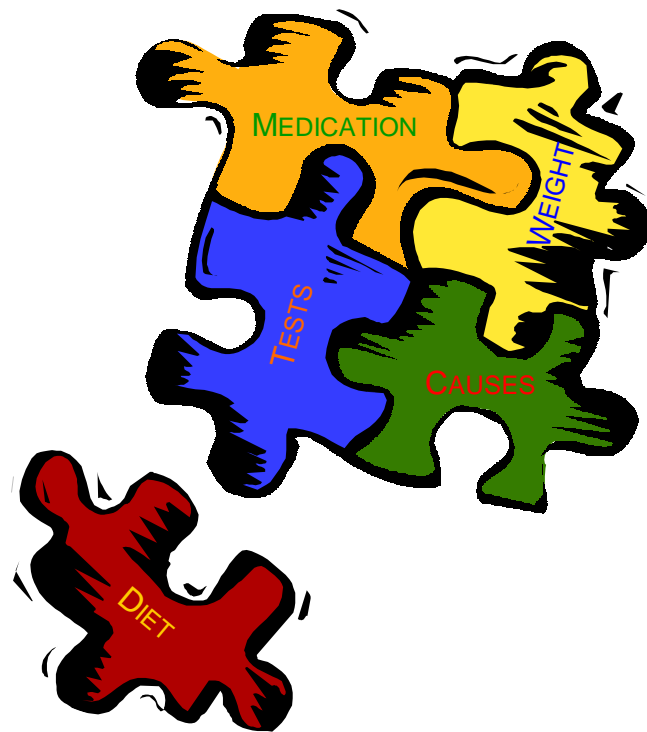


LIVING WITH HEART FAILURE



PUTTING THE
PIECES TOGETHER

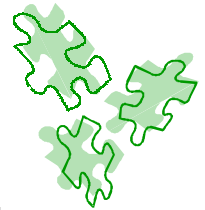
WHAT IS HEART FAILURE?

- ♥ Heart failure (HF) occurs when the heart loses its squeezing power.
- ♥ Because the heart is not pumping or squeezing blood properly, the blood backs up into the lungs and other body parts, making it more difficult to do things that were easy for you to do in the past, such as walking, carrying groceries, or climbing stairs.

WHAT CAUSES HEART FAILURE?

There are many causes of HF, but in each case, one or more parts of the heart does not work well.

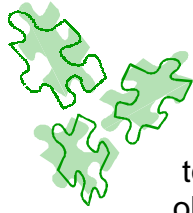
- ♥ The most common cause of HF is a weakening of the heart muscle itself. This may occur after a heart attack or if your blood pressure is too high for a long time.
- ♥ Drinking too much alcohol for many years also can cause the heart to enlarge and weaken.
- ♥ Occasionally, weakness of the heart muscle occurs after an infection. Sometimes the cause of the weakness cannot be found. This is known as cardiomyopathy.



- ♥ Heart failure results from the added stress of health conditions that either damage the heart or make it work too hard. In fact, all of the behaviors that you probably associate with heart disease or heart attack — such as smoking, being overweight, eating foods high in fat and cholesterol, and not exercising — also can cause heart failure. In some cases, though, behavior has absolutely nothing to do with heart failure. For instance, some people who develop heart failure were born with structural heart defects, while others may have contracted a virus that damaged the heart muscle.

Another common cause of HF is an abnormally functioning heart valve. Heart valves open and close to make sure that the blood keeps moving in the right direction. Sometimes a valve becomes narrowed. This is called stenosis. Stenosis prevents the blood from moving forward. A “leaky” valve also can cause HF by allowing the blood to flow backward. This is called regurgitation.

Heart failure may occur if the heart suddenly beats too fast or too slow. When the heart is beating too fast or slow, it



cannot pump blood properly to the rest of the body. In older adults, a rapid, irregular beating of the upper heart chambers (called atrial fibrillation) is a common cause of HF.

Occasionally, HF is related to medications. It also may occur following surgery or in association with other illnesses, such as a heart attack.

