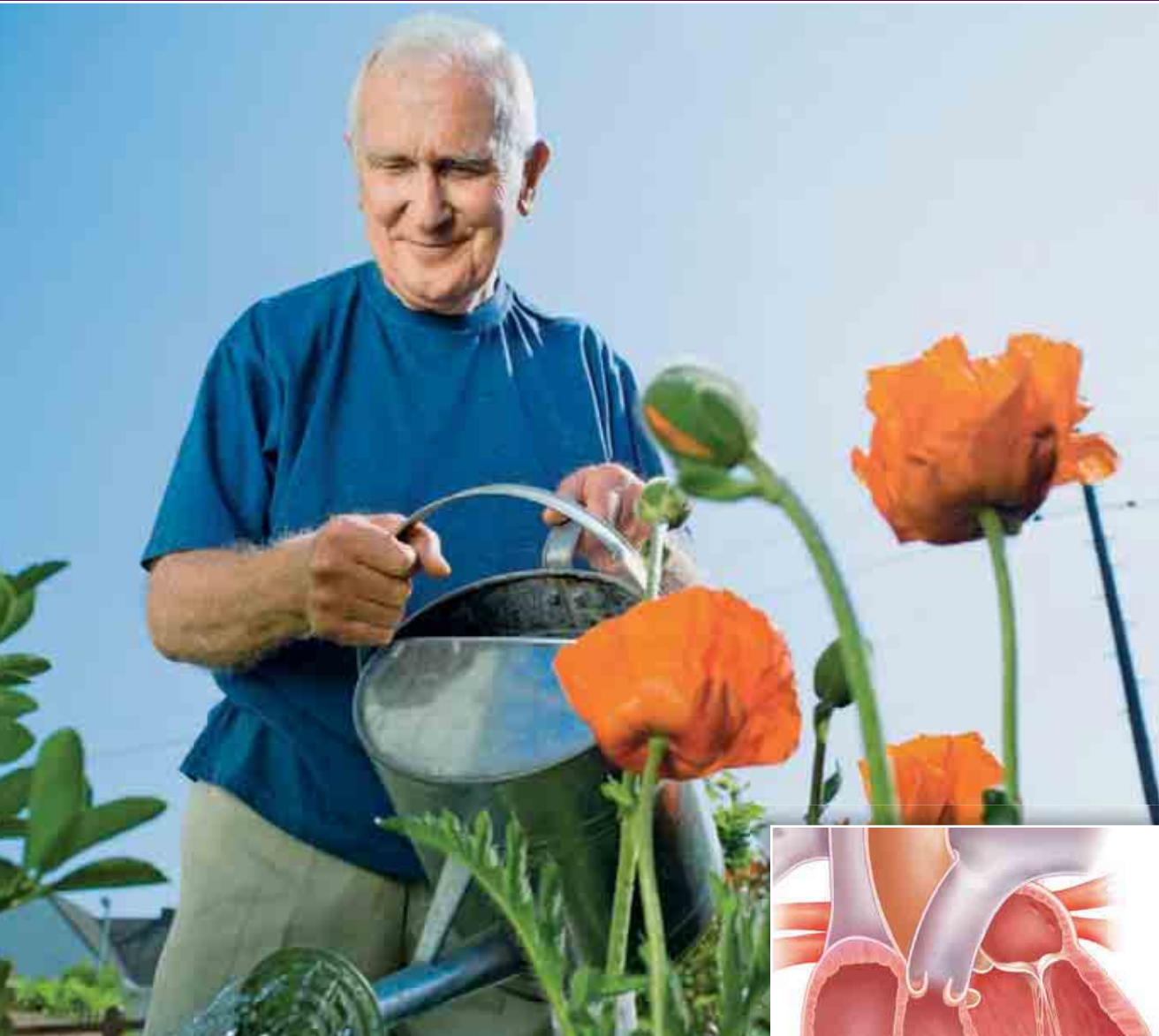


KRAMES

PATIENT EDUCATION

A PRODUCT OF STAYWELL

UNDERSTANDING HEART FAILURE



Managing and Treating
Your Chronic Heart Condition

What Is Heart Failure?

When you have **heart failure** (called congestive heart failure, in the past), your heart doesn't work as well as it should. This means some parts of your body don't get enough blood and oxygen. Finding out you have heart failure may be scary. But there's a lot you can do to keep heart failure under control. Reading this booklet can help you learn more.

Symptoms of Heart Failure

Heart failure may cause many symptoms, or only a few. Some of the most common symptoms include:

- Shortness of breath, wheezing, or coughing when you exert yourself
- Weakness or tiredness after little effort
- Problems breathing when you're lying flat, or the need to sleep in a recliner or propped on pillows
- Waking up at night coughing or short of breath
- Rapid weight gain
- Swelling in the abdomen, ankles, or feet
- A racing or skipping heart
- Dizziness or fainting



▶▶ With heart failure, you may become short of breath, especially during exercise.

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What You Can Do

For most people, heart failure is a chronic condition. This means it won't go away entirely. But by taking an active role in your care and working closely with your healthcare team, you can live longer and more comfortably. This booklet will help you learn more about heart failure and its treatment. It will also teach you self-care methods and other tools you need to manage your condition and health. You'll learn:

- How heart failure develops and how it affects your body. This will help you know how to take better care of yourself and your heart.
- What medications you may need to take. These will help your heart work more easily and keep heart failure from getting worse.
- What types of changes to make in how you eat and live to give your heart some extra help.
- How to monitor your symptoms. This will help you and your team detect problems early and track how well your treatment plan is working.

