Learn to Live with Heart Failure
Acknowledgments

This manual was developed at the Jesse Brown VA Medical Center (JBVAMC) to help veterans diagnosed with Congestive Heart Failure in managing their disease.

This manual was written and designed by:
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With generous input from the veterans, cardiology doctors, fellows, nurses, dietitians, and pharmacists at the JBVAMC.

Some of the illustrations by Allen Wayne, Ltd. were taken from the “Tobacco Tactics: Tough Enough to Quit” manual written by Dr. Sonia Duffy, PhD, RN at VA Ann Arbor Healthcare System.

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at Jesse Brown VA Medical Center
Welcome

Dear Respected Veterans,

We appreciate your service to our country, and now it is our turn. The Heart Failure Disease Management Program (HFDMP) at Jesse Brown VA is our initiative to honor and serve you. The program is an attempt at helping to prevent any future hospital admissions and improving your quality of life. But we will need your full commitment to help us help you. Our HFDMP will guide you and help you to manage your disease. The goal is to educate you about your heart failure disease, risk factors that can be modified, signs and symptom recognition, fears, expectations, prognosis, medications, diet, activity, sexual health, mental health, and resources within the VA system and in the community.

The program will be initiated in the hospital during your heart failure admission followed by heart failure clinic appointment within 7 days of hospital discharge. With judicious self control, timely tests, medication management, heart failure education, lifestyle changes and clinic follow-ups we hope to get you back in control of your life. The heart failure team at JBVAMC welcomes you to the HFDMP program.
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Get to Know Your Heart Failure Team

Primary Care Doctor_________________________________

Phone #____________________________________________

Cardiology Nurse Practitioner____Char Brar____

Phone #__(312)-569-6056 / (312)-569-7722 / 312-884-1CHF___

Cardiologist________________________________________

Heart Failure Nurse in Specialty Clinics:   (312)-569-6056

Clinical Dietitian_____________________________________

Phone #____________________________________________

Psychologist________________________________________

Phone #____________________________________________

Pharmacist__________________________________________

Phone #____________________________________________

Please call your pharmacist, doctor or nurse practitioner for 
Medication refill problems.

Go to the emergency room immediately if you have chest discomfort.

Please keep all your appointments. IT IS IMPORTANT!!!!!
What is Heart Failure?

Heart failure is a serious chronic disease. It can be caused by coronary artery disease (narrowing of arteries that feed your heart), untreated high blood pressure, alcohol use, cocaine use, diabetes, family history, and/or some viruses. In heart failure, the heart’s pumping power becomes weaker than normal. So heart cannot pump enough blood to meet the needs of your body.

Since heart cannot pump enough blood to your body, your body cannot do as much as it used to before heart failure. You may start to experience symptoms of heart failure such as fatigue, difficulty breathing during activities of daily life, increased dry cough, wheezing, swelling in your feet, ankles, legs, and abdomen, and weight gain of more than 2 pounds in a day. Most often you cannot reverse heart failure, but you can control it from getting worse.

Your medications are very important in heart failure management. Certain medications such as diuretics (water pills) can help to quickly relieve symptoms of heart failure, while other important medications improve quality of your life overtime and help you live longer. You must take these medicines faithfully for rest of your life.

Lifestyle changes, such as daily exercise, low salt diet, stress management, treating depression, and losing excessive weight are also very important in heart failure management.
The Challenges of Chronic Disease

While you can certainly get acutely ill with heart failure and need emergency room care, most often your doctors and nurses can take care of you in the clinic or over the telephone. The bigger problem is learning to live with heart failure. And You Can Do It with the help of your medical provider.

Heart failure is forever. Some days are better and some days are worse. The main goal of the treatment is to prevent your heart failure from getting worse. The treatments for heart failure are improving all the time.

Treatment can range from simple changes in diet, quit smoking and alcohol use, taking medications regularly without fail, daily exercise, weight management, or more high-tech involving implantable devices to improve heart function or sometimes in extreme cases getting heart transplant.

