

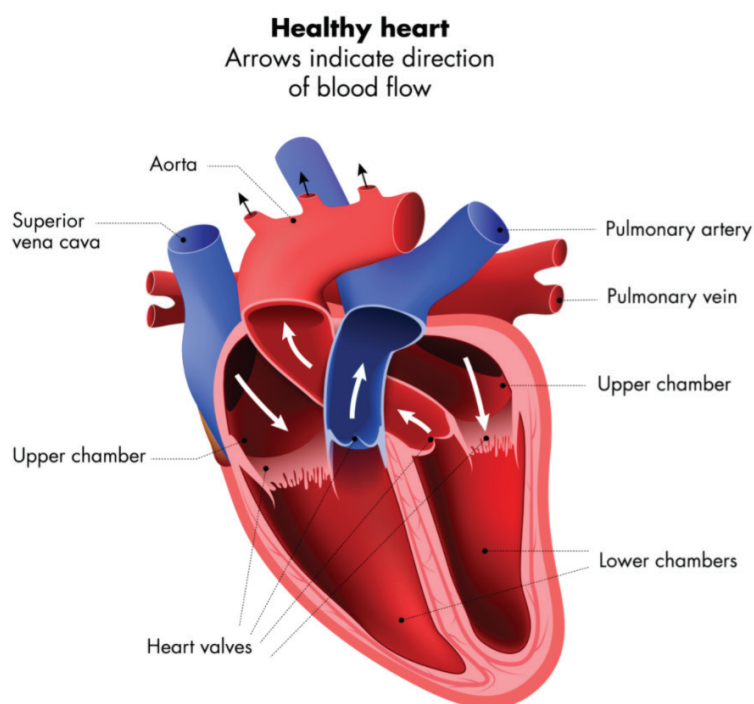
Heart Failure

A white ECG (heart rate) line graphic that starts with a small peak, followed by a larger peak, and then continues as a horizontal line to the right.

How your heart works

The heart is a muscle that works like a pump, sending blood around the body to keep you alive. It pumps blood to deliver oxygen and nutrients to other parts of the body, allowing your organs and muscles to work properly.

The heart has four chambers. The two chambers on the right side work to pump blood that is low on oxygen back into the lungs, where the blood collects a new supply of oxygen. This oxygen-rich blood is then transferred to the left side of the heart, which pumps blood around the entire body.



What is heart failure?

In 2015, there were estimated to be 500,000 people with heart failure in Australia, making up roughly 2% of the population. Although it claims the lives of around 61,000 Australians each year, there is little awareness of this condition. Heart failure is serious, but early treatment and management can help you get back to doing the things you love, like gardening, spending time with your grandchildren and family, or going for walks. Heart failure happens when the heart isn't able to pump enough blood to the body, or when your

heart cannot fill properly with blood. It can affect the left or right side of the heart, but most people have left side heart failure. Heart failure needs to be managed and monitored for the rest of your life, but there are many things you can do to still live life to the fullest.

There are two types of heart failure:

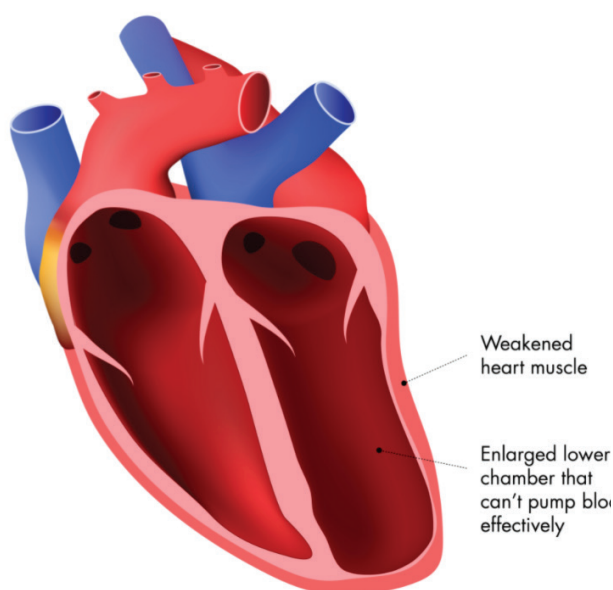
1. Heart failure with reduced ejection fraction (HFrEF)

This is where the heart muscle is weakened and doesn't contract enough, so it can't pump enough blood around the body. Ejection fraction refers to the amount of blood that the heart is able to pump out, with the percentage describing how well the heart is pumping blood to the rest of the body. A normal ejection fraction is more than 50%. If your ejection fraction is 50% or less, it means you have reduced heart function and your heart is pumping less blood than normal. If your ejection fraction is 41%-49%, it is considered to be mildly reduced. If it is 31-40% it is moderately reduced, and if it is less than 30% it is severely reduced.