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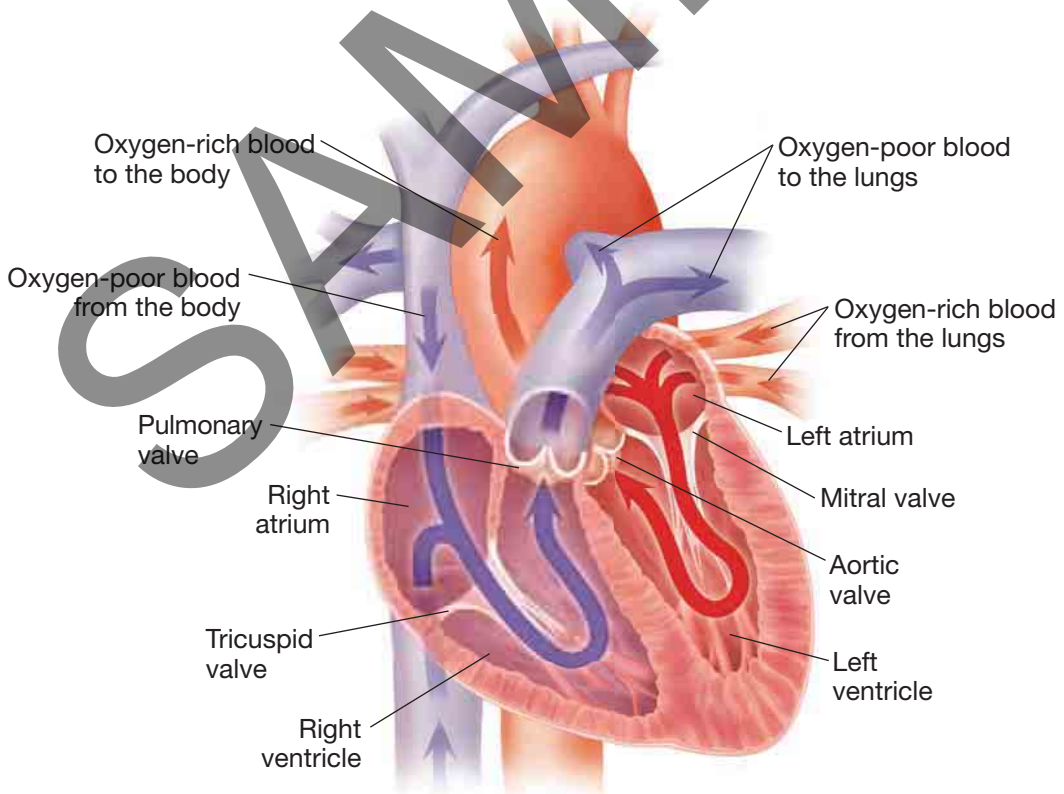


How the Heart Works

The heart is a muscle. It pumps oxygen-rich blood to all the parts of the body. Four chambers hold the blood as it moves through the heart. The upper chambers are called atria and the lower chambers are called ventricles. Four valves act like one-way doors. They open and close to keep blood moving forward through the heart.

How the Heart Pumps Blood

With each beat, the heart muscle must pump out enough blood to keep the body healthy. The right side of the heart receives oxygen-poor blood from the body, and sends it out to the lungs. The lungs add oxygen to that blood. Oxygen-rich blood then flows to the left side of the heart. The left side pumps this blood out to the rest of the body. Each heartbeat has two steps: **systole** and **diastole** (see next page). During each step, actions occur in the atria and the ventricles at the same time. The two steps repeat with each heartbeat.

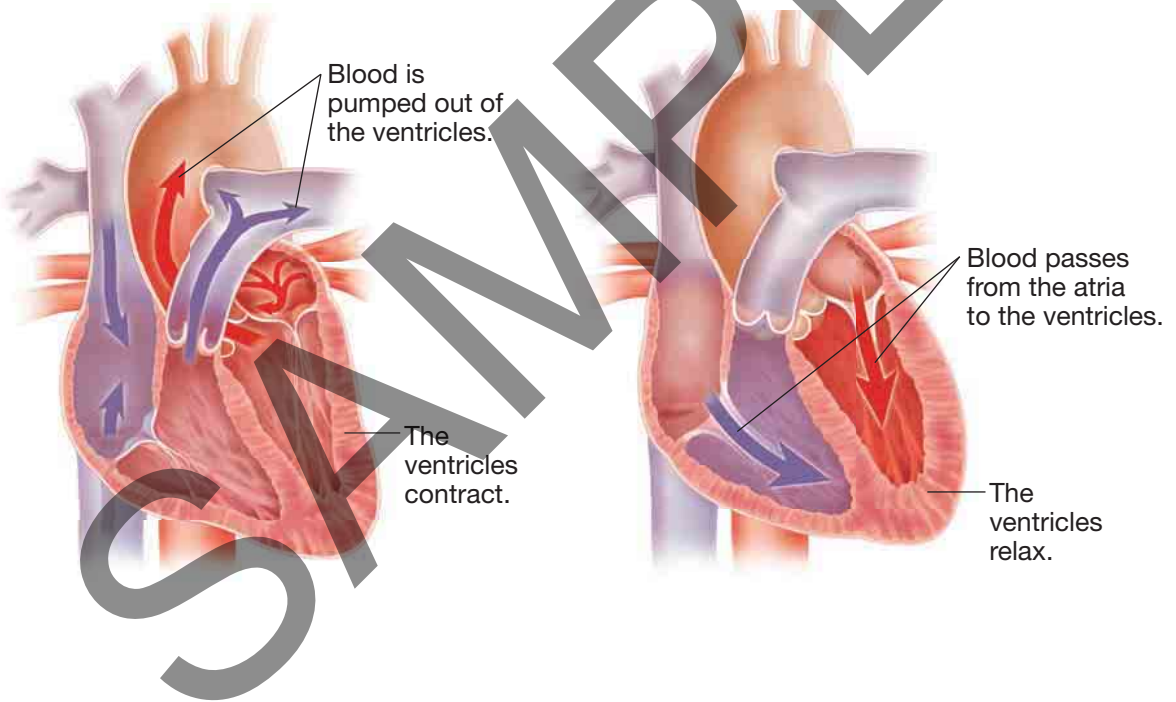


Systole

During systole, the ventricles squeeze (contract). Blood is pumped to the lungs and the rest of the body. At the same time, the atria relax and fill with blood. Oxygen-poor blood enters the right atrium from the body. Oxygen-rich blood enters the left atrium from the lungs.