Everyone’s treatment is different depending on their heart disease. Part of your treatment will include controlling blood pressure, weight control, exercise, quitting alcohol, drugs such as cocaine, as well as smoking.

All heart failure patients must take their medications regularly, even when they are feeling good. Heart failure medicines are to be taken rest of your life. The doses of the medications may change depending on your symptoms, or other illnesses such as flu, or surgeries. It is very important to take flu shots and pneumonia shots as recommended by your physician. Keep All Your Clinic Appointments!
Remodeling in heart failure is bad:

In heart failure heart may change its shape from normal **Pear shape** to **Apple shape**, also called “baggy heart”. Baggy heart becomes weak as a pump.

**There are 4 stages of Heart failure, and each stage is treated differently:**

Stage A: May have risk factors such as high blood pressure, smoking, weight

Stage B: Heart muscle damage from heart attack, alcohol, etc., but no symptoms

Stage C: Have heart failure symptoms such as: Shortness of breath, swelling in legs and ankles, loss of appetite, use more pillows to sleep

Stage D: Unable to walk more than few steps, swelling in body, very short of breath, advanced stage of heart failure.
**Common tests to diagnose heart failure:**

**Echocardiogram (ECHO)** can help with finding the shape of your heart. ECHO is a moving picture of the heart. It can tell us how your heart muscle and heart valves function. It can also show the size of the chambers in your heart and the blood flow across the valves. ECHO is the **Gold Standard** for diagnosing heart failure, so your doctor may ask you to get an ECHO of your heart.

**MUGA Scan** In individuals with larger chests ECHO may not get nice pictures. Then, MUGA scan becomes useful.

The ECHO and MUGA scan can give an estimate of the Ejection Fraction of the heart. Ejection fraction is the amount of blood that heart pumps out with each heartbeat or contraction.

A normal **ejection fraction** is about 55-65%.

- Mildly reduced        45-55%
- Moderately reduced    35-45%
- Severely reduced      less than 35%

**Nuclear Stress Test:** A nuclear stress test can help in looking for coronary artery disease or another heart problem, or if an exercise stress test alone wasn't enough to pinpoint the cause of symptoms like chest pain or shortness of breath. A nuclear stress test may also be recommended in guiding your treatment if you've already been diagnosed with a heart condition.

**Cardiac Catheterization:** A coronary angiogram uses X-ray imaging to see the inside the blood vessels of your heart. It can help in looking at your heart to see if heart failure is result of blockages that can be fixed to improve your hearts ability as a pump. Heart catheter procedures can both diagnose and treat heart and blood vessel conditions.
Symptoms of Heart failure:

- Fatigue
- Increased swelling in your: feet, ankles, legs, and/or abdomen
- Increased dry cough, worse with lying down
- Shortness of breath during daily activity or when lying flat.
- Need for more pillows to sleep comfortably at night
- Need to sleep in chair or recliner—sitting up
- Waking up more frequently at night to urinate
- Decreased urination during the day
- Loss of appetite
- Weight gain of more than 2 pounds in 24 hours or 3-5 pounds in 48 hours

Ask your provider about detailed management plan for your heart failure symptoms.
Management of Heart failure at home may include:

- Take your **Medications** faithfully as advised by your provider

- Limit **Fluid** intake to less than 2 liter per day. Use measuring cup or jug

- Weigh yourself daily & call if you gain **more than 2 pounds** in a day

- Quit **Smoking**

- Avoid **alcohol use**

- Maintain **2 gram Sodium** diet. Get rid of salt shaker.

- Control your **Blood Pressure**

- **Eat healthy**, and sensibly. Avoid **Weight gain**

- Maintain emotional stability: seek help for **depression** and/ or **stress** relief.
Role of Sodium in Heart Failure

Eliminate the salt shaker from the table!

