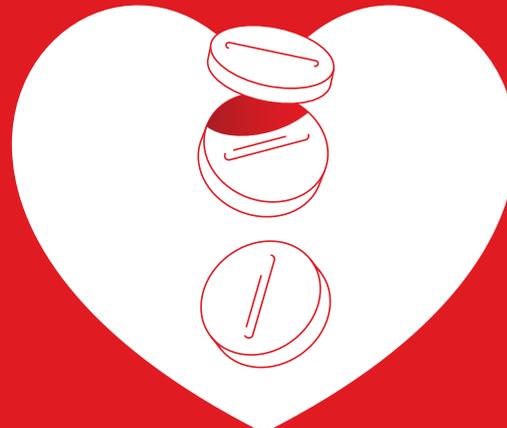
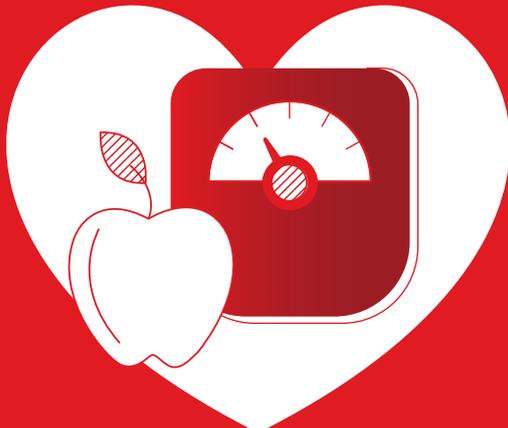
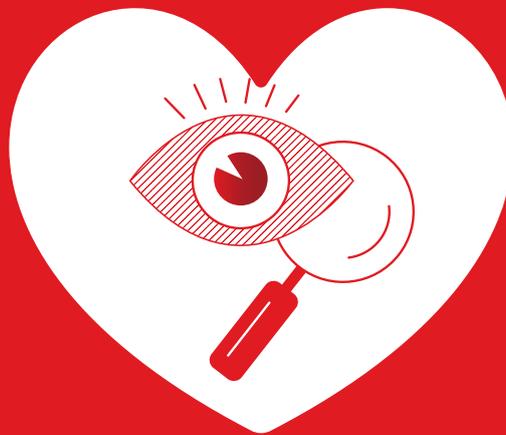


# Understanding Heart Failure

A Practical Guide for  
all Australians





*This publication is an adaptation of Global Heart Hub's 'Guide to Your Heart Failure Journey'.  
Hearts4Heart wishes to acknowledge the support of Global Heart Hub in providing the framework  
for this document, the content of which has been adapted by Hearts4heart, with support from Palin  
Communications, for use in Australia.*

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# Heart failure in Australia

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Heart failure is a common condition that is on the rise, with estimates suggesting that more than 500,000 Australians are currently living with heart failure.<sup>46</sup> Each day, eight Australians lose their lives to the condition, and it ranks as the number one cause of hospitalisation for those over 65.<sup>47</sup>

As more people survive heart attacks, live longer, and experience heart-related issues leading to heart failure, the number of people developing heart failure is expected to increase.

Heart failure can happen to  
anyone, *even you.*

Being told you have, or may have, heart failure can sound frightening, but it doesn't mean your heart has 'failed'. Heart failure simply means that your heart isn't pumping enough blood to meet your body's needs, due to several causes. Structural and functional changes to your heart can lead to heart failure, but this is not always the case so your medical team will assess your condition by considering different tests and investigations, such as imaging, blood and other laboratory tests, to decide if you have heart failure.<sup>5</sup>

Heart failure treatment aims to reduce or stabilise symptoms so you can engage in everyday activities, avoid hospital stays, improve your life quality, and live longer. With modern advancements in medicines, surgery and disease management, most individuals living with heart failure can lead fulfilling and meaningful lives.

This guide is designed to support individuals living with heart failure, those at risk, and their carers, providing valuable information and empowering them to actively participate in discussions and decisions regarding treatment alongside their heart failure multidisciplinary care team. It is based on guidelines from European and American heart failure experts, as well as insights from patient representatives worldwide.<sup>1,4</sup> Please note that everyone's experience with heart failure is unique, and this guide should complement, not replace, the advice provided by your care team, considering specific local and individual circumstances.

