

# Heart Success

A Resource Guide for Individuals Living with  
Cancer and Heart Failure

This booklet was developed by the Heart Success Task Force  
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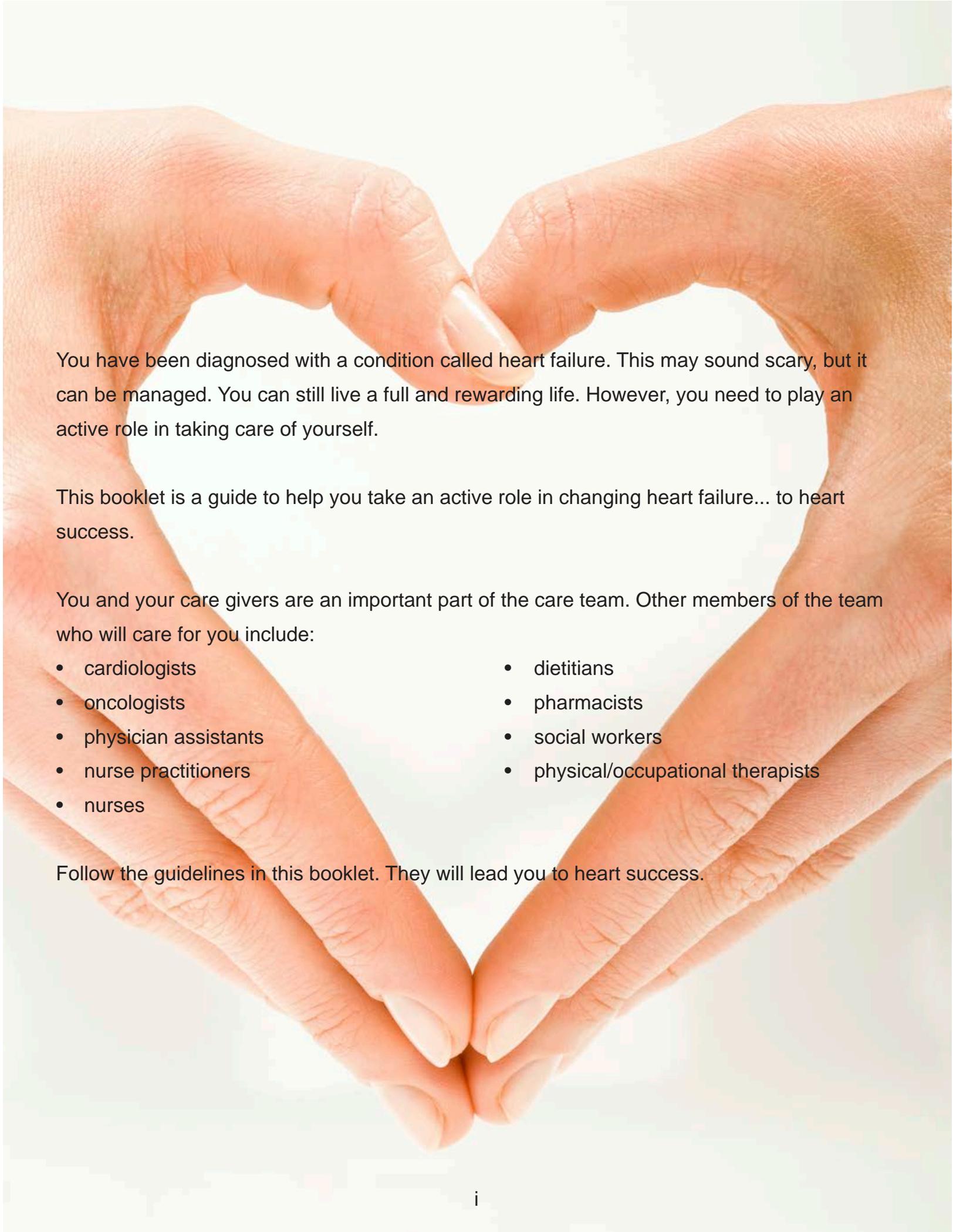
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You have been diagnosed with a condition called heart failure. This may sound scary, but it can be managed. You can still live a full and rewarding life. However, you need to play an active role in taking care of yourself.

This booklet is a guide to help you take an active role in changing heart failure... to heart success.

You and your care givers are an important part of the care team. Other members of the team who will care for you include:

- cardiologists
- oncologists
- physician assistants
- nurse practitioners
- nurses
- dietitians
- pharmacists
- social workers
- physical/occupational therapists

Follow the guidelines in this booklet. They will lead you to heart success.

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# Heart Failure

The heart is a pump. It sends blood to all parts of the body. When the pump is damaged, it does not provide enough blood to the body. This results in a condition called heart failure. Also, blood backs up and can leak into the tissues of the lungs, abdomen and legs. This may cause shortness of breath, swelling of the legs and feeling very tired after regular activity.

Not everyone who feels these symptoms has heart failure. Other conditions may cause the same feelings. However, when several of these symptoms are present and become worse over time, you may be experiencing **heart failure**. You should discuss these symptoms with your doctor. You may need special tests or treatment.

Heart failure is serious, which can complicate the course of your cancer treatment and can affect how long you will live. Though most causes of heart failure cannot be cured, many effective therapies can improve symptoms and extend life. This is why it is important to identify the disease early. It is important for you to understand the medicines used to treat heart failure and learn lifestyle changes to promote “heart success.”