Diastole

During diastole, the atria pump blood into the ventricles. The ventricles relax to receive this blood. Oxygen-poor blood passes from the right atrium into the right ventricle. Oxygen-rich blood passes from the left atrium to the left ventricle.



What Is Ejection Fraction?

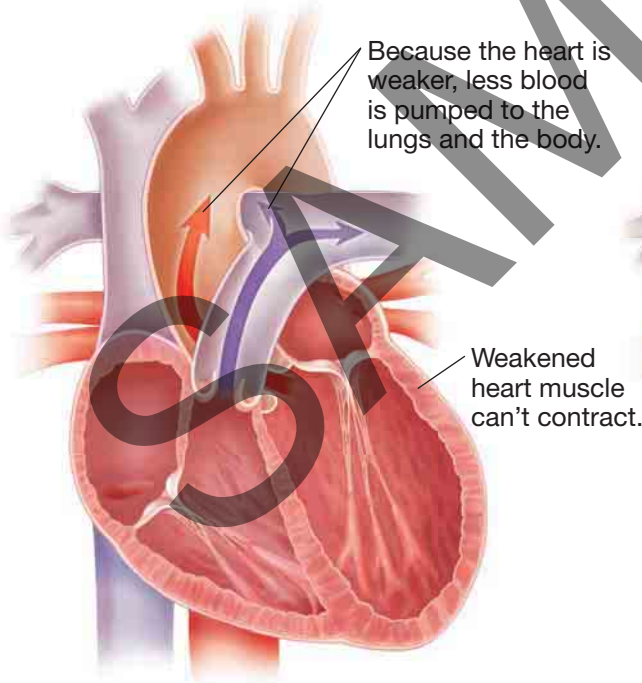
Ejection fraction (EF) is a measure of the blood that the heart pumps out. This typically refers to how much of the total blood in the left ventricle is pumped out with each beat. A normal EF is between 55% and 70%.

When Heart Failure Occurs

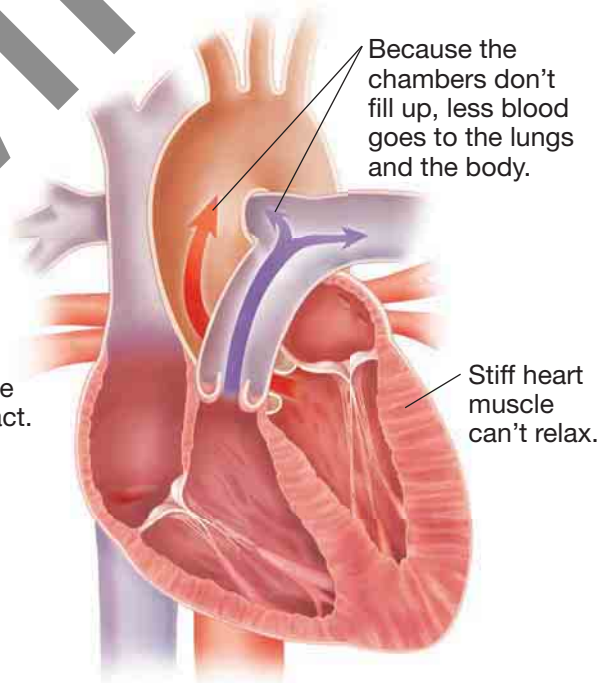
In people with heart failure, the heart can't move as much blood as it should with each beat. This causes blood to back up into the lungs and throughout the body. Certain organs don't get enough blood to work normally. This causes the symptoms you feel.

Types of Heart Failure

Heart failure can happen in two ways. The heart muscle may become weak and enlarged (**systolic dysfunction**). The weakened muscle doesn't pump enough blood forward when the ventricles contract. Or, the heart muscle may become stiff (**diastolic dysfunction**). The stiff muscle can't relax between contractions, which keeps the ventricles from filling with enough blood. In either case, less blood travels to the lungs and the rest of the body with each heartbeat. You can have one or both types of heart failure.



In systolic dysfunction, not enough blood is pumped from the chambers.



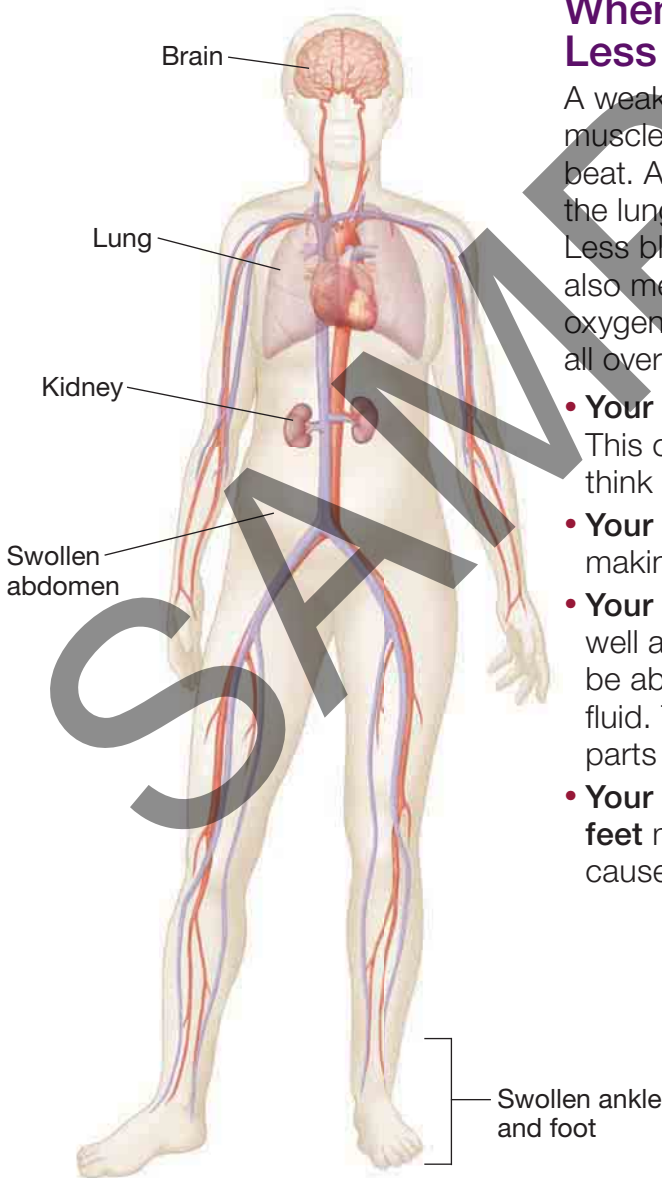
In diastolic dysfunction, not enough blood fills the chambers.

