We lead with heart

NORTHSIDE HOSPITAL HEART INSTITUTE

Living with Heart Failure

An Educational and Lifestyle Tool for Families and Patients

HEART FAILURE THERAPY

Northside Hospital Heart Institute has never wavered from its commitment to providing quality healthcare where patients need it most. We have focused on bringing together the best cardiologists, surgeons, nursing staff and allied health professionals to deliver exceptional heart and vascular care.

Our doctors work together to improve your heart and vascular health, which leads to overall enhanced wellness. We are committed to delivering quality outcomes and offering patients the most advanced treatment options.

Contents

Side Notes

Your Heart's Role

The role of the heart is to supply the body with blood and oxygen. The muscles, tissues, and other organs need oxygen to function normally. The heart is the body's central pump because it is constantly moving blood to all systems in the body.

By filling and contracting (pumping), the heart circulates approximately 2 liters of fluid every minute. A normal heart contracts 60-90 times a minute.

What is Heart Failure?

Heart failure is a condition in which the heart cannot supply enough blood to meet the body's needs. In some cases, the heart cannot pump blood to the rest of the body with enough force. In other cases, the heart cannot fill with enough blood and has trouble relaxing. Some people have both problems.

The term "heart failure" does not mean that your heart has stopped or is about to stop working. However, heart failure is a serious condition that requires medical care.

Overview

Heart failure may progress over time as the heart's pumping action grows weaker. The condition can affect one side of the heart or both.

Left-side heart failure occurs if the heart cannot pump enough oxygen-rich blood to the rest of the body, or is unable to relax and fill with blood.

Right-side heart failure occurs if the heart cannot pump enough blood to the lungs to pick up oxygen.

Signs and symptoms of heart failure may include swelling in the feet, ankles, legs, liver, abdomen and the veins in the neck. You also may have shortness of breath and fatigue (tiredness). The leading causes of heart failure are diseases that damage the heart. Examples include coronary heart disease (CHD), idiopathic (probably due to viral infection), high blood pressure and diabetes.

Outlook

Heart failure is a very common condition. About 6.7 million people in the United States have heart failure. Both children and adults can have the condition. This booklet focuses on heart failure in adults.

Currently, heart failure has no cure. However, treatments such as medicines and lifestyle changes can help people with heart failure live longer and more active lives. Researchers continue to study new ways to treat heart failure and its complications.

Other Names for Heart Failure

- Congestive heart failure - This is when there are signs or symptoms of fluid overload (i.e., congestion, shortness of breath, swelling, fluid buildup).
- Systolic heart failure - This is when the pumping action is impaired.
- Diastolic heart failure - This is when the heart pumps normally, but relaxation or filling is impaired.
- Cor pulmonale - This term refers to right-side heart failure caused by high pressures in the pulmonary arteries causing the right ventricle (lower right heart chamber) to fail.

Side Notes

Ejection Fraction

Another measure of the heart function is called the ejection fraction. The ejection fraction is the amount of blood the heart pumps with each beat.

Normally the heart ejects 55 – 60% of the blood with each heartbeat. As the heart relaxes, it refills with blood and prepares to contract again. If the ejection fraction is greater than 50% it is considered preserved (normal). Patients with heart failure and reduced ejection fraction of 40% or less (HFrEF) may have had damage from heart attacks or other causes as listed here.

Abnormal function can also occur with hearts that have reduced relaxing ability. Those patients are said to have heart failure with preserved ejection fraction (HFpEF).

What Causes Heart Failure?

Conditions that damage or overwork the heart muscle can cause heart failure. Over time, the heart weakens. It isn't able to fill with and/or pump blood as well as it should.

As the heart weakens, certain proteins and substances might be released into the blood. These substances have a toxic effect on the heart and blood flow, and they worsen heart failure.

My Ejection Fraction (EF)

Date: _____

EF: _____

Test Used: _____

Common Causes of Heart Failure

The most common causes of heart failure are coronary heart disease (CHD), idiopathic (probably viral), high blood pressure, and diabetes. Treating these problems can prevent or improve heart failure.

Coronary Heart Disease (Ischemic)

Coronary Heart Disease (CHD) is a condition in which a waxy substance filled with cholesterol called plaque (pronounced "plak") builds up inside the coronary arteries. These arteries supply oxygen-rich blood to your heart muscle.
Plaque narrows the arteries and reduces blood flow to your heart muscle. The buildup of plaque also makes it more likely that blood clots will form suddenly in your arteries. Blood clots can partially or completely block blood flow.
CHD can lead to chest pain or discomfort called angina (an-JI-nuh or AN-juh-nuh), a heart attack, heart damage, or even death.

Idiopathic Heart Failure

If a heart condition is idiopathic, it means that the cause is unknown. Viruses are often the source for the condition. In some cases, it may be due to family genetics.

High Blood Pressure

Blood pressure is the force of blood pushing against the walls of the arteries. If this pressure rises and stays high over time, it can weaken your heart. If you have a weakened heart muscle, higher blood pressure makes it more difficult for your heart to pump.

