



Health Facts for You



Heart failure

UWHealth

Welcome to UW Health!

This booklet will help you learn:

- About the heart and how it works.
- About heart failure and the tests and treatments used to manage it.
- How to work with your doctor and nurse so you can begin to live with heart failure and feel better.

Many people with heart failure lead normal, active lives. They do so because they have learned to take good care of themselves. You can take control of heart failure by learning how to follow your treatment plan.

What is Heart Failure?

Heart Failure means that your heart muscle is weakened. It is not pumping blood as it should. It does not mean that your heart has stopped or is about to stop. It just means that the pumping function of your heart is not working as well as it once did.

The heart muscle can become weak and less able to pump blood out to the body. This is called “systolic” failure. In another type of heart failure, the heart cannot relax the right way to fill with blood. This is called “diastolic” failure. Some people can have both problems. Both types have similar symptoms.

Heart failure also affects the kidneys. It makes it hard for the kidneys to get rid of sodium and water. The excess fluid can cause your feet, ankles, stomach, and legs to swell. The term “congestive heart failure” simply means that your body is holding onto this excess fluid.

What Causes Heart Failure?

- High blood pressure
- Diabetes
- Heart attack
- Coronary artery disease
- Obesity
- Alcohol or other drug abuse
- Tobacco use
- Heart valve problems
- Family or genetic trait
- Drugs that are toxic to heart muscle (ex: some chemotherapy)
- Arrhythmias
- Infections and diseases of the heart muscle (cardiomyopathy, viral myocarditis)
- Thyroid disease
- Other unknown causes

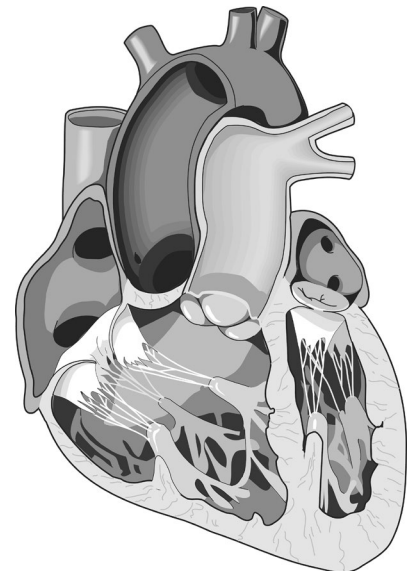
What are the Symptoms of Heart Failure?

Some of the classic symptoms of heart failure are:

- Shortness of breath with light activity or even when at rest.
- Tiring easily with your normal routine or having little energy.
- A cough that does not go away or chest congestion.
- The need to sit up to breathe comfortably when sleeping.
- Swollen or full abdomen, legs, feet, ankles or hands.
- Weight gain despite not feeling hungry.
- Lack of hunger, feeling bloated when eating, or feeling full after taking just a few bites.

How is Heart Failure Diagnosed?

Your health care team includes doctors, nurse practitioners and nurses. They are able to detect and treat your heart failure. To do this, they listen to your heart and lungs. They look for extra fluid at many places on your body, such as your neck, stomach and legs. Your health care team will ask you about symptoms you are having. You may also have a chest x-ray, an EKG (electrocardiogram), or an ultrasound of your heart (echocardiogram).



Tests and Procedures for Heart Failure

Your health care team may order

- **An electrocardiogram (EKG)** is a test study heart rate and rhythm. This can be useful in finding areas of damaged heart muscle or detecting abnormal heart rhythms that may lead to heart failure. It is done by putting stickers on your chest to detect your heart rate and rhythm.
- **An ultrasound of the heart** (echocardiogram) is a test to check the size and function of the heart. This test shows how well the heart muscle is contracting and relaxing and how the valves are working.
 - You may hear the words ejection fraction (EF). This is the percent of blood that the heart pumps out with each beat. A normal EF is 55-70%.
- **A heart catheterization** is a test to see if you have any blocked blood vessels in your heart. During a catheterization, doctors may also measure pressures in the heart and lungs.
- **Blood and urine tests** look for other causes of heart failure.
- A **chest x-ray** shows if the heart is enlarged or if there is fluid in or around your lungs.