## Heart Failure Symptoms

- Shortness of breath
- Feeling weak and tired after regular activity or while at rest
- Trouble breathing while lying flat
- Waking up at night coughing or short of breath
- Swollen feet, ankles and legs
- Dizzy spells
- Chest discomfort
- Feeling the heart beat fast

## Causes of Heart Failure

### Coronary Artery Disease

A common cause of heart failure is coronary artery disease (CAD). This is also called atherosclerosis. CAD is caused by cholesterol build-up in the walls of the arteries that feed the heart muscle. These blockages reduce blood flow. This weakens the heart, which results in heart failure.

### Chemotherapy

Some chemotherapy medicines can be toxic to the heart muscle. Although chemotherapy is effective at destroying cancer cells, they can damage healthy tissue and decrease heart function. Because of this, your heart function will be carefully checked if you receive certain chemotherapy treatment.

## Common Risk Factors for Developing Coronary Artery Disease

- Smoking
- Lack of regular exercise
- High cholesterol
- High blood pressure (hypertension)
- Stress
- Diabetes
- Use of alcohol or illegal drugs

The large amounts of fluid given with some chemotherapy can also contribute to heart failure. The heart pumps harder due to the extra fluid.

The following chart lists chemotherapies that may cause heart problems and their generic and brand names. If you take chemotherapy, your medical team will give you more details.

<b>Type of Chemotherapy</b>	<b>Generic and Brand Names</b>
Anthracyclines/anthraquinolones	Daunorubicin (Cerubidine®) Doxorubicin (Adriamycin®) Epirubicin (Ellence®) Idarubicin (Idamycin PFS®) Mitoxantrone (Novantrone®)
Alkylating Agents	Cyclophosphamide (Cytoxan®) Ifosfamide (Iflex®)
Antimetabolites	Decitabine (Dacogen®)
Antimicrotubule Agents	Docetaxel (Taxotere®) Ixabepilone (Ixempra®)
Monoclonal Antibodies	Adotrastuzumab emtansine (Kadcyla®) Bevacizumab (Avastin®) Pertuzumab (Perjeta®) Trastuzumab (Herceptin®)
Small Molecule Tyrosine Kinase Inhibitors	Afatinib (Gilotrif®) Axitinib (Inlyta®) Dabrafenib (Tafinlar®) Dasatinib (Sprycel®) Lapatinib (Tykerb®) Imatinib mesylate (Gleevac®) Pazopanib (Votrient®) Ponatinib (Iclusig®) Sorafenib (Nexavar®) Sunitinib (Sutent®) Trametinib (Mekinist®) Vandetanib (Caprelsa®)
Proteasome Inhibitors	Bortezomib (Velcade®) Carfilzomib (Kyprolis®)
mTOR inhibitor	Everolimus (Afinitor®)
Miscellaneous	Tretinoin (Vesanoid®)

## Other Causes

- Heart attack
- High blood pressure
- Idiopathic cardiomyopathy (unknown cause)
- Toxins (like chemotherapy and radiation treatment to the chest)
- Severe anemia (occurs when organs in the body do not receive enough oxygen)
- Sleep apnea
- Thyroid disease
- Pregnancy
- Excessive alcohol use
- Viral infection of the heart
- Heart valve problems
- Rapid, irregular heartbeats
- Genetic abnormalities\*



\*If a genetic cause is identified, we recommend that first generation family members be checked and screened for heart failure. Early diagnosis and treatment result in more positive outcomes.

## Types of Heart Failure

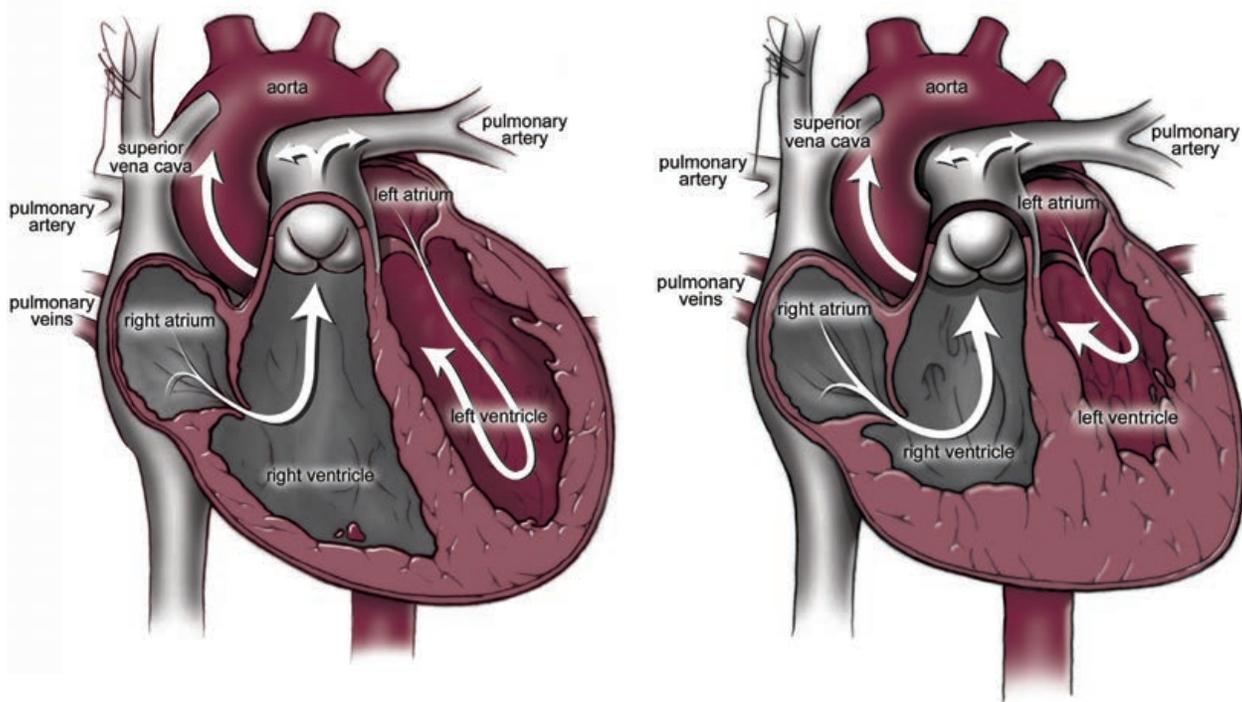
Heart failure is classified into different categories. The most common way to categorize heart failure is based on the strength of the heart muscle when it contracts. This is classified as **systolic and diastolic** heart failure.