Normal blood pressure is below 120/80mmHg. (The mm Hg is millimeters of mercury— the units used to measure blood pressure.) Blood pressure is considered high if it stays at or above 130/80 mm Hg over time.

Diabetes

Diabetes is a disease in which the body's blood glucose (sugar) level is too high. The body normally breaks down food into glucose and then carries it to cells throughout the body. The cells use a hormone called insulin to turn the glucose into energy.
In diabetes, the body does not make enough insulin or does not use its insulin properly. Over time, high blood sugar levels can damage and weaken the heart muscle and the blood vessels around the heart, leading to heart disease and heart failure.

Side Notes

Causes of Heart Failure

There are many causes of heart failure. The most common are:

- *Heart Attack (coronary artery disease)*
- *Idiopathic or unknown (thought to be from a virus)*
- *Long-term High Blood Pressure*

Other Causes of Heart Failure

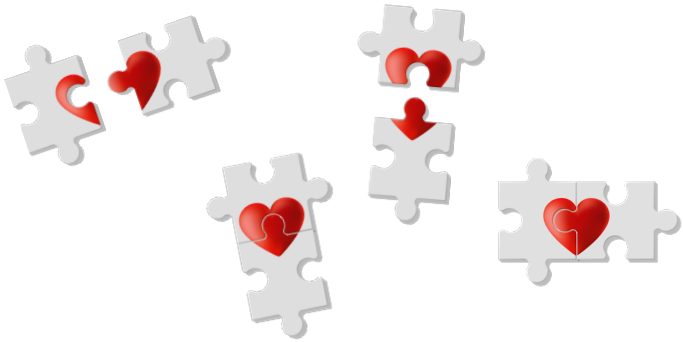
Other diseases and conditions may be present at birth or develop later in life and also lead to heart failure, such as:

- Cardiomyopathy (KAR-de-o-mi-OP-ah-thee), or heart muscle disease
- Heart valve disease - problems with the heart valves
- Arrhythmias (ah-RITH-me-ahs) - irregular or fast heartbeats
- Congenital (kon-JEN-ih-tal) heart defects
- Peripartum - caused by pregnancy

Other factors also can injure the heart muscle and lead to heart failure. Examples include:

- Treatments for cancer, such as radiation and chemotherapy
- Thyroid disorders (having either too much or too little thyroid hormone in the body)
- Alcohol abuse, tobacco abuse, cocaine and other illegal drug use
- HIV/AIDS
- Viruses/Bacterial infections

Heart damage from obstructive sleep apnea may worsen heart failure. Sleep apnea is a common disorder in which you have one or more pauses in breathing or shallow breaths while you sleep. Sleep apnea can deprive your heart of oxygen and increase its workload. Treating this sleep disorder might improve heart failure, blood pressure, and diabetes control.



Who Is at Risk for Heart Failure?

About 6.7 million people in the United States have heart failure. The number of people who have this condition is growing.

Heart failure is more common in:

- People who are 65 years old or older: Aging can stiffen the heart muscle. Older people also may have had diseases for many years that led to heart failure. Heart failure is a leading cause of hospital stays among people on Medicare.
- African Americans, due to their genetic predisposition for sensitivity to salt and hypertension, are more likely to have heart failure than people of other races. They're also more likely to have symptoms at a younger age, have more hospital visits due to heart failure, and die from heart failure.
- People who are overweight: Excess weight puts strain on the heart. Being overweight also increases your risk of heart disease and type 2 diabetes. These diseases can lead to heart failure.
- People who have had a heart attack.
- Men have a higher rate of heart failure than women.

Children who have congenital heart defects also can develop heart failure. These defects occur if the heart, heart valves, or blood vessels near the heart don't form correctly while a baby is in the womb.

Side Notes

Symptoms of Heart Failure

- *Increased or new shortness of breath*
- *Weight gain*
- *Fatigue – feeling tired*
- *Swelling in your legs or stomach*
- *Shortness of breath while lying flat or reclined*
- *Difficulty concentrating*
- *Waking up from a sound sleep with shortness of breath*
- *Cough that is worse at night or lying down*

What are the Signs and Symptoms of Heart Failure?

The most common signs and symptoms of heart failure are:

- Shortness of breath or trouble breathing, either at rest or with walking
- Fatigue (tiredness) with minimal exertion
- Swelling in the ankles, feet, legs, abdomen, and veins in the neck
- Weight gain
- Difficulty concentrating
- Waking up at night feeling short of breath
- Cough that is worse at night or lying down

All of these symptoms are the result of fluid buildup in your body. When symptoms start, you may feel tired and short of breath after routine physical effort, like climbing stairs.

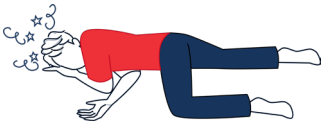
As your heart grows weaker, symptoms get worse. You may begin to feel tired and short of breath after getting dressed or walking across the room. Some people have shortness of breath while lying flat.

