

CONGESTIVE HEART FAILURE



(CHF)

OBJECTIVES



Review the topic of Congestive Heart Failure (CHF).

Describe the most common problems associated with CHF.

Explore ways you can help your loved one live with CHF at home.





WHAT IS IT?

- Heart failure happens when the heart is not able to pump enough blood and oxygen to meet the body's needs.
- To meet our needs, every minute, the heart pumps 5 Litres of blood to the rest of the body.

HOW DOES THE HEART WORK?

- The heart is an organ in the body that is connected to the lungs.
- The heart also sends blood out to the whole body through a system of veins and arteries (blood vessels).



“Think of it as a complicated plumbing system.”

Home Is Where The Heart Is

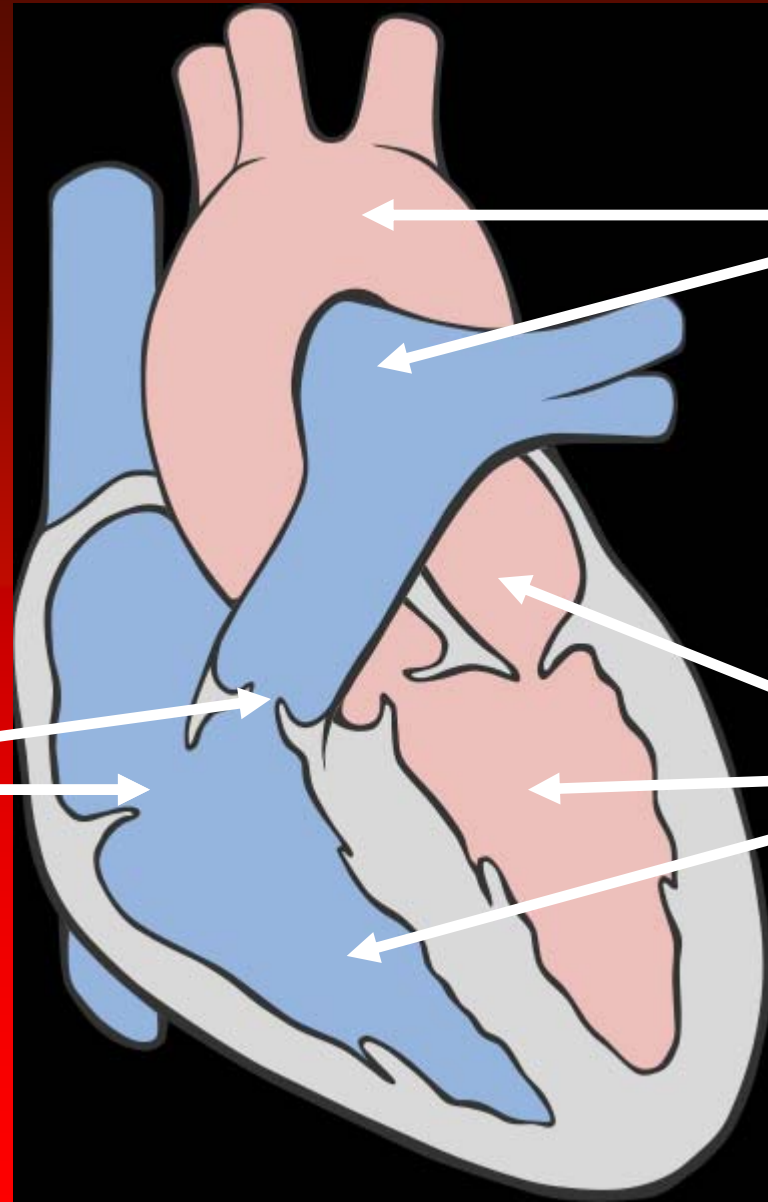
The heart can be compared to a home!



The heart has 4 rooms (**chambers**), that hold and pump blood. They are called **ventricles** and **atria**.

Each room has a door (or **valve**) that regulates when the blood can enter or exit the room.

The 4 rooms are connected to hallways (or **vessels**), that allow the blood to move to and from the heart from different, smaller hallways (**veins** and **arteries**) throughout the body.