2. Heart failure with preserved ejection fraction (HFpEF)

This is where the heart doesn't relax enough to completely fill with blood. This means it can't pump enough blood around the body. People with this type of heart failure have an ejection fraction of 50% or more.

Heart failure



What are the causes of heart failure?

Heart failure is caused by several conditions that damage the heart muscle.

The most common causes are:

- High blood pressure (hypertension)
- Coronary heart disease (fatty deposits in arteries)
- Weakened heart muscles from heart attack
- Heart valves that do not open or close properly
- Cardiomyopathy (a disease of the heart muscle)
- Congenital heart disease (heart defect since birth)
- Irregular heartbeat (arrhythmias)
- Viral infection in the heart muscle
- Diabetes
- Some lung, thyroid gland or kidney diseases
- Anaemia, severe infection, hyperthyroidism
- Toxins (eg. alcohol, chemotherapy, cocaine)

Sometimes people who are diagnosed with heart failure don't have any obvious or common symptoms. In some people, there isn't a clear cause. Daily life risk factors that may contribute to the development of heart failure can include: social isolation, stress, smoking, alcohol consumption, obesity, level of physical activity and poor diet.



Understanding symptoms of heart failure

Early diagnosis, lifestyle changes and proper treatment can help you lead a full and active life, stay out of hospital and live longer. So, it's important to know the symptoms of heart failure and keep an eye on them. Sometimes symptoms can be mistaken for other health issues, so it's best to mention any changes you notice to your doctor, even if you are just feeling unwell but can't quite explain what's wrong.



The following are five possible signs of heart failure



1. **Needing to sleep propped up with pillows:** You may have so much trouble breathing that you can't lie down flat and need to sleep propped up with pillows. This is because fluid can build up in the lungs making it hard to breathe.



2. **Tiredness:** You may find it more difficult to do daily activities you once found easy like walking to the shops, mowing the lawn, or baking. This can be due to fluid buildup in the lungs as well.



3. **Swollen feet, abdomen or ankles:** Due to fluid buildup, you may find wearing shoes uncomfortable, or find you can't get your shoes on at all.



4. **Persistent coughing:** A persistent cough is another possible sign of heart failure. This is not a cold or flu but the body trying to clear fluid that has built up in the lungs.



5. **Getting tired easily:** Sometimes you may feel too tired to do things you once found easier like walking up stairs. This can be because you're not getting the amount of oxygen you once did.

Understanding symptoms of heart failure

Heart failure can affect people in different ways. Symptoms can start suddenly and be severe (acute heart failure) or they may appear over time and gradually get worse (chronic heart failure).

Some other common symptoms of heart disease are:



- Coughing and wheezing



- Lack of appetite



- More frequent urination, especially at night



- Fast heartbeat or palpitations



- Shortness of breath, even when lying down



- Weight gain over a short period of time (>2kg over two days)

If any of your symptoms are severe or if you gain more than 2kg in two days, it's important to see your doctor as soon as possible.

Experiencing some of these symptoms may make you feel anxious or uncertain, so it's important to look after your mental health too. If you would like to talk to someone, tell your GP. They can give you a referral to a counsellor or psychologist.



A proper diagnosis is important

Heart failure is a serious condition, and an accurate diagnosis is important as it helps ensure you receive the treatment you need to lead a healthier life and reach your potential.

That's why it's important to see your doctor as soon as possible if you experience any symptoms. In order to check for heart failure, your doctor will ask you questions, do a physical checkup, and send you for further tests.

Common symptoms of heart failure are shortness of breath, unexplained tiredness, persistent coughing, nausea, lack of appetite or increased heart rate and sweating. The doctor will listen to your heart, check heart rate and rhythm, check blood pressure and see whether there's fluid in your lungs, legs or other parts of your body.



Common tests may include:



- **Blood tests:** These are used to check blood count (measuring the amount of different kinds of cells in your blood) and to assess your kidney, liver and thyroid function.



- **Chest X-ray:** This shows if the heart is enlarged and whether there's a build-up of fluid around the lungs.



- **Electrocardiogram (ECG):** This test is used to check your heart rhythm or determine if you have an enlarged heart muscle. This is done by measuring the electrical activity of your heart.



