. Avoid trans fats entirely. These fats (also called hydrogenated oils) lower good cholesterol as well as raise bad cholesterol. Trans fats are most often found in processed foods.

- **Reduce your sodium (salt) intake.** Eating too much salt can increase your blood pressure. Dining out less often and eating less processed foods are two great ways to decrease the amount of salt you consume.

- **Manage calories.** A calorie is a unit of energy. Your body burns calories for fuel, but if you eat more calories than your body burns, the extras are stored as fat. Your doctor can help you create a diet plan to manage your calories. Keeping a food diary can also help.

- **Focus on fiber.** In addition to aiding digestion, this nutrient helps reduce levels of bad cholesterol. It can even help you eat less by making you feel full faster. Good sources include whole grains, beans, fruits, vegetables, nuts, and seeds.

- **Keep portions reasonable.** The amount of food you eat is almost as important as the kind of food you eat. To help you manage portion sizes, serve meals on smaller plates. At restaurants, split your entree with someone else at the table. Also, manage portions of the types of foods you eat. The model below shows how to best divide up your plate.

Fill half your plate with vegetables and fruits. Split the other half between whole grains and protein.
Exercising for Your Heart

Exercise is a key part of heart attack prevention. It helps your heart muscle and the rest of your body get stronger. It also helps control other heart risks. For lasting results, exercise needs to be a lifelong commitment.

Getting Started

- Check with your doctor before starting any exercise program.
- Keep in mind that a managed plan of exercise will not cause another heart attack. In fact, exercise can help prevent heart attacks.
- Be aware of the many benefits of exercise. For instance, regular exercise can help:
  - Improve cholesterol.
  - Reduce excess weight.
  - Control blood pressure and diabetes.
  - Manage problems with stress, anger, and depression.
- Find activities you take pleasure in, from walking with a friend to gardening to playing tennis. With the right exercise program, you'll not only enjoy yourself, you'll be more likely to stick with it.

Working Out at Cardiac Rehab

One of the easiest ways to start exercising is to join a cardiac rehab program. A team of healthcare specialists creates an exercise plan for you and guides you through it. At first, the goal is to regain basic endurance and strength. You do this by starting with light exercise, such as walking. Then, prescribed exercises help you further increase strength and endurance as well as flexibility. The skills you learn in cardiac rehab can benefit you for the rest of your life. So when the program ends, be sure to keep them up!
Measuring Effort

Exertion is your level of effort during exercise. It tells you how hard your heart is working. Your goal is to exercise at a level that’s safe but beneficial to your heart. You can measure exertion in two ways:

- Your target heart rate is the number of heartbeats per minute to aim for during exercise. Talk to your doctor or cardiac rehab specialist to find out how to calculate yours.

- The Borg RPE scale (see right) lets you gauge how hard you feel you’re working.

Checking Your Heart Rate

Gently press two or three fingers to the inside of your wrist as shown below. Count the number of beats you feel for 10 seconds, then multiply that number by 6. This gives your heart rate (also called your pulse). During exercise, try to meet your target rate goal.

Using the Borg RPE Scale

The numbers on the Borg RPE (Rate of Perceived Exertion) scale reflect how much effort you feel you’re making during exercise. This scale is useful if you have problems taking your pulse. Ask your doctor or rehab team what level you should aim for. Most people should stay within the highlighted range.

<table>
<thead>
<tr>
<th>Level</th>
<th>How it feels</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>No exertion at all</td>
</tr>
<tr>
<td>7</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Very light</td>
</tr>
<tr>
<td>9</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Light</td>
</tr>
<tr>
<td>12</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Somewhat hard</td>
</tr>
<tr>
<td>14</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Hard (heavy)</td>
</tr>
<tr>
<td>16</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Very hard</td>
</tr>
<tr>
<td>18</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Extremely hard</td>
</tr>
<tr>
<td>20</td>
<td>Maximum exertion</td>
</tr>
</tbody>
</table>

Scale used with permission from Gunnar Borg ©1985.

If You’re Having Trouble

Stop exercising and tell your doctor or member of the rehab team if you feel any of the following symptoms. If you’re out on your own and symptoms don’t improve, get immediate help or call 911.

- Pain, discomfort, burning, tightness, heaviness, or pressure in your chest, shoulders, arm, neck, or jaw
- A racing or skipping heartbeat
- Extreme tiredness
- Lightheadedness, dizziness, or nausea
- Unusual shortness of breath
More About Exercising for Your Heart

Types of Exercise
Your exercise program will likely include three types of exercise: aerobic, strengthening (resistance training), and stretching (flexibility training). Most of your workout should consist of aerobic exercise.

- **Aerobic exercises** improve endurance (how much you can do). Aerobic (“with air”) exercises improve the working of your heart, lungs, and blood vessels. They make you breathe harder and sweat a bit. Examples include walking, biking, and swimming. Work up to doing aerobic exercise for 150 minutes or more a week.

