



St. Luke's Hospital

A Sutter Health Affiliate

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Health Notes

CONGESTIVE HEART FAILURE (CHF)

GUIDE TO RECOVERY

Please review this information about your health condition. We want you to be involved in the decisions affecting your care. If you have family members, caregivers, or friends caring for you, please have them read this information.

Each person has a unique health condition. If you have any questions, please ask the doctors, nurses, and therapists caring for you.

Table of Contents

In the Hospital

What is Congestive Heart Failure?	3
Causes of Heart Failure.....	3
What to Expect During Your Hospital Stay	4
Tests to Evaluate Your Heart.....	5
Understanding Your Medications.....	6
Managing Your Pain	7
Your Activity in the Hospital	7
About Your Diet	7
Getting Support from the Medical Team.....	8
Arranging Your Transportation Home.....	8
Setting Up Help at Home.....	8

At Home

Caring for Yourself at Home – Living Well with CHF	9
Special Instructions on How to Take Your Medications.....	9
Making a Follow-up Appointment	10
Recognizing Danger Signals at Home.....	10
Planning Your Activity Once at Home.....	10
Keeping to an Exercise Program.....	11
More Tips on Your Diet.....	11
Maintain a Healthy Weight.....	12
Eat a Heart-Healthy Diet.....	12
Live a Heart-Healthy Lifestyle.....	14
More Ways to Learn	15
Daily Weight Record.....	Appendix

What is Congestive Heart Failure (CHF)?

Congestive Heart Failure (CHF) is a condition in which your heart is not pumping as well as it should. CHF can cause symptoms such as shortness of breath, generalized weakness, and swelling in the ankles, feet, and abdomen. Coronary artery disease, heart attack, high blood pressure, and heart valve disease are common causes of CHF.

Causes of Heart Failure

Coronary Artery Disease

Coronary artery disease is caused by atherosclerosis (also called hardening of the arteries). This condition occurs when plaque (deposits of fat, cholesterol and other materials) collects in the walls of the arteries. As plaque builds up, the arteries narrow and this reduces blood flow to the heart muscle. The muscle can weaken, and heart failure can develop.

Heart Attack

Congestive heart failure can be a complication of a heart attack. A heart attack occurs when a blood clot forms in a narrowed coronary artery, and blocks blood flow to a coronary artery. As a result, there is damage to the heart muscle. The damaged portion of the heart muscle loses its ability to pump well. Over time, the strained heart muscle weakens and heart failure can develop.

High Blood Pressure (Hypertension)

Blood pressure measures the force of the blood pumped by your heart through your body's blood vessels. If arteries throughout your body are narrowed from a build-up of fatty deposits, your heart has to work harder than it should to circulate blood. The heart muscle may become weakened by the extra workload, and fail to effectively pump blood forward causing your blood pressure to increase.

Faulty Heart Valves

Valve disease occurs when the valves between the heart's chambers do not open or close properly. A damaged heart valve forces your heart to work harder to keep the blood flowing correctly. Over time, this extra work can weaken the heart and lead to heart failure.

Causes of Heart Failure *(continued)*

Cardiomyopathy

Cardiomyopathy is a diseased heart muscle. The heart chambers enlarge and the heart muscle stretches and weakens. Causes of cardiomyopathy include infections, alcohol abuse, and the toxic effects of drugs such as cocaine and some drugs used for chemotherapy.

Other Related Health Problems

Certain health problems can strain and weaken the heart. Diabetes, severe anemia, hyperthyroidism, kidney or liver failure, and emphysema may precipitate heart failure. A rapid or irregular heartbeat may occur along with heart failure.

What to Expect During Your Hospital Stay

- You may stay in the hospital for 2-4 days.
- You may wear a heart monitor that will record your heart rhythm at a central station in the nursing unit.
- Your doctor may order one or more of the following tests to better understand your heart condition: blood tests, electrocardiogram (EKG), nuclear scan, echocardiogram (echo), chest x-ray, and cardiac catheterization.
- You will have at least one intravenous line (IV) to give you fluids and medications. An IV is a small, thin plastic catheter (tube) that is placed in a vein in your arm.
- You will receive oxygen through a mask that fits over your nose and mouth or through a small cannula (soft tube) that is placed under your nose.
- Your care will include:
 - Taking diuretics that remove excess fluid from your body.
 - Taking medications to relax the blood vessels and help your heart pump more easily.
 - Close observation of your fluid intake and output, daily weights, potassium, and sodium blood levels.
 - Resting and paced activity.
 - Education about cardiac risk factors and a heart-healthy lifestyle.