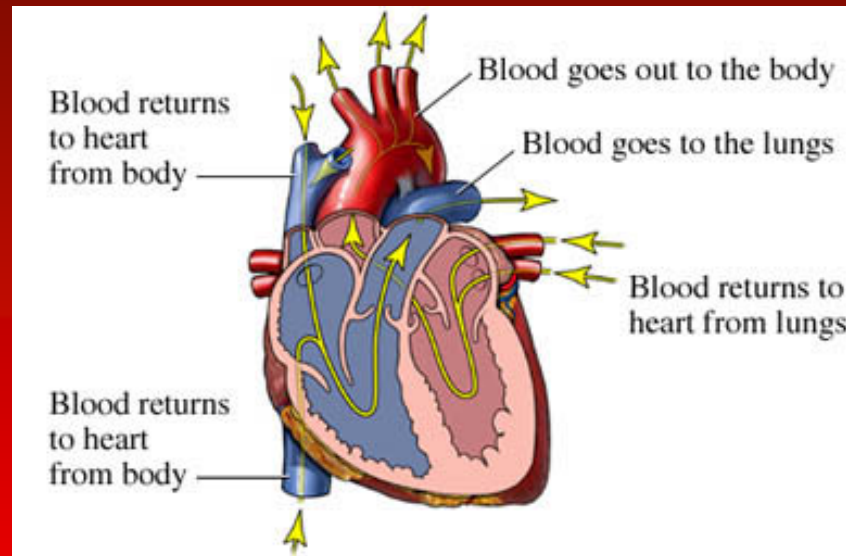


HALLWAYS
(Vessels)

DOORS
(Valves)

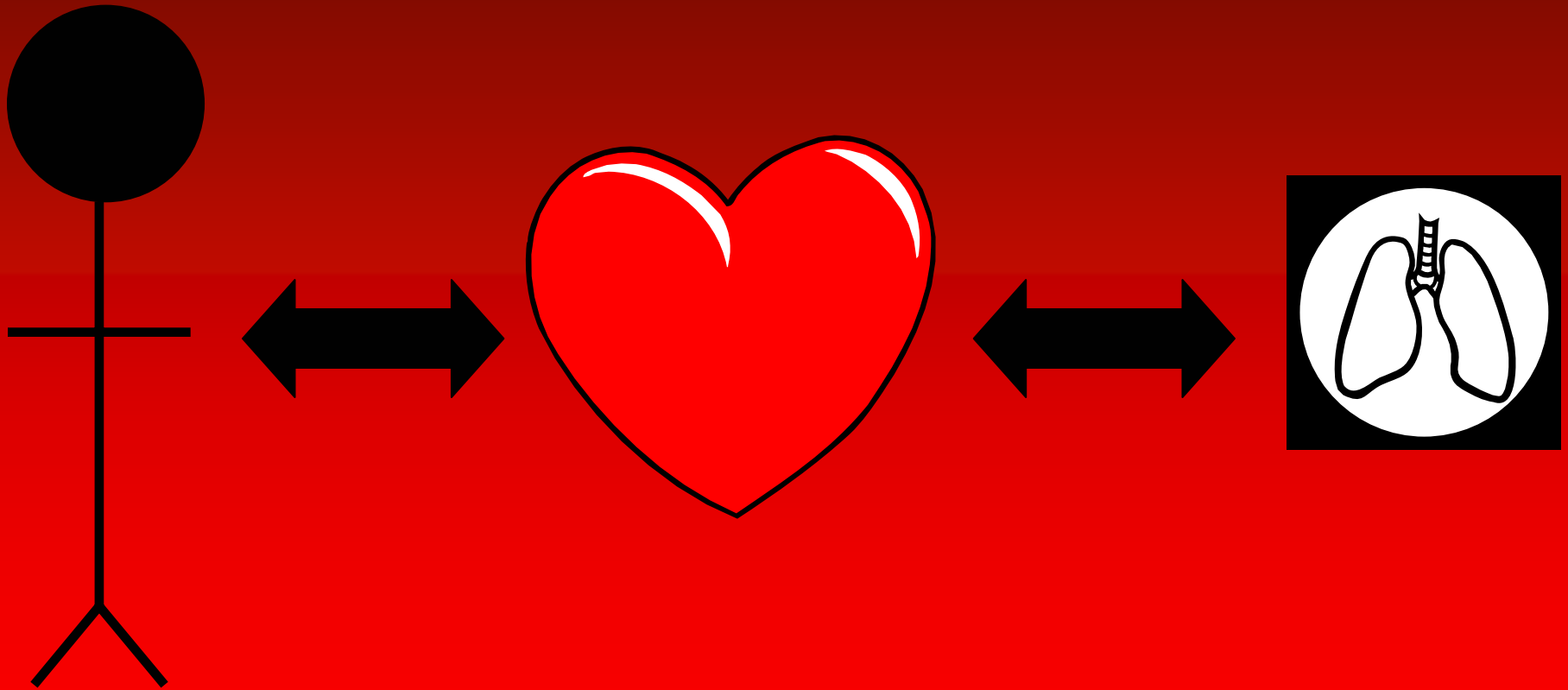
ROOMS
(Ventricles,
atria)