**Systolic** heart failure is a weakening of the contraction (squeezing) of the heart muscle.

**Diastolic** heart failure is a stiffening of the heart muscle to the point that it does not relax properly. Both types of heart failure can lead to symptoms, but the management of each can be slightly different.

The image below on the **left** shows a heart with systolic heart failure due to enlargement of the heart chambers (called dilated cardiomyopathy).

The image on the **right** shows a heart with diastolic heart failure due to thickening of the heart muscle (called hypertrophy).



**Systolic Heart Failure**

**Diastolic Heart Failure**

## Diagnosing Heart Failure

To diagnose which type of heart failure you have, your doctor will review your medical history and perform a physical exam. After the exam, your doctor may also order tests. These can include diagnostic tests, evaluation procedures and blood tests.

### Diagnostic Tests

- **Echocardiogram** – This test uses sound waves to view heart structures. It can measure muscle strength, chamber size, and show the heart valves and how well they are working. The test checks heart function by measuring “ejection fraction” (EF). The EF is a percentage measurement of how well your heart pumps on each beat. A normal ejection fraction is equal to or greater than 50 percent.

**Systolic** heart failure has an EF less than 50 percent.

**Diastolic** heart failure has an EF equal to or greater than 50 percent.

- **Electrocardiogram (ECG/EKG)** – This test is a graphic recording of the electrical impulses of your heart. This shows your heart rate and rhythm. An ECG can indicate:
  - if you've had a heart attack;
  - heart rhythm problems;
  - reduced blood supply to the heart muscle; and
  - an enlarged heart.
- **Chest X-ray** – This x-ray of the chest shows heart size and if there is fluid in the heart and the lungs. Chest x-rays can also reveal other causes of shortness of breath.

## Procedures

- **Right heart catheterization** – This evaluates the pressures in the right side of the heart. A doctor inserts a catheter (thin plastic tube) into a vein in the neck, shoulder, arm or leg. The catheter is then threaded into the right side of the heart. The test measures the amount of fluid in the right side of the heart.
- **Left heart catheterization** – This procedure involves inserting a catheter (thin plastic tube) into a blood vessel, usually in the arm or groin. The catheter is then threaded into the arteries of the heart. A dye is used to help see blood flow through the vessels. This is used to check the presence of coronary artery disease or disease of the heart valve which may cause heart failure.

## Blood Tests

**Brain natriuretic peptide (BNP)** – This hormone is normally secreted from the heart. Heart failure can cause more BNP to be released than normal. BNP levels are used to assess how well the main pumping chamber of the heart is working.

- **Troponin (I or T)** – These blood tests are markers of heart muscle injury. The more damage to the heart, the greater the amount of troponin will be in the blood.
- **Galectin 3** – This is a neurohormone secreted into the blood stream. A blood sample can measure levels of Galectin 3 and identify scar tissue in the heart.

Test results help doctors determine the type of heart failure you have, the cause of symptoms and what type of treatment is best for you.

# Heart Failure Treatment

## Medicines

Heart failure is not permanent in every patient. Medicines are a common and effective treatment. Heart failure medicines can improve and may reverse the progression of heart failure. You must follow your health care provider's recommendations and take your medicines as instructed. The medicines help your heart function normally.

The following is a list of heart failure medicines, how they act in the body, possible side effects and examples of each. Your medical team will discuss which type and how much medicine is best for you.

Medicine	Benefits	Possible Side Effects	Generic and Brand Name
<b>Angiotensin converting enzyme (ACE) inhibitors</b>	<ul style="list-style-type: none"> <li>• Prevents the body from creating a substance known as angiotensin II, which causes blood vessels to narrow</li> <li>• Relaxes blood vessels</li> <li>• Decreases blood pressure</li> <li>• Strengthens the heartbeat</li> </ul>	<ul style="list-style-type: none"> <li>• Cough</li> <li>• Dizziness</li> <li>• Headache</li> <li>• Kidney problems</li> <li>• Increased potassium levels</li> <li>• Rarely causes the lips, tongue, face and cheek areas to swell suddenly. These are signs of an allergic reaction; they can happen at any time during therapy. If you have an allergic reaction, seek immediate medical attention.</li> </ul> <p>Your doctor will carefully monitor how your body reacts to this medicine for the first few weeks of treatment and then periodically thereafter.</p>	Benazepril (Lotensin®) Captopril (Capoten®) Enalapril (Vasotec®) Fosinopril (Monopril®) Lisinopril (Zestril®/ Prinivil®) Moexipril (Univasc®) Perindopril (Aceon®) Quinapril (Accupril®) Ramipril (Altace®) Trandolapril (Mavik®)