Fluid buildup from heart failure also causes weight gain, frequent urination, and a cough that's worse at night and when you're lying down. This cough may be a sign of acute pulmonary edema (e-DE-ma). This is a condition in which too much fluid builds up in your lungs. The condition requires emergency treatment.

Call 911 if you experience any of the following symptoms:

CHEST DISCOMFORT/ PRESSURE OR PAIN THAT IS NOT RELIEVED WITH NITROGLYCERIN OR LASTS LONGER THAN 10 MINUTES

SUDDEN RAPID HEART RATE



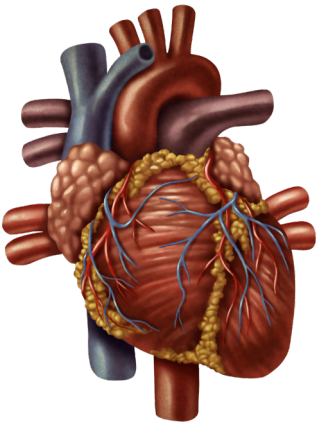
FAINTED OR PASSED OUT

SEVERE OR WORSENING SHORTNESS OF BREATH

Side Notes

Lifestyle Changes

Simple changes can help you feel better and control heart failure. The sooner you make these changes, the better off you'll likely be.



How is Heart Failure Diagnosed?

Your doctor will diagnose heart failure based on your medical and family histories, a physical exam, and test results. The signs and symptoms of heart failure also are common in other conditions. Thus, your doctor will:

- Find out whether you have a disease or condition that can cause heart failure, such as coronary heart disease (CHD), high blood pressure, or diabetes
- Rule out other causes of your symptoms
- Find any damage to your heart and check how well your heart pumps blood

Early diagnosis and treatment can help people who have heart failure live longer, more active lives.

Medical and Family Histories

Your doctor will ask whether you or others in your family have or have had a disease or condition that can cause heart failure or have had sudden death.

Your doctor also will ask about your symptoms. He or she will want to know which symptoms you have, when they occur, how long you've had them, and how severe they are. Your answers will help show whether and how much your symptoms limit your daily routine.

Physical Exam

During the physical exam, your doctor will:

- Listen to your heart for sounds that aren't normal
- Listen to your lungs for the sounds of extra fluid buildup
- Look for swelling in your ankles, feet, legs, abdomen, and the veins in your neck

Diagnostic and Laboratory Tests

No single test can diagnose heart failure. If you have signs and symptoms of heart failure, your doctor may recommend one or more tests.

BNP Blood Test

This test checks the level of a hormone in your blood called BNP. The level of this hormone often rises during heart failure.

Cardiac Catheterization

During cardiac catheterization (KATH- eh-ter-ih-ZA-shun), a long, thin, flexible tube called a catheter is put into a blood vessel in your arm, groin (upper thigh), or neck and threaded to your heart. This allows your doctor to look inside your coronary arteries (left heart cath) or measure pressures in your heart and lung (right heart cath).

Chest X-ray

A chest x-ray takes pictures of the structures inside your chest, such as your heart, lungs, and blood vessels.

Creatinine Level Blood Test

This test is done to see how well your kidneys work. When you have a heart failure condition, your kidney function may also be impacted. High creatinine levels may indicate that the kidneys are not working normally.

Echocardiography

Echocardiography (echo) uses sound waves to create a moving picture of your heart. The test shows the size and shape of your heart and how well your heart chambers and valves work.

EKG (Electrocardiogram)

An EKG is a simple, painless test that detects and records the heart's electrical activity. The test shows how fast your heart is beating and its rhythm (steady or irregular).

Sodium and Potassium Levels

The blood sodium levels in your body may decrease when your body retains too much fluid. Potassium levels can also change because of certain medications to treat your heart failure condition. Both sodium and potassium are important electrolytes that help normal cardiac function.

Thyroid Function Tests

Thyroid function tests show how well your thyroid gland is working. These tests may include blood tests, imaging tests, and tests to stimulate the thyroid. Having too much or too little thyroid hormone in the blood can lead to heart failure.

How is Heart Failure Treated?

Early diagnosis and treatment can help people who have heart failure live longer and more active lives. Treatment for heart failure will depend on the type and stage of heart failure (the severity of the condition).

The goals of treatment for all stages of heart failure include:

- Treating the condition's underlying cause, such as coronary heart disease (CHD), high blood pressure, or diabetes
- Reducing symptoms
- Stabilizing the disease process with the use of specific medications
- Increasing your lifespan and improving your quality of life
- Treatments usually include lifestyle changes, medicines, and ongoing care. If you have severe heart failure, you also may need medical procedures or surgery

Side Notes

Sodium Restrictions

Most patients with heart failure benefit from sodium restriction.

A 2000 mg sodium/ salt restriction per day is usually recommended.

