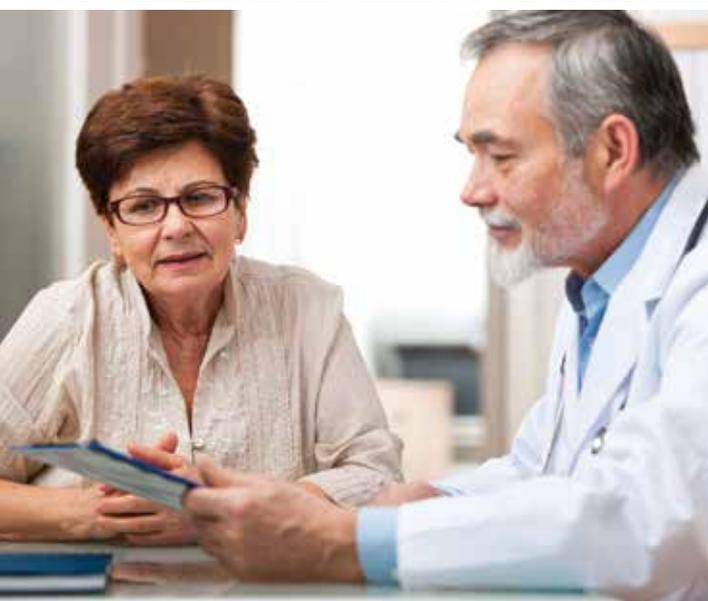


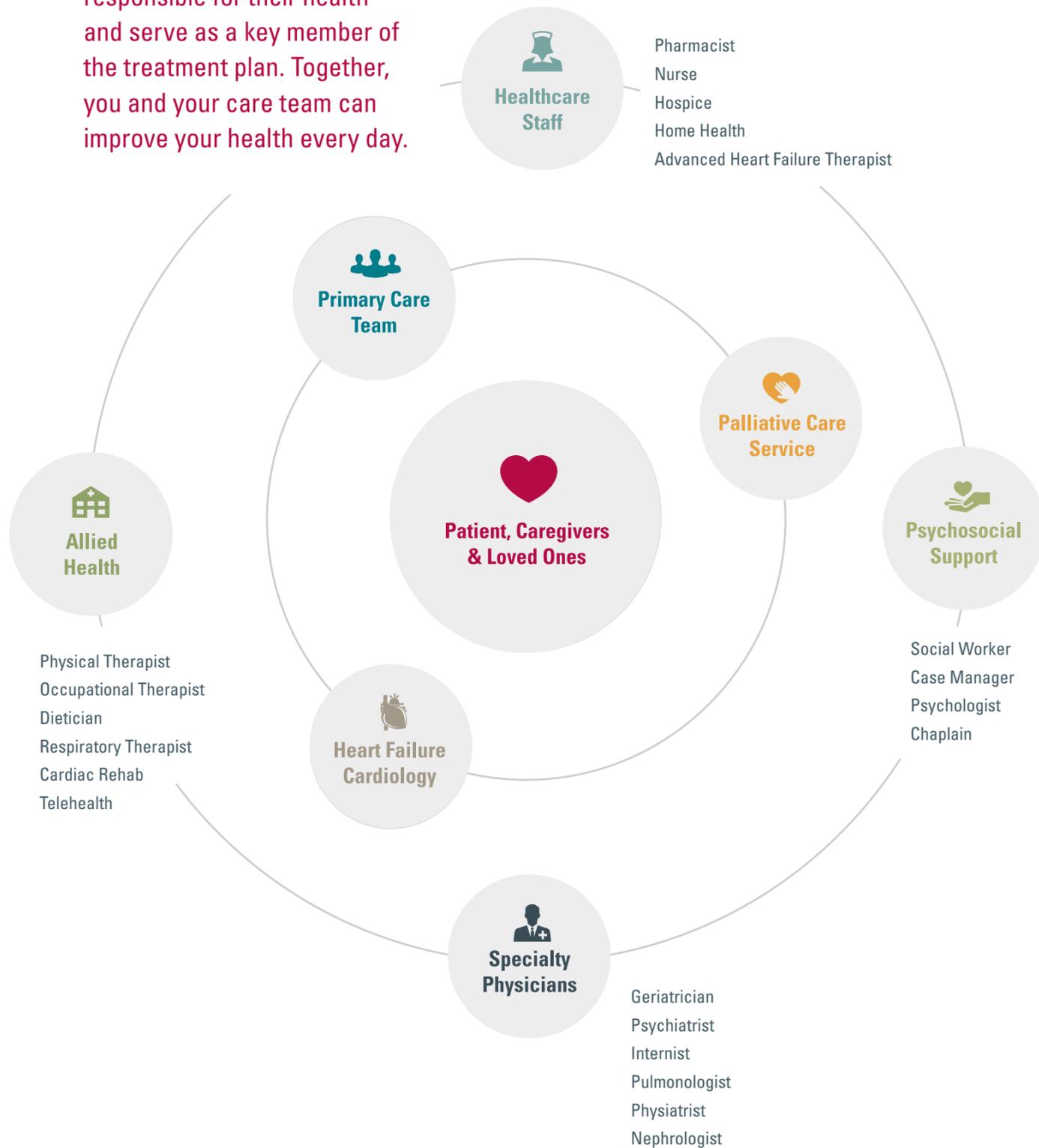
# Living Better with Heart Failure

Caring for your heart



# Your Care Team

The patient is ultimately responsible for their health and serve as a key member of the treatment plan. Together, you and your care team can improve your health every day.