Medicine	Benefits	Possible Side Effects	Generic and Brand Name
<b>Angiotensin II receptor blockers (ARBs)</b>	<ul style="list-style-type: none"> <li>• Helps dilate the arteries</li> <li>• Relaxes blood vessels</li> <li>• Decreases blood pressure</li> <li>• Strengthens the heartbeat</li> </ul> <p>ARBs are often prescribed when patients are not able to tolerate ACE inhibitors because of problem side effects.</p>	<ul style="list-style-type: none"> <li>• Cough</li> <li>• Dizziness</li> <li>• Headache</li> <li>• Kidney problems</li> <li>• Increased potassium levels</li> <li>• Like ACE inhibitors, ARBs can cause the lips, tongue, face and cheek areas to swell suddenly. These are signs of an allergic reaction; they can happen at any time during therapy. If you have an allergic reaction, seek immediate medical attention.</li> </ul> <p>Your doctor will carefully monitor how your body reacts to this medicine for the first few weeks of treatment and then periodically thereafter.</p>	<p>Candesartan (Atacand®)</p> <p>Eprosartan (Teveten®)</p> <p>Irbesartan (Avapro®)</p> <p>Losartan (Cozaar®)</p> <p>Olmesartan (Benicar®)</p> <p>Telmisartan (Micardis®)</p> <p>Valsartan (Diovan®)</p>



Medicine	Benefits	Possible Side Effects	Generic and Brand Name
<b>Beta Blockers</b>	<ul style="list-style-type: none"> <li>• Blocks beta-receptors in the heart</li> <li>• Decreases blood pressure</li> <li>• Slows heart rate</li> <li>• Improves heart function</li> </ul>	<ul style="list-style-type: none"> <li>• Dizziness</li> <li>• Fatigue</li> <li>• Headache</li> <li>• Slower heart rate</li> <li>• Decreased blood pressure</li> <li>• Decreased sex drive</li> <li>• May mask low blood sugar symptoms, including dizziness, irritability, shaking and nausea.</li> <li>• If you have asthma, chronic obstructive pulmonary disease (COPD) or other lung conditions, your symptoms may worsen. For example, you may experience wheezing after taking the medicine.</li> </ul>	<p>Carvedilol (Coreg®, Coreg CR®)</p> <p>Metoprolol succinate (Toprol XL®)</p> <p>Bisoprolol (Zebeta®)</p>



Medicine	Benefits	Possible Side Effects	Generic and Brand Name
<b>Digoxin</b>	<ul style="list-style-type: none"> <li>Increases the strength of the heart's contraction</li> <li>Reduces workload on the heart</li> <li>Slows certain types of irregular heartbeats</li> </ul>	<ul style="list-style-type: none"> <li>Decreased heart rate</li> <li>Headache</li> <li>Large amounts of digoxin can be harmful. Signs of digoxin toxicity include: nausea, vomiting, abdominal pain, blurred vision and colored vision changes (green or yellow halos around lights). You may need periodic blood tests to check the level of digoxin in the blood. An appropriate digoxin level for heart failure patients is between 0.5 nanogram per milliliter (ng/ml) and 1 ng/ml.</li> </ul>	Digitek® Lanoxin® Lanoxicaps®



Medicine	Benefits	Possible Side Effects	Generic and Brand Name
<p><b>Diuretics</b> (sometimes called “water pills”)</p>	<ul style="list-style-type: none"> <li>• Helps the kidneys rid the body of fluid and salt</li> <li>• Decreases blood pressure</li> <li>• Reduces work load on the heart</li> </ul> <p>There are different types of diuretics. They are often prescribed along with other high blood pressure medicine. They may be combined with another medicine in one pill.</p>	<ul style="list-style-type: none"> <li>• Decreased blood pressure</li> <li>• Electrolyte imbalance</li> <li>• Increased urination</li> <li>• Increased uric acid</li> <li>• Increased blood sugar levels</li> <li>• Leg cramps</li> </ul>	<p>Bumetanide (Bumex®)</p> <p>Furosemide (Lasix®)</p> <p>Torsemide (Demadex®)</p> <p>Hydrochlorothiazide (HCTZ)</p> <p>Spiroinolactone (Aldactone®)</p> <p>Eplerenone (Inspra®)</p> <p>Metolazone (Zaroxolyn®)</p>



Medicine	Benefits	Possible Side Effects	Generic and Brand Name
<b>Vasodilators</b>	<ul style="list-style-type: none"> <li>• Helps the blood vessel walls relax</li> <li>• Reduces work load on the heart</li> </ul>	<ul style="list-style-type: none"> <li>• Low blood pressure</li> <li>• Dizziness</li> <li>• Increased heart rate</li> <li>• Headaches</li> </ul>	Hydralazine (Apresoline®) Isosorbide dinitrate (Dilatrate®-SR, Isordil®, Sorbitrate®)  Hydralazine + isosorbide dinitrate (BiDil®)  Nitroglycerin (Nitro-Bid®, Nitrodisc®, Nitro-Dur®, Nitrogard®, Nitrol®, Nitrostat®, Transderm-Nitro® and Tridil®)
<b>Inotropic Agents</b> (These medicines are given directly into a vein and usually reserved for severe heart failure.)	<ul style="list-style-type: none"> <li>• Increases the strength of the contraction of the heart</li> <li>• Reduces workload on the heart</li> </ul>	<ul style="list-style-type: none"> <li>• Decreased or increased blood pressure</li> <li>• Headache</li> <li>• Irregular heartbeats</li> <li>• Increased heart rate</li> </ul>	Dobutamine (Dobutrex®) Dopamine (Intropin®) Milrinone (Primacor®)

**You must continue taking all of your medicines** as instructed by your health care providers. Patients who stop taking their medicines tend to experience their old symptoms. This may become life threatening. If you have questions talk to your health care team.

