

## Effects and Causes of Congestive Heart Failure

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### DESCRIPTION

Congestive heart failure is a condition in which the heart is unable to pump required oxygen-rich blood to meet the body's need. Blood moves more slowly through the body and the heart, due to various possible causes, as well the heart pressure rises. As a result, the heart is unable to supply the body with enough nutrients and oxygen. The heart's chambers may respond by becoming stiffer and thicker or by stretching to hold more blood for the body to pump through. Although this keeps the blood moving, the heart's muscle walls may eventually become weaker and no longer be able to pump blood as effectively. As a possible response, the kidneys might make the body store salt and fluid. The body becomes congested when fluid builds up in the arms, legs, ankles, feet, lungs, or other organs hence this condition is referred to as "congestive heart failure". Blood and other fluids can back up eventually in the lungs, liver, abdomen, and lower body. The heart gradually becomes too weak or stiff to properly fill and pump blood due to certain heart conditions like coronary artery disease and high blood pressure. Coronary artery disease, heart attack, cardiomyopathy, heart valve disease, irregular heartbeats, high blood pressure, and other conditions that damage the heart muscle can lead to heart failure.

One or both sides of the heart can be affected by heart failure. In right-sided heart failure the heart is too weak to pump enough blood to the lungs for oxygenation. The heart is unable to pump enough oxygen-rich blood to the body in left-sided heart failure. This occurs when the left side of the heart becomes either too weak to pump enough blood or too stiff or too thick to relax and fill with enough blood. Heart failure on the left side is more common than heart failure on the right. Proper treatment can improve the signs and symptoms of heart failure and some people may live longer with the right treatment. The quality of life can be improved by making changes to the lifestyle, such as exercising, losing weight, consuming less salt (sodium) in the diet, and managing stress. Heart failure, on the other hand, can be fatal. Heart failure patients may experience severe symptoms and some may require heart transplantation or a Ventricular Assist Device (VAD). Preventing and controlling conditions that can lead to heart failure, such as coronary artery disease, high

blood pressure, diabetes, and obesity, is one way to avoid developing it.

Heart failure can occur over time (chronic) or suddenly (acute). Some of the signs and symptoms of heart failure include:

- Congested lungs
- Fluid and water retention and very rapid weight gain from fluid build-up
- Shortness of breath with activity or when lying down
- Fatigue and weakness
- Swelling in the legs, ankles, feet and belly area (abdomen)
- Rapid or irregular heartbeat
- Reduced ability to exercise
- Persistent cough or wheezing with white or pink blood-tinged mucus
- Nausea and lack of appetite
- Chest pain if heart failure is caused by a heart attack

### CONCLUSION

Allergic reactions, illnesses which affect the whole body, blood clots in the lungs, severe infections, taking certain medications, and viruses that attack the heart muscle are also causes of sudden (acute) heart failure. After the heart has been damaged or weakened by other conditions, heart failure frequently occurs. However, excessive heart stiffness can also result in heart failure. The ventricles, the heart's main pumping chambers, may become stiff and fail to fill properly between beats in heart failure. The heart muscle may become weak and damaged in some people. It's possible that the ventricles will stretch to the point where the heart won't be able to pump enough blood through the body. The typical demands placed on the heart to pump blood to the other parts of the body become too much for it to handle over time. By measuring the amount of blood pumped out with each beat (ejection fraction), the doctor can assess the heart's efficiency. Classification of heart failure and treatment are aided by the ejection fraction. The ejection fraction, which indicates that more than half of the blood that fills the ventricle is pumped out with each beat in a healthy heart, must be at least 50%. However, even with a normal ejection fraction, heart failure can occur. This occurs when high blood pressure or other conditions cause the heart muscle to become stiff.

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