

HEART FAILURE

- Use pillows to prop head for easy breathing;
- Get a good night's sleep.

Patient Education and Counselling

Proper knowledge and counselling of the patient provides the basis for compliance with the treatment and improved long-term healthy outcome.

Special Instructions

- Take all medications as directed by your doctor;
- Avoid taking extra salt and follow diet plan;
- Weigh yourself on a weekly basis and keep a record;
- See your doctor on follow-up day;
- Take proper rest;
- Stop smoking.

Visit your Doctor if you have

- Increasing shortness of breath;
- Persistent dry cough with or without pinkish frothy sputum;
- Increase swelling on ankles;
- Sudden increase in your weight;
- Feeling of fullness or abdominal bloating;
- Rapid heart beat (palpitation);
- Extreme fatigue.

For further information, please contact:

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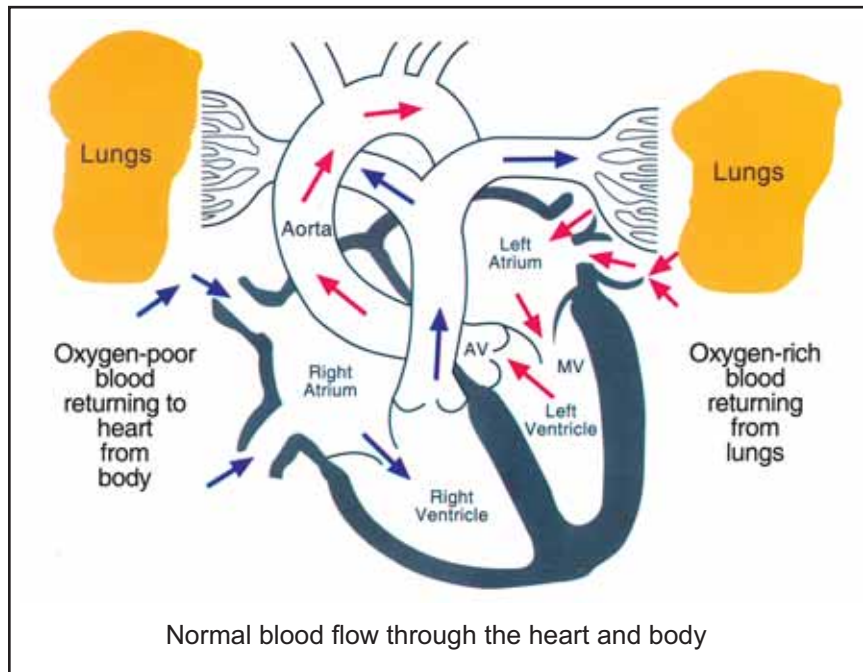
Heart and Its Functions

Heart is a muscular organ located just to the left of the breastbone and within the chest cavity. It has four chambers:

- **Atria** are the top two chambers that receive blood from the body or lungs.
- **Ventricles** are the bottom two chambers. The right ventricle pumps blood to the lungs to pick up oxygen and then the left ventricle pumps blood to the rest of the body and is the strongest chamber.

Valves help direct blood flow. As they open and close, the valves produce sounds that can be heard with a stethoscope. There are four valves in the heart.

Every cell in your body needs oxygen to live and function. The role of the heart is to deliver the oxygen-rich blood to every cell in the body. The arteries are the pathways through which blood is delivered. The largest artery is the aorta, which branches off the heart and then divides into many smaller arteries. The veins carry the deoxygenated blood back to the lungs to pick up more oxygen, and then back to the heart once again. Blood flows continuously through the circulatory system, and the heart muscle is the pump that makes it all possible.



Vasodilators (ACE inhibitor and Angiotensin Receptor Blockers)

These medications relax your blood vessels and lower the blood pressure so that your heart does not need to work as hard.

Caution: Lie down straight on the bed for five minutes after taking these medicines, to avoid dizziness. These drugs have been proven to increase survival in the heart failure, therefore, you must continue to take these medicines regularly. Contact your doctor for symptoms of dizziness or severe cough.

Diet

You can help your heart work better by reducing salt intake. Generally you do not need to completely eliminate the use of salt in your food but by taking a low-salt diet, you can significantly reduce fluid retention or edema.

You may also need to limit intake of liquids including water. Ask your doctor for any special instructions.

Controlled Physical Activity

Controlled and monitored physical training certainly improves the ability of heart failure patients to lead a more active and productive life. A well-structured cardiac rehabilitation programme can help you in this regard.

Suggestion: Daily schedule of a patient-recovering from a heart failure:

- Restrict your fluid intake to 1.5-2 litres per day. restrict salt to 2g per day.
- Shorten your workday;
- Rest after meals to reduce the amount of work your heart must do while digesting food;
- Increase rest during times of emotional stress/illness;
- Nap during the day and do not nap too close to bedtime;
- Avoid eating just before going to bed;
- Ask your physician about the best time to take diuretics, so you will not need to go to the bathroom in the middle of the night;



Signs and Symptoms of Heart Failure

The warning signs of heart failure are:

Shortness of Breath

This is the result of collection of fluid in the lungs and is one of the most common and most overlooked symptoms. It can be felt while climbing stairs (where as previously you climbed them with ease) or you may awaken from sleep because of shortness of breath. There can be other reasons for shortness of breath especially lung diseases like asthma, but heart failure is one of the most significant causes that necessitates immediate attention.