Blood always follows the same path: it is pumped from the heart, to the lungs, back to the heart, out to the body, and back to the heart.



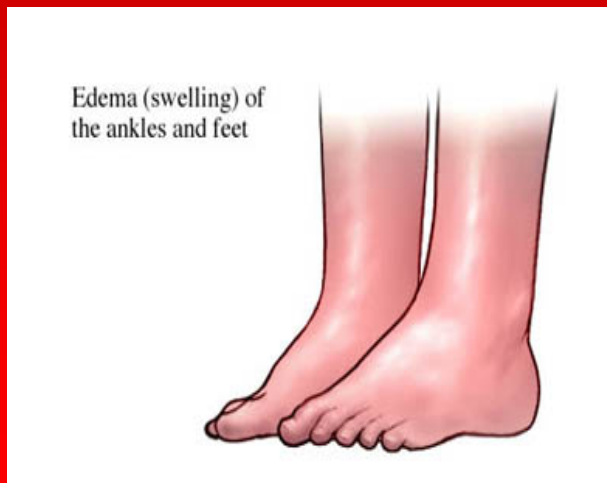
When there is a problem with the flow of blood, often, there will be problems with the heart, but also the lungs and body.

So...what happens to the lungs and body in someone with CHF?

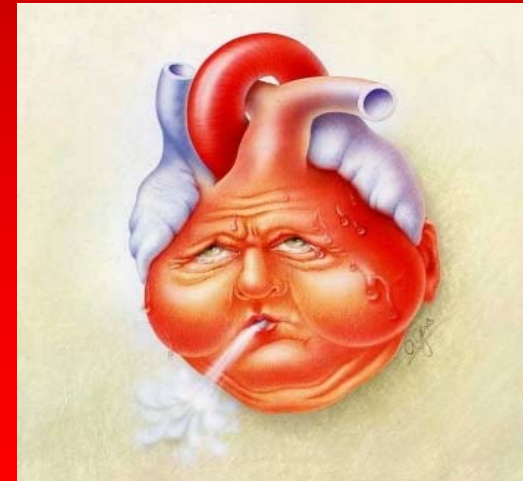


When the heart is not strong enough to pump blood, some of the blood stays 'stuck' or 'pools' in the chambers of the heart.

Because of this, the **blood coming TO the heart FROM the lungs and body has nowhere to go!** So the blood also pools in the lungs and the body...this causes swelling and shortness of breath.



Swelling



Shortness of Breath

Think of the heart as a glass of water.

There is only so much water that can fit into a glass, just like there is only so much blood that can fit in a heart...

Once the glass is full, the water overflows, and must find somewhere else to go.

A glass of water can just spill over onto the table...