- **Doppler Echocardiogram:** This is an ultrasound of the heart which can show if you've had previous heart attacks, or if your heart valves are damaged. It also measures the amount of blood that can be pumped out of your heart every time it beats.



- **Stress test:** Often a specialist doctor will get you exercising on a treadmill or bike. This measures how well your heart is responding to exercise and tests the health of your arteries.

Treating heart failure

Heart failure is a life-long disease, and the aim of treatment is to help you feel better, reduce the chance of it getting worse, and manage symptoms so that you can live a full and enjoyable life. For most people that means finding the right medical treatment and making positive lifestyle improvements. Sometimes surgery may also be required to fix a specific problem.



Common medicines to treat heart failure include:



- **Diuretics:** These help to help eliminate excess fluid and relieve swelling and shortness of breath.
- **Angiotensin-converting enzyme (ACE) inhibitors:** These manage high blood pressure and in turn, help the heart pump blood around the body.
- **Angiotensin II receptor blockers (ARB):** These are another option instead of using ACE inhibitors for managing high blood pressure and helping the heart pump blood.
- **Angiotensin receptor-neprilysin inhibitors (ARNI):** These may be used instead of
- ACE inhibitors or angiotensin II receptor blockers.
- **Beta blockers:** These work by slowing your heart rate and reducing blood pressure, and can help against heart damage.
- **Cardiac glycosides:** These can have positive effects in slowing down and strengthening your heartbeat.
- **Aldosterone antagonists or mineralocorticoid receptor antagonists (MRA):** These act like diuretics and block the effects of hormones that can increase symptoms of heart failure.
- **Sinoatrial current inhibitors:** These slow the heartbeat so the heart doesn't have to work so hard. Often prescribed for people who are still having symptoms of heart failure despite taking other medicines.
- **Anticoagulants:** If you have increased risk of blood clots or stroke, anticoagulants can help prevent the blood clots from forming.

Surgery and other medical devices

In some cases your specialist team will recommend surgery to target and fix a specific problem.

Common surgical procedures are:



- Heart valve surgery: Damaged heart valves can cause heart failure, so sometimes the option is to repair or replace the valve.



- Cardiac resynchronisation therapy (CRT): A CRT device may be implanted when the bottom chambers of the heart are not beating properly together. The CRT device helps the heart to beat with a normal rhythm.



- Implantable cardioverter defibrillator (ICD): This is a device that is implanted to help restore a normal heart rhythm. It does this by sending an electric shock to the heart if it is beating abnormally or too quickly.



- Ventricular assist device (VAD): This is a device that helps maintain the pumping ability of the heart when it has trouble doing so on its own. Sometimes this device is used for people who are awaiting a heart transplant.



- Coronary bypass surgery: This procedure diverts the flow of blood around a blocked artery via a new path. This allows blood to flow freely through the heart via a new path.



- Heart transplant: In rare cases when surgery, medicines and life changes don't work, a heart transplant may be suggested.



Lifestyle changes to manage heart failure

There are many things you can do to help manage your heart failure. This can include looking after your own mental health and that of your carer, ensuring that you have the right support at home, taking part in a cardiac rehabilitation program, and seeing an exercise physiologist.

The right support can make a real difference to your wellbeing and confidence in managing heart failure. That's why there are special heart failure management programs that can assist you in practical ways to stay healthy. They can also give you knowledge and tips to stay on top of your condition.



Some positive lifestyle changes you can make to manage your condition include:



- Monitoring your fluid intake. Know how much fluid or drink you can have each day, and limit salt (don't forget that salt that is hidden in some foods, such as bread).



- Weighing yourself daily and talking to your doctor if you put on weight quickly (more than 2 kg in two days), as this can be a sign of fluid building up in the body.



- A healthy diet can lead to a healthier heart. Eat more vegetables, fruits and embrace whole grains, poultry and seafood whilst limiting salt, sugar and saturated fats.



- Physical activity is important. It only takes a small amount of physical activity every day to make a difference.



- Aim to keep a healthy weight. If you are overweight or obese, your doctor may recommend losing weight.



- Try to minimise stress by doing relaxing activities and spending quality time with friends and family.



- Reducing your alcohol intake is good for the health of your heart. If you drink alcohol, make sure you only do so in moderation.



- If you smoke, quitting is good for the health of your heart. Speak to your doctor or call Quitline on 13 7848 for support with giving up smoking.

Shared decision-making

Decisions about ongoing care for heart failure should be based on an individual's needs. That's why shared decision making is so important. Shared decision-making means you have all the information you need to make decisions about the management of your condition with your health care professionals and your family.