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## How the Heart Works

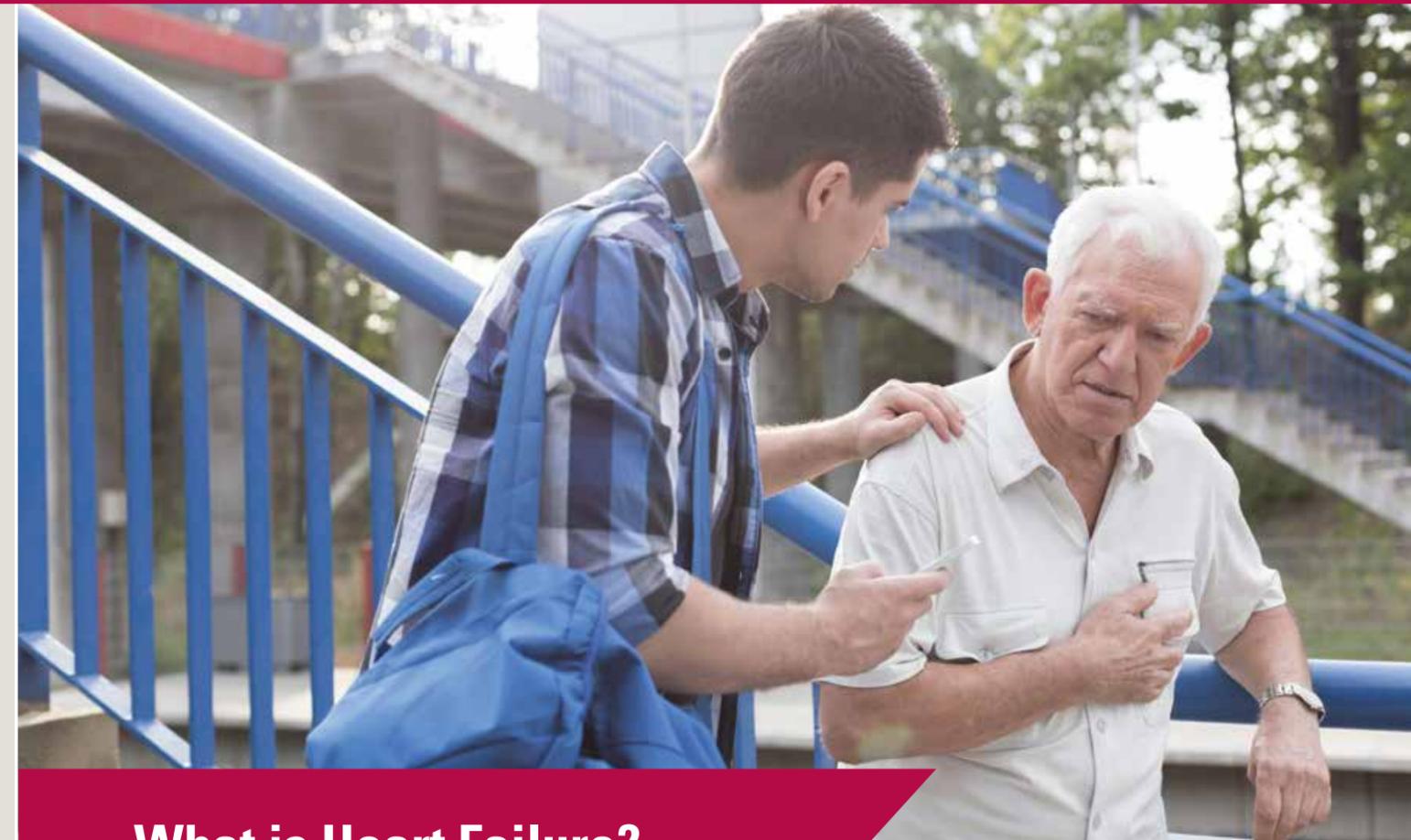
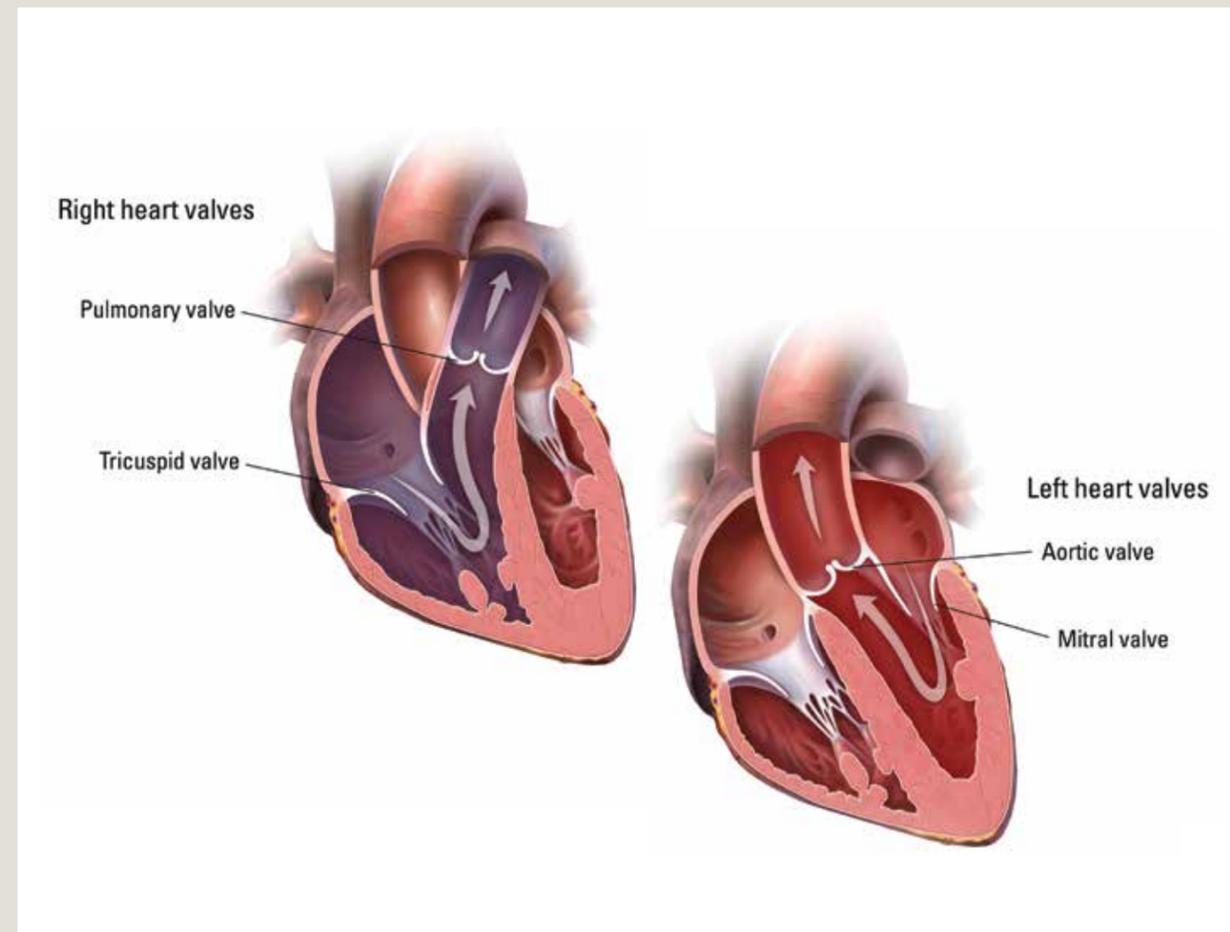
Your heart is a strong, muscular pump a little larger than a fist. It works 24/7 to pump blood to your lungs and to all your body's tissues.

