# **Chronic Heart Failure**

The term "heart failure" makes it sound like the heart is no longer working at all and there's nothing that can be done. Actually, heart failure means that the heart isn't pumping as well as it should be. Your body depends on the heart's pumping action to deliver oxygen- and nutrient-rich blood to the body's cells. When the cells are nourished properly, the body can function normally. With heart failure, the weakened heart can't supply the cells with enough blood. This results in fatigue and shortness of breath. Everyday activities such as walking, climbing

stairs, or carrying groceries can become very difficult. Heart failure is a serious condition, and usually there's no cure. But many people with heart failure lead a full, enjoyable life when the condition is managed with heart failure medications and healthy lifestyle changes. It's also helpful to have the support of family and friends who understand your condition.

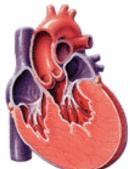
#### How the normal heart works

The normal healthy heart is a strong, muscular pump a little larger than a fist. It pumps blood continuously through the circulatory system. 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





Normal Heart Congestive Heart

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. 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. The heart pumps blood to the lungs and to all the body's tissues by a sequence of highly organized contractions of the four chambers. For the heart to function properly, the four chambers must beat in an organized way.

#### What is heart failure?

Heart failure is a chronic, progressive condition in which the heart muscle is unable to pump enough blood through to meet the body's needs for blood and oxygen. Basically, the heart can't keep up with its workload. At first the heart tries to make up for this by:

- Enlarging. When the heart chamber enlarges, it stretches more and can contract more strongly, so it pumps more blood.
- Developing more muscle mass. The increase in muscle mass occurs because the contracting cells of the heart get bigger. This lets the heart pump more strongly, at least initially.
- Pumping faster. This helps to increase the heart's output.

The body also tries to compensate in other ways:

- The blood vessels narrow to keep blood pressure up, trying to make up for the heart's loss of power.
- The body diverts blood away from less important tissues and organs to maintain flow to the most vital organs, the heart and brain.

These temporary measures mask the problem of heart failure, but they don't solve it. Heart failure continues and worsens until these substitute processes no longer work. Eventually the heart and body just can't keep up, and the person experiences the fatigue, breathing problems or other symptoms that usually prompt a trip to the doctor. The body's compensation mechanisms help explain why some people may not become aware of their condition until years after their heart begins its decline. (It's also a good reason to have a regular checkup with your doctor.) Heart failure can involve the heart's left side, right side or both sides. However, it usually affects the left side first.

## CHF, continued

### **Common Signs and Symptoms**

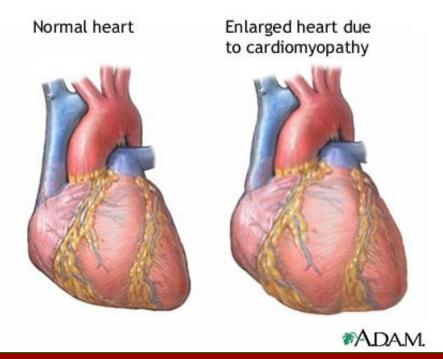
- Shortness of breath (also called dyspnea)
- Persistent coughing or wheezing
- Buildup of excess fluid in body tissues (edema)
- Tiredness, fatigue
- Lack of appetite, nausea
- Confusion, impaired thinking
- Increased heart rate

### **Treatment Options**

Heart failure caused by damage to the heart that has developed over time can't be cured. But it can be treated, quite often with strategies to improve symptoms. Successful treatment depends on your willingness to get involved in managing this condition, whether you're the patient or a caregiver. You and your loved ones are an active part of the healthcare team. Your treatment plan may include:

- Lifestyle changes
- Medications
- Surgery

Regardless of your treatment, you need to follow all of your doctor's recommendations and make the necessary changes in diet, exercise and lifestyle to give you the highest possible quality of life.



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