# Silver Cross Hospital INTERACTIVE HEART FAILURE EDUCATION WORKBOOK



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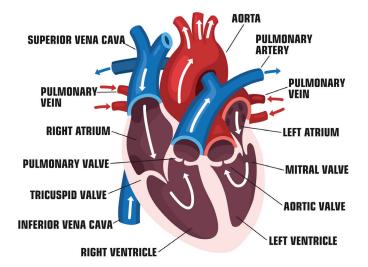
# What is Heart Failure?



Heart failure occurs when your heart is not able to efficiently pump blood throughout your body. When your heart is not pumping at its best, it is not able to supply oxygenrich blood to other parts of your body. It can result in increased swelling, weight gain, shortness of breath, chest pain and coughing.

# How does your heart pump normally without heart failure?

Your heart is an organ that is a muscular pump. It has four chambers that are divided by a wall with two of the chambers on top called the left and right atria, and two chambers on the bottom called the left and right ventricles. It also has four valves that work to keep the blood moving forward to your aorta. Blood moves from the right side of your heart to your lungs to pick up oxygen and then to the left side where it is pumped out of your heart into your aorta. Your aorta is your "life-line" and supplies oxygen-rich blood from the heart to all organs in your body.





Healthy Heart Video: https://youtu.be/zHo-oVOqu11

## How does Your Heart Pump Differently from a Normal Heart, if You Have Heart Failure?



Heart failure is a medical condition in which your heart muscles do not pump normally. In some patients, the ventricle wall is very stiff and in others it becomes stretched out and enlarged. Both types of changes lead to a decreased ability for the heart to pump blood. Heart failure can affect both sides of the heart (left and right) but most commonly the left side.

### Right Left ventricle ventricle Enlarged Septum ventricle

**HEART FAILURE** 

#### Normal heart

Heart failure

#### Left-Sided Heart Failure **Systolic Failure**

The left ventricle becomes enlarged and stretched out, and loses elasticity and its strength and ability to pump blood out into the aorta.

#### **Diastolic Failure**

The left ventricle becomes stiff and does not relax normally. This impacts the ability for the heart to fill with blood.

#### **Right-Sided Heart Failure**

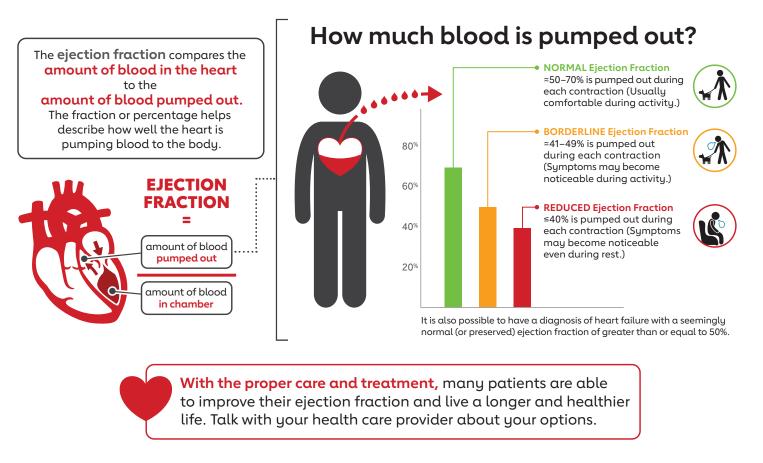
Right-sided failure occurs as a result of the left side of the heart failing. If the left side cannot pump blood out, then it backs up into the lungs and right side of the heart. When the right side of the heart has too much fluid and pressure, the fluid starts to back up into the veins.



Heart Failure Video: https://watchlearnlive.heart.org/index.

## Heart Failure and Your Ejection Fraction Explained





#### heart.org/HF

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Ejection Fraction Measurement and Heart Failure Video: https://bit.ly/3LIq13s

# What Causes Heart Failure?



There are several different types of diseases that cause heart failure. In addition to different diseases, lifestyle factors such as smoking, alcohol misuse, drug abuse, certain types of chemotherapy, increased weight and lack of physical activity also can lead to a diagnosis of heart failure. The following are some of the most common diseases that cause heart failure:

#### **Coronary Artery Disease**

Atherosclerosis occurs when fatty deposits called plaques build up in the arteries of the heart that supply blood to the heart muscle. When this happens, blood vessels become more narrow and are less able to carry needed blood to the heart muscle.