The heart has four chambers, two on the right and two on the left:

- Two upper chambers called atria (one is an atrium)
- Two lower chambers called ventricles

The right atrium takes in oxygen-depleted blood from the rest of the body and sends it back out to the lungs through the right ventricle.

Oxygen-rich blood travels from the lungs to the left atrium, then on to the left ventricle, which pumps it to the rest of the body.



## What is Heart Failure?

Heart failure means your heart cannot pump the blood well. When your heart doesn't pump well, you may feel weak, tired, faint or dizzy. Heart failure develops in response to significant injury to the heart. Common causes of heart failure include:

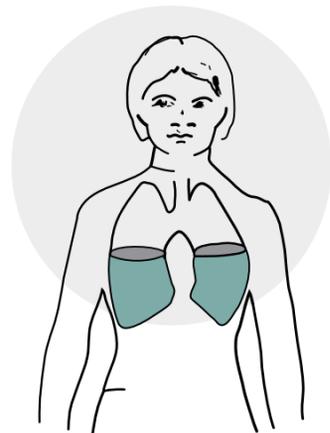
- Heart attacks
- Uncontrolled high blood pressure
- Heart valve disease
- Heart infections
- Irregular heart rhythms
- Uncontrolled diabetes
- Drinking excessive alcohol or illicit drug use
- Chemotherapy or radiation therapy

These conditions change the shape and structure of the heart resulting in poor functioning. When the heart does not pump enough oxygen-rich blood to supply the body, there is additional stress on an already weak heart.

# Heart Failure Symptoms

## Common heart failure symptoms can include:

- Shortness of breath
  - Difficulty breathing in a flat or reclined position
  - Nonproductive cough
  - Decreased level of activity due to fatigue or tiredness
  - Changes in urine output
  - Edema (extra fluid) in the feet, ankles, legs, abdomen\*, or generalized throughout the whole body.
- \*Edema in the abdomen can cause stomach discomfort, nausea, decrease or loss in appetite, and constipation.*



Heart failure causes water to leak out of your blood vessels. This water can fill up your lungs: make you cough, short of breath and have trouble breathing lying down.



It can also cause your legs to swell.

# Common Diagnostic Testing

**Echocardiogram (Echo):** an ultrasound used to examine the size, shape, function and motion of the heart. It also measures your heart's ejection fraction (EF). Ejection fraction is a measure of the amount of blood that the heart pumps out to your body. A normal EF is 50% or higher.

**Chest x-ray:** A picture of the lungs that shows if you have congestion.

**BNP (Brain Natriuretic Peptide):** is a blood test used to help find out if a person has heart failure. BNP is made by your heart and shows how well your heart is working. The level of BNP increases when heart failure symptoms worsen, and decreases when heart failure symptoms improve.

# Things You Can Do to Live Well with Heart Failure



Weigh yourself and record daily



Eat less salt



Take your medicines each day



Don't Smoke



Limit the amount of alcohol you drink



Avoid temperature extremes



Exercise regularly



## Daily Check-Ups to Monitor Symptoms

Heart failure can cause you to have symptoms and feel bad. If you catch these symptoms early, you can take action to feel better and stay out of the hospital.

### Daily Check-Up Checklist

- How is your activity and energy level? Has it decreased?
- Did you skip or miss your medicines?
- Are you short of breath at rest?
- Do you have more swelling in your feet, ankles, legs, or belly?
- Has your weight changed? How much? (A helpful "weight log" is included on page 26.)
- Do you have a new or worsening cough?
- How is the quality of your sleep?
- Are you urinating more or less frequently?