- **Strength exercises** help build muscle. Strong muscles help keep your heart rate and blood pressure under control. Examples of strength exercises include lifting weights and using exercise bands.

- **Stretching exercises** increase flexibility, balance, and posture. Stretching relaxes tight muscles and helps prevent muscle injury during exercise. Stretching is also a good way to reduce stress.

Safety Tips
- Follow guidelines your doctor or cardiac rehab team set for you.
- Wear sturdy shoes with arch support.
- Always warm up and cool down. To do this, perform a lower level of activity for 5 minutes before and after a workout.
- Drink plenty of water before, during, and after exercise.
- If nitroglycerin has been prescribed, keep it with you when exercising and take as directed.
- Report any changes in symptoms, such as pain or shortness of breath, to your doctor or rehab staff.

Notes for Family and Friends
- Exercise with your loved one, perhaps by taking walks around the neighborhood. Exercise can be more enjoyable with another person along. And your heart will benefit too!
- Go to a cardiac rehab session with your loved one. This way you can see firsthand what he or she is learning to do. It will also give you a chance to ask the staff questions.
Adding Activity to Your Day
In addition to scheduled workouts, try to be more active overall. A few easy ways to increase daily movement are listed below.

- Do yard work such as gardening or raking leaves.
- Park your car a little farther from stores.
- Take a lap around the market or mall before you start shopping.
- Take a short walk at lunch.
- Visit a museum, zoo, or park.
- Take the stairs instead of the elevator.
- Use a pedometer to track how many steps you take each day.

Returning to Sexual Activity
Do you worry that sexual activity might trigger another heart attack? Or do you feel no desire for sex right now? These are normal feelings after an illness. Your risk of another heart attack during sex is low. And your interest should return as your body heals.

Are You Ready?
Ask your doctor when you can return to sex. In most cases, you can begin within 6 weeks of returning home. When you’re able to climb two flights of stairs without angina, shortness of breath, or an irregular heart rate, you’re probably ready.

Helpful Hints
Here are some suggestions for renewing sexual relations with your partner:

- When you’re ready for sex, choose a time when you feel relaxed and rested.
- Remember that sex is more than intercourse. Show affection with hugs, caresses, and kisses.
- Take your time. Give yourselves a chance to become aroused.
- Sometimes heart medications may affect sexual arousal. If you have problems, talk to your doctor.
- If your doctor has prescribed nitroglycerin to be taken before sex, be sure to take it as directed.
Managing Stress and Anger

After a heart attack, you may have problems managing strong feelings. You may feel stressed or angry because you had a heart attack, or because you have to make lifestyle changes. You may even feel stressed due to fears of having another heart attack. These feelings are common after a heart attack. But they can, and should, be managed. Controlling these feelings can bring you peace of mind. It can also improve your blood pressure as well as decrease other heart risks.

Getting Started
The following are a few ways to help reduce stress levels and feelings of anger and frustration.

- **Identify your stressors.** Sources of stress are unique for each person. For instance, do you get upset if you get stuck in traffic? Knowing what things stress you can help you focus on things you want to change.

- **Have realistic expectations.** Life is full of unexpected events. Even things you plan may not turn out exactly as you’d hope. So be prepared—expect surprises sometimes.

- **Change your response to stress.** Even if you can’t change a stressful situation, you can control how you respond to it. You’re in charge of your thoughts and actions. This simple idea is a powerful tool in dealing with stress.

Ways to Feel Better
If stress and anger are getting you down, try these techniques to help you cope with what’s bothering you.

- **Support groups** can help by letting you talk about your feelings. Try a local cardiac rehab program or a hospital-sponsored support group. A licensed therapist can also help.

- **Deep breathing** can help you relax. Find a quiet spot where you won’t be disturbed. Breathe in slowly through your nose, then out through pursed lips. Focus only on your breathing.

- **Exercise** can do wonders to ease stress. It does this by reducing the amount of stress hormones your body creates. It also increases production of body chemicals that make you feel good. Try aerobic exercise for best results. Exercising with a friend, such as taking a brisk walk together, can make you feel even better.
Coping with Depression

Depression is a common problem for people who have recently had a heart attack. It’s natural to feel overwhelmed or down after a heart attack. But if these feelings are severe or prolonged, it can signal a deeper problem. Depression is not normal, and it can and should be treated.

Working with Your Doctor

If depression is affecting your life (see the symptoms below), talk to your doctor about treatment. Counseling with a therapist one-on-one can help you learn to cope with your emotions and health problems. And certain medications can help ease depression symptoms.

Ways to Feel Better

In addition to treatment, staying connected with people and doing activities you enjoy are good ways to cope with depression.

