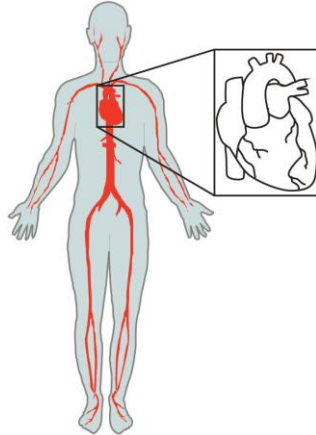


# Understanding Heart Failure

## The Basics

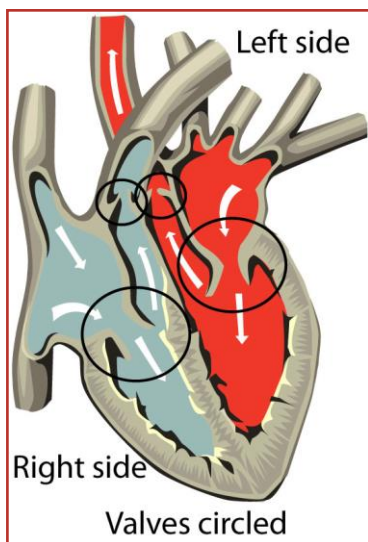
### How does the heart work?

Your heart is a muscle about the size of your fist. It works like a pump, pumping blood and nutrients around your body.



The heart is actually a 2-sided pump. The *right side of the heart* pumps 'used' blood from the body to the lungs. In the lungs, your blood is loaded up with oxygen. The *left side of the heart* pumps 'fresh' blood full of oxygen from the lungs to the rest of the body. The left side of the heart is usually the larger than the right. That is because it has to pump hard to get the blood out to all parts of your body.

Each side of the heart has 2 chambers. Valves link the chambers and keep blood pumping in the right direction. These valves open and close with each heartbeat.



### What is Heart Failure?

Heart failure is when your heart is not pumping as strongly as it should. Your body does not get the right amount of blood, oxygen, and nutrients it needs to work properly.

Heart failure usually gets worse over time. While heart failure cannot be cured, people do learn to live active, healthy lives by managing their heart failure with medication, changes in their diet, weighing daily and physical activity.

There are two main types of heart failure:

- **A weak pump:** When the heart muscle is weak, it gets larger and 'floppy'.
- **A stiff pump:** When the heart muscle cannot relax between beats because the muscle has become stiff. The heart cannot properly fill with blood between beats.



A large 'floppy' heart

**Both types of heart failure reduce the blood flow and oxygen to your body.**

## What causes Heart Failure?

Heart failure has many causes including:

- Heart attack
- High blood pressure
- Heart valve problems
- Heart defects at birth
- Lung conditions
- Excessive use of alcohol or drugs

Other possible causes of heart failure include:

- Obesity
- Sleep apnea
- Infections affecting the heart muscle
- Abnormal heart rhythm
- Severe anemia
- Severe kidney disease
- Overactive thyroid gland
- Exposure to chemotherapy or radiation

Not sure what caused your heart failure? Ask your doctor or nurse practitioner.

## Signs of Heart Failure

You may notice any of the following signs.

♥ You feel short of breath when you do daily activities.

♥ You find it harder to breathe when resting or lying down.

♥ You wake up at night feeling short of breath.

♥ You find it easier to sleep by adding pillows or by sitting up in a chair.

♥ You cough often, especially when lying down.



♥ Your cough is either dry and hacking, or moist and you cough up mucus (which could be slightly pink).

♥ You feel your heart beat faster and it does not slow down when you rest.

♥ You feel your heart racing, jumping, or pounding in your chest.

♥ You cannot walk as far you normally can.

♥ You are tired all the time and have no energy to do daily activities.

♥ You feel lightheaded or dizzy, especially when you stand up or increase your activity and this is new for you.



♥ You cannot eat as much as you normally would.

♥ You are not hungry and do not feel like eating.

♥ You feel bloated or your clothes feel tighter than normal.



♥ You have swelling in your feet, ankles, legs, or even up into the belly (abdomen).

♥ Sudden increase in body weight where you gain more than 4 pounds (2 kilos) in 2 days.