**HELPFUL HINT**

Share this information with your provider.

## Heart Failure Medicines

Medicines are very important for people with Heart Failure. Studies show that these medicines can reduce your swelling, help you breathe better, increase activity level and improve heart function. Most people will need several medicines for improvement. Below are the medicines your healthcare provider may prescribe for you to treat your heart failure:

### Heart Failure Medicines

Types of Medications	What they do for you
<b>Ace Inhibitors</b>	Widens blood vessels, lowers blood pressure, and improves blood flow which decreases the amount of work that the heart has to do
<b>Aldosterone Antagonist</b>	Mild diuretics that blocks action of a stress hormone (aldosterone) which decreases strain on the heart
<b>Angiotensin II Receptor Blockers</b>	Widens blood vessels, lowers blood pressure, and improves blood flow which decreases the amount of work that the heart has to do
<b>Beta Blockers</b>	Slows heart rate and lowers blood pressure which decreases the amount of work the heart has to do; can limit or reverse some damage to your heart
<b>Calcium Channel Blockers</b>	Relaxes blood vessels, slows heart rate, and lowers blood pressure which decreases the amount of work that the heart has to do
<b>Digitalis</b>	Increases the force of each heart beat, allowing more oxygen rich blood to your body
<b>Diuretics (Fluid Pills)</b>	Helps your body get rid of extra fluid, thus making it easier to breathe, easier for your heart to pump and helps lower blood pressure

## Heart Failure Medicines (continued)

Types of Medications	What they do for you
<b>Hydralazine and Nitrate</b>	Relaxes and widens blood vessels, lowers blood pressure and improves blood flow which decreases the amount of work that the heart has to do; decreases chest pain
<b>Potassium or Magnesium Supplements</b>	Replaces potassium or magnesium that may be lost in urine when taking a diuretic

## Heart Failure Medicines and Side Effects

Examples of Medicines	Possible Side Effects
<b>Type: ACE Inhibitors</b>	
Benazepril (Lotensin) Captopril (Capoten) Enalapril (Vasotec) Fosinopril (Monopril) Lisinopril (Prinivil, Zestril)	Moexipril (Univasc) Perindopril (Aceon) Quinapril (Accupril) Ramipril (Altace) Trandolapril (Mavik)
	Lowers blood pressure Dizziness Cough Problems with kidneys Increases potassium level Swollen face, tongue, throat (get medical help immediately)
<b>Type: Aldosterone Antagonists</b>	
Aldosterone (Spironolactone) Eplerenone (Inspra)	Raises potassium level Breast tenderness and enlargement

Examples of Medicines	Possible Side Effects
<b>Type: Angiotensin II Receptor Blockers (ARBs)</b>	
Azilsartan (Edarbi) Candesartan (Atacand) Eprosartan (Teveten) Irbesartan (Avapro)	Losartan (Cozaar) Olmesartan (Benicar) Telmisartan (Micardis) Valsartan (Diovan)
	Lowers blood pressure Dizziness Problems with kidneys Increases potassium
<b>Type: Beta Blockers</b>	
Bisoprolol (Zebeta) Carvedilol (Coreg) Metoprolol (Lopressor, Toprol XL)	Feeling tired Dizziness Lowers blood pressure Masks low blood sugar Possibly worsens asthma symptoms
<b>Type: Calcium Channel Blockers</b>	
Amlodipine (Norvasc) Diltiazem (Cardizem) Felodipine (Plendil)	Nifedipine (Adalat, Procardia) Nisoldipine (Sular) Verapamil (Calan, Verelan)
	Lowers blood pressure Swelling in legs, ankles and feet Constipation
<b>Type: Digitalis</b>	
Digoxin (Lanoxin, Digitek, Lanoxicaps)	Blurred or colored vision Nausea or vomiting Abnormal heart rhythm