#### Suggestions for Taking Heart Failure Medicine

- Take all medicines exactly as directed, **even if you feel well**.
- Create a schedule. Stay on the same schedule each day. Instead of taking all of your medicines at one time, take them one to two hours apart. Taking all of the medicines together can lead to very low blood pressure, which can make you feel dizzy or weak.
- If you miss a dose, take it as soon as possible. If you are scheduled to take the next dose

in less than four hours (less than eight hours for extended release medicine), **do not take** the missed dose.

- Monitor your blood pressure and heart rate daily before taking medicine. Watch for signs and symptoms of low blood pressure (dizziness with sudden change of position). If you have questions, contact the Cardiopulmonary Center at 713-792-4015 and/or your primary care provider before stopping your medicine.
- Ask your pharmacist if you should take your medicine with or without food.
- Store all medicines at room temperature. Avoid storing medicines in bathrooms.
- Avoid sudden movements, and rise slowly from a lying or sitting position.
- Limit your time in the sun. Too much time in the sun may make medicine side effects worse.

### **Medicines That May Worsen Heart Failure**

Some medicines listed below that you take for other medical issues may affect your heart. Your health care team will talk with you about how to take these medicines during treatment for heart failure.

<b>Type of Medicine</b>	<b>Examples</b>
Glucocorticoids	Prednisone Dexamethasone Hydrocortisone Methylprednisolone
Nonsteroidal anti-inflammatory drugs (NSAIDs)	Ibuprofen Naproxen
Thiazolidinediones	Pioglitazone Rosiglitazone
Antiarrhythmics	Flecainide Propafenone Sotalol
Calcium channel blockers	Diltiazem Verapamil

### **Contact your health care provider if you:**

- have side effects that are potentially harmful, such as uncontrolled bleeding;
- have a much slower or faster pulse than usual;
- are unable to take the medicine due to cost or side effects; or
- take additional, newly prescribed or over-the-counter medicines.

## Other Treatment Options

Although many patients get better with treatment, some don't and continue to have symptoms. If this happens to you, there are other options. These include:

- **Coronary bypass surgery** – This improves the supply of blood and oxygen to the heart. It reroutes blood around clogged arteries. Bypassing the blockage can improve heart function.
- **Heart valve surgery** – Replaces heart valves that don't work properly.
- **Implantable cardioverter defibrillator (ICD)** - This device shocks the heart and restores normal rhythm.
- **Biventricular pacemaker** – This device helps the heart beat in a regular rhythm and improve heart function.
- **Ultrafiltration** – This treatment helps remove excess fluid from the body.
- **Left ventricular assist device (LVAD)** – An implanted device that helps the heart pump. This is used only in patients with the most severe heart failure.
- **Heart transplant** – This surgery is only for patients with:
  - long-term heart failure;
  - heart muscle disease; or
  - irreversible heart injury from coronary artery disease or multiple heart attacks.

To be eligible for a transplant, patients must be a non-smoker and cancer free for at least **five** years.



## The Roles of Magnesium and Potassium

Magnesium and potassium are important minerals that the body needs to work properly. The best way to get these minerals is by eating a wide variety of foods. Getting the right amount of these minerals in your diet will help manage heart health.

### Magnesium

Normal magnesium levels:

- Help maintain muscle and nerve function
- Keep heart rhythms steady
- Support a healthy immune system
- Keep bones strong
- Regulate blood sugar levels

- Promote normal blood pressure and
- Provide energy for the body

Foods that contain magnesium:

- Green leafy vegetables such as spinach
- Beans and peas, including black-eyed peas and soy, pinto and kidney beans
- Nuts and seeds, including almonds, cashews and peanuts
- Unrefined grains, such as those found in whole grain wheat flour

## Potassium

Normal potassium levels:

- Helps maintain a steady heartbeat
- Helps the body's cells function correctly
- Keeps a normal water balance between the cells and body fluid
- Helps nerves send signals to the muscles

Foods that contain potassium:

- Fruits: apricots, bananas, cantaloupe, dates, figs, honeydew, oranges, papayas, prunes, raisins and strawberries
- Vegetables: artichokes, broccoli, brussels sprouts, cabbage, carrots, mushrooms, potatoes, spinach and tomatoes



Some medicines like diuretics (water pills) may cause the body to lose potassium. This can result in low blood potassium levels known as “hypokalemia.” If you take a water pill, your doctor may prescribe a potassium supplement **or** you should eat foods high in potassium.

However, in certain conditions such as kidney dysfunction and diseases of the adrenal glands, potassium levels may be elevated known as “hyperkalemia.” High potassium levels can cause abnormal heart rhythm, nausea, fatigue, muscle weakness and tingling sensation.

More serious symptoms of hyperkalemia include slow heartbeat and weak pulse. If you have hyperkalemia or kidney dysfunction:

- **do not** use salt substitutes that contain potassium;
- **do not** take potassium supplements; and
- **ask your doctor** if the medicines you take can cause an increase in blood potassium levels.

