



Heart Failure

MU Patient Education Series

Definition:

Heart failure is a chronic condition in which the heart cannot quickly or efficiently pump enough blood to meet the needs of the body. The failed heart cannot supply the body's cells with enough nutrients and oxygen-filled blood. The lack of blood to the body's cells leads to fatigue and breathing difficulties. At the onset of this condition, the heart attempts to keep up with the body by growing larger and developing greater muscle mass to pump stronger and faster. With time, however, heart failure will become serious enough to prompt a visit to your healthcare provider. Heart failure is a serious and prevalent condition that unfortunately does not have a cure, but if lifestyle changes are made and recovery plans are followed, a heart failure patient can live a normal life.

CONDITIONS THAT MAY LEAD TO HEART FAILURE:

When under the stress of certain physical conditions (listed below) the heart muscle becomes overworked, causing it to deteriorate. As it weakens, the heart has trouble pumping and filling with blood normally. The conditions that have the potential to lead to heart failure include:

- The buildup of fatty acids and cholesterol in the arteries of the heart (coronary artery disease), causing less blood to reach the heart muscle. This will eventually block blood flow and could even cause a heart attack
- High blood pressure (hypertension)
- Chronic diseases such as diabetes, lupus, severe anemia and emphysema
- Past heart attacks
- Abnormal heart valves
- Heart muscle disease or inflammation (cardiomyopathy)
- Severe lung disease
- Ceasing of breathing during sleep (sleep apnea)
- Damaged heart structure found at birth (congenital heart defects)



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- Other possible conditions could be cancer treatments, thyroid disorders, excess vitamin E, HIV/AIDS, substance abuse

If these conditions are treated, heart failure may be prevented or improved.

WHO HAS A HIGH RISK OF DEVELOPING HEART FAILURE?

As the failing heart becomes weaker, fluid begins to build up in the body, and you may feel tired, out of breath and very weak. Below is an extended list of possible heart failure symptoms:

- Shortness of breath
- Relentless coughing or wheezing
- Buildup of excess fluid in body tissues—this can also cause weight gain, frequent urination and a cough that gets worse during the night
- Exhaustion
- Confusion
- Increased heart rate
- Swelling in various places such as legs, ankles, feet, and abdomen
- Chest pain
- Lack of appetite

Having just one of these symptoms is not a reason to panic. But, if you have more than one symptom, you should see your healthcare provider for further evaluation. It is also crucial to monitor and log your symptoms and alert your physician of any changes in your health. The more honest you are with your physician, the better health care you will be provided.

DIAGNOSIS/TESTS:

A diagnosis of heart failure is determined by a number of factors. Your doctor will review your medical history and your family medical history. When you arrive at the doctor's office, you will likely have to fill out some forms and answer many questions. Be sure to be honest. You will be weighed and your blood pressure will be taken. Your doctor will listen to your heart and lungs and look for swelling throughout your body. Be sure to bring a list of all your medications to your appointment. After a physical exam, your physician will perform a variety of diagnostic tests such as:

- Blood tests, including checking the level of the BNP hormone in your blood. The level of this hormone rises during heart failure.
- Chest X-rays
- Electrocardiogram (EKG) - A test that observes and records your heart's electrical activity
- Echocardiogram - A test that uses sound waves to observe a moving picture of your heart. This will show the shape and size of your heart and how well it is working



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- Doppler ultrasound - A test that uses sound waves to gauge the speed and direction of your blood flow
- Holter monitor- A test that logs your heart's electrical activity for 24-48 hours while you go through your normal, daily routine
- Nuclear heart scan - A test that displays your blood flow through your heart and the amount of blood reaching your heart
- Stress Test- Tests your heart while you are running on a treadmill and your heart is working hard and pumping fast
- Cardiac MRI - A test using radio waves, magnets and a computer screen to monitor your heart while it is moving
- Testing thyroid functions can also help diagnose heart failure
- Coronary catheterization (angiogram) – A dye is injected through a small flexible tube into your coronary arteries. This procedure allows the arteries supplying blood to your heart to be visible on x-ray

TREATMENT/CARE:

Heart failure is a condition that has no cure, but it does have many treatments. Though these treatments will likely help your symptoms, it is crucial to know that there will be little to no improvement without your full commitment and willingness to manage your condition. **You must follow your doctor's instructions and commit to essential life changes to make your life the best it can be.** Proper management of heart failure often requires lifestyle changes, medication, surgery and further ongoing care.

Lifestyle Changes:

- Quit smoking
- Receive flu and pneumonia vaccinations
- Get enough rest
- Follow a diet that is heart healthy
- Manage your stress
- Develop a support system
- Stay physically active
- Avoid/limit caffeine and alcohol
- Monitor your fluid intake

Medication:

If diagnosed with heart failure, you will likely be given a number of medications. Though it may seem excessive, each medication targets a specific symptom. **It is critical that you follow directions from your doctor and those on the medication label. Ask questions if you do not understand.**



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Surgery:

If your heart failure reaches a level that lifestyle changes and medicine cannot control it, surgery might become a necessity. Depending on your specific condition, your doctor may implant a device into your heart to control the failure or perform another type of cardiac surgery.

Ongoing Care:

As an individual with heart failure, monitoring your health is a necessity. **It is crucial that you record any changes in symptoms and keep your healthcare provider updated.** You should always be on the watch for signs that your heart failure is worsening. Make sure you talk with your physician about testing often. Staying on top of your health condition at all times will help keep your heart failure under control.

PREVENTION:

There are a number of steps you can take to avoid or delay heart failure. The earlier you start to reduce your risk factors and the more dedicated you are, the more successful you will be. For those with a healthy heart, it is important to follow a healthy diet, quit smoking, maintain a healthy weight, and stay physically active. There are even prevention methods for those with higher heart failure risks. For example, if you follow the steps for those with a healthy heart, treat your already present conditions, avoid drinking alcohol and see your physician for ongoing care, you will be on the right track toward prevention.

CALL YOUR HEALTHCARE PROVIDER IF:

Remember to be proactive. Heart failure is a condition that requires both you and your healthcare provider to pay close attention to your symptoms. You must always contact your physician if you notice any changes in your health or any of the following:

- Loss of appetite
- Chest pain
- Increased exhaustion
- Difficulty sleeping or exercising
- Constant dry, or productive hacking cough
- Difficulty breathing even at rest
- Sudden weight gain (as a heart failure patient, it is important to weigh yourself daily)
- Increased swelling of the abdomen and lower limbs such as the legs, feet or ankles

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