Salt substitutes are NOT recommended.

Key Points:

- *Say good bye to the salt shaker*
- *1 teaspoon salt = 2300 mg sodium*
- *Read Nutritional labels*

Diet Tips

- *Avoid canned and processed food. It usually contains more sodium.*
- *Don't be fooled by "light" labels on foods.*
- *Keep portion sizes small.*
- *Ask for a "special order" with no salt if eating out.*
- *Make smarter menu selections; avoid sauced or stuffed entrées.*

A Heart Healthy Diet

Following a heart healthy diet is an important part of managing heart failure. In fact, not having a proper diet can make heart failure worse. Ask your doctor and health care team to create an eating plan that works for you.

A healthy diet includes a variety of vegetables and fruits. It also includes whole grains, fat-free or low-fat dairy products, and protein foods, such as lean meats, eggs, poultry without skin, seafood, nuts, seeds, beans, and peas.

A healthy diet for heart failure contains less than two thousand (2000) milligrams of sodium (salt) and is low in solid fats (saturated fat and trans fatty acids). Too much salt can cause extra fluid to build up in your body, making heart failure worse. Saturated fat and trans fatty acids can cause unhealthy blood cholesterol levels, which are risk factors for heart disease.

A healthy diet also is low in added sugars and refined grains. Refined grains come from processing whole grains, which results in loss of nutrients (such as dietary fiber). Examples of refined grains include white rice and white bread. A balanced, nutrient-rich diet can help your heart work better.

Talk with your healthcare team about getting the correct amount of potassium. Too much potassium can be harmful. Salt substitutes are not recommended because many contain potassium ingredients that can increase your blood potassium to harmful levels.

For more information about following a healthy diet, read the Heart Failure Society of America brochure on *How to Follow a Low-Sodium Diet*.

Read Food Labels

1. Look at the serving size and the number of servings per container. If you eat more than one serving you will get more sodium than the listed amount.

2. Note the number of milligrams of sodium per serving. Alternatively, the % Daily Value (DV) can help you determine if a serving of food is high or low in a nutrient. For example, 5% DV or less is very low in sodium and 20% DV or greater is very high in sodium per serving.

3. It is good to select foods with no more than 140mg or 10% per serving.

Nutrition Facts

1 10 servings per container
Serving size **1/2 cup (170g)**

Amount per serving
Calories **230**

	% Daily Value*
Total Fat 13g	**15%**
Saturated Fat 5g	**5%**
Trans Fat 0g	
Cholesterol 0mg	**0%**
2 **Sodium** 140mg 3	**10%**
Total Carbohydrate 45g	**20%**
Dietary Fiber 10g	**20%**
Total Sugars 12g	
Includes 15g Added Sugars	**25%**
Protein 8g	

Vitamin D 7mcg	15%
Calcium 265mg	25%
Iron 13mg	50%
Potassium 235mg	10%

*The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet 2,000 calories a day is used for general nutrition advice.

	Calories	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

Side Notes

Fluid Management

Fluid restriction includes all fluids, such as:

- *Jell-O/Gelatin*
- *Fruit & Juices*
- *Popsicles*
- *Juicy Vegetables*
- *Broth/Soup*
- *Ice Cream*
- *Tea*
- *Water*
- *Coffee*
- *Sodas*
- *Ice*

Fluid Intake and Monitoring

It's important for people who have heart failure to drink the correct amounts and types of fluid. Drinking too much fluid can worsen heart failure. Also, if you have heart failure, you shouldn't drink alcohol. You should limit your fluid intake to no more than 2000ml per day.

Recording your fluid intake will help ensure that you are not taking in more fluids than expected. It is a good idea to write this information on a calendar or chart.

To record your fluid intake, you will need to learn the number of cc's or mL's in common servings. Some sample measurements are included.

Keep a record of daily fluid intake until you feel at ease with your fluid limit and can figure out your fluid intake without measuring liquids. One way to keep track of your fluid intake - place an empty 2-quart pitcher or 2-liter soda bottle in an accessible place in the kitchen. Every time you drink or eat something that is considered a fluid, place the same amount of water into the pitcher/bottle. When the pitcher/bottle is full you have had your limit of fluids for the day.

Note: Being thirsty does not mean your body needs more fluid. You need to be careful not to replace the fluids that diuretics (water pills) have helped your body get rid of. Here are some tips for decreasing thirst:

- Nibble on frozen grapes or strawberries
- Suck on ice chips (not cubes), a sucker or a washcloth soaked in ice-cold water
- Cover your lips with petroleum jelly, flavored lip balm or lip moisturizer
- Suck on hard candy or chew gum (sugarless). Use sparingly since this may sometimes cause diarrhea.
- Avoid soda, milk or ice cream products, as they increase thirst
- Avoid electrolyte replacement drinks, unless prescribed by your doctor. Drinks such as Bodyarmor, Gatorade, Liquid IV can affect your potassium and sodium levels which may interfere with your medications or treatment plan