#### **Congenital Heart Disease**

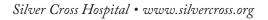
At birth, some people are born with defects of the heart. Different parts of the heart need to work harder to compensate for the parts of the heart that are damaged or incorrectly formed.

#### Valvular Heart Disease

Heart valve disease can occur from infections, defects at birth, the aging process and other disease processes. When the valves in the heart do not open and close properly, this can cause stress on the heart muscle.

#### **High Blood Pressure**

Blood pressure that is not well controlled can lead to increased stress on the heart muscle. The heart muscle needs to work harder when blood pressure is high, and over time, this can damage the heart, causing it to stretch out and become weaker.



# **Other Diseases**



Overactive thyroid, diabetes and HIV are other long-term diseases that can cause heart failure.

#### **Risk Factors for Heart Failure**

Risk factors for heart failure include obesity, smoking, coronary artery disease, diabetes, genetics, inactivity, hypertension and heart attack.

# What Effects does Heart Failure have on My Body?

Heart failure can have many effects on your body. It is important to be aware of the signs and symptoms so that you know when to call your doctor.

#### Shortness of Breath

This is a common symptom of heart failure and occurs when fluid builds up in the lungs. It can occur with activity or at night when sleeping. A sign that your heart failure might be worsening is if you start to become more short of breath with activities you can usually tolerate. Also, if you are not able to lay flat at night or need multiple pillows to prop you up to help you breathe, this is another sign your heart failure may be worsening.

#### 🗸 Edema

When your heart muscle starts to weaken and is not able to pump blood forward, this can cause fluid to back up into your veins causing swelling of feet, legs, abdomen and fingers. The increased fluid build-up can also result in weight gain.

#### ✓ Fatigue

When your heart is limited in its ability to pump blood out and circulate it to all of your organs, this can cause you to feel tired. Your body might not be receiving the oxygenated blood it needs to function and meet your day-to-day activity needs.

#### ✓ Coughing

Increased fluid in the lungs can cause coughing along with shortness of breath.

#### Loss of appetite

Increased fluid build-up can cause a feeling of fullness or nausea in your abdomen, which can result in a loss of appetite.

#### Confusion

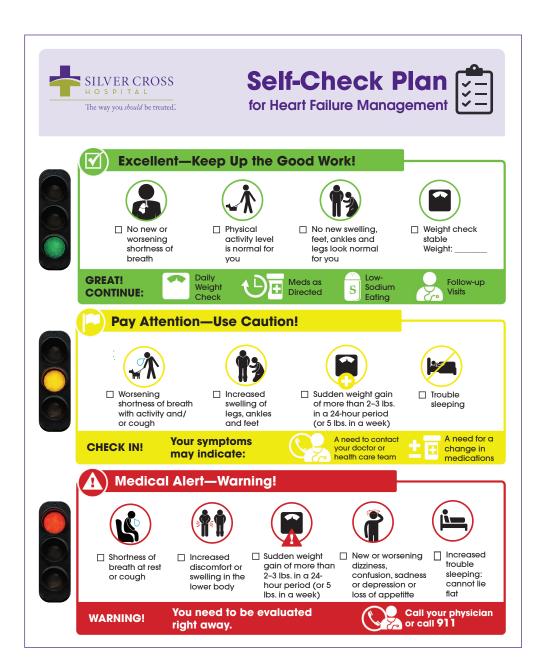
Heart failure can decrease the amount of oxygen-rich blood that is circulating to organs like your brain, which can cause you to feel "foggy" or confused. This can also result from changes in your blood, such as the amount of sodium and potassium your blood is carrying.

## How do I Take Care of Myself and Best Manage My Heart Failure Symptoms?



It is important to weigh yourself, check your blood pressure routinely and take all medication as prescribed. It is helpful to keep a log of blood pressures, weights and symptoms so that you can identify patterns and when it might be important to follow up with your provider. Below is a log you can use for tracking. Bring the log to every visit with your healthcare provider.

Also below is a chart with signs and symptoms that you should routinely monitor. Changes in your symptoms might mean that you need to contact your physician.