Sodium is a mineral found in table salt and many foods. Sodium is important to keep normal fluids balanced in the body. The American Heart Association (AHA) recommends that you should not consume any more than 2,000mg (2g) of sodium in one day. Some foods may be high in sodium and not taste salty, for example: Condiments, Tomato sauce, Ketch-up, bacon, canned foods, and soups.

About 75 percent of sodium consumed by Americans comes from the sodium added to processed foods by manufacturers. (http://www.americanheart.org/presenter.jhtml?identifier=4708).

Eating too much sodium causes the body to retain too much water. Consider sodium as a sponge. Sponge holds water. Holding too much water can lead to fluid build-up in the heart. A low-sodium diet can help control high blood pressure, swelling due to water build-up (edema), and/or decrease shortness of breath in people with heart failure. Less water in the body means, your heart will have to work less, and you will feel better. Keep a record of the amount of sodium you consume every day. Write down the amount in mg after each meal or snack.

<table>
<thead>
<tr>
<th>Sodium equivalents</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4 teaspoon salt</td>
<td>600 mg sodium</td>
</tr>
<tr>
<td>1/2 teaspoon salt</td>
<td>1,200 mg sodium</td>
</tr>
<tr>
<td>3/4 teaspoon salt</td>
<td>1,800 mg sodium</td>
</tr>
<tr>
<td>1 teaspoon salt</td>
<td>2,300 mg sodium</td>
</tr>
<tr>
<td>1 teaspoon baking soda</td>
<td>1,000 mg sodium</td>
</tr>
</tbody>
</table>
Tips for Low Salt Diet: Remove the Salt shaker from table. Choose fresh foods instead of canned or preserved foods. Read Labels carefully and choose foods that have 140mg or less sodium per serving.

Give your taste buds time to adjust to low salt foods for a few weeks.
A Lot of Sodium (more than 300 mg per serving)

Pizza, chips, pretzels, Chinese foods, hot dogs, cold meats, sauces, ketchup, pickles, bacon, bacon, canned soups and foods, TV dinners, Table Salt, cheeses
Low Sodium Foods (Less than 100 mg per serving)

Salmon, baked potatoes and vegetables without added salt, salt free nuts, lemon, herbs
<table>
<thead>
<tr>
<th>Date/Day</th>
<th>Meals</th>
<th>Drinks</th>
<th>Snacks</th>
<th>Daily Weight</th>
</tr>
</thead>
</table>
| 7/20 Wed | **Breakfast:** oatmeal cereal, low salt sausage  
**Lunch:** 1 Can beans, baked chicken, baked potato  
**Dinner:** steamed broccoli, baked fish, jello, bread | 1 glass orange juice  
2 x 8 ounce glass of water  
8 ounce soda | 1 apple  
8 oz unsalted baked potato chips | 165#          |
<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>weight</th>
<th>BP</th>
<th>HR</th>
<th>Lasix dose</th>
<th>Diet</th>
<th>Symptoms with activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>9/17/2010</td>
<td>11am</td>
<td>236.2#</td>
<td>109/61</td>
<td>88 bpm</td>
<td>20mg</td>
<td>toast, 2 eggs, 1-1/2 glass water, 1 coffee</td>
<td>SOB w/ walking</td>
</tr>
</tbody>
</table>
**Note:** For accurate weight weigh yourself everyday on the same scale at same time, same clothes, with empty bladder and empty stomach.

**Fluid Measurement**

1 cup = 8 ounce = 240 ml fluid  
½ cup = 4 ounce= 120 ml fluid  
¼ cup = 2 ounce= 60 ml fluid  
2 tablespoon=1 ounce = 30 ml fluid

1 Popsicle = 80 ml fluid  
1/2 cup Ice cream or sherbet = 120 ml fluid  
1/2 cup gelatin = 120 ml fluid
other beverages
Potassium: It is essential for proper body function and to maintain electrical stability of your heart and nervous system. Diuretics may cause you to lose too much potassium. Your potassium levels must stay within normal limits. Ask your doctor if you need more potassium or cut potassium intake. Some high potassium food are:

Bananas, prunes, berries, rutabaga, raisins, sweet potato, rhubarb, peaches, oranges, pumpkins, turnip, spinach, avocado, kiwi, brussels sprouts, asparagus, lentils, peanut butter, broccoli, tomatoes, apricots, tea
DEHYDRATION

Dehydration can be caused by losing too much fluid, not drinking enough water/fluids, taking “water pills” (diuretics), or all of the above. Vomiting and diarrhea are common causes, which can worsen the symptoms of dehydration when taking water pills (diuretics) or blood pressure medications. When severe, dehydration is a life-threatening emergency.

Causes of dehydration: Loss of too much fluids due to

- Vomiting or diarrhea
- Excessive urine output, as in uncontrolled diabetes or too much water pill use
- Excessive sweating (from exercise, fever, or extreme heat)
- Fever
- Not drinking enough fluids due to
  - Inability to eat or drink due to nausea, vomiting or diarrhea
  - Loss appetite due to illness
  - Sore throat or mouth sores

Symptoms of dehydration:

- Dry or sticky mouth
- Low or no urine output with dark yellow, concentrated urine
- Dry eyes with lack of tears
- Sunken eyes
- Dizziness or lightheadedness with or without changes in position
- Lethargy and excessive fatigue
- Low blood pressure and fast heart rate

Treatment:

Drinking extra fluids is usually enough for treating mild dehydration. You may be instructed to hold or decrease your water pills and/or blood pressure medications. If moderate to severely dehydrated, you may need to come into the clinic or hospital temporarily for IV fluids.
Daily Exercise

*Ask your doctor about how active you can be.

1. Plan simple exercises to keep your heart and muscles in shape. For example: walking, slow bike ride, relaxed swimming, stretching

2. Ask your doctor how you can stay sexually active. There is usually no reason why you cannot continue sexual activity

3. Check with your doctor about best physical activities for you.

**Benefits of exercise:**

It strengthens your heart and body and tones your muscles.

Improves blood flow through your body and reduces stress and raise your spirit.

**Stop Exercising and rest if you:**

- Feel tired and
- Have chest pain

Get short of breath or short winded- *Call your health provider if these symptoms do not go away.

*Words of Caution: Do not overdo any activity-stop when you feel tired or lightheaded.

**Set realistic goals.**

Take breaks between activities. Do not exercise or participate in outdoor activities when it is too hot, humid, or too cold outside. Consider indoor activities during poor weather, for example walking in a shopping mall.
Energy Conservation Tips for patients in heart failure or poor activity tolerance:

- Space your hard and easy tasks activities throughout the day. Allow enough time to complete your tasks- do not rush it.
- Work in a well ventilated room. Work at a slower pace during summer months and rainy season.
- Avoid carrying heavy items. Use carts or tables with wheels to move items. When shopping, ask grocery bags to be packed light. This way they will be easy to carry.
Other Life style changes:

1. **Stop smoking**: Don’t wait. Quit Now!
   - Smoking may increase your heart rate and blood pressure
   - Make it harder to breathe
   - Narrow your blood vessels, and increase your risk of developing other heart problems

2. **Avoid alcohol**:
   - Alcohol can slow down your heart rate, and interfere with your medicines
   - It may worsen your heart failure
   - Too much alcohol may cause your heart to beat irregularly- causing a heart problem known as “atrial fibrillation”
   - It may also worsen or cause depression

3. **Reduce your caffeine intake**:
   - Caffeine may increase your heart rate and cause irregular heart beat.

4. **Reduce fat and cholesterol in your diet**:
   - Eat more fruits and vegetables, and avoid fatty and high cholesterol foods such as bacon, fried foods, red meat.
   - High cholesterol and high fat diets can lead to clogging of blood vessels and cause heart attack and other heart problems.
   - Ask your doctor about diet and cholesterol, or ask to talk to a dietitian.
Emotional Health

Learning that you have heart failure may stir various emotions. You may feel anxious, angry, depressed, helpless, fearful, and/or stressed. These are normal feelings. You can take following steps to help yourself:

1. Learn about heart failure as much as you can. Understanding the disease and what it is doing to your body may help lessen some of these feelings.