Fluid Equivalents

			1cc	=			1mL
	1 fluid oz	=	30cc				
1/4 cup	= 2 fluid oz	=	60cc				
1/2 cup	= 4 fluid oz	=	120cc				
1 cup	= 8 fluid oz	=	240cc	=	1/2 pint		
2 cups	= 16 fluid oz	=	480cc	=	1 pint		
4 cups	= 32 fluid oz	=	1000cc	=	1 quart	=	1 liter
5 cups	= 40 fluid oz	=	1200cc				
6 cups	= 50 fluid oz	=	1500cc	=	1 1/2 quarts		
8 cups	= 64 fluid oz	=	2000cc	=	2 quarts	=	2 liters

Limit fluids to 2 liters a day

Side Notes

Heart Failure Educational Resources

Visit the American Heart Association website. Utilize the educational videos and the 'HF Helper' App.

heart.org/heartfailure

AHA Website

The American Heart Association is a relentless force for a world of longer, healthier lives for all.

Healthy Tips for Heart Failure Patients

Baking Tips:

- Substitute butter with equal parts cinnamon-flavored, no-sugar added applesauce.
- Replace sugar with a lower-calorie sugar substitute.
- Instead of whole milk or heavy cream use low-fat or skim milk.
- Exchange white flour with half whole-wheat flour and half white flour.
- Swap chocolate chips with dried fruit, like cranberries or cherries.

Cooking Tips:

- Use vegetable oils instead of butter.
- Use herbs and spices, like rosemary and cloves, to add flavor without adding butter and salt.
- Use whole-grain breads and pastas.
- Bake, grill or steam vegetables instead of frying.
- Select lean cuts of meat, like chicken and fish.
- Opt for fresh or frozen vegetables over canned.
- Choose fresh foods over prepackaged choices.

What foods should be avoided with heart failure?

You should avoid or limit foods that are high in sodium. Chips, crackers, lunch or smoked meat, cheese, soups, frozen or ready-to eat meals, and fast food restaurants often have high sodium content. Also, some condiments like BBQ, hot, soy or teriyaki sauces often contain high sodium.

Fluid Content in Common Foods

Vegetables	Serving Size	Fluid Content
Asparagus, fresh	4 oz	80 mL
Asparagus, canned	4 oz	115 mL
3-bean salad	4 oz	100 mL
Baked beans	4 oz	80 mL
Beets	4 oz	80 mL
Broccoli	4 oz	70 mL
Brussels sprouts	4 oz	70 mL
Cabbage (cooked)	4 oz	70 mL
Carrots	4 oz	70 mL
Cauliflower	4 oz	60 mL
Corn	4 oz	70 mL
Cucumber	4 oz	50 mL
Green Beans	4 oz	60 mL
Potato (baked)	4 oz	115 mL
Potato (mashed)	4 oz	85 mL
Kidney beans	4 oz	60 mL
Lima beans	4 oz	60 mL
Mixed vegetables	4 oz	80 mL
Mushrooms	4 oz	70 mL
Onions	4 oz	50 mL
Peas	4 oz	70 mL

Fruits	Serving Size	Fluid Content
Apple, 1 medium sized	4 oz	120mL
Applesauce, 1/2 cup	4 oz	120mL
Banana, 1 medium	3 oz	90mL
Blueberries/Raspberries, 1 cup	4 oz	120mL
Cantaloupe, 1 cup	5 oz	150mL
Cherries with pits, 1 cup	4 oz	120mL
Grapes, 1 cup (loosely packed)	3 oz	90mL
Grapefruit, 1/2 medium	4 oz	120mL
Nectarine, 1 medium	4 oz	120mL
Orange, 1 medium	4 oz	120mL
Peach, 1 medium	3 oz	90mL
Peaches, canned in light syrup, 1/2 cup	4 oz	120mL
Pear, 1 medium	5 oz	150mL
Pineapple, 1 cup raw	5 oz	150mL
Plum, 1 medium	2 oz	60mL

Side Notes

Alternative Therapy and over the counter meds

• Many herbal supplements can interact with your heart failure medications and treatment.

• Do NOT take any herbal supplements without the approval of your doctor.

• Avoid anti-inflammatory pain medications (NSAIDS), except aspirin prescribed by your doctor, because it may trigger fluid retention.

• Check with your doctor before taking any over the counter medication.

• Avoid cold medications with phenylephrine or pseudoephedrine ingredients because they may trigger fluid retention and high blood pressure.