- **Schedule time for hobbies, old and new.** Try going to sporting events with friends, or schedule a weekly game of cards. Joining a senior center or religious group can help you build new friendships.
- **Stay involved.** Family and friends can be good sources of support. If you don’t want to discuss your health, chat about something else.
- **Join a heart disease support group.** Talking with people who know firsthand what you’re going through can help. Find out about one such group at mendedhearts.org.

“Talking and spending time with people really helps me feel connected to others.”

Know the Symptoms of Depression

Depression can lead to serious emotional and health problems. So be sure to contact your doctor if you have the following symptoms for 2 weeks or more:

- Feel worthless, guilty, or hopeless
- Feel tired, weak, or low in energy
- Don’t feel like eating, or eat too much
- Have trouble sleeping, or sleep more than usual
- Have trouble concentrating, remembering, or making decisions
- Feel restless or irritable
- Withdraw from family and friends
- Have thoughts of harming yourself

To learn more about depression, visit www.nimh.nih.gov.
Living Well After a Heart Attack

Your recovery from a heart attack may have taken several months. But now you're most likely feeling pretty good and your life is returning to normal. But don't go back to the same habits that may have led to your heart attack. Sticking with your lifestyle changes can help you be healthy and strong for a long time to come. Here are more ways to help you live well after a heart attack.

Stay in Touch with Your Doctor

You'll need to see your doctor regularly, although not as often as when you first left the hospital. You may have tests done again, such as blood tests, ECGs, or exercise stress tests. If you have questions, keep a list and ask them during these appointments.

Take Care of Yourself

Take things at your own pace. Listen to your body and don't push yourself. Doing the following can help:

■ Increase activity slowly. If you're going back to work, try working part-time for a few weeks. If you've retired, start by adding one favorite activity to your routine. Gradually add others.

■ Build in “stress breaks.” Every few hours, stop what you’re doing and do deep breathing or visualization. Take a walk at lunchtime.

■ Get enough sleep. This is especially important after a heart attack. Sleep helps your body heal.

■ Stay alert for warning signs of another heart attack (see page 6). Be sure to get help right away if you think you're having another heart attack. The sooner you get treatment, the less damage will be done to your heart.

Notes for Family and Friends

Your loved one's life is changing—and can be challenging. He or she will have ups and downs. That's normal. To help your loved one cope, help him or her focus on the positive. Remind your loved one that all of the lifestyle changes that he or she is making can make them feel better and be healthier. And keep in mind that if you make the same changes, it can help your loved one stick with these new healthy habits.
Rely on Your Supporters
Friends, family, and co-workers are all likely to want to help but may not know how to approach you. Break the ice for them. Be honest about your heart attack and give practical suggestions for helping out.

- Tell friends, relatives, employers, and co-workers about any limitations you have and how they can help.
- Encourage friends and co-workers to share lunchtime walks and healthy snacks with you.
- Pick a few close friends to encourage you whenever you have trouble with the changes you’re making.
- Keep taking advantage of support groups or cardiac rehab programs. These can be helpful if you like ongoing support or structure in your life.

Focus on Your Goals and Enjoy Life
Keep your health and life on track by focusing on goals that are important to you. These may include returning to work, being active again, or spending more time with your family. Track your progress by keeping a record on a calendar or in a journal. Wherever your goals in life lead you, remember that you have the tools to keep your body—especially your heart—strong and healthy. Keep taking care of yourself so you can feel good and enjoy a full, satisfying life.
Keeping the Facts On Hand

Having this information handy can save time and worry. It can be helpful whether you’re asking your doctor a routine question or getting emergency medical help. Fill in the blanks below and keep copies in your wallet, in a desk drawer, and by the phone.

My Heart Problem:

Heart Procedures or Surgery I Have Had:

Doctor’s Name and Number:

Other Emergency Numbers:

Consultant:
Christine M. Garvey, FNP, MSN, MPA, FAACVPR, Pulmonary Disease
With contributions by:
Joseph Carlson, PhD, RD, FAACVPR, Exercise Physiology and Nutrition
Lisa Custodio, BA, RCEP, Pulmonary Rehabilitation
Julie Czerek, BA, MBA, ACSM-CES, Cardiac Rehabilitation
Jan Foresman, RN, MS, FAACVPR, Cardiac Rehabilitation
Mara Protas, RN, BSN, Cardiac Rehabilitation
Arnold J. Rosenblatt, MD, Cardiovascular Disease
Julie A. Zerwic, PhD, RN, Cardiovascular Disease

Resources
- American Heart Association
  heart.org
- American Association of Cardiovascular and Pulmonary Rehabilitation
  www.aacvpr.org
- National Heart, Lung, and Blood Institute (NHLBI)
  www.nhlbi.nih.gov
- WomenHeart: The National Coalition for Women with Heart Disease
  www.womenheart.org

Also available in Spanish

KRAMES
staywell

www.kramesstaywell.com  800.333.3032