♥ You feel uneasy, like something does not feel right.

♥ You feel confused and have trouble thinking clearly (and this is new for you).

## Tests to identify heart failure

There is no single test for heart failure. Instead your doctor does a number of tests. The doctor looks at all the test results to determine if you have heart failure.

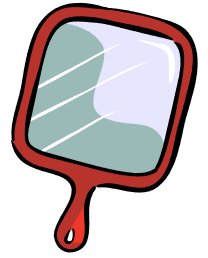
Tests can include:

- Blood tests to check certain enzymes
- Chest x-ray to look at the size of your heart
- Electrocardiogram (or ECG) to look at the electrical activity of the heart
- Exercise stress test to look at how your heart responds to exercise
- Nuclear medicine scan to get a close look at the pumping of your heart
- Angiogram to look for blockage in your heart arteries
- Echocardiogram or ultra sound of the heart to look at the movements of your heart and measure your ejection fraction

## More about Ejection Fraction

This test is usually done during an echocardiogram or a nuclear medicine scan. Your ejection fraction can go up and down, depending on your heart condition and how well the treatment is working. It is good to know what your ejection fraction reading is. The reading is given as a percentage with normal being between 55 and 70%. Less than 55% means your heart is not pumping as strongly as it should be. Your ejection fraction helps your doctor or nurse treat your heart failure.

## How is heart failure treated?



Look in the mirror - the key to treatment is you.

Your doctor relies on you to make changes in your lifestyle and eating habits. While there is a team of health care providers working with you to manage your heart failure, you are the one in charge.

Treatment is focused on helping you live a longer and healthier life. This includes:

- Taking your medications as prescribed
- Monitoring your symptoms
- Reducing salt in your diet
- Increasing your daily activity through regular exercise
- Keeping your blood pressure low
- Maintaining a healthy weight
- Stopping unhealthy habits such as smoking

For some people, surgery and medical devices are needed to treat the problem that led to the heart failure. Treatments could include:

- Coronary bypass surgery
- Valve repair or replacement surgery
- Implanted device such as a pacemaker and/or defibrillator
- Mechanical device to help the heart pump
- Heart transplant

For novel new ideas on heart failure treatment consult your health care provider.

## Plan today for the future

Your heart failure may get worse over time. Start thinking now about how you wish to be cared for if your disease progresses. This is called 'advanced care planning'. Advance care planning allows you to have a say in your health care if you are unable to speak for yourself.

Talk to your family and your doctor about helping you live well with heart failure and about the care you do or do not want in the future.

Things to think about and consider:

- ♥ What does it mean to live well with heart failure?
- ♥ What is important to you to make your life the best it can be?
- ♥ What is important to you as your condition progresses?
- ♥ What worries and concerns do you have?
- ♥ How will your progressing heart failure affect you and your family?
- ♥ Who or what gives you support when you need it?
- ♥ If you are not able to make your own health care decisions, who will you want to make them for you? Does that person know what you want?
- ♥ Do you have written instructions for how you want to be cared for if you cannot make decisions for yourself (this is called an advance directive).

## Why learn to manage your heart failure?

When you take charge of your health and learn to manage your heart failure, it helps you:

- ♥ Improve the quality of your life.
- ♥ Feel confident that you can manage your heart failure.
- ♥ Control your condition so it will not control you.
- ♥ Know when to ask for help from your care team.
- ♥ Limit the need to go to the hospital for care.
- ♥ Prevent or limit heart failure complications as the disease progresses.

Talk with your family and your care team about your disease and care plan.

People who learn to manage their heart failure are more likely to live a longer, healthier life than those who do not.

## For more information on heart failure

- ♥ HealthLinkBC on Heart Failure  
[www.healthlinkbc.ca/kb/content/special/hw44415.html#tp17534](http://www.healthlinkbc.ca/kb/content/special/hw44415.html#tp17534)
- ♥ Canadian Cardiovascular Society  
[www.ccs.ca](http://www.ccs.ca)
- ♥ Canadian Heart Failure Network  
[www.chfn.ca](http://www.chfn.ca)
- ♥ Heart Failure Society of America  
[www.hfsa.org](http://www.hfsa.org)