# Diet and Nutrition

## Low-Sodium Diet

Your doctor may recommend changes in your diet. These changes may include lowering your sodium or salt intake to no more than 2 grams (2,000 milligrams) per day.

Sodium is a mineral that helps balance fluid in the body. A common source of sodium is table salt. One teaspoon of salt is approximately equal to 2,300 milligrams (mg) of sodium. Salt makes the body hold water. Excess water makes your heart work harder. You can reduce sodium by not adding salt to your food and avoiding foods high in salt.

Following a low-salt diet is important. It can help:

- you feel better;
- prevent and control the buildup of fluids around the heart, lungs and legs;
- control blood pressure;
- medicines work more effectively; and
- decrease swelling and shortness of breath.

To limit the amount of salt in your diet, follow these suggestions from the National Heart, Lung and Blood Institute:

- Read the food labels to help you pick foods lower in sodium
- Pay attention to the serving size listed on the label
- Look for the foods that use one of these terms on the label: sodium-free, very low sodium, reduced sodium, light in sodium, or unsalted

## Reading Food Labels

Many canned and packaged foods contain hidden sodium. Carefully read nutrition facts labels and check the sodium content. Although they may not taste salty, many canned, packaged and frozen foods are high in salt.

On the nutrition facts label on this page, find the number for sodium. This number is the total number of milligrams (mg) of sodium in one serving. For the example provided here, a ½ cup serving contains 880 mg of sodium, but only 90 calories. This product is considered **high** in sodium.

<b>Nutrition Facts</b>		Amount/serving	%DV*	Amount/serving	%DV*
		Total Fat	3g	5%	Sodium 880mg 37%
Serv. Size 1/2 cup (120mL)		Sat. Fat	2g	10%	Total Carb. 14g 5%
condensed soup		Polyunsat. Fat 0g		Fiber 1g 4%	
Servings about 2.5		Monounsat. Fat 0.5g		Sugars 2g	
Calories 90		Cholest. 10mg 3%		Protein 2g	
Fat Cal. 25					
Percent Daily Values (DV) are based on a 2,000 calorie diet.		Vitamin A 0% • Vitamin C 0% • Calcium 2% • Iron 2%			

Some foods are labeled “low sodium” or “sodium free.”

Sodium equivalents:

- Low-sodium foods = 140 (mg) or less per serving.
- Very low-sodium foods = 35 mg or less per serving.
- Sodium-free foods = 5 mg or less per serving.

Pay close attention to the item’s serving size, such as ½ cup. If you eat more than one serving, this increases your sodium intake. Also check the **ingredient** list to find hidden sources of sodium. Ingredients high in salt include monosodium glutamate (MSG) and sodium nitrate.

### **Salt Substitutes**

Some salt substitutes replace sodium with potassium and should not be used when taking certain medicines. Blood pressure-lowering medicines, such as ACE inhibitors may cause the body to retain potassium. Diuretics (water pills) may cause potassium loss. Ask your medical team what is the best salt substitute for you.

### **Herbs and Spices**

Adding herbs and spices to food can enhance flavors without adding salt. When substituting a dried herb for salt in a recipe for the first time, start with 1/4 teaspoon of dried herbs per four servings. Additional herbs can be added to taste later. Combine a strong flavored herb with one or more milder herbs to give a subtle blend.

These products enhance flavor and are low in salt:

- Dried or fresh herbs (basil, oregano, cilantro, turmeric, rosemary)
- Ready to use salt-free spice blends available in grocery stores (like Mrs. Dash®)
- Fresh onion and garlic
- Pepper, onion powder, garlic powder and chili powder
- Lemon or lime juice
- Fresh tomatoes or tomato paste
- Peppers and hot sauce
- Vinegar



## Foods to Chose

Consider the foods below. They will help reduce salt intake and promote a healthy diet.

<b>Food</b>	<b>Examples</b>	<b>Allowed Daily Servings</b>	<b>Sodium Content per Serving</b>
Fruits	Fresh; frozen; canned	Unlimited	10 milligrams (mg)
Meat and protein	Fresh or frozen lean beef, pork, poultry lamb, veal and fish; dried beans; lentils; soybeans; peanut butter; unsalted nuts; tofu; eggs	Three	60 mg; read labels to make sure sodium has not been added
Milk and dairy	Low-fat or skim milk; low-fat cottage cheese and low-fat yogurt; Cheese – most are high in sodium, so eat in moderation	Two	150 mg
Grains (Choose whole grains that are high in fiber. Try to take in 25 grams of fiber daily.)	Bread ; brown rice; whole-grain pasta; cooked cereals like oatmeal; home-baked products (limit commercially baked items such as cakes and pastries)	Five	150 mg
Fat	Healthy oils such as canola and olive oil; unsalted butter; low-sodium salad dressing like oil and vinegar with herbs	Based on calorie level you need to maintain ideal weight	Check label
Dessert	Gelatin, popsicles, reduced-fat ice cream and sherbets; low-fat frozen yogurt; hard candies	Based on calorie level you need to maintain ideal weight	Check label
Soup	Low-sodium bouillon or broth; homemade soup with low sodium bouillon	One	Check label

## **Foods to Avoid**

These foods are high in sodium:

- Canned vegetables and tomato sauce.
- Canned soups, dehydrated soups and ramen noodles unless they are marked “low sodium.”
- Bacon, salt pork and processed meats. These include ham, lunch meat, hot dogs, etc.
- Saltines and other crackers, salted pretzels, salted nuts and seeds and breads with salt topping.
- Salted potato chips, corn chips and chow mein noodles.
- Dips, spreads and commercial salad dressings (including the dry packaged variety).
- Packaged and prepared rice, pasta and stuffing mixes which have seasoning or sauce added.
- Cheese
- Seasoned salts (garlic salt), soy sauce, Worcestershire sauce, barbecue sauce, pickles, olives and monosodium glutamate (MSG).