Tests to Evaluate Your Heart

Your doctor may order 1 or more of the following tests:

- **Electrocardiogram (EKG or ECG):** A test that shows the pattern of your heartbeat and the size of your heart.
- **Echocardiogram (Echo):** A non-invasive test to evaluate the structure and motion of heart function, heart valves, and blood flow through the heart. Echocardiogram uses ultrasound (high-frequency sound waves) to create an image of your heart on a television screen (monitor). This test identifies whether an area of your heart has been damaged by a heart attack.
- **Cardiac Catheterization & Coronary Angiogram:** Cardiac catheterization is an invasive, non-surgical procedure. A coronary angiogram is a specialized x-ray procedure that is done as part of a cardiac catheterization. A cardiac catheterization and a coronary angiogram are done to study the structure of the arteries that bring blood to the heart muscle and to evaluate the function of the main pumping chamber of the heart. During a cardiac catheterization, the cardiologist inserts a small hollow tube (catheter) into an artery or vein and then advances it into the heart. The cardiologist injects contrast (x-ray dye) through the catheter to outline the arteries to show any blockages or narrowings that may exist within them.
- **Stress Testing:** This test is performed to find out if your coronary arteries have any blockages. While you exercise on a treadmill, your doctor and a technician will watch your blood pressure, pulse, and electrocardiogram (EKG). During the test, you start walking and slowly the speed of the treadmill gets faster. Thallium treadmill and Persantine Thallium tests are different kinds of stress tests.
 - The Thallium treadmill test is a basic stress test, except that Thallium, a radioisotope, is put into your IV before you exercise.
 - The Persantine Thallium test is also a stress test, but you do not have to walk on a treadmill.
- **Transesophageal Echocardiogram (TEE):** For this study, a doctor places a plastic tube, about the size of your finger, through your mouth into your esophagus. The tip of the scope makes and accepts sound waves. TEE takes better pictures of the heart's movement than a regular EKG. Before the doctor places the tube in your throat, he or she will numb your throat and give you medication in your intravenous line (IV) to make you sleepy. You should experience little or no discomfort. The test will take about 30 minutes.

Understanding Your Medications

Your doctor will order medications to help your heart work better and relieve some of your symptoms. Your medications may include:

- **ACE Inhibitors:** This medication helps your heart pump more easily by relaxing the blood vessels. Some common ACE Inhibitors are Capoten (Captopril), Zestril, Prinivil (Lisinopril), and Vasotec (Enalapril). A dry cough or dizziness should be reported to your doctor.
- **Angiotensin Receptor Blockers:** This medication is sometimes used instead of an ACE inhibitor. It has many of the beneficial effects of ACE inhibitors. Some common ARB's are Cozaar (Losartan) and Diovan (Valsartan).
- **Beta-Blockers:** This medication helps strengthen your heart. A beta-blocker is usually started at a low dose and gradually increased over time. Common beta-blockers are Coreg (Carvedilol), Inderal (Propranolol), Lopressor, Toprol XL (Metoprolol), and Tenormin (Atenolol). If you experience fatigue and dizziness please report these symptoms to your doctor.
- **Digitalis - Lanoxin (Digoxin):** This medication helps your heart to pump with more strength. Digoxin can also help regulate your heartbeat.
- **Diuretics** (also called “water pills”): Diuretics are medications that get rid of the extra water in your body. Excess water can cause swelling in your ankles, feet, or abdomen. Diuretics also increase the amount of urine the body makes and the dose may be linked to your daily weight. Common diuretics are Furosemide (Lasix) and Hydrochlorothiazide.
- **Diuretic (Potassium Sparing) Aldactone (Spironolactone):** This medication is a diuretic that spares potassium and helps the heart muscle.
- **Potassium:** An electrolyte that is important for muscle function and maintaining a regular heartbeat. Regular use of a diuretic causes the body to lose potassium. Your doctor may order a potassium replacement.