Scan above QR code to print a copy of the Self-Check Plan for HF management

## How do I Take Care of Myself and Best Manage My Heart Failure Symptoms?



**Physical activity** is very important for your overall health. Talk to your physician about cardiac rehabilitation. These are programs that include evaluation by healthcare providers. They monitor you as you increase your activity level and help come up with an exercise plan that meets your lifestyle and needs.

**Heart Healthy Diet** is important to commit to for your heart health. Monitoring the types of food you eat and the amounts of fluid you consume have an impact on symptoms of heart failure and disease progression.

#### **Reduce Sodium**

Increased amounts of sodium in the diet can lead to increased fluid build-up. The increase in water build-up can make heart failure symptoms like shortness of breath and edema worse. You will most likely be told to limit salt intake to 1500 mg per day or less. It will be important to learn how to read labels to make sure you are not eating too much salt. An appointment or referral to a dietician can be very helpful for learning new eating habits and ways to cook.



Scan the QR code above to learn more about how to read nutrition labels and print handout.

#### Avoid Hidden Sources of Sodium

Some examples of high-sodium foods are:

- Bread and rolls
- Pizza
- Cold cuts
- Soups
- Cheese
- Eggs
- Canned foods
- Frozen, packaged meals
- Canned soups
- Chicken
- Packaged cakes and pies
- Jarred tomato sauce



Scan QR code above to learn more facts about sodium and print handout.

## How do I Take Care of Myself and Best Manage My Heart Failure Symptoms?



#### **Limit Fluid Intake**

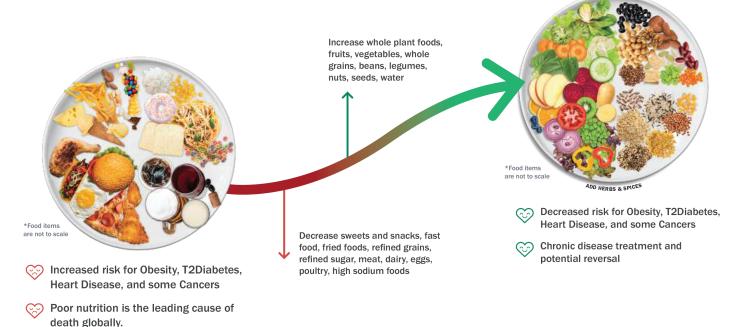
Your healthcare provider might talk to you about limiting your fluid intake to 6-9 8-ounce glasses of fluid per day or 1.5-2 liters per day. It is important to understand that any foods that turn liquid at room temperature should be included in this count (gelatin, yogurt, ice cream). Caffeinated beverages and alcohol should be limited and avoided altogether if recommended by your healthcare provider. Alcohol can cause further damage to the heart muscle and increase blood pressure. Caffeine is a stimulant and can create increased stress on the heart.

# What are other lifestyle Changes that will help with management of heart failure symptoms?

- Quit smoking
- Manage your weight
- Regular physical activity
- Adequate sleep
- Wellness and stress management

# WHAT AMERICA EATS

#### WHOLE FOOD PLANT-BASED EATING PLAN



## What Types of Medications are Used to Treat Heart Failure and Manage Symptoms?



There are several different medications used to treat heart failure. They work in different ways and are used in combination. The goal of the treatment is to help relieve symptoms, improve overall heart health and increase quality of life.