This usually brings together a multidisciplinary team (MDT) of health professionals with different skills. The MDT will recommend a treatment approach in consultation with you, and often family or close friends who are brought into the decision-making process. MDTs help make sure you receive care that considers your needs, as well as other factors in your life that affect your health and wellbeing.



Try to maintain a healthy state of mind

The journey from diagnosis to treatment of heart failure can be a mental health challenge as much as a physical one. You need to do all that you can to support your mental health moving forward.

Talking to a professional can help with your mental health. Counselling or psychological therapy can be very useful for managing mental health and your condition. Your doctor can provide you with some options, and give you a referral to a psychologist.

Alternatively, to talk to someone at hearts4heart about any concerns you might have about your heart failure, email info@hearts4heart.org.au. We can provide you with answers to your questions from a clinician, or a member of the patient advocate group.



When should you speak to your doctor?

You can never be too cautious in managing your condition, so be aware of changing symptoms and reach out to a doctor as soon as possible. Things to look out for include:

- Generally feeling unwell, even if you can't quite describe it
- Increasing shortness of breath, especially when lying flat in bed
- An unfamiliar or frequent cough
- New swelling in ankles, legs or abdomen
- Sudden weight gain in the space of days ie. 2kg in two days
- Increased heart rate and/or palpitations
- Feelings of increased and prolonged dizziness

When should you call 000?

Call an ambulance or get someone to take you to the closest hospital emergency department if you notice any of the following physical signs:

- Pain in your chest, arm, jaw or back pain that is not stopping
- Very severe shortness of breath
- Fast heart rate (palpitations) that don't stop when you are resting
- Going in and out of consciousness

Doctor consultation guide - preparing for an appointment

Your appointment is a good chance to discuss your ongoing condition with your doctor and discuss better ways of managing it. Here's how to make the most of every consult.

Monitor your symptoms

It's important for your doctor to know about any changing symptoms. This will allow your doctor to better treat and manage your condition. Common signs include:

- Needing to sleep propped up
- Shortness of breath
- Swollen feet or ankles
- New or persistent coughing
- Increased tiredness affecting your everyday life

You can check and track your symptoms using a symptom tracker available at [\[insert link to symptom tracker page\]](#). It can also help to talk about your symptoms with family and friends, as they may notice changes you have missed.

Keep a list of current medicines and tests and take it with you to doctors appointment

Keeping a list is important so all the doctors you see know which medicines you're taking and which medical tests you've had. Don't forget to include dosage of the medication and any other supplements you take, like vitamins.

Write down your questions and concerns

It can be hard to remember all the questions you want to ask your doctor. So, in the days leading up to the appointment, be prepared and make a list. These questions could be about side effects of medicines, ways to improve your condition, or practical questions about your care. Write everything down. It can also be helpful to bring a friend or family member to be part of the discussion. Don't forget to write down the doctor's advice. This is where a support person can help after the appointment in case you miss something.

It's also helpful to make some practical steps with your doctor to work on for the next appointment. Setting small goals can make a big difference, building confidence and giving you something to aim for.

Examples of things to talk to your doctor about include:

1. Telling your doctor how you're feeling. Try to be as specific as you can about changes in your symptoms. Give examples of how heart failure affects you in your daily life, such as:

- I can't do activities I used to enjoy, like mowing the lawn or walking the dog, because I get tired easily
- I have trouble breathing at night, so I need to sleep propped up on pillows
- When I walk up a flight of stairs, I get short of breath quickly
- My feet or ankles are swollen
- I find myself coughing even when I don't have a cold

2. Some examples of questions you might want to ask your doctor include:

- How do you think my heart failure will affect my daily activities, like walking to the shops, mowing the lawn, or baking?
- What can I expect with my heart failure over the next few months and years?
- What changes can I make in my life to help improve my condition?
- What are the possible side effects of my medicines?
- If my other health conditions affect my heart failure, what can I do?

References: 1. Chen L et al. Snapshot of heart failure in Australia. May 2017. 2. Heart Foundation Australia. Living Well with Heart Failure. 2020; available at: [https://www.heartfoundation.org.au/getmedia/8208421c-4a7a-4ed8-ad26-f68de52aa935/201125_Living-well-with-heart-failure-booklet-\(1\).pdf](https://www.heartfoundation.org.au/getmedia/8208421c-4a7a-4ed8-ad26-f68de52aa935/201125_Living-well-with-heart-failure-booklet-(1).pdf) (accessed September 2021).



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