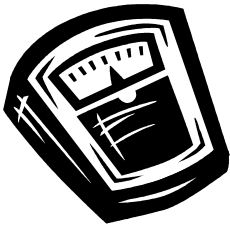
Other tests your health care team has ordered:

How is Heart Failure Treated?

Heart failure can be treated and managed. If you follow your medicine, diet, and lifestyle program, you may improve your symptoms and prevent your heart failure from getting worse.

Tips to keep you healthy:

- Take your medicines as prescribed by your health care team.
- Limit the sodium in your diet to 2000 mg sodium or less.
- Limit your daily liquid intake to 2 L(liters) or about 2 quarts.
- Get regular exercise.
 - Before you start, you should talk to your health care team about an exercise program. Discuss the ways you can increase your activity level.
- Change your habits.
 - Weigh yourself daily.
 - Quit smoking.
 - Limit or avoid alcohol.
 - Keep track of your symptoms.
 - Avoid or reduce stress.



Weigh Yourself Every Day

You should **check daily** for signs that your heart failure is getting worse.

You should:

- Weigh yourself. Do this at the same time each day. Always wear the same amount of clothing. Go to the rest room before weighing yourself.
- Look for swelling. Look at your belly, feet, ankles and hands.
- Write down your weight in a journal or book to show your health care team.

You can gain weight before swelling or other symptoms are noticed. Many people can hold between 8 and 15 pounds of fluid before swelling is noticed.

Fluid Intake

Fluids are any item that is liquid at room temperature. Keeping track of what you drink will help manage your heart failure.



These are foods or liquids that you should count as part of your fluid intake:

- | | | |
|-------------------|-------------|---------------------|
| • Ice cubes | • Coffee | • Ice cream/Sherbet |
| • Water | • Tea | • Pudding |
| • Broth and soups | • Sodas | • Yogurt |
| • Lemonade | • Popsicles | • Watermelon |
| • Milk | • Jell-O | • Juices |

Don't Forget: If it wiggles, jiggles or melts at room temperature, it is a fluid!

Fluid Measurements

1 cup = 8 ounces

1 quart = 32 ounces = 1 liter

2 cups = 1 pound of water weight

Regular consumption of alcohol, beer, and wine are not recommended for patients with heart failure. Alcohol can damage the heart muscle further.

Other Tips:

- Limit what you drink (your fluid intake) as you are told to by your health care team.
 - For most people the allowance is 2 Liters or about 2 quarts a day.
- Diuretics (water pills) can cause dry mouth, as can other drugs. These items may help with dry mouth symptoms.
 - Use sugar free candy or gum instead of fluids.
 - Frozen grapes.
 - Use a moistening mouth wash, such as Oasis™.
- Measure all your dishes, mugs, bowls and glasses to see how much they hold and label them.
- Use a 2-liter pitcher or soda bottle to keep track of your fluid. Fill each item that you drink from with water. Pour this into your bottle. When you reach your limit, you have spent your allowance for the day.

Salt Intake



The words sodium and salt mean the same thing. Keep in mind that it is common to see either term used.

Keeping track of your salt intake is an important part of the treatment for heart failure. You will need to limit the salt in your diet to 2000 mg (milligrams) per day or less. One teaspoon of table salt is 2300 mg. Too much salt causes the body to hold onto fluid. Excess fluid makes your heart work harder. Fluid can back up into your lungs. This can make you short of breath. It is the extra fluid that causes swelling in the feet, ankles, legs and stomach.

Tip: Divide up your salt intake for the day. For example: you may wish to designate 400 mg for breakfast, 700 mg for lunch, 700 mg for dinner, and 200 mg for snacks.

You should talk to a dietitian. Discuss how you can choose foods that you enjoy eating **and** that are low in salt. To avoid extra salt:

- Read food labels. Any words that have “sodium” in them count as salt (e.g., monosodium glutamate).
- Do not use salt at the table or in cooking.
- Try other seasonings and herbs to add flavor to your food.