Note: Make sure to tell your doctor about any non-prescription drugs you may be taking, such as cold remedies, sleep aids, or herbal medications.

Managing Your Pain

CHF does not usually cause pain. However, you may experience some discomfort, or you may have pain from another existing condition. If you are having pain, it is important to take action to control your pain as soon as the pain starts. Managing pain early and adequately is key in effective pain control. Please let your doctor or nurse know if you are having pain.

Your Activity in the Hospital

- You may get out of bed to sit in a chair or go to the bathroom, if you are not short of breath. You will need to ask for help the first few times you get out of bed.
- Once you are feeling better, you may take a walk in the hall 2 or 3 times a day.

About Your Diet

- Salt makes the body hold onto water that can make Congestive Heart Failure worse. Most doctors allow you to have no more than 2-3 grams (2000-3000 milligrams) of sodium (salt) each day.
- You will be asked to follow a low-salt diet. A heart-healthy diet low in fat may also be necessary for you to follow. After you leave the hospital, you may need to continue these diet restrictions. If you have questions about your diet, please ask to speak to a dietitian.
- You may drink a moderate amount of liquids (4 cups a day is a moderate amount). Juice, water, milk, decaffeinated coffee or teas are recommended.
- Avoid drinking large amounts of liquids. Drinking more than 6 cups of liquid in a day is considered a large amount.
- You may not feel like eating because you are tired or find it hard to breathe. Eating is very important. If you would like smaller meals more often or lighter food, please ask your nurse or dietitian to arrange this for you.

Getting Support from the Medical Team

- Doctors and nurses are available to listen to your concerns and feelings, as well as RN case managers, social workers, and chaplains.
- RN case managers are available to assist you with getting ready to go home. However, your doctor may decide that you need more time in the hospital for treatment or rehabilitation before going home. A “Post-Acute Unit” is a licensed, skilled nursing facility that provides short-term care for people who do not need to be in the “acute” hospital.
- Social workers are available to help with matters related to finance, and your home situation.
- Financial counselors are available to answer questions or concerns about your health insurance.
- Chaplains are available at all times. Please let your doctor or nurse know if you would like us to arrange for a visit.

Arranging Your Transportation Home

If you need help getting home, ask to speak with an RN case manager who can help you make arrangements. Most insurance will not pay for transportation home. Otherwise, you may leave the hospital in a car with a family member or friend.

Setting Up Help at Home

If you need extra help or equipment at home, an RN case manager will meet with you. The RN Case Manager will help you find out what services your insurance plan pays for and, if needed, will help arrange them.

Caring for Yourself at Home – Living Well with CHF

People with CHF can live better and longer if they learn to follow these seven essential lifestyle practices:

1. Be knowledgeable about your diagnosis and treatment.
2. Eat a healthy, low-sodium diet.
3. Follow the medication plan as prescribed.
4. Know what signs and symptoms to monitor and when to report them
 - New or increased shortness of breath or cough.
 - Weight gain of more than 3 pounds a day or 5 pounds a week.
 - Increased swelling of ankles, feet or abdomen.
 - Persistent nausea or inability to eat.
 - Feeling of rapid heartbeats or palpitations.
 - Dizziness not related to change in body position.
 - Tightness, discomfort, or pain in the chest, jaw, or arm.
5. Stay active and exercise within the limits of your illness.
6. Modify risk factors such as smoking, obesity, high blood pressure, and cholesterol.
7. Learn to cope with stress.

Special Instructions on How to Take Your Medications

- Take your medications at the same time each day.
- Use a medication organizer to keep track of your medication schedule.
- Do not stop taking any medications unless your doctors tell you to do so.
- Tell your doctor if you have any side effects from your medications, such as a headache, dizziness, upset stomach, or cough.
- Do not skip a pill. If you do miss a pill, do not take two pills the next time.