Medication List

Keep an updated list of your current medications to share with any doctor, dentist, pharmacist or other healthcare members. The list should include:

• Generic and brand names
• Strength (dose)
• Quantity per dose
• Frequency (how often taken)
• Purpose of medication
• Special notes

Medicines

Your doctor will prescribe medicines based on the type of heart failure you have, how severe it is, and your response to certain medicines. The following medicines are commonly used to treat heart failure:

- Diuretics (water or fluid pills) help reduce fluid buildup in your lungs and swelling in your feet and ankles or abdomen. Common diuretics include furosemide and torsemide.
- Angiotensin Converting Enzyme (ACEI) inhibitors lower blood pressure and reduce strain on your heart. Lisinopril and enalapril are frequently used.
- Angiotensin receptor blockers (ARBs) such as losartan and candesartan relax your blood vessels and lower blood pressure to decrease your heart's workload.
- Angiotension receptor-neprilysin inhibitors (ARNI) are often used in place of an ACEI or ARB. ARNIs also relax blood vessels, reduce fluid build up, and lower blood pressure to decrease your heart's workload.
- Aldosterone antagonists help block a harmful hormone, Mineralocorticoid Receptor Antagonist (MRA), that can stiffen your heart. They also help hold on to potassium so your doctor may decrease the number of potassium pills you need to take. Examples include spironolactone, eplerenone, and finerenone.
- Beta blockers slow your heart rate and lower your blood pressure to decrease your heart's workload while blocking the harmful effects of other chemicals and hormones. Heart failure approved beta blockers include metoprolol succinate, carvedilol, and bisoprolol.
- Sodium-glucose cotransporter-2 inhibitors (SGLT2 inhibitors) have been shown to reduce the risk of cardiac events by blocking glucose reabsorption. The most common SGLT2i used for heart failure are Dapagliflozin (Farxiga) and Empagliflozin (Jardiance).
- Hydralazine and nitrates are often used if the patient is unable to tolerate ACEI, ARB, or ARNI to relax blood vessels and reduce the workload of the heart. Studies have also shown an additional bene it with hydralazine and nitrates in the African American population benefit by reducing the risk of death and hospitalization.

Weight Monitoring

Monitoring your daily weight is a method to check for excess fluid in the body. You should weigh yourself every morning, after going to the bathroom and before you eat or drink. If you gain more than two (2) pounds in 24 hours or greater than four (4) pounds in 7 days, you should notify your doctor or the Heart Failure Clinic team. Make sure to bring your weight, blood pressure and heart rate chart with you to the appointment.

Bring the chart to each Heart Failure Clinic visit or doctor's visit.

Blood Pressure Monitoring and Heart Rate

Monitoring your blood pressure and heart rate at home provides valuable insights into the effects of your medications and whether your blood pressure is under good control. You should take your blood pressure after you have rested for five minutes; it is important to have a resting blood pressure, not a measurement after you have been exercising. A cuff that measures your blood pressure on your arm is preferred. Record your readings and bring the chart to each Heart Failure Clinic visit or your doctor's visit.

Other Lifestyle Changes

Taking steps to control risk factors for coronary heart disease, high blood pressure, and diabetes will help control heart failure. For example:

- Lose weight if you're overweight or obese. Work with your health care team to lose weight safely.
- Be physically active (as your doctor advises) to become more fit and stay as active as possible.
- Quit smoking and avoid using illegal drugs. Talk with your doctor about programs and products that can help you quit smoking. Also, try to avoid secondhand smoke. Smoking and drugs can worsen heart failure and harm your health.
- Get enough rest.

Side Notes

Have your blood sugar level and blood pressure checked.

Talk with your doctor or nurse about getting flu, pneumonia, and COVID vaccines.

Ongoing Care

Getting medical care for other related conditions is important. If you have diabetes or high blood pressure, work with your health care team to control these conditions. Have your blood sugar level and blood pressure checked. Talk with your doctor about when you should have tests and how often to take measurements at home.

Patients with a high-risk condition, such as heart failure, should receive influenza (flu), pneumonia, and coronavirus (COVID) vaccines. It is recommended that you receive the influenza vaccine every year. Talk to your doctor to determine if you should receive the single or combination dose for the pneumonia vaccine. The coronavirus vaccine series, including the booster, if appropriate, is also recommended.

Cardiac Rehab

Cardiac Rehab is recommended for all patients with heart failure; however, most insurances require an ejection fraction of 35% or less for eligibility. Cardiac Rehab can help increase energy and strength to make daily activities, like carrying groceries and climbing stairs, easier.

Medical Procedures and Surgery

As heart failure worsens, lifestyle changes and medicines may no longer control your symptoms. You may need a medical procedure or surgery.

If your ejection fraction remains 35% or less, you may be at risk for life-threatening heart rhythms or cardiac arrest. For this reason, your doctor may recommend an implantable cardioverter defibrillator (ICD). An ICD checks your heart rhythm and delivers electrical pulses to correct life-threatening heart rhythms.

In some patients with heart failure, the timing of the heart contractions may be abnormal or not synchronized. This disrupts the heart's pumping efficiency. To correct this problem, your doctor may recommend a cardiac resynchronization therapy (CRT) device. This device helps both sides of the ventricle contract at the same time, which may decrease heart failure symptoms.