Many of the foods listed above have “low sodium” or “no added salt” varieties that are acceptable on a reduced-sodium diet.

Keep these points in mind when planning meals.

- Plan tasty and healthy meals each day. Cook low-sodium recipes.
- Remove the saltshaker from the table.
- Choose snacks that do not contain salt, such as fresh fruit and vegetables.
- When eating out, request that no salt or MSG be added to your food. Also ask to have your sauce/dressing placed “on the side.” Cafeteria food is usually high in sodium. If you ask, there may be low salt alternatives.
- If you take antacid tablets, choose the sodium-free variety.
- Give yourself time to get used to eating less salt. You may not like it initially, but your heart is worth the effort.

Find low sodium, heart healthy recipes on these websites:

### **The American Heart Association**

[www.deliciousdecisions.org](http://www.deliciousdecisions.org) (Click on Recipes.)

### **The Academy of Nutrition and Dietetics**

<http://www.eatright.org/Public/>

For more information or to schedule a nutrition consultation, please call Clinical Nutrition at 713-792-2254.

## Lifestyle Modifications

Listen to what your body tells you; rest when you need to. Other things you can do to help your heart include: manage your weight, stop smoking and reduce stress. Keep your medical appointments so that your treatment plan can be monitored.

### Manage Weight

You may have lost weight due to cancer treatment, and you may be trying to gain weight. You should eat a well-balanced, low-sodium, nutritious diet to regain your strength and restore your health. Keep track of your weight. Sudden weight gain may be caused by fluid. You may have too much fluid if you have:

- gained more than two pounds per day for two consecutive days, or have gained more than five pounds in a week; **and**
- increased shortness of breath with minimal activity; **and**
- swelling of the legs or abdominal bloating.

### Monitor Weight

- Weigh yourself at the same time every morning before breakfast
- Write down your daily weight to track your progress.

### Weight Changes Caused by Chemotherapy

If you receive chemotherapy, you may lose weight because of nausea, vomiting, loss of appetite, etc. Weight loss of more than two pounds per week is undesirable. This may indicate loss of muscle mass or dehydration. Increasing your intake of calories and protein can help slow or stop weight loss. High-protein foods include:

- Cooked meats, poultry and fish
- Meat alternatives from vegetable protein, such as veggie burgers
- Beans and peas
- Eggs
- Milk
- Yogurt
- Cottage cheese



You may gain weight while receiving chemotherapy. This weight gain can be caused by:

- Increase of intravenous (IV) fluids
- Corticosteroids (dexamethasone)
- Decreased physical activity
- Over eating caused by stress

Call the Cardiopulmonary Center at 713-792-4015 if you gain:

- more than two pounds in one day for two days in a row; or
- more than five pounds in one week.

## **Tobacco**

Stop using all tobacco products. Cigarette smoking increases your heart disease risk by three to six times and can worsen heart failure. Smoking lowers the amount of oxygen in your blood, makes your heart beat faster, makes your blood vessels smaller and increases your blood pressure. Smoking also can lead to many types of cancer, especially cancers of the lung, mouth and tongue.

Only nonsmokers are considered for a heart transplant.

There are support programs, quitting aids and medicines to help you stop smoking. For more information about quitting, contact:

### **MD Anderson Cancer Center**

Tobacco Treatment Program  
713-792-QUIT (713-792-7848)  
Toll Free: 866-245-0862  
Email: [quitnow@mdanderson.org](mailto:quitnow@mdanderson.org)

### **American Cancer Society**

Quitline® Phone Counseling Program  
Toll Free: 800-ACS-2345 (800-227-2345)  
Press Option 3  
Texas Residents Toll Free: 877-937-7848  
[www.cancer.org](http://www.cancer.org)



## **Physical Activity**

**Before you start an exercise program, ask your doctor about how much activity is safe for you.**

Physical activity strengthens your heart muscle and improves your quality of life. Choose

activities that you enjoy. Start slowly and increase your activity gradually based on what your body tells you. At first, choose lighter activities, such as walking or shopping. Take rest breaks often.

As you begin to feel stronger, increase your activity level. If you feel very tired after an activity, you may be doing too much. Reduce your activity level and take it easy until you feel better.

Be patient with yourself. It takes time to build strength and endurance. If you have chest pain during the activity, immediately stop and rest. Take your chest pain medicine. Place nitroglycerin under your tongue as directed. If your pain does not go away within five minutes after taking the pill, follow these steps:

1. Place another pill under your tongue and wait five minutes.
2. If the pain is not relieved, take another pill and **call 911. This is a medical emergency.**

## **Rest**

Allowing time to rest and relax is essential for your health and well-being. Take at least a 30 minute rest break to read or watch television between activities. During this time, try to raise your feet to help reduce swelling in the legs and ankles. Try taking a nap after lunch to renew energy levels and ease stress on the heart.