Heart failure cannot be cured, but it can be controlled. With proper treatment and lifestyle changes, you can slow the progression of HF and improve your chances of survival.

HOW DOES IT FEEL?

Here are some common symptoms of heart failure. You may have several of these symptoms or only one.

- ♥ Shortness of breath — particularly with activity or when lying flat
- ♥ Dry, constant cough which may worsen at night

- ♥ Swelling of feet or legs. This swelling can extend up to the waist
- ♥ Waking up at night coughing or breathless
- ♥ Tiredness or weakness
- ♥ Dizzy spells
- ♥ Decrease in urination
- ♥ Weight gain — usually sudden, 2-3 pounds per day or more than 5 pounds in 5 days
- ♥ Unexplained confusion

Your physician can treat many of these symptoms in the early stages, as an out-patient. If left untreated, however, they can result in admission to the hospital.

WHAT PUTS ME AT RISK FOR HEART FAILURE?

- ♥ High blood pressure (hypertension)
- ♥ Heart attack (myocardial infarction)
- ♥ Damage to the heart valves or history of a heart murmur
- ♥ Enlargement of the heart
- ♥ Family history of enlarged heart
- ♥ Diabetes

HOW IS HEART FAILURE DIAGNOSED

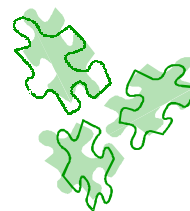
Only your doctor can tell you if you have heart failure. When you visit your doctor, he should review your medical history and conduct a full physical examination.

Physicians often order a number of tests when exploring a possible diagnosis of heart failure. Many of them are painless and simple. The most important of these tests is an echocardiogram, or “echo” for short.

ECHOCARDIOGRAPHY

An echocardiogram shows the structure and movement of your heart muscle. While you rest, sound waves bounce off your heart and are converted into a picture on a screen. The test shows whether your heart is enlarged, the thickness of the heart’s walls, whether there are problems with the heart’s valves, and what your ejection fraction, or “EF” is. The ejection fraction is a measurement of how well your heart is pumping. People with a healthy heart usually have an ejection fraction of 50 percent or greater. Most people with heart failure, but not all, have an ejection fraction of 40 percent or less.

CARDIAC CATHETERIZATION

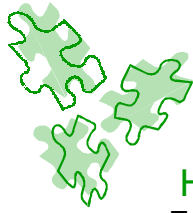


This test may be done to help diagnose problems that could have led to heart failure. The procedure is done in the hospital and may require an overnight stay. A long, thin, flexible tube called a catheter is inserted through a blood vessel in your groin or arm and gently guided to your heart. X-ray contrast fluid is then injected through the tube and a special type of X-ray, called an angiogram, takes pictures of clogged blood vessels. The test also can show problems with pumping, heart chambers, blood flow, or valves.

OTHER TESTS

Your doctor may want to do other tests to evaluate your heart. They might include:

- ♥ A chest X-ray shows if the heart is enlarged
- ♥ An EKG can determine if there has been heart muscle damage causing heart failure
- ♥ There are several tests that can be run on blood work to determine how to manage your heart failure



MEDICATIONS TO HELP YOUR HEART

Early diagnosis and treatment of HF are very important, and recently there have been some major steps forward in treatment. Today, doctors can do more than ever, so many people with HF can live normal lives and be less at risk for being hospitalized. If you are diagnosed with HF, there are a number of medications that work together to improve your symptoms and help keep your HF from getting worse. Taking these medicines, in addition to eating right and getting regular exercise, will help improve your health.

ACE inhibitors are considered first-choice treatment and are the cornerstone of HF drug therapy. In studies involving thousands of patients, ACE inhibitors have been proven to slow the progression of HF. They are a type of vasodilator, which are medications that cause the blood vessels to expand, lowering blood pressure and reducing the heart's workload. They also improve certain hormones that have beneficial effects on the heart. Several ACE inhibitors also are effective in treating high blood pressure and other conditions.