Systolic dysfunction is also called heart failure with reduced ejection fraction (HFrEF).
Diastolic dysfunction is also called heart failure with preserved ejection fraction (HFpEF).



As Blood Flow Decreases

When the heart can't move enough blood, certain hormones (some of which are made by the nervous system) are sent out to make the heart work harder. Some of these hormones cause the heart muscle to grow larger. Others tell the heart to pump faster. This can help move blood at first, but the heart muscle can't keep up with these demands. Over time, the extra work damages the heart even further.



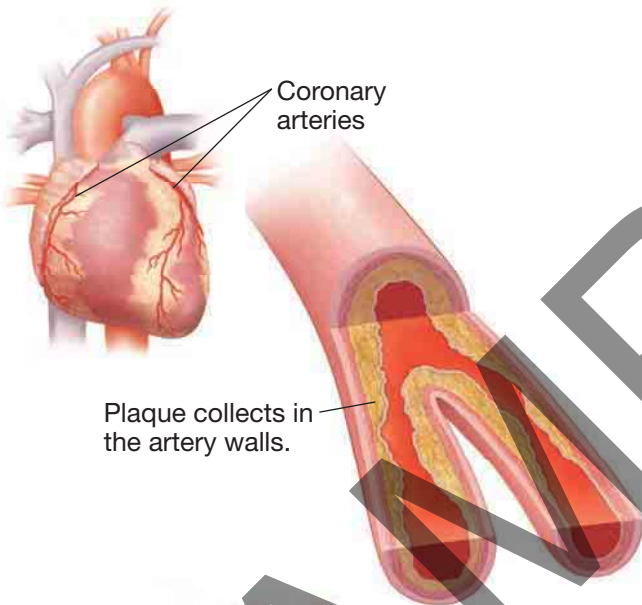
When Your Body Gets Less Blood

A weakened or stiffened heart muscle moves less blood with each beat. As a result, fluid backs up in the lungs and throughout the body. Less blood moving through the body also means your organs get less oxygen. This may result in symptoms all over your body.

- **Your brain** may receive less blood. This can make you feel dizzy or think less clearly.
- **Your lungs** may fill with fluid, making you short of breath.
- **Your kidneys** may not work as well as they should. They may not be able to rid your body of excess fluid. This fluid can back up in other parts of your body.
- **Your abdomen, ankles, and feet** may collect excess fluid. This causes **edema** (swelling).

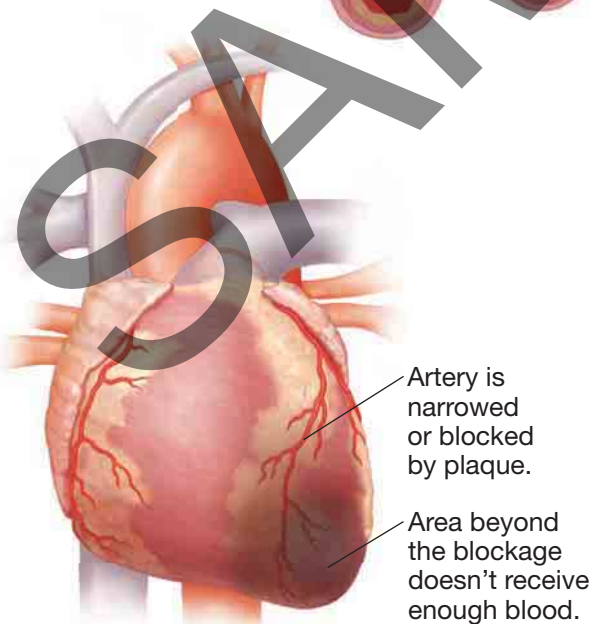
Causes of Heart Failure

In most cases, heart failure is caused by another health problem. Some of these problems damage the heart muscle, so the heart can't pump as well as it should. Other problems make the heart work harder. This can weaken the heart by tiring it out.



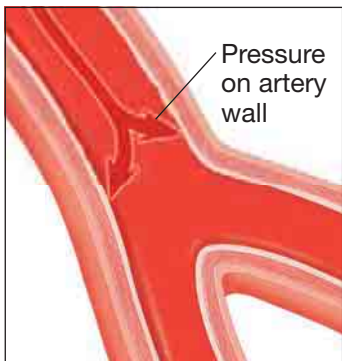
Coronary Artery Disease

Coronary arteries supply blood and oxygen to the heart muscle. Coronary artery disease (**CAD**) develops when deposits of fat, cholesterol, and other materials (**plaque**) collect in the walls of the arteries. As plaque builds up, the arteries narrow. This reduces blood flow to the heart muscle. The heart muscle can't get enough oxygen-rich blood to work normally. The muscle can weaken, leading to heart failure.



Heart Attack

A heart attack occurs when part or all of a coronary artery is blocked. This stops blood flow to part of the heart muscle. Without oxygen-rich blood, this part of the heart is permanently damaged and loses the ability to pump blood. This means that after a heart attack, the rest of the heart muscle must work harder. Over time, the strained heart muscle weakens. Heart failure can develop.