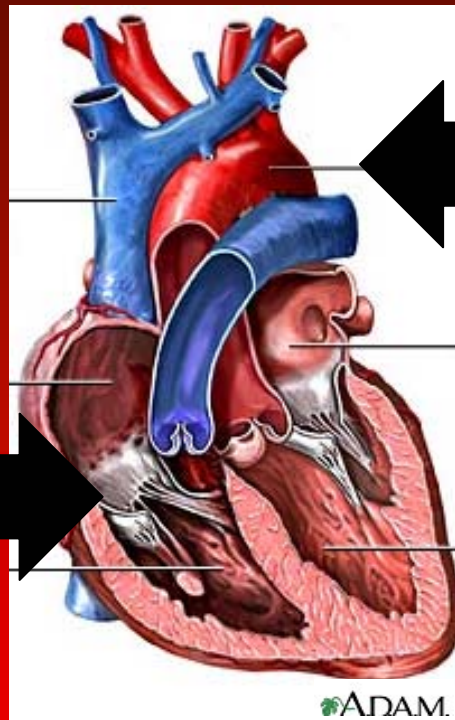
But the blood in our heart 'overflows' or 'backs-up' into our lungs and body parts.

This is one reason why people with CHF become swollen and short of breath.



ARE YOU A LEFTY OR A RIGHTY?

If the **right** side fails: blood flow backs up to other parts of the body, (legs, feet, liver, and digestive tract).



If the **left** side fails: blood flow backs up into the lungs.

CHF can affect the **RIGHT** side of the heart, the **LEFT** side...or **BOTH**.

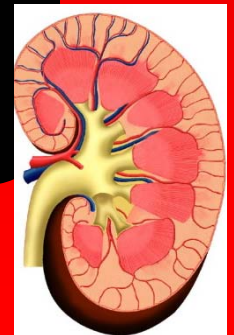
How Do They Know I Have CHF?

CHF is diagnosed using a physical exam and a few tests.

• **Blood tests:** These tests are used to show if there has been recent damage to the heart. Because the heart is a muscle, when it is hurt, it releases 'enzymes' that can be seen in a blood test.



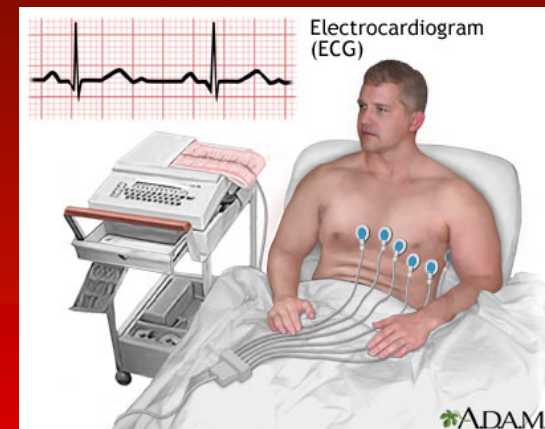
• **Urine tests:** These tests are used to see if the kidneys have been affected. Sometimes in CHF, the kidneys are also damaged.





- **Chest X-ray:** this test shows a still image of the heart. It can show problems with the size of the heart and its major vessels (hallways).

- **Electrocardiogram (ECG or EKG):** this test records the activity of the heart. It can show problems with the rhythm or with the heart muscle.





- **Echocardiogram (echo):** This test records the movements of the heart. It can show problems with the heart valves (doors) or chambers (rooms).



What Causes CHF?



There are many ways the heart becomes unable to pump blood.

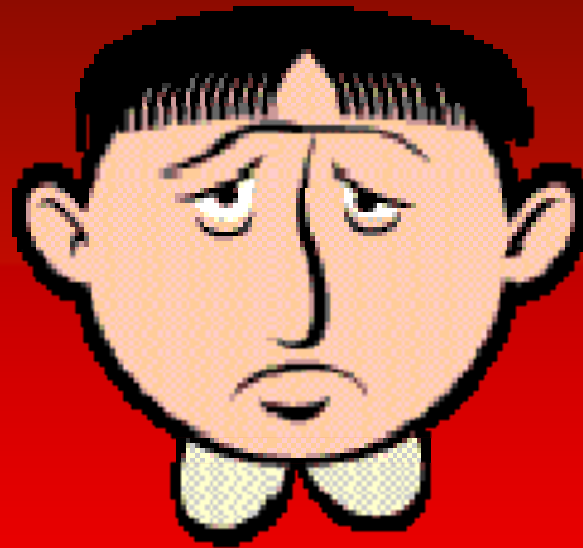
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- Heart attack
 - High blood pressure (Hypertension)
 - Disease of the valves (doors) of the heart
 - Viral infection
 - Arrhythmias (abnormal heart rhythm)
 - Overuse of drugs and/or alcohol



Sometimes...the cause is unknown (idiopathic)



**I Have Been Diagnosed
With CHF...**



NOW WHAT?