## Heart Failure Medicines and Side Effects (continued)

Examples of Medicines		Possible Side Effects
<b>Type: Diuretics (Fluid Pills)</b>		
Bumetanide (Bumex) Chlorothiazide (Diuril) Chlorthalidone (Hygroton) Furosemide (Lasix)	Hydro-chlorothiazide (Hydrodiuril) Metolazone (Zaroxolyn) Torsemide (Demadex)	Lowers blood pressure Dizziness Decreases potassium and magnesium levels Dehydration
<b>Type: Hydralazine and Nitrate</b>		
Hydralazine/Isosorbide Dinitrate (Bidil) Hydralazine (Apresoline) Isosorbide Dinitrate (Isordil) Isosorbide Mononitrate (Imdur)		Headache Dizziness Lowers blood pressure Nausea
<b>Type: Potassium or Magnesium Supplements</b>		
Potassium chloride (KDur, Klor-con) Magnesium Oxide		Raises potassium or magnesium levels Magnesium may cause diarrhea

## How to Take Your Medicines

Heart failure can be controlled with medicine. Taking your medicine will help your heart work better and can make you feel better and live longer.

- Take each of your medicines, everyday, at the right times.
- Do not skip doses of your medicines, even when you feel good.
- If you think you are having side effects from your medicines, call and talk with your healthcare provider or pharmacist immediately.
- Have all of your medicines filled at the same pharmacy. It is helpful to have one pharmacist review all of your medicines to avoid drug interactions that could be harmful to you.
- If you are having trouble paying for your medicine, talk with your healthcare provider.
- Talk to your pharmacist about current medicines you are taking before purchasing any over the counter drugs.



## Take All Your Medicine

Think of a way to take your medicines that will help you remember how and when to take them.



Keep a list of your medicines with instructions for how many pills to take and when to take them.



Keep your medicine bottles in a safe, convenient place that makes it easy for you to remember to take them.



Some people like to use a pill box to put their medicines in for each day of the week. Fill the box on Sunday, then you will know each day if you have taken all of your medicine.



If you are going to be away from home when your medicine is due, take your medicine with you.



When you travel, bring your medicine containers with you to identify what medicines you are carrying.



When you are traveling by plane, do not pack all of your medicines in your checked bags.



## Medicine List

Bring your current medicine list each time you go to your healthcare provider.

- Be sure you have included any over-the-counter medicines, herbal medicines or dietary supplements you are taking.
- Avoid non-steroidal anti-inflammatories (NSAIDs) as they may worsen fluid retention. Examples: Advil, Aleve, Ibuprofen, Motrin, Naproxen
- Make sure you always have enough of your medicines.
- When your healthcare provider changes your medicines, ask for an updated medicine list before you leave your visit.
- When the label says "NO refills" or "Refills: 0" — call your healthcare provider right away to get more refills.

**Don't let your medicines run out!**

## Choose a Heart Healthy Diet



Fresh or frozen vegetables

Fresh or frozen fruit



Eating a variety of foods from all the food groups is a great way to keep you healthy. Planning healthy meals is good for the whole family. Ask your healthcare provider about sugar substitutes in place of sugar.

Healthy fats: olive and canola oil, nuts



Lean cuts of meat and fish



Low fat or fat free milk

Whole grains



## How to Eat Less Sodium (Salt)



Salt is also called "sodium" and is found in many foods.

Most foods you eat have salt even if you can't see or taste it.

Salt acts like a sponge and makes the body hold water.

Eating too much salt can cause your weight to go up and cause swelling in your feet, ankles, legs or belly and make it hard to breathe.

It is recommended that you limit your salt intake to less than 2,000 mg/day. Ask your healthcare provider what amount is right for you.

Ask your health care provider about salt substitutes.

Consume Less Than  
  
**1 Teaspoon**  
(2,000 MG)  
of Sodium a day

including sodium found in packaged or prepared foods.

# Reading a Food Label

## Step 1:

Look at serving size.

Nutrition Facts			
Serving Size 1 cup (253 g)			
Servings Per Container 4			
Amount Per Serving			
Calories 260		Calories from Fat 72	
% Daily Value*			
Total Fat	8g		13%
Saturated Fat	3g		17%
Cholesterol	130mg		44%
Sodium	1010mg		42%
Total Carbohydrate	22g		7%
Dietary Fiber	9g		36%
Sugars	4g		
Protein	25g		
Vitamin A	35%	Vitamin C	2%
Calcium	6%	Iron	30%
* Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.			
		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
Fiber		25g	30g
Calories per gram:			
Fat	9	Carbohydrate	4
		Protein	4

## Step 2:

Look at the sodium(salt) perserving. Choose foods with less than 140 mg sodium per serving.



