

LIVING WITH HEART FAILURE

Understanding Heart Failure

Your doctor says you have heart failure. The term “heart failure” sounds pretty scary. But in a medical sense, it really isn’t. It doesn’t mean that your heart has stopped beating or that you’re about to die. It means that your heart isn’t pumping as well as it should be. As a result, your body isn’t getting enough of the oxygen-rich blood it needs.

Heart failure occurs when the heart has been damaged and is weak. It’s a chronic (lifelong) condition that can’t be cured. But heart failure isn’t a hopeless condition. Many treatments can keep it from getting worse.

Heart failure can happen and worsen without any signs or symptoms that you can feel. That’s why it’s important for you and your family to learn about heart failure and what you can do to manage it, follow your doctor’s advice and get good medical care. This can help you lead a full, active life.

How the Heart Works

The heart’s main job is to pump the right amount of blood to all parts of the body. This is called circulation. The circulating blood takes nutrients (food) and oxygen to the body’s tissues and comes away with waste products.

The amount of blood the heart pumps depends on how much oxygen each part of the body needs. When you’re resting, your body doesn’t need that much oxygen and nutrients, so the heart pumps more blood. To meet the body’s needs, the heart beats faster (or slower) and the vessels get bigger (or smaller). This helps get the right amount of oxygen where it needs to go.

Physical activity isn’t the only thing that makes the heart work hard. Fever and some illnesses can also make the heart pump harder. This helps get the extra oxygen and nutrients to the parts of the body that need it. Under normal conditions, a healthy heart has more than enough pumping ability to circulate blood properly.

Causes and Risk Factors of Heart Failure

Almost any form of heart disease can cause heart failure. In the United States, the most common cause of heart failure is coronary artery disease (CAD). CAD occurs when arteries that supply blood to the heart muscle become narrowed by buildups of fatty deposits called plaque.

Other common risk factors that lead to heart failure are:

- *High blood pressure
- *Past heart attack (myocardial infarction)
- * Heart valve disease
- *Heart muscle disease (cardiomyopathy)
- *A heart defect present at birth (congenital heart disease)
- *Infection of the heart valves (endocarditis) and/or heart muscle itself (myocarditis)
- *Being overweight
- *Diabetes
- *Certain abnormal heart rhythms
- *Thyroid problems

- *Alcohol or drug abuse
- *Certain types of chemotherapy

Each of these problems can lead to heart failure by:

- *Reducing the heart's ability to pump blood
- *Limiting the amount of blood that fills the heart chambers
- *Filling the heart's pumping chambers with too much blood

Many of these disorders can be present for years before heart failure occurs. Mild symptoms will worsen over time unless properly treated.

Diagnosing Heart Failure

To diagnose heart failure, your doctor will perform a physical exam. Your heart and lung function will be tested to decide if your symptoms are being caused by heart failure.

The Effects of Heart Failure

The effects of heart failure can be felt throughout the body. You're likely to have one or more of the following symptoms.

Edema: If you have heart failure, your heart doesn't pump with enough force. This means that not enough blood is pumped out of the heart with each heartbeat. Then, because the heart isn't emptying as it should, blood returning from the body can't enter the heart and backs up in the veins. This forces fluid from the blood vessels into other tissues, causing swelling (edema). Edema can occur in the feet, ankles, legs and fingers, as well as in the abdomen and in other tissues and organs. As a result, weight gain is common. (Note: not all edema is caused by heart failure).

The heart's left side receives oxygenated blood from the lungs. The heart then pumps this blood to the rest of the body. When the heart's left side isn't pumping well, blood backs up in vessels of the lungs. Sometimes fluid is forced out of the lungs into the breathing spaces themselves. This is called pulmonary edema. Pulmonary edema often leads to shortness of breath and a lack of stamina.

The kidneys rely on proper blood circulation to rid the body of extra sodium (salt) and water. When you have heart failure, sodium that would normally be removed in the urine stays in the body and holds in water. Since too much fluid is already a problem, this makes edema even worse.

Shortness of Breath: A very common symptom of heart failure is shortness of breath. It may be caused by fluid in the lungs or by poor heart function. Shortness of breath is most often a problem during physical activity. But it can also happen during rest. Sometimes it may come on suddenly at night, making it very hard to breathe unless you get up and move around. You may need several pillows to raise your upper body so you can breathe more easily.

Fatigue: Another effect of heart failure is fatigue (tiredness). You feel tired because your tissues and organs aren't getting enough oxygen and nutrients. You may feel sleepy after eating, feel weak in the legs when walking and get short of breath while being active.

Other: Other ways to tell that your heart might not be working the way it should be include: *Coughing up pinkish, blood-tinged mucus. *Confusion, difficulty thinking, dizziness or lightheadedness. *Changes in your eating habits or appetite.

Controlling Your Heart Failure Symptoms

Heart failure can almost always be managed. Certain lifestyle changes can help you start to feel a lot better.