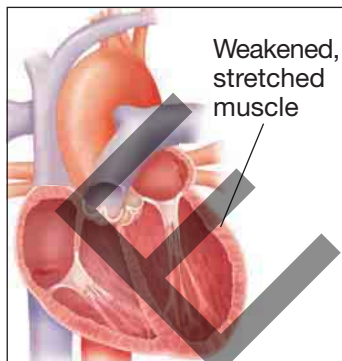
High Blood Pressure

High blood pressure is when blood pushes harder than normal against artery walls. This makes the heart work harder. Over time, the heart's chambers may enlarge and the heart muscle may stiffen and weaken. This can lead to heart failure.



Valve Disease

Valve disease occurs when the valves between the heart's chambers don't open or close properly. The heart has to work harder to push blood through a diseased or damaged valve. This extra work can weaken the heart and lead to heart failure.



Cardiomyopathy

Cardiomyopathy is a diseased heart muscle. With this condition, the heart's chambers enlarge and the heart muscle stretches and weakens. The stretched and weakened muscle can cause heart failure.

Related Health Problems

Certain health problems can increase the risk of heart failure. These include diabetes, kidney problems, and heart rhythm problems. Heart failure is also more likely to occur if you have severe anemia, an overactive thyroid, or if heart defects are present at birth. Your doctor will explain whether any of these health problems are related to your heart failure.

Your Diagnosis and Treatment

To diagnose heart failure, your doctor will examine you, ask questions, and run tests. While looking for signs of heart failure, your doctor also looks for any other health problems that may have caused your heart muscle to weaken or stiffen. The results of the evaluation will help you and your doctor form a plan to treat your heart.

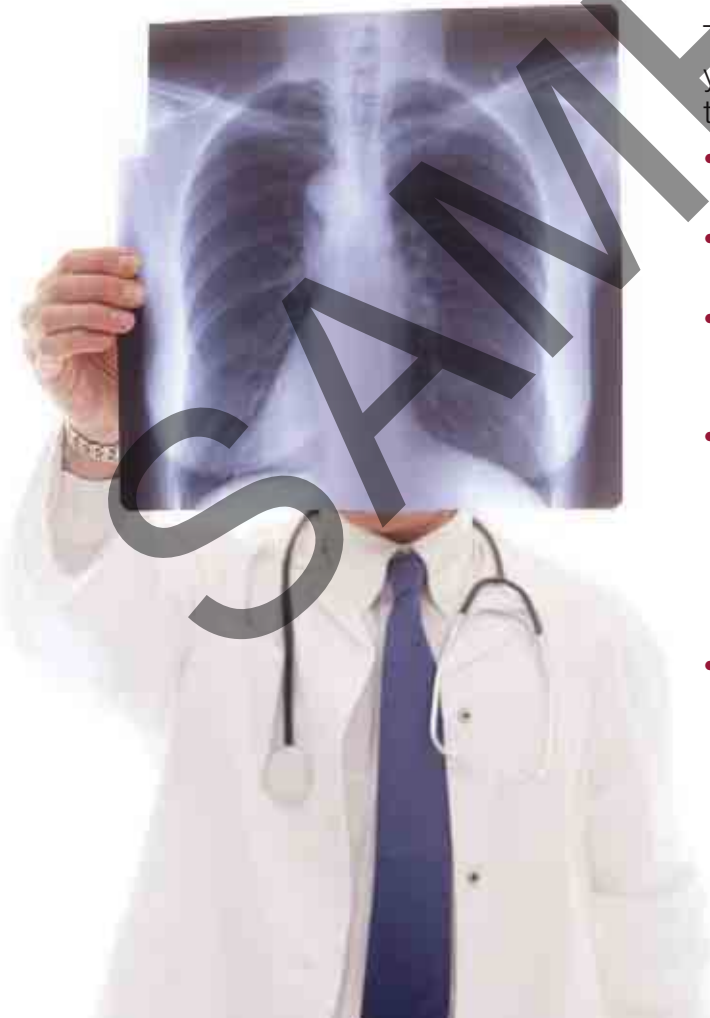
Health History and Exam

During your evaluation, you'll be asked about your symptoms and any health problems you have. You'll also have a physical exam. This includes listening to your heartbeat and breathing. In addition, your blood pressure will be checked and you'll be examined for signs of swelling.

Tests You May Have

To learn more about your heart, your healthcare provider may order tests. These can include:

- **Blood tests** to check for problems in the kidneys or other organs.
- **Chest x-rays** to take pictures of the heart and lungs.
- **An electrocardiogram (ECG)** to check for problems with the heart rate and rhythm.
- **An echocardiogram** to show problems with heart structure or heart function. This includes showing how well the heart pumps, if it is enlarged, or if there are any valve problems.
- **Stress testing** to measure how hard your heart can work. The test may be done while you walk on a treadmill. Or, you may be given medication that stresses the heart.





Planning Your Treatment

After your evaluation, your doctor will work with you to form the best treatment plan for your needs. It's up to you to put this plan into action. This will enable you to manage your condition, so you can feel better and live life more fully. There are many treatments for heart failure including medications, diet changes, and exercise. Your doctor will review all of your options with you and answer any questions you have.

Your Role in Treatment

Your doctor and healthcare team will guide you through your treatment and provide support. But the success of your treatment depends on you. For best results, stay involved and engaged in your care. Follow your prescribed treatment as best you can. And take steps daily to protect your heart and health. You'll find more information about your role and specific types of treatment in the following pages of this booklet.

Medications to Help Your Heart

Your doctor or primary care provider will prescribe medications for heart failure and any underlying health problems you have. Certain medications improve the way the heart pumps over time. Others are taken to relieve symptoms.