Some people who have severe heart failure symptoms at rest, despite other treatments, may need:

- A mechanical heart pump, such as a left ventricular assist device, helps pump blood from the heart to the rest of the body. A mechanical heart pump may be used until you have a transplant or as a long-term treatment.
- A heart transplant is an operation in which a person's diseased heart is replaced with a healthy heart from a deceased donor. Heart transplants are done as a life-saving measure for end-stage heart failure when medical treatment and less drastic surgery have failed.
- There are experimental studies in progress to discover new and better ways to treat heart failure.

Side Notes

Following your treatment plan can help relieve your symptoms and reduce the likelihood that you'll need to go to the hospital.

- *Take your medicines as prescribed.*
- *Follow your doctor's recommendations for lifestyle changes.*
- *Talk with your doctor about how active you can and should be.*
- *Keep all of your medical appointments, including doctor visits and tests/lab work.*

Living with Heart Failure

Currently, heart failure has no cure. You'll likely have to take medicine and follow a treatment plan for the rest of your life.

Despite treatment, symptoms may get worse over time. You may not be able to do many of the things that you did before you had heart failure. However, if you take all the steps your doctor recommends, you can stay healthier longer.

Follow Your Treatment Plan

Treatment can relieve your symptoms and make daily activities easier. It also can reduce the chance that you'll have to go to the hospital. Thus, it is important that you follow your treatment plan.

- Take your medicines as your doctor prescribes. If you have side effects from any of your medicines, tell your doctor. He or she might adjust the dose or type of medicine you take to relieve side effects.
- Make all of the lifestyle changes that your doctor recommends.
- Get advice from your doctor about how active you can and should be. This includes advice on daily activities, work, leisure time, sex, and exercise. Your level of activity will depend on the stage of your heart failure (how severe it is).
- Keep all of your medical appointments, including visits to the doctor and appointments to get tests and lab work. Your doctor needs the results of these tests to adjust your medicine doses and help you avoid harmful side effects.

Take Steps to Prevent Heart Failure from getting Worse

Certain actions can worsen your heart failure, such as:

- Forgetting to take your medicines
- Not following your diet and fluid recommendations
- Drinking alcohol
- Smoking or any use of tobacco products including chewing tobacco, nicotine patches and gum

These actions can lead to a hospital stay. If you have trouble following your diet, talk with your doctor or the Heart Failure Clinic. He or she can help arrange for a dietitian to work with you. Do not drink alcohol.

People who have heart failure often have other serious conditions that require ongoing treatment. If you have other such conditions, you may be taking additional medications for them as well as for heart failure.

Taking more than one medicine raises the risk of side effects and other problems. Make sure your doctors and your pharmacist have a complete list of all of the medicines and over-the-counter products that you're taking.

Tell your doctor right away about any problems with your medicines. Also, talk with your doctor before taking any new medicine prescribed by another doctor or any new over-the-counter medicines or herbal supplements.

Reduce the risk of respiratory infections, such as the influenza, pneumonia, or coronavirus, by getting your vaccinations. Ask your healthcare team about vaccine-related questions you may have.

Side Notes

Advance Directives:

Setting forth your preferences in advance is the best way for you to be in control of your medical care. If you provide a Georgia Advance Directive for Health Care, a copy will be made and placed in your medical record. If you do not have an Advance Directive, information can be provided to you in the hospital or clinic.

Plan Ahead

If you have heart failure, it's important to know:

- When to seek help. Ask your doctor when to make an office visit or get emergency care.
- Phone numbers for your doctor and hospital.
- Directions to your doctor's office and hospital and people who can take you there.
- A list of medicines you're taking.

Emotional Issues and Support

Living with heart failure may cause fear, anxiety, depression, and stress. Talk about how you feel with your health care team. Talking to a professional counselor also can help. If you're very depressed, your doctor may recommend medicines or other treatments that can improve your quality of life.

Joining a patient support group may help you adjust to living with heart failure. You can see how other people who have the same symptoms have coped with them. Talk with your doctor about local support groups or check with an area medical center.

Support from family and friends also can help relieve stress and anxiety. Let your loved ones know how you feel and what they can do to help you.

Advance Directives

It is the policy of Northside Hospital to honor, in accordance with State law, each adult patient's right to make decisions regarding treatment, including the right to consent, refuse or alter treatment plans. Also, patients have the right to formulate advance directives that will be honored, to the extent permitted by law, if the patient becomes unable to make decisions. Northside provides information about advance directives to every patient who is admitted to the hospital or seen in the Heart Failure Clinic.

Questions about medical care at the end of life are very important today because of the ability of medical technology to prolong life. The best way for you to be in control of your medical treatment in such a situation is to record your preferences in advance.

If you provide a Georgia advance directive for health care, a copy will be made and placed in your medical record. You do not need an advance directive to receive medical care; however, if you wish to obtain a form while you are hospitalized or receiving treatment, please ask your nurse.