Women who may be pregnant should not take ACE inhibitors. Call your doctor if you experience fatigue, headache, dry cough, vomiting, diarrhea, nausea, dizziness or lightheadedness when sitting or standing. Rare side effects include swelling of your face, mouth, hands, or feet; or difficulty breathing or swallowing.

Diuretics help rid your body of excess water that may collect in your lungs or settle in your feet and ankles. Because diuretics may cause you to urinate frequently, you should take them early in the day. Less fluid to pump also makes your body lose a mineral called potassium, your doctor may prescribe potassium supplements or give you a list of foods that are high in potassium.

Some diuretics may increase blood sugar in patients with diabetes. If you have diabetes, it is important that you monitor your blood sugar closely. Call your doctor if you experience dizziness, lightheadedness, increasing weakness, or leg cramps.

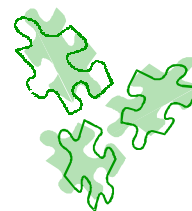
Digoxin works directly on the heart muscle to strengthen and regulate the heart

beat. A stronger, regular heartbeat leads to better blood circulation and reduced swelling of legs and ankles. Digoxin also is used to treat certain fast heartbeats, such as atrial fibrillation.

When taking digoxin, you should check with your doctor before taking antacids or eating oat bran. Call your doctor if you experience a loss of appetite, a bad taste in your mouth, nausea or vomiting, diarrhea, unusual tiredness or weakness, yellowish or blue-green vision, dizziness or lightheadedness, confusion, or a change in the regularity of your heartbeat.

Beta blockers help lower blood pressure and slow your heart rate. This lessens the work your heart has to do. Beta blockers may help regulate the heartbeat. They also may improve the pumping action of the heart over time.

Call your doctor if you experience dizziness or lightheadedness, wheezing or increased coughing, low blood pressure or slow pulse, a change in the regularity of your heartbeat,

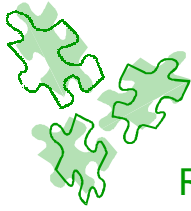


Cholesterol-lowering medications can reduce the risk of dying, the risk of heart attack, and the need for coronary bypass and balloon angioplasty procedures.

If your doctor has prescribed cholesterol-lowering medications for you, it is important that you continue to take them as instructed.

Ask your doctor or pharmacist for a list of the possible side effects for the specific cholesterol-lowering medication you are taking. If you experience any unexplained muscle pain, muscle tenderness, or muscle weakness, call your doctor immediately.

Note: If oral medications are not effective in controlling your heart failure, you may need to stay in the hospital. Intravenous medications may be given as they work quickly to help your heart pump better and relieve your symptoms. You also may get oxygen through small tubes placed in your nose.



MEDICATIONS FOR RELATED CONDITIONS

Your doctor may prescribe medications for any other heart condition that may lead to or result from HF. Types of medication include antihypertensives, antiarrhythmics, and anticoagulants.

Antihypertensives can help lower blood pressure. There are many different types of antihypertensives that work in a variety of ways. Some of the medications that treat HF also help lower blood pressure.

Antiarrhythmics are used to help control a rapid or irregular heartbeat. They help keep the heartbeat steady.

Anticoagulants help prevent blood clots, which can cause a heart attack or stroke. Anticoagulants often are prescribed for people with certain valve problems, for people who have had valve surgery, or for some types of abnormal heartbeats.

HAVE A ROUTINE FOR TAKING YOUR MEDICATIONS

- ♥ Get a pillbox that's marked with the days of the week. Fill the pillbox at the beginning of each week, so you simply have to open each day's section and take your pills for that day.

Take your pills at the same time each day. If you take them when you regularly do something, like when you brush your teeth or eat a meal, it will help you remember. Ask your doctor or pharmacist which medications can be taken with meals.

REMEMBER:

Do not take over-the-counter medications without your doctor's knowledge!