Types of Medication	What They Do
ACE Inhibitor	<ul style="list-style-type: none">• Lowers blood pressure and decreases strain on the heart. The heart pumps better and blood flow is improved.
Angiotensin Receptor Blocker (ARB)	<ul style="list-style-type: none">• Lowers blood pressure and decreases strain on the heart. The heart pumps better and blood flow is improved.• May be prescribed instead of an ACE inhibitor.
Beta-Blocker	<ul style="list-style-type: none">• Slows heart rate, lowers blood pressure, and reduces the work the heart has to do.• May strengthen the heart's pumping action over time.
Diuretic (also called "water pills")	<ul style="list-style-type: none">• Helps rid the body of excess water. This reduces swelling and may improve breathing.
Aldosterone Antagonist	<ul style="list-style-type: none">• Helps control symptoms, keep heart failure from getting worse, and improve outcomes in certain people with advanced heart failure.
Hydralazine and Nitrate	<ul style="list-style-type: none">• Lowers blood pressure and decreases how hard the heart has to work in certain people with heart failure.• Two separate medications used together.
Digoxin	<ul style="list-style-type: none">• Slows heart rate. Helps the heart pump more blood with each beat.

▶▶ Tell your pharmacist or healthcare provider about any over-the-counter products you use. He or she can tell you if these are safe to take with your heart medications.



Medications for Related Conditions

Controlling other heart problems helps keep heart failure under control, too. Depending on other heart problems you have, medications may be prescribed to:

- Lower blood pressure.
- Lower cholesterol levels.
- Prevent blood clots.
- Keep the heartbeat steady.

Intravenous (IV) Medications

If heart failure symptoms become severe, you may be given medications through an IV. This means the medications are sent through a vein directly into your bloodstream. This works quickly to help your heart pump better and relieve your symptoms. You may have to stay in the hospital or other facility for a few days until symptoms are controlled.

Be Smart About Alternatives

You may have heard about herbal remedies and supplements said to help with heart failure symptoms. Keep in mind that “natural” doesn’t mean safe. Herbal remedies, extracts, and other supplements can interact with prescribed medications and have harmful effects. This is also true of some over-the-counter medications. If you want to try an alternative treatment, talk with your healthcare provider first.

Taking Medication

For your medications to work, you must take them exactly as directed. Follow the instructions given by your healthcare provider. Even if your symptoms improve, don't stop taking your medications or change dosage unless told to.

Tips for Taking Medications


Keeping track of your medications can be tricky. Here are some tips that may help:

- Get a pillbox that's marked with the days of the week. Fill the box at the start of each week.
- Take your pills at the same times each day. To help you remember, take pills when you brush your teeth or eat a meal. Ask your healthcare provider or pharmacist which of your medications can be taken with food.
- Order more medication when you still have one week's supply of pills left. Mail-order pharmacies may need earlier notice to fill prescriptions.
- Carry your medications and extra prescriptions with you when you travel.
- Keep a list of all the medications you take. Show this to any healthcare provider who treats you. Also show it to the pharmacist before you buy any prescription or over-the-counter medication. The pharmacist can tell you which medications can cause problems if taken together.



▶▶ Pillboxes can help you remember to take your medications. Use one that meets your needs.

Medications Can Have Side Effects

 Some heart medications cause side effects. These can include nausea, dry cough, dizziness, muscle cramps, or changes in heart rhythm. To know what to expect, talk with your provider or pharmacist. He or she can suggest ways to lessen any side effects you have.

Procedures That May Help

In some cases of heart failure, certain procedures can help. These are not right for everyone. You and your doctor can discuss whether a procedure is a good option for you.

Treatments for Artery and Valve Problems

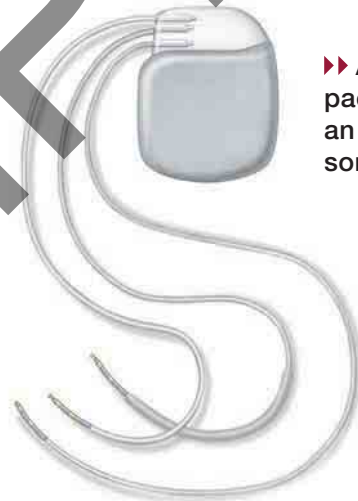
If you have coronary artery disease or valve disease, treatments may be done to improve blood flow. This helps the heart pump better.

- **Angioplasty and stenting** expand narrowed arteries.
- **Bypass surgery** allows blood to flow around a clogged artery.
- **Valve surgery or procedures** repair or replace problem heart valves so that blood can flow properly.

Treatments to Help the Heart Beat

For some people with heart failure, a device may be placed in the chest to help a weakened heart maintain a healthy heartbeat. Possible devices include:

- **A biventricular pacemaker**, which sends signals to pace the heart, helping it beat on time. This helps the heart pump blood more efficiently with each beat.
- **A biventricular ICD (implantable cardioverter defibrillator)**, which also paces the heart to help it pump more efficiently. This device can also stop a life-threatening fast heart rhythm (when the heart beats too fast).



▶▶ A biventricular pacemaker is an option for some people.

In Severe Cases

For some people who are very sick, the treatments below may be options. Your doctor can tell you more, if needed.

- **A left ventricular assist device (LVAD)** is a pump that is attached to the heart. It may be permanent or used only until a heart transplant can be done.
- **A heart transplant** is surgery to replace a diseased heart with a healthy donor heart.

Lowering Salt Intake

Salt (sodium) causes fluid to build up in the body in some people. This makes the heart work harder to pump blood. Fluid buildup also causes symptoms such as shortness of breath and swelling. Controlling the amount of salt you eat may help prevent fluid from building up. Your provider may tell you to reduce the amount of fluid you drink as well.

Reading Food Labels

Read food labels to keep track of how much sodium you eat. Keep in mind that canned and processed foods can be high in salt. Check the amount of sodium in each serving. (Remember, there may be more than one serving in the package.) Also, watch for high-sodium ingredients, such as MSG (monosodium glutamate), baking soda, and sodium phosphate. Your healthcare provider will tell you how much sodium is okay for you to eat each day.