Type of Medication	Names of Medications	How Medication Works	Side Effects	
Diuretics	Furosemide (Lasix), Bumetanide (Bumex), Hydrochlorothiazide or HCTZ (Esidrix,Hydrodiuril), Torsemide (Demadex), Metolazone (Zaroxolyn), Cholorothiazide (Diuril), Triamterene (Dyrenium)	These medications work by helping the body get rid of extra fluid.	Increased urination, headaches, dizziness, and electrolyte changes (Loss of potassium. Often need to supplement and will need lab tests)	
ACE inhibitors (angiotensin- converting enzyme inhibitors)	Enalapril (Vasotec), Lisinopril (Prinivil, Zestril), Captopril (Capoten), Ramipril (Altace), Quinapril (Accupril), Fosinopril (Monopril)	Limit the hormone in the body called angiotensin. When limited, it relaxes blood vessels (veins & arteries) to lower blood pressure and decrease fluid volume.	Dizziness, rash and dry cough	
ARBs (angiotensin receptor blockers)	Losartan (Cozaar), Candesartan (Atacand), Valsartan (Diovan)	Keeps the hormone angiotensin from working. When limited, relaxes blood vessels (veins & arteries) to lower blood pressure and decrease fluid volume.	Dizziness, headache, diarrhea and cough	
ARNIs (angiotensin-receptor neprilysin inhibitors)	Entresto, sacuitril/losartan	Combination of two types of drugs. The medication breaks down neprilysin, which helps keep arteries open, improves blood flow and decreases strain on the heart.	Cough, and dizziness, especially when standing up from a seated position.	
Vasodilators	Hydralazine, isosorbide dinitrate	Combination drug. Medication that open the blood vessels in the body, which decrease strain on heart.	Lightheadedness, dizziness,	
Beta-blockers	Metoprolol Succinate (Toprol XL), Bisoprolol (Zebeta), Carvedilol (Coreg), Carvedilol CR (Coreg CR)	Slows the heart rate and reduces the amount of work the heart must do.	Fatigue, weakness and dizziness	
Aldosterone Antagonists	Epleronone (Inspra), Spirnolactone (Aldactone)	Works differently than diuretics, but result is similar. Increase fluid loss, which lowers blood pressure and reduces workload on the heart.	Nausea, stomach cramps, and diarrhea	
lf Channel Blocker (or inhibitor)	Ivabridine (Corlanor)	Reduces heart rate and amount of work on the heart.	Dizziness, lightheadedness, and vision changes	

## How do You Keep Track of Your Heart Failure Symptoms and Weight/BP?



	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Blood Pressure AM							
Blood Pressure PM							
Weight (same time every day)							
Symptom Description AM (edema, dizziness, confusion)							
Symptom Description PM (edema, dizziness, confusion)							

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Blood Pressure AM							
Blood Pressure PM							
Weight (same time every day)							
Symptom Description AM (edema, dizziness, confusion)							
Symptom Description PM (edema, dizziness, confusion)							



It is very important to keep track of all your heart failure medications, including the times of the day you need to take them and the dosages. Often times, frequent changes are made and it is helpful to keep a medication log at all times that lists current prescriptions. Below is a sample log:

Name of Medicine	What is it for?	Dose	How Often and What Time?	Special Instructions	Start Date	Stop Date	Reason Medication was Stopped

# Are There any Other Treatment Options for My Heart Failure?



It is important to discuss treatment options with your physician. Depending on the type of heart failure you have, different options are available. Treatment plans include lifestyle changes and medications. In addition, you might be a candidate for various surgical procedures.

- **Coronary Artery Bypass Grafting Surgery**—Surgeon makes new routes around blocked arteries in the heart to improve blood flow
- Heart Valve Surgery—Surgeon replaces or repairs the valves in the heart
- **Pacemaker Placement**—A small device is placed in the chest to help control the heartbeat
- Implantable Cardioverter-Defibrillator—A device implanted in the body that detects abnormal, life-threatening heart beats and delivers electrical energy (shock) to restore a regular heartbeat
- Ventricular Assist Device—Surgeon inserts a device in your heart that helps pump blood through your heart to the rest of your body



## If Recently Discharged Home from Silver Cross with a Diagnosis of Heart Failure, what Can You Expect?



Expect a follow-up appointment in the Silver Cross heart failure clinic and/or with your cardiologist. You will receive a phone call within 24-72 hours of your discharge to follow up on any issues, questions or concerns.

#### Resources available if you can't afford your medications

Partnership for Prescription Assistance

www.pparx.org 1-888-4PPA-NOW (1-888-477-2669)

#### BenefitsCheckUp and BenefitsCheckUpRX

1-202-479-1200 www.benefitscheckup.org

#### Connected Care Silver Cross Medical Group

www.silvercross.org/medical-group/connected-care

#### Where you can go to learn more about heart failure

### American Heart Association's Heart Failure Website

www.heart.org/heartfailure

#### Download the HF Helper App

https://bit.ly/3RhkFNJ



# Notes:



The way you *should* be treated.