These foods very high in sodium- avoid them or eat a small amount once in a while:

- Processed meats and cheeses such as bacon, lunch meats, hot dogs, bratwurst, and cottage cheese
- Convenience foods (frozen dinners, etc.)
- Gravy mixes, instant rice and noodle products
- Canned soups, canned vegetables, canned tomato products
- Salty snacks (chips, nachos, etc.)

Dining Out

- Limit going to fast food restaurants. They often serve foods that are very high in salt. For example:
 - Chef salad may contain as much as 1919 mg.
 - Hotcakes with margarine and syrup may contain 1190 mg.
 - Butter burger bacon deluxe can have 1855 mg.
 - Hamburger single plain may have 500 mg.
- If there are times you have to dine out at a fast food place, try a side salad with a plain burger.
- Ask for sauces and dressing on the side.
- Basic Rules for Eating Out:
 - Do not be afraid to ask the wait staff for a special order: “No Salt.”
 - Keep portions small.
 - Do not cheat. Too much salt can mean a trip to the hospital for some people.
 - Review the menu in before dining out to plan what to eat.

Medicines Used To Treat Systolic Heart Failure



ACE Inhibitors (Angiotensin Converting Enzyme Inhibitors) are very helpful for people with heart failure. They work by blocking the harmful effects of stress hormones and open up your arteries and veins. This makes it easier for your heart to pump the blood out to the rest of your body. Side effects can include lightheadedness or feeling dizzy. When you make a change in posture, such as standing up from a seated position, brief lightheadedness is common. To improve this, try doing ankle pumps (move your feet back and forth about 10 times) before you stand up. Examples of ACE inhibitors may include: **Lisinopril, Enalapril, or Captopril.**

Beta Blockers are very helpful for people with heart failure. Beta blockers “block” the effects of harmful stress hormones in your body that can make your heart work too hard. Some common side effects include feeling tired or dizzy or wheezy. Tell your health care team of the side effects right away. Examples of beta blockers may include: **Carvedilol or Metoprolol Succinate.**

Diuretics (water pill) work by helping your body get rid of excess fluid. Less fluid in your body can make breathing easier and help you feel more comfortable. Along with getting rid of fluid, your body will get rid of minerals such as potassium and magnesium. Common side effects can include leg cramps or feeling dizzy or weak. It is important to have your blood drawn to check and replace potassium and magnesium if the blood levels are low. It is helpful to weigh yourself daily and review your weight log with your health care team. Examples of diuretics may include: **bumetenide (Bumex[®]), furosemide (Lasix[®]) or torsemide (Demadex[®]).**

Aldosterone Antagonists block the effect of aldosterone which makes you hold onto more sodium. This can further weaken the heart and affect the blood vessels. Some side effects can include high potassium levels, breast soreness, and breast enlargement in men. Examples of aldosterone antagonists include: **Spironolactone, Eplerenone.**

Digoxin has been used used in the treatment of heart failure for many years. Digoxin can make your heartbeat stronger and more regular. However, it is not used in all patients with heart failure. Some side effects may include nausea, blurred or colored vision, or an irregular heartbeat.

Angiotensin II Receptor Blockers (ARBs) are used to reduce the impact of some harmful hormones that can worsen heart failure. Some common side effects of ARBs include dizziness and an elevation of the potassium level in the blood. Examples of ARBs may include **Valsartan, Candesartan, or Losartan.**

Combination of Hydralazine and Isosorbide Dinitrate is used to help relax blood vessels. This eases the work of the heart when it pumps blood to the body. Often, this combination is used in people with kidney problems, in place of ACE inhibitors or ARBs. These medicines may also be used in addition to ACE inhibitors or ARBs in some people. Some side effects include dizziness, nausea, and vomiting. Talk with your heart failure nurse or provider if you notice these side effects.

Do NOT stop taking your heart medicines without talking to your health care team first! It can be dangerous to change or skip doses!