Making a Follow-up Appointment

People with congestive heart failure usually see their doctor 2 – 4 weeks after going home from the hospital. Bring all pill bottles or a list of medications to each appointment to share with your health care provider.

Recognizing Danger Signals at Home

Call your doctor before your next appointment if you develop any of the following symptoms:

- New or increased shortness of breath or cough.
- Weight gain of more than 3 pounds a day or 5 pounds a week.
- Increased swelling in ankles, feet, and abdomen.
- Persistent nausea or inability to eat.
- Feeling of rapid heartbeats or palpitations.
- Dizziness not related to change in body position.
- Tightness, discomfort, or pain in your chest, jaw, or arm.

Planning Your Activity Once You Are At Home

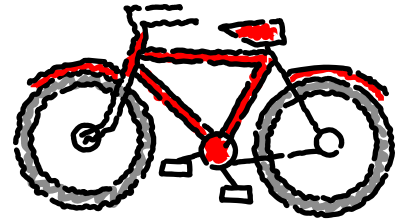
- You can continue your normal daily activities if you are not short of breath or feeling very tired.
- Talk to your doctor about when you can go back to work.

Keeping to an Exercise Program

Exercise Regularly: Exercise helps improve heart muscle function following a heart attack. It also helps you maintain a healthy weight and control risk factors such as diabetes, high cholesterol, and high blood pressure. You are encouraged to exercise regularly. Regular exercise can reduce your symptoms.

Follow These Guidelines

- Rest after meals. Wait at least 1 hour after you eat to walk or do any strenuous activities.
- Space your activities to avoid getting too tired.
- Exercise (walk or cycle) at a calm, easy pace.
- Pace yourself so you can easily hold a conversation while you exercise.
- Exercise when you are rested.



NOTE:

If you become short of breath, dizzy, develop pain or chest tightness – stop and rest.

If symptoms persist – Call 911.

More Tips on Your Diet

- **Do not add salt to your food during cooking or at the table.**
- **Avoid foods with salt:** Extra salt makes the body hold on to water which, in turn, can make congestive heart failure worse.
- **Buy no-salt foods:** Read labels on packages, jars, and cans of food. Salt is sodium chloride. Canned, frozen dinners and prepared foods often contain lots of salt.
- **Fluid Restriction:** Some patients must limit their fluid intake to no more than 6 – 8 cups of fluid intake each day. Check with your doctor for specific instructions.
- **Eat slowly:** Do not overeat. Do not exercise right after eating.
- **Weigh yourself at the same time each day with the same amount of clothing.** See Daily Weight Record (Appendix) to keep a log of your weight.

Maintain a Healthy Weight

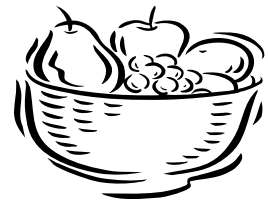
Being more than 10 percent overweight increases your risk of heart disease. **Measure your waist circumference:** Your waist circumference (waist-line measurement) serves as an important value in determining if you are overweight. The recommended waist circumference for men and women is as follows:

- Women:** Less than 35 inches.
Men: Less than 40 inches.

Eat a Heart-Healthy Diet

Read labels on packages, jars, and cans of food:

- Salt is sodium chloride. Canned foods, frozen dinners, pickled vegetables, and processed foods often contain lots of sodium chloride.
- Most luncheon meats (cured meats) such as ham, smoked turkey, salami, and bologna are high in sodium chloride and other sodium-containing preservatives.



Low cholesterol, low sodium:

- Most doctors recommend that you do not have more than 2-3 grams (2,000-3,000 mg) of sodium chloride each day.
- If you have high blood pressure or diabetes check with your doctor for special diet instructions.

Limit high-cholesterol foods:

- Limit high-cholesterol foods such as egg yolks, whole milk, cheese, organ and fatty meats, and processed foods.
- **Recommended cholesterol (lipid) lab values for people with heart disease:**
 - Total cholesterol should be less than 200.
 - LDL (low-density lipoprotein) cholesterol, sometimes called “bad cholesterol” should be less than 100.
 - HDL (high-density lipoprotein) cholesterol, “good cholesterol,” should be greater than 40.
 - Triglycerides (fat carried by cholesterol) should be less than 150.