Nutrition Facts

Serving size 1 cup
Servings per container 2

Amount Per Serving

Calories	90	Calories from fat	20
			% Daily Value
Total fat	2g		3%
	Saturated fat	0g	
	Trans fat	0g	
Cholesterol	10mg		3%
Sodium	890mg		39%
Total Carbohydrates	13g		4%
Dietary fiber	1g		4%
Sugars	1g		
Protein	6g		

Ingredients: Chicken broth, carrots, cooked white chicken meat (white chicken meat, water, salt, sodium phosphate), isolated soy protein, modified corn starch, corn starch), potatoes, celery, rice, monosodium glutamate. Contains soy.



▶▶ As you shop, check food labels to see how many milligrams (mg) of sodium are in each serving.

Eating Less Salt

Give yourself time to get used to eating less salt. It may take a little while, but your heart is worth it. Here are some tips to help:

- Take the saltshaker off the table. Replace it with salt-free herb mixes and spices. (Many salt substitutes are high in potassium. These can be dangerous if you take certain diuretics. Ask your provider about safe choices.)
- Choose low-sodium snacks such as sodium-free pretzels or crackers.
- Get a cookbook or search on the Internet for low-salt recipes. These may give you good ideas for meals that are healthy for your heart and taste great, too.
- Don't add salt to food when you're cooking. Instead, season foods with pepper, lemon, garlic, or onion.
- When you eat out, ask that your food be cooked without added salt. Also, ask for dressings and sauces to be served on the side.
- If you buy antacids, choose a brand that's sodium-free.



▶▶ Eat fresh or frozen vegetables. These have much less salt than canned vegetables.

If You're Told to Limit Fluid

You may need to limit fluid intake to help prevent swelling. A fluid is anything that is liquid at room temperature. You may also need to restrict caffeine and alcohol. If your healthcare provider tells you to limit fluid, try these tips:

- Measure fluids in a measuring cup before you drink them. This will help you meet daily fluid goals.
- Suck on ice cubes to quench thirst.
- Only drink when you're thirsty. If your mouth is dry, rinse with water but don't swallow it.
- Chew sugar-free gum or suck on hard candy to keep your mouth moist. Also, apply lip balm or petroleum jelly to prevent your lips from getting dry.

Monitoring Symptoms

To best manage heart failure, pay attention to your body and keep track of your symptoms. This is especially true of your weight, which should be checked every day. By watching for changes in your symptoms, you may be able to alert your healthcare provider to a problem before it becomes too serious. This may even reduce your risk of having to go to the hospital. Your healthcare provider can tell you more about what to do when specific symptoms occur.

Weighing Yourself

Rapid weight gain can be a sign that you are retaining water. This may mean that your treatment plan needs to be changed. To monitor your weight:

- Weigh yourself each morning after you urinate and before you eat. Wear the same clothes or no clothes each time. Always use the same scale.
- Write down your weight each day. (Use the chart on the next page.)
- **Call your healthcare provider** if you gain more than 2 pounds in 1 day or more than 5 pounds in 1 week. If you receive other instructions for reporting weight gain, follow them as directed.



When to Call Your Provider

Call your healthcare provider right away if any of these problems occur:

- Tightness or pain in your chest, arm, or jaw that doesn't go away with rest or medication (**Call 911!**)
- Rapid weight gain (see "Weighing Yourself" above)
- Symptoms worsen
- Symptoms develop after taking new medications
- Breathing becomes more difficult or you start coughing at night
- Feet or ankles swell more than usual
- Unusual fatigue
- Dizzy spells or fainting
- Swelling in the abdomen
- Fast or irregular heartbeat



Your Symptom Chart

Use a chart like the one below to track your heart failure symptoms. Each day, write down your weight. Also write down any symptoms you notice, such as swelling or shortness of breath. Take action as soon as you notice a symptom is getting worse. Ask your loved ones or caregivers if they've noticed any changes in your symptoms as well. Bring this information with you when you visit your healthcare provider. (This chart contains enough space for 2 weeks.)



Date	Weight	Symptoms

Bring this chart to your next appointment.

Staying Active for Your Heart

Exercise, especially aerobic activities, can help strengthen your heart. When you stay active, you may feel less tired and have fewer symptoms. Staying active can also help you feel better about yourself and your health.

Choosing Your Activity

Your healthcare provider can help you create an exercise program that's right for you. Here are some ideas to try:

- Take a walk each day with a family member or friend.
- Use exercise DVDs at home.
- Swim at a local pool.
- Take a fitness class.

Staying Safe During Activity

- Avoid exercising outdoors in very hot or cold weather.
- Stop and rest if you feel tired or short of breath.
- Pace yourself. If you can't hold a conversation during activity, then you're pushing yourself too hard.
- Know your limits. Adjust your activities to match how well you feel each day.



▶▶ Try activities that involve family and friends. You can help your heart and enjoy yourself at the same time!

Symptoms of Overexertion

Stop exercising and call your healthcare provider right away if you have any of these symptoms:

- Pain, discomfort, burning, tightness, heaviness, or pressure in your chest
- Unusual aching in your arm, shoulders, neck, jaw, or back
- Shortness of breath that's worse than normal or doesn't improve with rest
- A fast, irregular, or skipping heartbeat
- Extreme tiredness (especially after exercise)
- Dizziness, fainting, or nausea



Aerobic exercise is any activity that raises the heart rate and breathing rate. It works the heart and lungs, and improves the body's ability to use oxygen.