Persistent Cough or Wheeze

Cough is a very common symptom, which we all experience off and on. Very often cough can be caused by mild respiratory infection, but if it persists and increases while lying down or is associated with pink frothy sputum, it may be the result of heart failure.



Swelling (Edema)

Swelling of the feet and ankles can be caused by a failing heart, resulting in poor circulation and excess fluid, which builds up in the body tissues.

You can check for swelling by pressing on your ankle with your thumb and, if you leave a thumbprint it means that you have swelling. There are many other causes of edema and presence of edema does not always mean that you have heart failure, but if you have noticed new swelling, it is important to consult a doctor immediately.



Weight Gain

Excess fluid in the body can accumulate in the lower legs and abdomen (stomach). It will result in weight gain. It is easy to identify the swelling in lower legs but it is very difficult to notice the fluid in the abdomen. You can detect this problem by weighing yourself daily and keeping a record of it. Note that weight gain alone is often not due to heart failure, but if associated with swelling, and/or shortness of breath, there is a high possibility that you could have heart failure.



Loss of Appetite

Although loss of appetite has many reasons, severe heart failure could be one. It may result from swelling of the liver and stomach and cause feeling of being full or sick with loss appetite.



Extreme Fatigue

Fatigue occurs when your body needs more blood than your heart can provide. However, fatigue is not a specific sign of heart failure, and can be caused by a host of other reasons.

Palpitation

Many patients with heart failure may feel increased heart beating while resting or during minimal activity. The feeling may be as if the heart is racing or throbbing or is beating irregularly.

Treatment of Heart Failure

Heart failure is a serious condition, and there is usually no cure for it. But in most cases, heart failure can be controlled by taking medications and making healthy changes in lifestyle, such as eating a healthy diet and doing moderate exercise. Treatment of heart failure is directed towards bringing the demand and supply of blood in the body into proper balance.

There are three goals of treating heart failure:

- To reduce the overall workload of the heart;
- To improve the pumping action of the heart;
- To prevent sodium and water retention in the body.

We can achieve the above-mentioned goals through:

- Medications;
- Diet;
- Controlled physical activities;
- Education and counselling.

Medications

Digoxin (Lanoxin)

This is one of the oldest medicines used in heart failure. It strengthens the heart muscles and enables the blood and oxygen to be pumped more forcefully and effectively to the body.

Caution: It is very important to take the exact amount of medication even if you are feeling better.

Inform your doctor if you have:

- Loss of appetite;
- Nausea and vomiting;
- A feeling of a fast or irregular heart beat;
- Change in your vision.



Diuretics

These medications are often called "water pills". They assist your body in removing water and salt, which help to decrease the workload of your heart, lower the blood pressure and maintain weight.

Potassium (K⁺)

This is a mineral needed by heart muscles to contract and relax properly. Since some diuretics cause loss of K⁺, you may need to take food rich in potassium like citrus fruit and bananas. You may need to take potassium supplements as well. Check with your doctor if you need to take any special diet for this purpose. Call your doctor if you feel any weakness or muscle cramps.

Betablocker

These medication low blood pressure. they increase survival rate in Heart Fail.

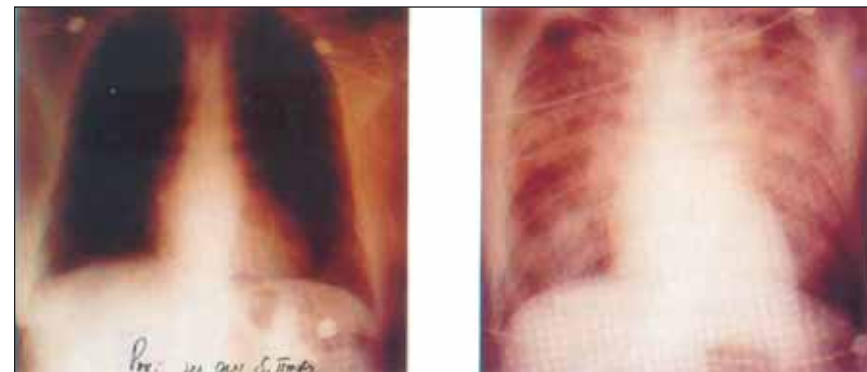
What is Heart Failure?

Heart failure is the inability of heart muscles to adequately pump blood in the body. There may be many causes for such weakness of the heart muscles, e.g. high blood pressure, coronary artery disease, heart attack, diabetes, congenital heart disease or severe lung disease. As a result, its ability to pump blood is reduced and blood begins to back up in the chambers of the heart, which in return backs up in the lungs and body tissues. This results in fluid accumulating in the lungs (shortness of breath) and tissues (swelling). In addition, the vital organs receive less blood. The kidney reacts by retaining water and salt. Extra salt in the body causes further fluid retention.

Diagnosis of Heart Failure?

The diagnosis of heart failure can often be made on the basis of medical history and physical examination. Laboratory investigations and cardiac tests like ECG and Echocardiography not only help in the confirmation of diagnosis but also assist the doctors in assessing the severity of the disease as well as in identifying the cause of the heart failure.

Heart failure may develop slowly over the period of several days or weeks (chronic) or suddenly (acute). Acute hear failure, which is also called pulmonary edema, starts abruptly and can progress rapidly. It usually requires emergency treatment at a hospital. Chronic heart failure may or may not require hospital admission depending on how severe it is.



Chest X-ray with normal heart shadow

Chest X-ray with enlarged heart shadow and fluids in lungs