YOUR DIET

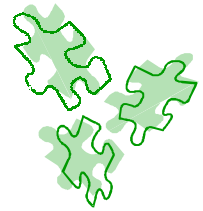
Making healthy food choices and eating a well-balanced diet can make you feel better. Your doctor will probably recommend that you limit the amount of sodium (salt) in your diet. Too much sodium makes your body retain water, which can make the symptoms of HF worse. Your doctor may tell you how many milligrams of sodium are okay for you to eat each day. If you have coronary artery disease or need to lose weight, your doctor also may give you other dietary guidelines to follow.

SALT AND SODIUM

Sodium is the major ingredient in table salt. The first step in lowering the sodium in your diet is to take the salt shaker off the table. The next step is to avoid foods that contain large amounts of sodium.

The following foods contain a large amount of sodium and should be avoided:

- ♥ Prepared meats such as hot dogs, bologna, salami, and other cold cuts
- ♥ Canned soups and vegetables
- ♥ Canned or bottled tomato sauce and vegetable juices
- ♥ Pickles, olives, and sauerkraut
- ♥ Most “fast food”
- ♥ Chinese food



- ♥ Most frozen dinners
- ♥ Boxed foods and dinners
- ♥ Ham, bacon, and sausage
- ♥ Cheese and cheese spreads
- ♥ Catsup, mustard, barbecue sauce, Worcestershire sauce, and soy sauce
- ♥ Peanut butter
- ♥ Onion salt, garlic salt, and celery salt
- ♥ Snack foods such as potato chips, pretzels, nacho chips, and crackers

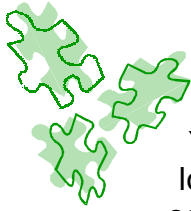
There may be hidden sodium in other foods. Get into the habit of reading labels. If sodium is listed as one of the first three ingredients, stay away from the food, there's too much sodium in it!

Ask your doctor how many grams of sodium should be in your diet.

If you drink alcoholic beverages, you may have to stop or limit yourself to one drink per day.

ADD FLAVOR TO YOUR FOODS

It takes a while to enjoy the taste of foods without salt. Your taste buds will adjust and you will begin to enjoy the natural flavor of the foods.



You also can use the following herbs and spices to season your foods. Be creative and give them a try!

- ♥ Garlic and garlic powder
- ♥ Onion and onion powder
- ♥ Pepper
- ♥ Lemon
- ♥ Vinegar
- ♥ Other non-salty herbs and spices such as dill, dry mustard, bay leaf, curry powder, basil, oregano, nutmeg, allspice, and mint

TIPS FOR EATING LESS SALT

- ♥ Don't add salt to food when you're cooking. Season your foods with flavorings such as pepper, lemon, garlic, and onion instead of salt.
 - ♥ Get a cookbook with low-salt recipes.
 - ♥ Choose low-salt snacks such as no-salt pretzels or crackers, air-popped popcorn, or low-fat frozen yogurt.
- Read labels before buying canned, frozen, or other processed foods. Also, watch out for high-sodium ingredients like monosodium glutamate (MSG), baking soda, and sodium chloride.

- ♥ When eating out, ask that your food be cooked without added salt.
- ♥ If you buy antacid tablets, choose a brand that's sodium-free.
- ♥ Give yourself time to get used to eating less salt. You may not like it at first, but your heart is worth it.

CHOLESTEROL & FATS

Your doctor may advise you to limit the amount of cholesterol, fat, and especially saturated fat in your diet. Animal fats such as the fat in meats, eggs, cheese, milk and butter all contain cholesterol and saturated fats. Your dietitian will be able to assist you in making food choices that will help you limit the amount of cholesterol and fat in your diet.