Medicines to avoid

- Drugs that contain ibuprofen (Advil[®], Motrin[®]), naproxen (Aleve[®]), or other non-steroidal anti-inflammatory drugs
- Drugs that contain pseudoephedrine (Sudafed[®]); found in many cough and cold drugs
- Medicines with sodium in them such as antacids
- Calcium channel blockers such as nifedepine, diltiazem and verapamil

Herbal supplements to avoid

- Items that contain ephedra (ma-huang), ephedrine metabolites, Chinese herbs, or hawthorne (crataegus) products.
- Garlic, ginseng, ginkgo and coenzyme Q-10 may interact with blood thinners.

If you are taking any supplements or over-the-counter drugs, discuss these with your health care team. They may interact with your prescribed drugs.

Beware of claims about the benefits of herbals that seem too good to be true. Never take them in place of your regular medicines.

Stop Smoking



If you smoke or chew tobacco, now is the time to stop. Smoking makes your blood vessels tighten. This causes your heart to work harder and in turn, it can make a weak heart become weaker. Ask your health care team about methods for helping you to quit smoking.

Be aware that on average, it takes about 6 tries to quit smoking before a person can truly kick the habit – but it **can** be done!

Ask us about different medicines, patches, or gum to help you quit!

Other information can be found at:

- The Wisconsin Tobacco Quit Line (1-800 QUIT NOW) provides free confidential help to quit smoking or chewing tobacco.
- American Cancer Society: www.cancer.org/healthy/StayAwayfromTobacco/Guide
- National Institute of Health: www.smokefree.gov
- American Lung Association: www.lungusa.org/stop-smoking
- Centers for Disease Control: www.cdc.gov/tobacco/quit-smoking

Your Heart Care

This is a group effort. Your **active role is key** to good management of your heart disease. It is vital to find a health care team that you

- Feel comfortable with.
- See on a routine basis.
- Can talk to when your symptoms change.

Exercise



Spend a few minutes warming-up before you begin exercising and slowly increase your exercise intensity or effort.

Aerobic exercise tones and strengthens all muscles. This lowers the work your heart has to do when you are active. This is the best type of exercise for your heart condition. It should be done 5 to 7 days per week. Examples of aerobic exercise include walking, swimming, or bicycling.

When your health care team tells you that it is okay, light strength training is encouraged. You can lift up to a **limit** of 30 pounds. This helps with muscle building and toning without a large amount of strain on the heart. While strength training is not an aerobic exercise and does not improve the function of the heart, it may help you do better in daily life.

Tips for Exercise

- Wear clothing that you can move in.
- Wear shoes that fit and have good support.
- Wait one hour after a meal. Do not exercise on an empty or full stomach.
- Avoid strenuous activity when it is very cold or very warm. Also avoid muggy or dusty conditions.
- Always warm up and cool down.
- Do not hold your breath when walking or doing any form of activity.
- Pick a time of day that works best for your schedule. This should be a time of day when you have the most energy.
- Exercise can be done in short blocks of time several times a day. This is as beneficial as exercising once a day for a longer period of time.
- Remember that controlled environments can be found in malls, public schools, large stores (like grocery stores or retail stores) for walking.

Warning Signs to Stop Exercise



Stop what you are doing if you feel:

- Chest pain or pressure in your arms, shoulders, neck or jaw.
- Sick to your stomach or begin vomiting.
- Lightheaded or dizzy.
- Shortness of breath which prevents you from completing a sentence or that does not get better when you slow down or stop what you are doing.
- Joint or muscle pain.
- A pulse that is irregular for you.

If you have any of these symptoms, stop and rest. If they do not go away, call 911.

Many people with heart failure continue to work and lead active lives. If you take an active part in the management of your heart condition, you can help control symptoms and improve your quality of life.

- Take the heart medicines prescribed by your health care provider.
- Follow fluid and low sodium guidelines.
- Exercise.
- Tell your health care provider about weight gain or swelling.

Your health care team may have given you this information as part of your care. If so, please use it and call if you have any questions. If this information was not given to you as part of your care, please check with your doctor. This is not medical advice. This is not to be used for diagnosis or treatment of any medical condition. Because each person's health needs are different, you should talk with your doctor or others on your health care team when using this information. If you have an emergency, please call 911. Copyright © 7/2019 University of Wisconsin Hospitals and Clinics Authority. All rights reserved. Produced by the Department of Nursing. HF#6087