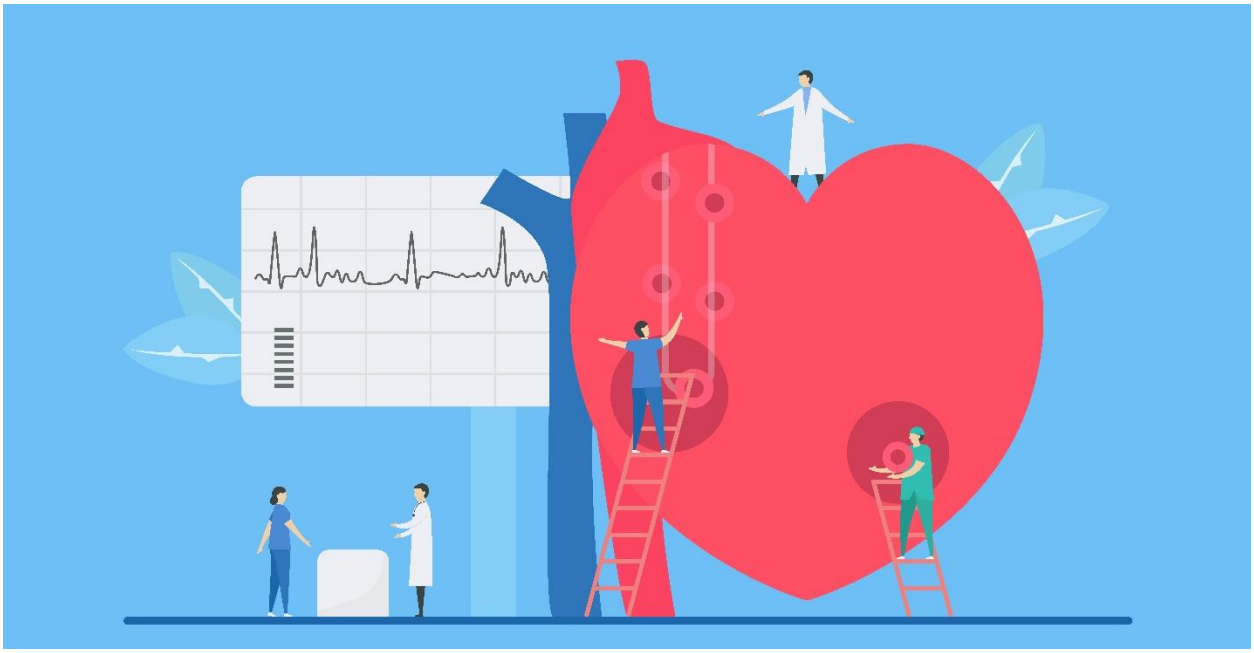
“What is heart failure?”



Congestive Heart failure, commonly called heart failure, occurs when the heart cannot efficiently pump out blood. The heart’s job is to maintain consistent blood circulation so that tissues and organs, from the brain to the feet, can obtain enough nutrients and energy to function. When the heart cannot pump out blood as well as it should, it can lead to a myriad of symptoms and other conditions such as fatigue and shortness of breath as the body’s tissue cannot receive the nutrition it needs.[1-3]

There are several causes of heart failure. One is long-standing hypertension, which can ultimately lead to heart failure. Most patients with heart failure have a history of hypertension.[4] Hypertension causes heart failure due to the structural and functional changes the constant high blood pressure does to the heart. It causes the heart to be stiff or weak due to overwork, making it unable to pump out blood as efficiently as it should.[2,4]

Coronary artery disease is also known to be a cause of heart failure. In fact, it is the most common cause of heart failure. Coronary arteries are the blood vessels that supply the heart with the oxygen and nutrients it needs to pump and contract 24/7. When coronary arteries become blocked due to the buildup of fatty deposits or due to other reasons, it can cause the blockage of blood flow to the muscle cells of the heart, causing the heart to weaken as it does not get the oxygen and nutrients it needs. This leads to heart failure.[1,5]

Faulty heart valves or congenital heart defects can also cause heart failure. When there are structural damages to the chambers and valves of the heart, other parts try to compensate to maintain its function, which leads to overwork and eventually leads to heart failure.[1,6]

Usually, patients can feel when there is something wrong with their heart, and most of these patients have pre-existing conditions that are known to cause heart failure. Look out for signs and symptoms of heart failure, which include[1]:

- Shortness of breath on exertion or when lying down
- Fatigue and weakness
- Swelling of lower extremities
- Rapid or irregular heartbeat
- Persistent cough or wheezing, with white or pink blood-tinged mucus
- Swelling of the belly (ascites)
- Very rapid weight gain
- Nausea and lack of appetite

The failure of the heart to pump out sufficient amounts of oxygenated blood causes blood to back up in its chambers. Blood can pool up in certain organs, which causes pathologic changes. Blood can also pool up in the lungs as a result of the inability of the left ventricle to receive the oxygenated blood from it, causing fluid to accumulate in the lungs and shortness of breath. It can also back up in the venous circulation. An increase in the central venous pressure can cause accumulation of blood in the portal circulation or the circulation in the liver, which can cause liver damage and ascites.[1-3] Heart failure also reduces blood flowing through the kidneys, which is a major organ that filters the blood. This can then lead to kidney damage and eventual kidney failure when not treated.[1]

It is important to see your doctor or seek emergency help if the patient has any of the following[1]:

- Chest pain
- Fainting or severe weakness
- Rapid or irregular heartbeat associated with chest pain, shortness of breath, or fainting
- Sudden, severe shortness of breath and coughing up white or pink, foamy mucus

To prevent heart failure, patients should try and manage risk factors. Lifestyle changes can reduce the risk of developing diseases that lead to heart failure. Lifestyle modifications such as cessation of smoking, staying physically active, and maintaining a healthy weight can reduce the risk of developing the disease. Lastly, the strict control of conditions such as high blood pressure and diabetes should be followed as this can decrease the risk of developing conditions that can lead to heart failure. [1]

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