Eat a Heart-Healthy Diet *(continued)*

Avoid/reduce saturated fats:

Avoid butter, coconut, palm, and partially hydrogenated oils, and fatty meats which are high in saturated fats. Choose canola, olive, safflower, sunflower or peanut oils in small amounts.

Minimize intake of trans fats:

Trans fats are found in processed foods with hydrogenated or partially hydrogenated oil (boxed crackers, cookies, and cakes).

Eat more fiber and carbohydrates:

Eat at least 5 serving per day of a variety of vegetables and fruits. Other good food choices include: pasta (plain), grains, dried beans, potatoes, and brown rice.

Add folic acid and B vitamins to your diet:

Adequate folic acid intake in your diet may reduce the amount of homocysteine in your blood. Homocysteine is an amino acid that builds and maintains tissues. Too much homocysteine may promote atherosclerosis. Folic acid can be found in green, leafy vegetables, citrus fruits, legumes, peanuts and cereal grains.

Consume alcohol in moderation:

Consult your doctor to evaluate the benefits and risks of alcohol consumption for you.

Notes & Questions to Ask My Doctor

Live a Heart-Healthy Lifestyle

Obtain Regular Medical Checkups:

Conditions such as high cholesterol, high blood pressure, and diabetes, may be present without any symptoms in the early stages.

Stop Smoking:

Smoking is harmful to the health of your heart. Smoking increases your heart rate and blood pressure, contributes to atherosclerosis (build-up of plaque in your blood vessels), and decreases oxygen to your heart. Cigarette smoking is a major risk factor for another heart attack.

Smoking is an addiction. Nicotine releases a chemical to your brain which gives you a feeling of pleasure. Your doctors and nurses realize that smoking is not an easy habit to quit, and we want to support you.

Here are some tips on how to quit smoking:

- Make the decision to quit smoking while you are in the hospital. Inform your doctor and nurse.
- Ask your doctor to prescribe a treatment plan to help you stop smoking. Your doctor may order medications to help with nicotine withdrawal and smoking cessation. These include nicotine replacement therapy (patch or gum), a smoking avoidance medication, or an antidepressant medication.
- Ask your doctor if these medications are appropriate for you during your hospitalization and after you go home.
- Inform your doctor or nurse when you are experiencing symptoms of nicotine withdrawal such as anxiety, cravings, irritability, restlessness, depression, and insomnia.
- There are resources to help you quit. Call 1-800-NO-BUTTS, or ask your nurse or doctor for information about how you can quit smoking.

Other Risk Factors:

- Being overweight makes your heart work harder. Ask for help in losing weight.
- Having high blood pressure or high cholesterol levels damages your artery walls and increases your chances of coronary artery disease.

Live a Heart-Healthy Lifestyle *(continued)*

Managing Stress – Actions to cope with stress can include learning to use:

- relaxation
- deep breathing
- visualization techniques
- socializing with friends
- listening to music
- adopting a wellness lifestyle
- seeking professional support when needed

More Ways to Learn

1. **Call 1-800-NO-BUTTS** for more information about smoking cessation.
2. **Visit these Web sites:**
 - American Heart Association at www.americanheart.org
 - Mayo Clinic at www.mayohealth.org

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Note: This information is not meant to replace any information or personal medical advice which you get directly from your doctor(s). If you have any questions about this information, such as the risks or benefits of the treatment listed, please ask your doctor(s).

Appendix: DAILY WEIGHT RECORD

1. WEIGH YOURSELF EACH MORNING WITH THE SAME AMOUNT OF CLOTHING, AFTER USING THE BATHROOM, AND BEFORE EATING BREAKFAST.
2. WRITE YOUR WEIGHT IN THE BOX FOR THE DAY.
3. IF YOU HAVE GAINED MORE WEIGHT THAN YOUR DOCTOR WANTS, PLEASE CALL THE OFFICE.

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Rapid weight gain may mean you have some fluid buildup, so it is important to record your weight every day. Ask your doctor what weight gain should cause you to call the office. You may want to bring this calendar with you to check-ups.