JOHN MUIR HEALTH

HEART FAILURE (HF) AND YOUR TREATMENT PLAN

INTRODUCTION

It is possible to lead a normal active life, even if you have heart failure. Taking control of heart failure is key to your success. You can take control by following the treatment plan prescribed for you. Your care is not just the responsibility of your doctor or nurse. In fact, the success of your treatment plan depends on your active involvement.

Following your treatment plan can make you feel better, prevent your heart failure from getting worse and help you live longer.

Right now, it may seem hard to follow your treatment plan. Many people feel this way at first. However, taking all of your medicines and making the suggested changes in your life can give you the edge that makes you feel better. Your doctor or nurse can help you overcome barriers that may prevent you from following your treatment plan. That way you can deal with your symptoms before they

become a problem, so you can stay out of the hospital.

You may have trouble following your treatment plan during times of travel, increased stress, holidays or illness. Many people do. If you have a setback or relapse in following your treatment plan, you may feel like you have failed. But your doctor or nurse does not expect you to be perfect. It is never too late to start over and get back on the plan. You will be happy you did.

FOLLOWING YOUR TREATMENT PLAN

- Take your medicines exactly as directed. Carry a list of medications with you wherever you go. Plan for prescription refills.
- Weigh yourself every day to see if you are retaining fluid.
- Follow a low-sodium diet. Allow extra time for food shopping, so that you can read labels.
- Monitor your symptoms every day.
- Ask your doctor about drinking alcohol.
- Get vaccinations such as flu shots routinely.
- Control your body weight if you are overweight or have diabetes.
- Schedule time for regular physical activity. Stay active. For example, walk or ride a
 stationary bicycle. Your doctor can provide a safe and effective exercise plan based on your
 degree of heart failure and how well you do on tests that check the strength and function of
 your heart. DO NOT exercise on days that your weight has gone up from fluid retention or
 you are not feeling well.
- Quit smoking cigarettes and cigars if you smoke.
- Learn when to consult your doctor or nurse.
- Make following your treatment plan a permanent part of your life.
- Get enough rest, including after exercise, eating or other activities. This allows your heart to rest as well. Keep your feet elevated to decrease swelling.
- Actively participate in follow-up appointments with your doctor.

EVALUATING YOUR HEART

A physical examination may reveal either an irregular or a rapid heartbeat. There may be distended neck veins, enlarged liver, swelling of the limbs (peripheral edema) and signs of fluid around the lungs (pleural effusion). Listening to the chest with a stethoscope may reveal lung crackles or abnormal heart sounds. Blood pressure may be normal, high or low.

If you have heart failure, your doctor will monitor you closely. This means having follow up appointments at least every 3 to 6 months, figuring out any underlying cause and treating it and periodic testing of your heart function.

An enlargement of the heart or decreased heart functioning may be seen on several tests, including the following

• Chest X-rays show your heart's size and shape and can show if there is fluid or around your lungs.

ECHOCARDIOGRAMS AND EJECTION FRACTION

An echocardiogram is the test most commonly used to evaluate heart function. The test will tell your doctor and you about your heart and heart valve function. It is important to know your heart function, because it is one way to determine the severity of your heart failure. It also helps guide your care.

Heart function is commonly evaluated using a number called ejection fraction (EF) . Some people mistakenly believe their ejection fraction indicates the amount of heart muscle that is still working. The ejection fraction

refers to the percentage of blood that is pumped out of the heart each time it beats.

A heart does not pump all of the available blood out each time it beats. A normal heart pumps out or ejects only about 50-65% of the blood inside. If the heart is damaged, the ejection fraction frequently falls below 40%. This is called systolic heart failure.

However, you can have a normal ejection fraction and still have heart failure. This may be related to a condition called diastolic heart failure.

Heart failure may also alter the following lab test results:

- CBC
- Blood Chemistry
- Serum Sodium
- BUN
- Creatine
- Liver Function Tests
- Uric Acid
- Atrial natriuretic peptide (ANP) and brain natriuretic peptide (BNP). BNP is a hormone made when the heart is overworked.
- Urinalysis
- Urinary sodium
- Creatinine Clearance

Heart failure is a serious disorder. Many forms of heart failure can be controlled with medication, lifestyle change and correction of any underlying disorder. Heart failure is usually a chronic illness It may worsen with infection or other physical stressors.

Sometimes, hospitalization is required for acute HF. Hospitalized patients may receive oxygen and intravenous medications that can dilate blood vessels and promote the loss of fluid. Other medicines may be given that help improve the heart's ability to pump blood. Unstable patients receiving several medications may need also advanced monitoring with special catheters.

For a select number of patients, heart failure symptoms can be improved with a special type of pacemaker. It paces both the right and left sides of heart. This is referred to as biventricular pacing or cardiac resynchronization therapy (CRT).

CRT is recommended for patients who have a regular heart pattern on their EKG, but a widened pattern, and a weakened heart (EF less than or equal to 35%) with moderate to severe heart failure despite optimal medical therapy. Improved quality of life, decreased hospitalizations and improved heart function has been demonstrated in patients who receive CRT.

Other patients can benefit from Implantable Cardioverter Defibrillaors (ICDs). With a weakened heart (EF less than or equal to 35%) and mild to moderate heart failure you are at risk to develop dangerous heart beat patterns that can result in cardiac arrest. An ICD is a small electronic devise that monitors your heart beat. It can send impulses to slow your heart down or briefly shock your heart back to a normal rhythm.

Severe cases of HF require more drastic measures. For example, excess fluid can be removed through dialysis. Circulatory assistance can be provided by implanted devices such as the intra-aortic balloon pump (IABP) and the left ventricular assist device (LVAD). These devices can be life saving, but they are not permanent solutions. Patients who become dependent on circulatory support will need a heart transplant.