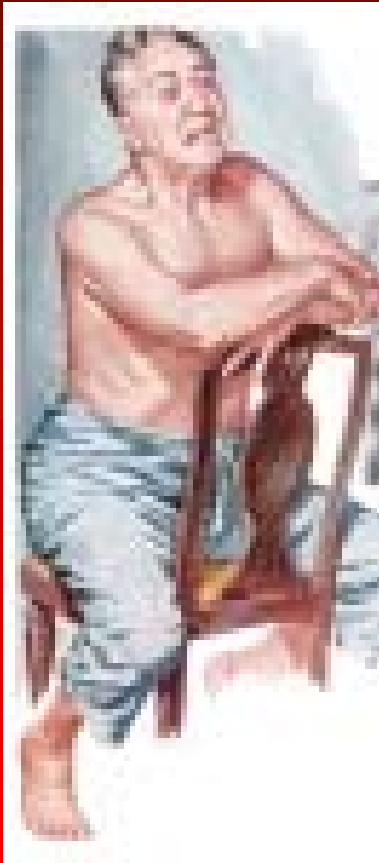
What Does CHF Feel Like?

People with heart failure may feel the following things:

- Fatigue
- Swelling
- Shortness of breath
- Coughing
- Increased urination
- Nausea
- Abdominal pain
- Weight gain
- Decrease in appetite



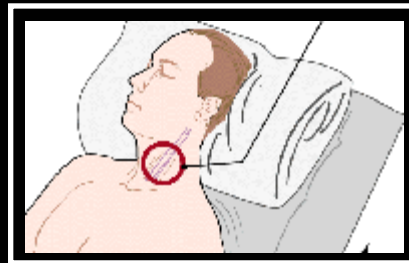
Shortness of Breath...



In people with CHF, shortness of breath is at its worst when lying down.

Many people will notice that they have to sleep with several pillows in order to breathe properly.

Adding pillows can help you sleep, but if you notice you have to add to the number of pillows you need, let your doctor know because it could mean that your CHF is getting worse.

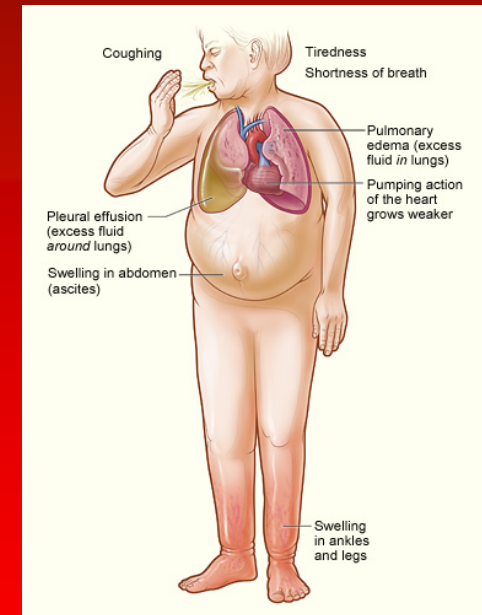


Complications of CHF

Because the heart is such an important organ...when it is failing...many things can go wrong.

Here are 3 of the most common (and dangerous) complications of CHF:

- 1. Irregular heart beats (Arrhythmias)**
- 2. Fluid in the lungs (Acute pulmonary edema)**
- 3. Impaired Kidney Function**



These complications can cause more fluid to accumulate, making it even harder for the heart to work properly.

What Can I Expect?

Heart failure is a chronic condition (that means it can't be cured).

It gets worse gradually over time.

BUT...careful management of your CHF can slow down this process!

You have the power to improve your quality of life

and

prolong your life

by making simple lifestyle changes.



Time To Make Some Changes!