Palliative Care

Palliative care (pronounced pal-lee-uh-tiv) is specialized medical care for people with serious illnesses. It focuses on providing patients with relief from the symptoms, pain, and stress of a serious illness—whatever the diagnosis. The goal is to improve quality of life for both the patient and the family.

Palliative care is provided by a team of doctors, nurses and other specialists who work together with a patient's other doctors to provide an extra layer of support. It is appropriate at any age and at any stage of a serious illness and can be provided along with curative treatment.

Palliative care teams work in close partnership with your cardiologist (heart specialist) and other specialists. In addition to prescribing medications for your pain and other symptoms, team members may have a variety of approaches to treating heart failure that do not involve medications.

Palliative care is also there to guide you and your loved ones through the distress caused by heart failure. The team will help you navigate the complex health care system and keep you and your family informed, up to date and in control.

Because episodes of heart failure can become worse, sudden and unpredictable, palliative care specialists can help you plan in advance for the next time it happens. In fact, one of the most important things your palliative care team can do is to help you fully discuss your health situation with your family.

Side Notes

Make sure that you maintain your routine primary care and cardiology appointments!

The outpatient Heart Failure Clinic can provide intravenous diuretics. The aims of the clinic are to alleviate symptoms, improve the patient's quality of life, and reduce the need for hospitalization.

Heart Failure Clinic

The outpatient Heart Failure Clinic is a service that provides in-depth education for patients and care givers regarding self-management, disease process, and nine other topics in accordance with the Heart Failure Society of America. Our goal is to work with you and your cardiologist to improve your level of function and feeling of well-being.

We work together with your cardiologist to ensure you understand your medications, the dietary and fluid requirements, recognize the signs and symptoms that may signal worsening of your condition, and how to monitor yourself on a daily basis. Patients may receive telephone monitoring which involves medication review and home blood pressure, heart rate and weight readings.

Patients visiting the clinic are instructed to maintain their routine primary care and cardiology appointments and will not be treated for any non-heart failure complaints. The outpatient Heart Failure Clinic can help you learn about your disease and how to control your symptoms.

In the Heart Failure Clinic, intravenous medications may be administered for patients experiencing worsening symptoms. The medication is delivered after routine blood work is checked and the patient usually goes home after a short period of time. It is not unusual for these patients to be seen in their cardiologist's office or the Heart Failure Clinic the following day to ensure they have benefited from the therapy.

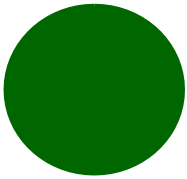
Locations

Atlanta
Cherokee
Forsyth
Gwinnett

Zones to Manage Heart Failure

Discharge Weight: _____ **Doctor's Name:** _____

First weight at home: _____ **Doctor's Phone:** _____



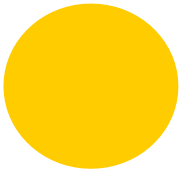
GREEN ZONE

You have:

- ♥ No shortness of breath
- ♥ No weight gain more than two (2) pounds in 1 day or more than four (4) pounds in 7 days.
- ♥ No swelling of feet, ankles, legs or stomach
- ♥ No chest pain

What to do:

- ♥ Keep up the good work!
- ♥ Take your medicine
- ♥ Eat a low salt diet
- ♥ Weigh yourself every day



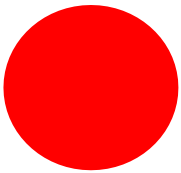
YELLOW ZONE

You have:

- ♥ Weight gain of more than two (2) pounds in 1 day or more than four (4) pounds in 7 days
- ♥ More shortness of breath
- ♥ More swelling in your feet, ankles, legs, or stomach
- ♥ Feeling more tired
- ♥ New or unusual coughing
- ♥ Dizziness
- ♥ Hard to breathe lying down – need to sleep sitting in chair

What to do:

- ♥ **Call your doctor or nurse**



RED ZONE

You have:

- ♥ Hard time breathing
- ♥ Struggling to breathe even at rest
- ♥ Chest pain or discomfort
- ♥ Feeling faint

What to do:

- ♥ **Call 911 or**
- ♥ **Get help, go to Emergency Room**

Heart Failure to Success Tracker

Use the chart below to track your daily weight, blood pressure, heart rate, and Heart Failure Zone based on your symptoms. Use the Heart Failure Zone reference on the previous page to identify your zone. Remember to bring your tracker to your doctor appointments.

DATE OF MONTH	WEIGHT	BLOOD PRESSURE	HEART RATE	HEART FAILURE ZONE
Baseline				
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				

1. Each morning weigh at the same time with the same amount of clothing after using the bathroom and before eating.
2. Call your doctor if you are in the Yellow Zone. Be prepared to discuss your symptoms as well as your weight, blood pressure, and heart rate numbers.
3. Always have your most current medication list accessible.

DATE OF MONTH	WEIGHT	BLOOD PRESSURE	HEART RATE	HEART FAILURE ZONE
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				

Notes

Notes

We lead with heart

NORTHSIDE HOSPITAL

HEART INSTITUTE

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