## **Lifting Guidelines**

Lifting heavy objects and straining to reach objects make the heart work harder. Instead of lifting heavy grocery bags or piles of laundry, use a wheeled cart or divide the items into smaller bundles. If you plan to start a weight lifting program, ask your doctor for instructions before you begin.

# **Sexual Activity**

Most people with heart failure can continue enjoying sexual activity. Being physical with your partner will not damage the heart or cause a heart attack. You can have sexual activity if your symptoms:

- are under control, and
- you are correctly taking your medicine and you feel well.

Some patients with heart failure feel less sexual desire. Discussing this with your health care provider and partner may reduce stress and anxiety. There are multiple ways to express physical love and affection.

You may resume sexual activity when you feel ready. If you tolerate moderate physical activity during a treadmill test, the risk of problems during sexual activity is relatively low. Have a

treadmill test if you expect to have daily sexual activity. If you cannot tolerate exercise, talk with your partner about other ways to show love and affection.

If you have not performed sexual activity for some time and are not in good condition, your doctor may want to check you before beginning sexual activity.

### **Follow These Guidelines for Sexual Activity**

- Choose a time when you are rested, relaxed and free from stress.
- Avoid activity right after a heavy meal.
- Avoid activity after a recent hospital stay due to heart failure.
- If you feel shortness of breath, palpitations (increased heart rate) or chest discomfort, **stop and rest** for a short time.

### **Medicine for Erectile Dysfunction (ED)**

Do not take ED medicines at the same time you take nitroglycerin or medicines for benign prostatic hypertrophy (BPH). These medicines include doxazosin (Cardura®), prazosin (Minipress®) and tamsulosin (Flomax®). Combining these medicines may cause your blood pressure to become too low.

ED medicines include:

- Sildenafil (Viagra®)
- Tadalafil (Cialis®)
- Tadalafil (Levitra®)



## **Emotional Support**

Heart to Heart is a support group for people living with cancer and heart failure. Group meetings are held in the Integrative Medicine Center. This is a free-standing facility outside the Main Building entrance. Topics related to heart failure are discussed. Patients benefit from talking with each other. Please participate in Heart to Heart. Call 713-792-6242 or 713-794-4700 for more information.

## **Advance Care Planning**

Addressing end of life issues may be difficult. It is better to make these tough decisions before there is a need for them. Advance care planning increases the chances that your wishes will be met. Advance directives are documents that state your wishes for care at the end of your life.

You have the right to decide:

- who will care for you;
- what kind and how much care you want (or do not want) when death is a possibility; and
- where you want to die.

Think about the medical, legal and spiritual issues that are most important to you. Then complete and sign the three types of advance directives – Living Will, Medical Power of Attorney and Out-of-Hospital Do Not Resuscitate (DNR) orders – that comply with your state law. These documents become effective only when you are unable to make or communicate your decisions.

After completing the advance directives, give copies to your family, friends and doctor. Take time to talk about your choices with your loved ones. Your friends and family may find comfort in knowing your wishes.

For more information on advance directives contact Social Work at 713-792-6195.

## **When to Call Your Health Care Provider**

Call a member of your cardiologist, primary doctor, physician assistant, nurse practitioner or nurse if you have:

- Weight gain of more than two pounds in one day for two consecutive days
- Increased swelling in your abdomen, legs or feet
- Increased shortness of breath
- Increased tiredness or weakness
- New or increasing chest pain
- Feeling the heart beat faster
- Dizziness, light-headedness or restlessness

If any of these symptoms become worse, go **immediately to the nearest hospital emergency center or call 911.**

# MD Anderson Cancer Center Resources

## Cardiopulmonary Center

### Main Building

Floor 6, near Elevator C

Monday-Friday, 8 a.m.-5 p.m.

713-792-4015

### Mays Clinic

Internal Medicine Center, Floor 6, near Elevator U

Monday-Friday, 8 a.m.-5 p.m.

713-563-7100

**For emergencies, call 911.**

## Pharmacy

### *Location 1*

Main Building

Floor 2, near Elevator C

Monday-Friday, 8 a.m.-8 p.m.

Weekends and holidays, 8 a.m.-5 p.m.

713-792-6125

### *Location 2*

Main Building

Floor 10, near Elevator B

Monday-Friday, 8 a.m.-8 p.m.

Closed weekends and holidays

713-745-7180

### *Location 3*

Mays Clinic

Floor 2, near The Tree Sculpture

Monday-Friday, 8 a.m.-6 p.m.

Closed weekends and holidays

713-563-8222



## The Learning Center (TLC)

The Learning Center is a library that provides the latest information about health and cancer. TLC also provides computers, websites, medical journals, books, videos and more. Two locations:

- Main Building, Floor 4, near Elevator A, Room R4.1100, 713-745-8063
- Mays Clinic, Floor 2, near The Tree Sculpture, Room ACB2.1120, 713-563-8010

## Videos

MD Anderson offers “on-demand” patient education videos. “Heart Success for Cancer Patients” is a 15-minute video. Videos can be viewed on campus, including locations in the hospital, The Learning Center and the Rotary House Hotel.



## More Resources

These organizations provide accurate, up-to-date information on heart disease.

### **Heart Failure Society of America, Inc.**

5425 Wisconsin Avenue, Suite 600  
Chevy Chase, Maryland 20815  
301-718-4800  
[www.hfsa.org](http://www.hfsa.org)

### **American Heart Association**

National Center  
7272 Greenville Avenue  
Dallas, Texas 75231  
800-242-8721  
[www.heart.org](http://www.heart.org)