**WATCH
YOUR WEIGHT!**

The more overweight you are, the harder your heart has to work to pump the blood to your body. Losing weight can help make it easier for your heart to pump.



GET YOUR REST!

People with CHF become tired more easily. Make sure you get the rest you need to remain healthy.

**TAKE
MEDICATIONS
AS PRESCRIBED!**



Taking your medications properly and telling your healthcare professional when they are not working as well are key in managing your CHF.



Cut down on salt!

Less than 2000 mg (2 grams) of salt per day. That's only 1 teaspoon per day!



Limit your liquid intake!

Less than 2 liters per day!



Stay physically active

(as much as your doctor agrees to)!



Quit smoking!

WHAT ELSE?	WHY?
Cut down on salt! <i>Less than 2000 mg (2 grams) of salt per day. That's only 1 teaspoon per day!</i>	Salt causes water retention, which worsens the symptoms of CHF.
Limit your liquid intake! <i>Less than 2 liters per day!</i>	Too many liquids will cause more accumulation of fluid in the heart and other organs.
Stay physically active <i>(as much as your doctor agrees to)!</i>	Remain physically active, but do your activities at a slower pace in order to conserve energy. This helps reduce shortness of breath and fatigue.
Quit smoking!	Cigarette smoking increases your risk of having a heart attack and can worsen your symptoms.

Another way to care for CHF is to get in the habit of **tracking** your weight



WHY?

Gaining weight, even if it's only a few pounds, can be a sign that your body is retaining extra water.

This could mean that your CHF is worsening.

Extra liquid = extra difficulty for heart to pump properly.



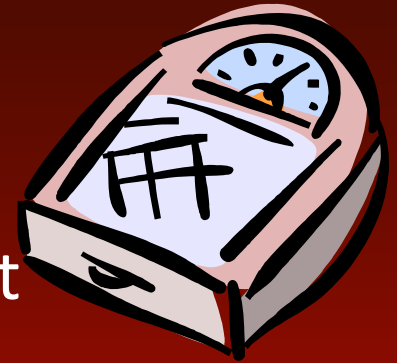
WHAT? Weigh yourself every morning.

WHEN? After you urinate, but before you eat breakfast.

HOW? Weigh yourself on the same scale and wear the same amount of clothing each time (none is best).

→ **Write down your weight each day so you can follow any changes**

→ **IF YOU GAIN MORE THAN 2 POUNDS OVERNIGHT:
call your healthcare professional.**



How Is It Treated?



CHF is treated using different types of medications.
Here are the most common ones:

Anticoagulants:

Some people call these “blood thinners”. Sometimes, people who have CHF also have irregular heart beats (arrhythmias). This can increase the risk for blood clots. Anticoagulants help prevent blood clots.

ACE inhibitors

Make blood vessels (hallways) wider. This makes it easier for the heart to pump the blood. They also lower blood pressure.

Beta blockers:

Lower blood pressure and make the heart beat slower.



Diuretics:

Help the body eliminate excess fluid. Some people call these medications “water pills”. (Ex: Lasix,)



When to ask for help?

- Did you gain more than 3-5 pounds in one week?
- Did you gain more than 2 pounds overnight?
- Are your symptoms getting worse?
- Do you have chest pain/tightness?
- Are you coughing up frothy blood (blood with bubbles in it)?
- Are you urinating less often?
- Do you wake up at night feeling like you are suffocating or gasping for air?
- Are you feeling dizzy or confused?
- Did you faint?
- Are you more tired than usual?
- Did you just start a new medication and have a new symptom?
- Do you need more pillows to sleep?
- Are you more swollen? (Legs, abdomen, ankles...)
- Is your heart beating faster than usual/Are you feeling palpitations?
- Are you having a loss of appetite or nausea?



**If you answered “YES” to
any of these questions...**

GET HELP!

**This could mean that your
CHF is getting worse.**



Great Websites for Additional Information

- **Heart & Stroke Foundation**

<http://www.heartandstroke.com/>

- **Heart Failure Society of America**

<http://www.abouthf.org/>

- **Heart Failure Matters**

<http://www.heartfailurematters.org/>

- **Patient information: Heart Failure. UP TO DATE**

<http://www.uptodate.com/patients/>