Limiting Salt Intake: Excess salt plays a part in water buildup. With more fluid in the blood vessels, the heart has to work harder. Over time this fluid buildup can cause shortness of breath and edema.

People with heart failure should limit their salt intake. The specific limit depends on your health. Most people use much more salt than they need. For people with heart failure, the limit should be 2,000mg per day. One teaspoon of salt contains 2,300mg of sodium, so you may have to work hard to limit foods with a lot of salt.

Improving Sleep: People with heart failure often wake up tired. This may happen because lying flat makes it harder to breathe or causes coughing. Also, some medications cause people to wake up throughout the night to go to the bathroom (urinate). People with heart failure may have other sleep problems as well, such as sleep apnea.

To improve nighttime sleep, avoid naps and big meals right before bedtime. If needed, use an extra pillow to raise your head. Talk to your doctor or nurse if two or more pillows are needed for you to sleep - it may be time to change the dose or type of your medications. Also, talk to your healthcare provider about changing the time you take your medicines, especially diuretics. This may save you some trips to the bathroom during the night.

Staying Active: As a general rule, it's good for people with heart failure to stay active. This helps keep you in good shape so you can feel better and do more. Talk with your doctor or nurse about starting a physical activity program. You may need a supervised exercise stress test before you start.

Activities such as walking, swimming or biking may be recommended. Avoid activities where you have to hold your breath, bear down or use sudden bursts of energy. Don't lift heavy weights or move heavy furniture. These activities may cause difficulty in breathing. Stop and rest if any activity causes chest pain, shortness of breath, dizziness or lightheadedness. Try not to be active right after meals, when it's hot or humid, when it's cold or when you don't feel good.

How Medication Can Help

The goal of heart failure treatment is to help you live a longer, better quality life. Treating the causes of heart failure with medication can lessen fatigue, shortness of breath and swelling. It also helps improve your energy level so you can be physically active. Medications can stop or slow the progress of the disease, even if you have no signs or symptoms.

The following pages tell you how your heart failure is likely to be treated. Also be aware that new ways of treating heart failure are being developed. These new treatments aim to stop or reverse things that cause heart failure or make it worse.

Taking Medications

Treating heart failure often means taking certain medications. If medication is prescribed for you, follow your doctor's directions exactly. Don't change how much you take or when you take it without talking to your healthcare provider. If your doctor changes your dosage, ask your doctor or nurse why such a change might be needed. Some of the most common heart failure medications are listed below.

ACE inhibitors (angiotensin-converting enzyme inhibitors) – keep heart failure from getting worse by limiting the amount of a hormone called angiotensin in the blood. Angiotensin causes the blood vessels to tighten and prevents the heart from working harder.

ARB's (angiotensin receptor blockers) – work in a similar manner to an ACE inhibitor. An ARB keeps angiotensin from causing the blood vessels to tighten and prevents the heart from working harder.

Vasodilators – widen (dilate) blood vessels. When blood vessels widen, blood flows more easily and the heart doesn't have to work as hard. These medications can be used with ACE inhibitors and ARB's. Or, they can be used alone if you can't use the other medications. Some vasodilators, such as nitrates (nitroglycerin, isosorbide dinitrate), mainly make the veins bigger. Others (hydralazine) work mostly on the arteries. You may need to take two vasodilators if your blood pressure is high or if your symptoms keep you from doing your usual activities.

Beta-blockers – slow the heart rate and reduce the heart's work. Over time, the heart muscle, which has been stretched and enlarged, reshapes itself. This helps the heart pump better.

Digitalis – may be used to strengthen the heart's pumping action. The level of digitalis in the body must be monitored using a blood test. If too much digitalis builds up in the blood, a loss of appetite, nausea, vomiting and headaches may result. The heart rhythm can also become too fast or too slow. Always report any side effects of your medications to your doctor right away.

Using Diuretics

People with heart failure are often prescribed a diuretic (water pill). This helps the body get rid of extra water and sodium and eases the heart's workload. But water pills may cause some side effects.

One common side effect of most diuretics is potassium loss. The body needs potassium to work properly. It helps maintain the electrical balance of the heart and nervous system. If you take a diuretic that causes you to lose potassium, your doctor may tell you to try to keep up your potassium level.

Many fruits and vegetables are rich in potassium. Bananas, cantaloupes, orange juice, grapefruit juice and potatoes are examples. If your doctor thinks you aren't getting enough potassium in your diet, he or she may prescribe a potassium supplement. But too much potassium in the body can be harmful and even life threatening. Don't take a potassium supplement unless your doctor says to. And if you do, ask your doctor for specific instructions about how to avoid potassium buildup.

Watching Your Weight

If you take a diuretic, it's important to weigh yourself every morning and write down your weight in a log or diary. Weight gain for several days in a row may be the first sign of fluid buildup. If not treated, fluid buildup makes the heart work harder and may cause shortness of breath and edema.

Reference: American Heart Association booklet