POTASSIUM

Certain medications can cause potassium to leave the body. You may need to make sure that you get extra potassium from the foods that you eat. The following foods are good sources of potassium and several selections should be eaten daily:

- ♥ Banana
- ♥ Orange
- ♥ Orange juice

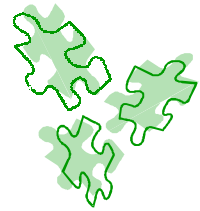
- ♥ Prune juice
- ♥ Prunes or dates
- ♥ Nectarines
- ♥ Cantaloupe
- ♥ Raisins
- ♥ Figs
- ♥ Baked or boiled potato
- ♥ Tomatoes
- ♥ Dried apricots
- ♥ Tomato juice
- ♥ Winter squash
- ♥ Spinach
- ♥ Sweet potato
- ♥ Baked beans

FLUID

Your doctor may advise you to limit the amount of fluid that you drink each day. This includes all types of fluids, including the fluid taken with medications. If you are thirsty, you should try using small amounts of sugar-free hard candy to help with the dry mouth.

Here are some examples of foods and liquids that should be counted as part of your fluid restriction:

- ♥ Water
- ♥ Juice
- ♥ Soda pop



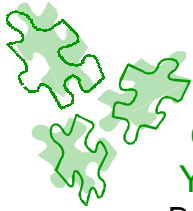
- ♥ Coffee and tea
- ♥ Milk
- ♥ Ice cream
- ♥ Pudding
- ♥ Jell-O
- ♥ Soup
- ♥ Yogurt

You will need to keep track of the amount of fluid that you drink throughout the day. You can do this by recording all the fluid that you drink as you have it and adding it up as you go. Some people also have found that they are able to keep track if they mark a large container with the amount of fluid that they are allowed for the day. Each time that they drink some fluid, they pour an equal amount of water into the container. When they have filled the container, they have reached their limit for the day!

TO HELP YOU MEASURE:

$$\begin{aligned}
 1 \text{ cup} &= 8 \text{ oz} = 240 \text{ cc} \\
 4 \text{ cups} &= 32 \text{ oz} = 1 \text{ qt} = 1000 \text{ cc} = 1 \text{ liter} \\
 8 \text{ cups} &= 64 \text{ oz} = 2 \text{ qts} = 2000 \text{ cc} = 2 \text{ liters} \\
 1 \text{ ml} &= 1 \text{ cc} \\
 1 \text{ oz} &= 30 \text{ cc}
 \end{aligned}$$

Ask your doctor if you should be on a fluid restriction and if so, how much.



OTHER WAYS TO HELP YOUR HEART

Because your heart is not as strong as it used to be, it's a good idea to take it easy. This means getting plenty of rest and being careful not to get worn out. There are things that can help your heart, too, like watching your weight and stopping smoking.

It also is important to stay current with flu and pneumonia immunizations. Flu and pneumonia pose a greater danger to persons with any heart condition because the heart needs to work harder to pump oxygenated blood to the body. It is best to be immunized and prevent this extra stress to the heart.

Also, keep all of your doctor's appointments so your doctor can monitor your treatment plan and advise you on immunizations.

Follow your doctor's advice about taking care of related conditions, such as kidney problems, diabetes, or an abnormal heart-beat.

EXERCISE AND A HEALTHY HEART

- ♥ Moderate exercise actually can help the heart get stronger

- ♥ Exercise can improve heart failure symptoms, reduce stress, and boost energy levels.
- ♥ Regular exercise can lead to other health advantages, such as weight loss, better circulation, and lower blood pressure and cholesterol.

Cardiac rehabilitation programs can be helpful when initiating an exercise program. The nurse or therapist will develop a program of using a treadmill, stationary bike, or indoor track a few times a week. Over time, your exercise tolerance will increase and the exercise time periods can be increased. *(Note: cardiac rehabilitation is **not** a Medicare reimbursable service for patients with heart failure.)*

TIPS TO EXERCISING

Whether in a formal exercise program or not, people with heart failure need to do moderate aerobic exercise like walking, swimming, or biking.

Do:

- ♥ Wear comfortable clothes and flat shoes.
- ♥ Start slowly and build to 30 minutes workouts 3-4 times per week, or as directed by your physician.

- ♥ Ask family and friends to join you, it's more fun and will help you stick to it.
- ♥ Keep an exercise log.
- ♥ Use a variety of exercises to keep it interesting — walk, swim, bike, etc.