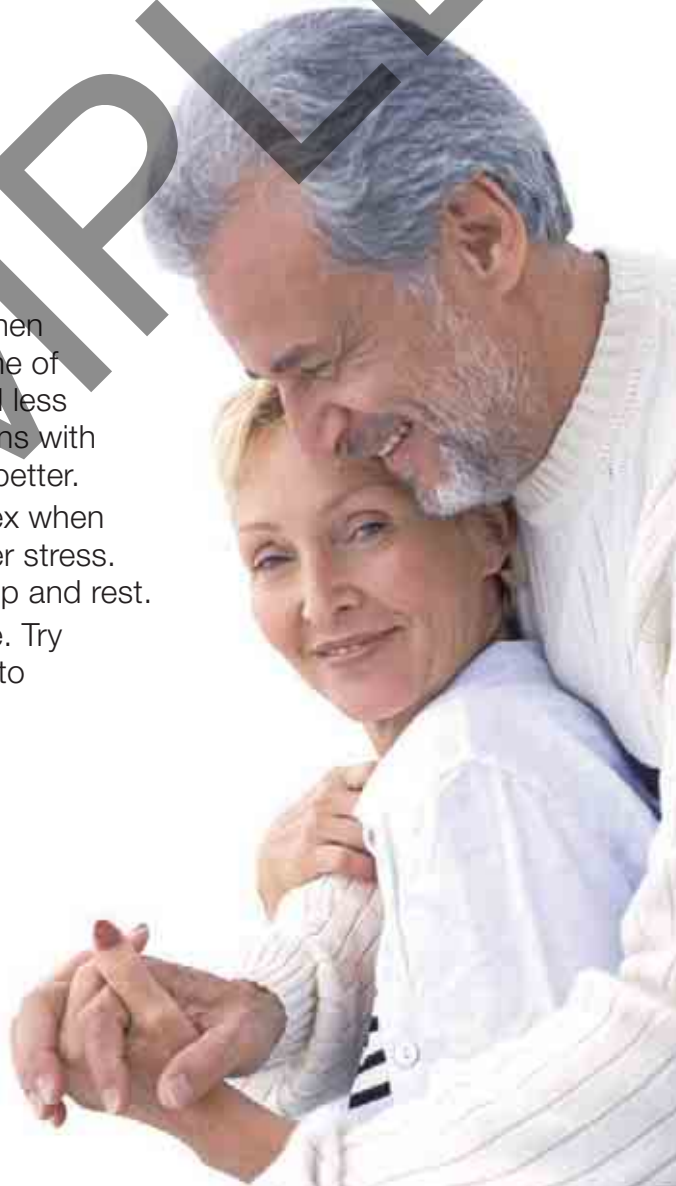
Cardiac Rehabilitation

Your doctor may recommend that you take part in cardiac rehabilitation (rehab). This program provides you with tools and information to keep your heart healthy. During cardiac rehab, you'll learn how to exercise safely. You'll also learn what types of exercises to do to improve your health. Along with a tailored exercise program, cardiac rehab provides education on topics such as diet, medications, and ways to manage risk factors. It also provides emotional support and counseling for patients and family members.

Sexual Activity

It's normal to worry about how much your heart can handle. Don't be afraid to ask your healthcare provider about safe activities, including sex. In most cases, sex will not damage the heart. It may help to know that:

- You may be less interested in sex when you're coping with heart failure. Some of your medications may make you feel less interested, too. Sharing your concerns with your partner can help you both feel better.
- You may feel more relaxed having sex when you are well rested and are not under stress. If you feel discomfort during sex, stop and rest.
- There's more to sex than intercourse. Try other types of intimacy to feel close to your partner.



More Ways to Stay Healthy

Certain risk factors can make it harder for the heart to do its job. Work with your healthcare provider to control your risk factors. This can help your heart and also help you feel better overall.

Control Your Risk Factors

Your healthcare provider can help you identify risk factors that can make heart failure worse. Here are some things you should know:

- Smoking damages blood vessels, reduces the oxygen in your blood, and makes your heart beat too fast. If you smoke or use other forms of tobacco, talk to your provider about ways to help you quit.
- Being overweight makes your heart work harder. Ask for help with losing excess weight.
- Having high blood pressure or unhealthy cholesterol levels damages artery walls. This increases your chances of heart disease. Work with your provider to treat these problems.



Manage Stress

Daily life can be stressful. On top of that, living with heart failure can make stress worse. Learn to reduce stress to help improve your health. To get started, try these tips:

- Sit or lie back in a comfortable chair. Take a slow, deep breath. Hold it for 5 counts. Then breathe out slowly through your mouth. Keep doing this until you feel relaxed.
- Picture yourself in a peaceful place, such as the beach. Feel the warm sand. Hear the waves. Smell the ocean. Doing this may help you feel more relaxed.

▶▶ Take time to relax. Even sitting down with a good book can help.

Coping with Heart Failure

When you're living with heart failure, it's normal to feel sad or down at times. Some medications can also affect your mood. Following your treatment plan may seem like a lot to remember. If you feel overwhelmed, focus on one thing at a time. Don't be afraid to ask others for help when you need it.

Ways to Feel Better

Try not to withdraw from family and friends. Some days you may find it hard to talk with them. That's okay. They can still be a good source of support. To feel better:

- Spend time doing things you enjoy. This can include a favorite hobby, meditation, prayer, or volunteer work.
- Share what you learn about heart failure with the people in your life. Invite family members along when you visit your healthcare provider.
- Think about joining a support group for people with heart failure. It may be easier to talk to people who know firsthand what you're going through. They can offer advice and share stories. You may want to ask loved ones to join you for a meeting.



▶▶ Spending time with the people you care about can help you feel better and may even improve your health.

Asking for Help

Having heart failure doesn't mean that you have to feel bad all the time. Talk to your healthcare provider or a therapist if:

- You feel worthless or helpless, or are thinking about death. These are warning signs of depression. Treatment can help you feel better. When depression is under control, your overall health may also improve.
- You feel anxious about what will happen to you or your loved ones if your health gets worse. Taking care of legal arrangements, such as a living will and durable power of attorney, can help you feel more secure about the future.

Enjoying Your Life

Having heart failure doesn't mean you have to stop living your life to the fullest. With the right care, you can still do many of the things you like to do. Remember to take time to smile, laugh, and enjoy yourself. Some of the best days of your life could still be ahead.



Also available in Spanish



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Please visit www.kramesurvey.com to provide your feedback on this booklet.

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