2. Talk to your provider, nurses, pharmacist, dietitians, and other healthcare team members involved in your care as to how you can take care of yourself.

3. Learn to relax because stress and anxiety can raise your blood pressure and heart rate. Learn to meditate, listen to music, imagine peace in your life.

4. Ask your doctor about medications, visualization, breathing techniques, sleep problems, stress management, sexual problems, etc.

5. Professional counselors may be able to help you. Ask for their help. They are trained to help people with a variety of emotional problems. Your provider can refer you to a psychologist or counselor.

6. Talk to family or friends. Talking about your feelings with your loved ones can sometimes help.

7. Stay active. Activity helps with emotions, and may help to relieve depression. Not doing anything can make your emotions worse.

8. Getting involved in activities, learning about your disease process as well as learning how to manage your disease can help you. This way you will feel in control. Feeling of control can help with depression, fear, stress and anxiety.

9. Don’t be a loner. Stay connected with friends and family. You may also join a support group. There are many people who have heart failure- so you are not alone.
Medication management

Heart failure medicines are very important for you. They reduce your symptoms, and may help you live longer. Most often, not taking your medications may cause your heart failure to get worse. Avoiding or forgetting to take heart failure medications is the leading cause of hospital admissions. Please follow your doctor’s instructions carefully. Learn about your medications. Ask your doctor why you are taking a medication, how it should be taken, and how it works. Also ask what kind of side effects you should watch for. Most heart failure patients have to take a lot of medications to help their heart. All these medications are important and help you get better.

How can I remember to take my medicines?

Keep a medication list

**Use special pill boxes** that can help you keep track of your medicines. Your provider can request one for you at the VA.

Know the names and doses of your medications

Take medications faithfully at the same time of the day every day.

Take them with your meals, or other daily events such as brushing your teeth.

Keep them where you can easily see them.

Ask family members to remind you

DONOT take over the counter medicines or herbal medicines without first talking to your doctor. These medicines may conflict with your heart medicines.

Let your heart failure provider know if you are taking or were started on steroids, arthritis medicines, or pain medications such as ibuprofen. Avoid NSAIDs and steroids if possible.

Take your flu shots and pneumonia shots when they are due.
## Heart Failure Medications your doctor may recommend:

<table>
<thead>
<tr>
<th>Type</th>
<th>Medicine Name</th>
<th>Purpose</th>
<th>Monitor for</th>
</tr>
</thead>
</table>
| ACE-Inhibitor (ACE-I) Angiotensin-converting enzyme Inhibitors | Captopril, enalapril, Lisinopril fosinopril | Treat heart failure by relaxing blood vessels and increasing blood supply to the heart. Overtime, helps improve ejection fraction of heart. Improve survival. | High potassium  
Swelling of face and lips  
Postural dizziness  
Dry persistent cough  
Kidney problems in case of dehydration.  
Low Blood pressure |
| **ARBs Angiotensin II Antagonists** | Losartan, Valsartan, candesartan, Irbesartan, Telmisartan | . – as above_  
May be given if you cannot tolerate ACE-I.  
Does not cause cough like ACE-I do | It’s effects can increase with  
Tagamet, phenobarbitol, ketoconazole.  
Contact your provider if you have difficulty in breathing, swallowing problems, lip swelling, |
| Beta Blockers  
*do not stop without talking to your provider* | Carvedilol, Metoprolol bisoprolol | Decrease catecholamine release.  
Overtime improve enlargement of heart  
Slows down heart rate  
Control blood pressure | Can cause low blood sugar and prevent usual symptoms of low blood sugar in diabetes.  
Depression  
Low blood pressure  
Fatigue impotence |
| Hydralazine and nitrates  
*Need to be taken 3-4 times a day* | Hydralazine, Isosorbide dinitrate | Treat heart failure by relaxing blood vessels and increasing blood supply to heart.  
Shown to improve survival when ACE-I is not recommended | Low blood pressure  
Nitrates may cause headache |
| Aldosterone Antagonist/water pill | Spironolactone, Eplerenone | Reduce edema and cardiac workload. Reduce water in your body.  
Improve survival by 15%. Treat hirsutism in women | High potassium  
Breast enlargement |
<table>
<thead>
<tr>
<th>Type</th>
<th>Medicine Name</th>
<th>Purpose</th>
<th>Monitor for</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digoxin</td>
<td>Lanoxin</td>
<td>Make heart contraction stronger</td>
<td>Do not take digoxin at the same time as antacids</td>
</tr>
<tr>
<td></td>
<td>*Check pulse for a full minute before taking the medicine. Call your provider if pulse is less than 50</td>
<td></td>
<td>Its effects can increase if taken with amiodarone, quinidine, diltiazem, verapamil, and scopolamine</td>
</tr>
<tr>
<td>Diuretics</td>
<td>Furosemide, Ethacrynic acid, Bumex, Zaroxolyn, (metolazone), Torsemide</td>
<td>Reduce water in body *Do not double dose unless instructed</td>
<td>May increase blood sugar levels Cause low potassium Cause sun sensitivity Dehydration Caution with capoten, anti-inflammatory agents</td>
</tr>
<tr>
<td>(Water pills)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Take with meals or milk to avoid upset stomach</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Take your medications faithfully as advised by your doctor.

Notify your doctor immediately if you have any side effects, or if you run out of your medicines. The key to staying well is to NEVER miss your medications.

Use pill box to stay organized as well as on target.
INQUIRE ABOUT THESE SERVICES AT JBVA Medical Center

These classes are additional tools to help you with your heart health.

1. MOVE program
2. Wellness Center
3. Heart Healthy Class
4. Diabetes Program
5. Smoking cessation program to help QUIT smoking
6. Alcohol and drug rehabilitation program
7. Stress and depression help
8. Biofeedback
9. MyHealtheVet program
10. Patient Library
Living with Heart failure:
Take charge of your life

1. Take your medicine everyday as scheduled, even if you are feeling well.
2. Eat less sodium, because sodium holds water in your body.
3. Measure your blood pressure and weight daily. Keep a record in a diary and bring it to every clinic visit.
4. Develop an exercise plan with your provider to strengthen for heart and body.
5. Take control of your stress and depression, and keep your spirits up. Ask for help if you need it.
6. Make changes in life:
   - Quit smoking
   - Avoid alcohol
   - Reduce caffeine intake
   - Watch your fluid and sodium intake
   - Eat low fat low cholesterol diet
7. Do not forget your flu and pneumonia shots
Call your provider

If:

Phone#_______________

1. You have only one week before you are about to run out of medicine.
2. You gain more than 2 pounds in 24 hours
3. Get short winded with lesser activity than usual
4. If you notice worsening of swelling in your feet and ankles
5. You are getting depressed and get more fatigued than usual
6. Are not sure of your medicines, or need to confirm medication changes.
7. You have a side effect from your medicine.
8. If you think you are not feeling well because of heart.
“Rule of 2”

In Heart Failure management

1. 2 gram sodium
   > consume no more than 2gm sodium in 24 hours

2. 2 liter fluids
   > consume no more than 2 liters or 8 cups of water in 24 hours

3. 2 pounds of weight gain in 24 hours
   ➢ Call your doctor or nurse practitioner if you gain more than 2 pounds weight in 24 hours
   ➢ Weigh yourself daily
   ➢ Weigh at the same time in the day
   ➢ Weigh on empty stomach and empty bladder
   ➢ Weigh yourself in the same clothing every day
   ➢ Best to weigh early in the morning after emptying your bladder and on empty stomach.
References

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