Don't:

- ♥ Get discouraged if you need to stop exercising for a while. Start gradually again and work up to former pace.
- ♥ Engage in activity that causes chest pain, shortness of breath, dizziness, or lightheadedness. If this happens, **stop** what you're doing right away.
- ♥ Exercise right after meals or when it's not humid.

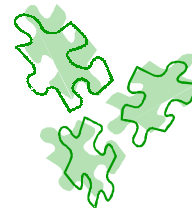
GET ENOUGH REST

Plan times throughout the day when you can rest and relax. While you rest, your heart muscle also can rest and get ready for your next activity. Nap, read, or just enjoy some fresh air. Put your feet up to reduce ankle swelling. And get plenty of sleep each night.

STOP SMOKING

Smoking damages your blood vessels, reduces the oxygen in your blood, and makes

your heart beat too fast. Ask your doctor to suggest a program to help you quit.



KEEP TRACK OF YOUR WEIGHT

Extra body weight makes your heart work harder. Talk to your doctor about ways to get to a normal weight.

A daily weight log is provided inside the back cover of this booklet. Daily weight monitoring is very important in maintaining control of heart failure.

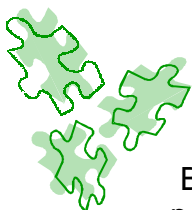
A sudden weight gain or steady rise in your weight is a warning sign that your body is retaining too much water and salt.

- ♥ Weigh yourself at the same time every morning, wearing the same thing. Weigh after urinating and before eating.
- ♥ Keep track of your weight each day on the graph provided on the inside back cover.

Call your doctor right away if:

- ♥ You gain 2 or more pounds in 1 day.
- ♥ You gain 3 to 5 pounds in 1 week.

Rapid weight gain may be a sign that you are retaining water. Your doctor may need to change your treatment.



FOLLOW-UP VISITS

Be sure to keep your appointments and bring a list of all your medications with you. Your doctor will monitor your condition and, if needed, adjust your medications to reduce your symptoms.

CALL YOUR DOCTOR IF:

- ♥ Your symptoms get worse.
- ♥ You notice new symptoms from your medication.
- ♥ Breathing becomes more difficult, or you start coughing at night.
- ♥ You're getting tired faster.
- ♥ You begin urinating less frequently.
- ♥ You gain 3 to 5 pounds in 1 week.
- ♥ Your feet or ankles swell more than usual.
- ♥ You have dizzy spells or you faint.
- ♥ You have tightness or pain in your chest.
- ♥ You have swelling or pain in your abdomen.

SEX AND HEART FAILURE

Can I — or my husband, wife, or partner — still have sex after heart failure is diagnosed?"

Try not to feel embarrassed about raising this question with your physician. Most people with heart failure can continue sexual relations once symptoms are under control. They may feel more comfortable and confident when following certain guidelines suggested for heart patients:

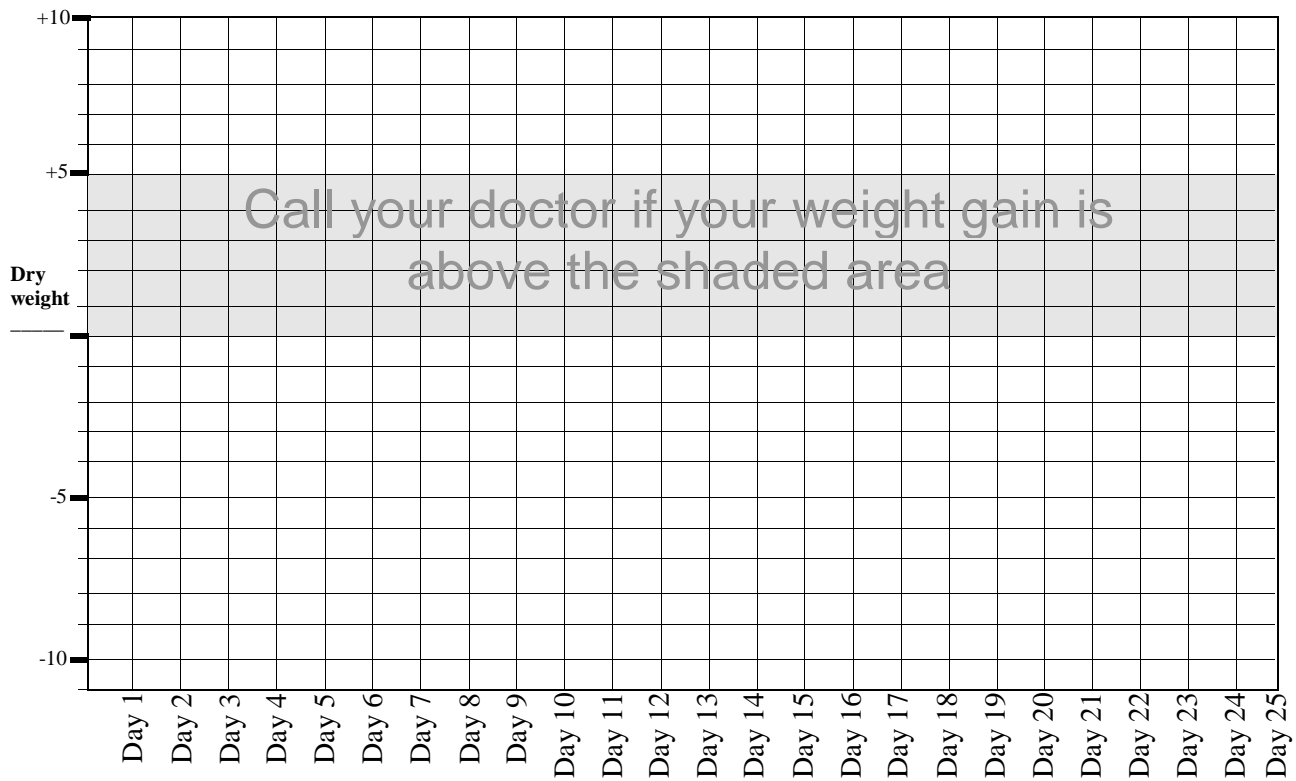
- ♥ Choose a time when you're rested, relaxed and free from the stressful feelings brought on by the day's schedules and responsibilities.
- ♥ Avoid having sex right after eating a heavy meal.
- ♥ Select a familiar, peaceful setting that's free from interruption.
- ♥ If you start to feel uncomfortable or tired during intercourse, stop and rest for a short time.

There's no reason why heart failure patients can't resume usual sexual activity as soon as they feel ready to do so. However, people with heart failure should remind themselves that it's OK if they're not ready to have sex right now.

WEIGHT TRACKING TABLE

Graph your daily weight here and call your doctor if you gain 2 or more pounds in 1 day or 3 to 5 pounds in 1 week.

Instructions: Record your dry weight on the appropriate line as indicated. Each light dash mark represents 1 pound; each heavy dash mark represents 5 pounds above or below your dry weight.



Physician: _____ Office phone number: _____

Fluid restriction: _____ cc Sodium restriction: _____

This information has been brought to you by:
North Dakota Health Care Review, Inc.
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701-838-6009 (fax)



References:

Konstam M, Dracup K, Baker D, et al. *Heart Failure: Evaluation and Care of Patients with Left-Ventricular Systolic Dysfunction. Clinical Practice Guideline No. 11.* AHCPR Publication No. 94-0612. Rockville, MD; Agency for Health Care Policy and Research, Public Health Service, U.S. Department of Health and Human Services. June 1994.

American Heart Association.

This material was prepared by NDHCRI under contract #500-99-ND03 with the Centers for Medicare & Medicaid Services (CMS). The contents presented do not necessarily reflect CMS policy. For additional copies, please call NDHCRI at 701-852-4231.

November 2001

ND-6SOW-01-QP-01