### Tips on How to Eat Less Sodium (Salt) Away from Home

- Ask for food cooked with no salt
- Stay away from butter, cheese, or sauces
- Stay away from fried foods
- Choose grilled, baked, broiled or steamed foods
- Choose oil and vinegar salad dressing
- Limit fast food items or choose items with less sodium
- Stay away from bacon, sausage, or ham



### Tips on How to Eat Less Sodium (Salt) at Home

- Don't add salt to food when you cook or eat. Take the salt shaker off the table.
- Season foods with herbs and seasonings that do not have salt.
- Make your own or choose low sodium soups, sauces, salad dressings, breads, and desserts.
- Stay away from "instant foods" that come in a bag or a box.
- Rinse canned foods before cooking.



## Exercising with Heart Failure

Being active is one of the best things you can do.

Talk to your healthcare provider before beginning your exercise program.

Ask your physician if cardiac rehab is right for you.

Your body needs time to get used to being more active. You will notice that it will get easier and you will be able to do more.

Don't be afraid to ask your healthcare provider when it is safe to resume sexual activity. Typically, your healthcare provider will want to know if you can climb two flights of stairs comfortably or walk three blocks at a brisk pace before you can have sex safely.

### Exercising will get easier. Here are some steps for doing more:

Start slowly. Only do what is comfortable for you.

Do some activity that makes your heart beat a little faster for 10 minutes. Try to do this most days of the week.

After a couple of weeks, add 5 minutes to your exercising time. Continue to add 5 minutes until you can exercise for 30 minutes at a time.

Stop if you feel chest pain, dizziness, or have severe shortness of breath.

Don't forget to do cool down exercises at the end of your exercising.



## Advance Directive

With any chronic disease, it is a good idea to complete an advance directive. An advance directive allows you to clearly state your medical wishes. Think about what type of treatment you would want, or not want, if you couldn't speak for yourself due to a serious decline in your health. For example, would you want a breathing tube if you weren't able to breathe well on your own? Would you want chest compressions if your heart stopped? Your health care team wants to follow your wishes, so if you have medical preferences, please let us know! Preparing an advance directive can help reduce stress for yourself, your caregivers, and loved ones. Request to speak with an Advance Care Plan Facilitator to learn more or to receive help with completing an advance directive.

## Walking program timeline

### GOAL:

Increase by 1-2 minutes extra walk time every other day

2nd day home Track your progress

S M T W Th F S

Begin walking



	THREE	FOUR	FIVE	SIX
15 minutes	20 minutes	25 minutes	30 minutes	
2-3 times a day	1-2 times a day	1 time a day	1 time a day	



### Impact of Heart Failure (HF)

Heart failure, in most cases, is a chronic disease that often worsens over time. You play an important role in the slowing or speeding up the disease process. “HF exacerbation” is when symptoms are so severe that hospitalization is required. Each time you experience an HF exacerbation, your heart becomes even weaker. Your health care team is dedicated to teaching identification, treatment and management of HF symptoms to help you prevent your heart from becoming weaker.

## Impact of Other Diseases on Heart Failure

### Atrial Fibrillation (Afib)

Atrial fibrillation is an irregular heart beat. Especially when the heart beat is too fast, the heart does not fill up with blood effectively to pump out to the body. When the heart does not pump effectively, heart failure symptoms are likely to develop.

### Chronic Obstructive Pulmonary Disease (COPD)

Chronic Obstructive Pulmonary Disease is a chronic inflammatory lung disease that causes reduced airflow in the lungs. When the heart and kidneys receive low oxygen levels, blood and fluid back up and cause shortness of breath. COPD can worsen heart failure symptoms.

### Sleep Apnea

Sleep apnea is when breathing stops briefly or becomes very shallow while sleeping. This reduces the flow of oxygen to organs, which makes the heart work harder. Untreated, this can lead to many heart problems including heart failure, high blood pressure, and atrial fibrillation. Symptoms include snoring, feeling unrested after sleep, or waking up suddenly feeling like you are gasping or choking. Sleep apnea is serious and should not be ignored. A sleep study is performed to diagnose sleep apnea. The most common treatment is positive airway pressure therapy, such as CPAP or BiPAP. However, there are other options. Talk with your health care team to discuss the best treatment option for you.

