## DO THE MEDICATIONS HAVE SIDE EFFECTS?

ACE inhibitors and Beta-blockers sometimes have several side effects that are disruptive, they may actually prevent many patients from taking the optimal doses.

Possible side effects include but are not limited to a nagging, dry cough, low blood pressure, fluid retention, low pulse, general fatigue and lightheadedness.

## WHAT ARE THE DEVICE-BASED HF TREATMENT OPTIONS?

Implantable medical devices have proven to be effective in treating some patients with chronic heart failure and/or arrhythmias (fast heart beats). The options include the Implantable Cardioverter Defibrillator ("ICD") and Cardiac Resynchronization Therapy ("CRT"), or both.

An ICD detects a rhythm disturbance and corrects it by delivering a jolt of electricity to restore the normal heart rate.

CRT devices stimulate the heart in order to synchronize its pumping action.

Device therapies do not eliminate the need for medications and not all patients qualify for this mode of treatment.

Therapy for HF involving medical devices is relatively new compared to medications. However, device-based therapy approaches are assuming an increasingly important role in treating the growing number of patients with advanced heart failure.

## WHAT OTHER OPTIONS ARE THERE?

If you are already taking medications for HF, but still experience symptoms, and you are not a candidate for implantation of a CRT device, you may want to talk with your doctor about other newer investigational alternatives.

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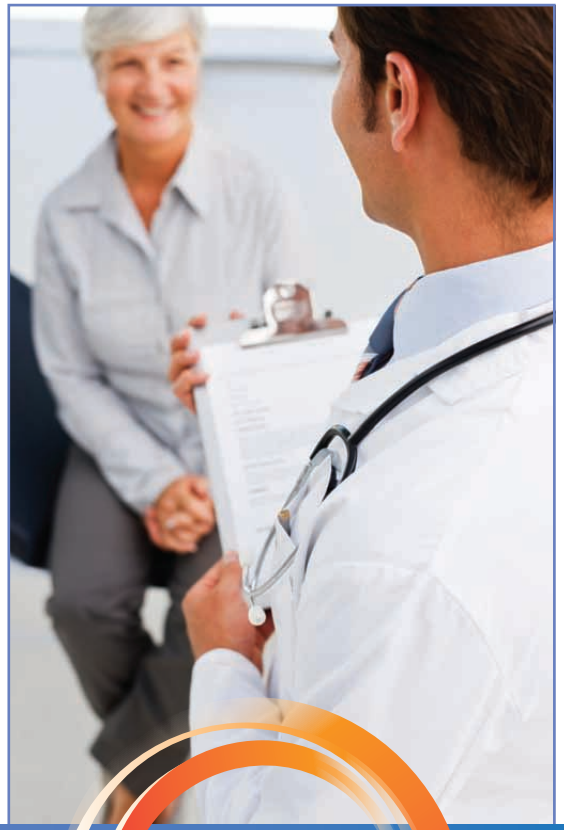
# HEART FAILURE

## ANSWERING **YOUR** QUESTIONS

Answering your questions about **Heart Failure** – What is **Heart Failure**, what are the causes, what are the symptoms, how is it diagnosed and what treatments are available.



## WHAT IS HEART FAILURE (HF)?

Already affecting approximately 23 million people worldwide, heart failure (HF) is diagnosed in 2 million new cases each year. In the United States it is the leading cause of hospitalization in people over 65 years of age.

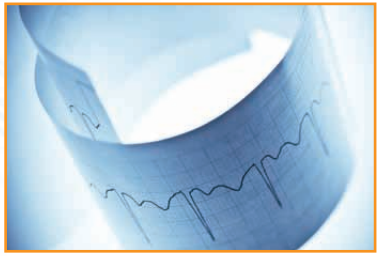
Heart Failure is a condition that may occur as a result of a combination of factors and events. Some of the most common causes of HF include heart attacks, coronary artery disease, high blood pressure and diabetes. Genetics may also play a role. Sometimes HF is due to factors not relating to the heart at all such as drug and alcohol abuse, thyroid disorders and infections.

HF is a term that can sound like your heart is no longer working but what it really means is that the heart is not supplying enough blood flow to support the needs of the rest of the body. The body adapts by holding on to fluid (causing weight gain, swelling in the lower legs and ankles, and shortness of breath from fluid in the lungs). This extra fluid actually makes the heart work harder and weakens the heart further, causing the body to think it needs more blood. This puts into motion a vicious cycle causing more damage.

## WHAT ARE THE SYMPTOMS OF HF?

HF symptoms vary from person to person and depend to some degree on how well the body has adapted to impaired heart function.

Common symptoms include shortness of breath with exertion, general fatigue, fluid retention that results in swelling in the abdomen, legs, ankles and feet, rapid or irregular heartbeat, persistent coughing or wheezing, weight gain, lack of appetite, nausea, and decreased alertness.



## HOW IS HF DIAGNOSED?

HF can be diagnosed with a careful examination of the person's medical history, a thorough physical examination and selected laboratory tests.

Strong indicators of HF in a medical history include events such as coronary artery disease, a prior heart attack, and conditions like diabetes and hypertension.

A physical examination involves an assessment of the amount of excess fluid being retained by the body. The most effective diagnostic test for heart muscle weakness is the echocardiogram, a sound wave test that measures both the physical condition and performance of the heart.

Diagnostic blood tests and patient questionnaires are also effective in assessing the exact nature and extent of HF and the impact HF has on the patient's health status.

## WHAT ARE THE TREATMENTS FOR HF?

The treatment for HF depends on the disease or condition that caused it in the first place. When diagnosed with HF, it is imperative that the correct treatment be initiated and closely monitored. In addition to medications and therapies, patients must make the necessary changes in their lifestyle and diet to ensure optimum results. Monitoring of sodium (salt) intake is important because too much salt can increase fluid retention.

## WHAT ARE THE DRUG-BASED TREATMENT OPTIONS FOR HF?

A variety of medications have been approved for the treatment of HF. These medications act to relieve the work load on the heart in various ways.

ACE inhibitors (drugs with name suffix – pril) are used to reduce high blood pressure and dilate blood vessels.

Beta-blockers (drugs with name suffix – lol) reduce the pressure on the heart by blocking certain hormones which stimulate the heart muscle and cause it to contract more forcefully.

In order to relieve the body of excess fluids, diuretics (water pills) may be prescribed to increase the frequency of urination and relieve edema. Other medications that are sometimes used to treat HF include a class called aldosterone antagonists, digoxin and blood thinners.