### Diabetes Mellitus

Diabetes is a disease that affects your body’s ability to produce or use insulin. Hyperglycemia, or high blood sugar, causes tissue inflammation that injures blood vessels and nerves. This limits blood flow and can weaken the heart, kidneys, and other organs. This is why having diabetes increases the risk of heart disease and stroke. It is important that people with diabetes maintain normal blood glucose levels to slow the development of heart disease. Medications and lifestyle changes, such as diet and exercise, are often needed to control blood glucose levels. Talk with your health care team about speaking with a diabetes specialist, consultant or educator.

### Kidney Disease

Acute Kidney Injury (AKI) is a new decrease in kidney function and Chronic Kidney Disease (CKD) is the progressive loss of kidney function. The job of the kidneys is to filter waste and excess fluids from the body, which is removed either by urine or dialysis. The heart and kidneys work together to maintain a fluid and electrolyte balance within the body. However, keeping this balance is a struggle with both heart failure and kidney disease. With kidney disease, the kidney releases stress hormones that cause the body to hold onto salt and extra fluid. The extra fluid puts more stress on the heart and the kidneys, which worsens blood flow circulation. Some medications can worsen kidney function and interfere with your diuretics (water pills) from working. You may have a nephrologist to monitor your kidney function as well as a cardiologist to monitor your heart.



## Think Positive Thoughts

It is normal to feel sad, overwhelmed, down in the dumps or nervous at times. Some medicines can affect your mood. If you feel this way, talk with your healthcare provider.

- Take one day at a time.
- Be grateful.
- Be kind.
- Focus on the things you can do. These may include enjoying a hobby, taking time to meditate, praying, or spending time with the people you care about.
- Get enough rest and try to lessen the stress in your life.
- Enjoy your family and pets.
- Stay active and have fun with your friends.
- Consider joining a support group.



## Think Safety



Look around your house for anything you may trip on or over



Use a walker or a cane if you are unsteady



Remove any throw rugs, cables or extension cords



Get your pneumonia vaccine and your yearly flu vaccine





# Heart Failure Zones – Know Your Zone Everyday



## Daily Check:

- Weigh yourself first thing every morning-after you empty your bladder and write it down
- Take your medicine
- Check for swelling in feet, ankles, legs and belly
- Eat a low sodium diet – less than 2,000 mg each day
- Balance activity and rest periods
- Don't smoke and limit alcohol intake



## Your symptoms are under control if you have:

- No shortness of breath
- No weight gain more than 2 pounds in 1 day
- No swelling of your feet/ankles/legs/belly
- No decrease in ability to maintain activity level
- No chest pain



## Call your healthcare provider (# \_\_\_\_\_) if you have:

- More shortness of breath, dry hacking cough
- Weight gain of 3 pounds in 1 day or 5 pounds in 1 week
- More swelling of feet, ankles, legs and belly
- Feeling more tired; no energy; dizzy/faint
- You need more pillows when lying down or need to sleep in a chair



## Call 911 if you have any of the following:

- Struggling to breathe, more shortness of breath while resting
- Chest pain
- Confused or can't think clearly
- **Call 911 and get to the Emergency Room. Do NOT drive yourself!**

# More Information and Resources

Visit these sites if you would like more information about staying healthy with heart failure.

### Sentara Healthcare

[www.sentara.com](http://www.sentara.com)

### American Heart Association

[www.heart.org](http://www.heart.org)

### National Institutes of Health

[www.nhlbi.nih.gov](http://www.nhlbi.nih.gov)

### U.S. Department of Agriculture Food and Nutrition Information Center

[www.nal.usda.gov/fnic](http://www.nal.usda.gov/fnic)

### U.S. Department of Health & Human Services Office of Disease Prevention and Health Promotion

[www.health.gov](http://www.health.gov)

Atención: si habla español, tiene a su disposición servicios lingüísticos gratuitos. Llame al 844-809-6648.

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