Regardless of your age or stage at diagnosis, or how long you have been living with heart failure, remember that you are not alone in this journey. Support is available to help you navigate through and thrive. If you have any questions or concerns, reach out to your care team or Hearts4heart at [www.hearts4heart.org.au](http://www.hearts4heart.org.au).



**After seeing decades of medical innovation in the heart space since my first diagnosis, I am more optimistic than alarmed. I can still do everything I want to do, and I want to reassure others that heart failure is not a death sentence, it's just the beginning of another phase of your life. You will work through it with your GP and cardiologist with minimal disruption to your daily activities.**

*- Russell, living with heart failure, QLD*



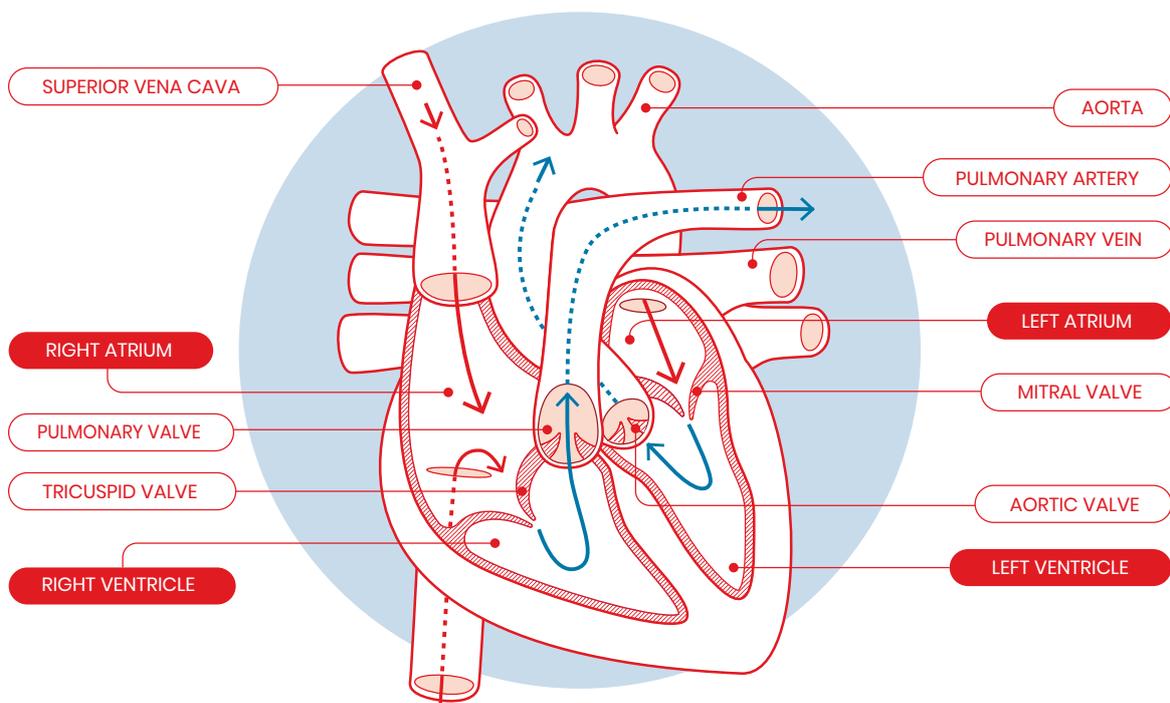
# How the heart works

The heart serves as a powerful pump, responsible for circulating blood throughout your body. Blood carries essential oxygen, nutrients, cells, antibodies that fight infection, and helps regulate body temperature. It also plays a role in eliminating waste products, which are sent to the kidneys and liver for disposal.<sup>6</sup>

It consists of four chambers, (figure 1) each with a specific role. In a heart with a normal structure, the journey of blood begins as the right atrium receives deoxygenated blood from various parts of your body. From there, the blood flows into the right ventricle. This large chamber pumps blood into the lungs, where red blood cells pick up oxygen.<sup>7</sup>

FIGURE 1

## The four chambers of the heart

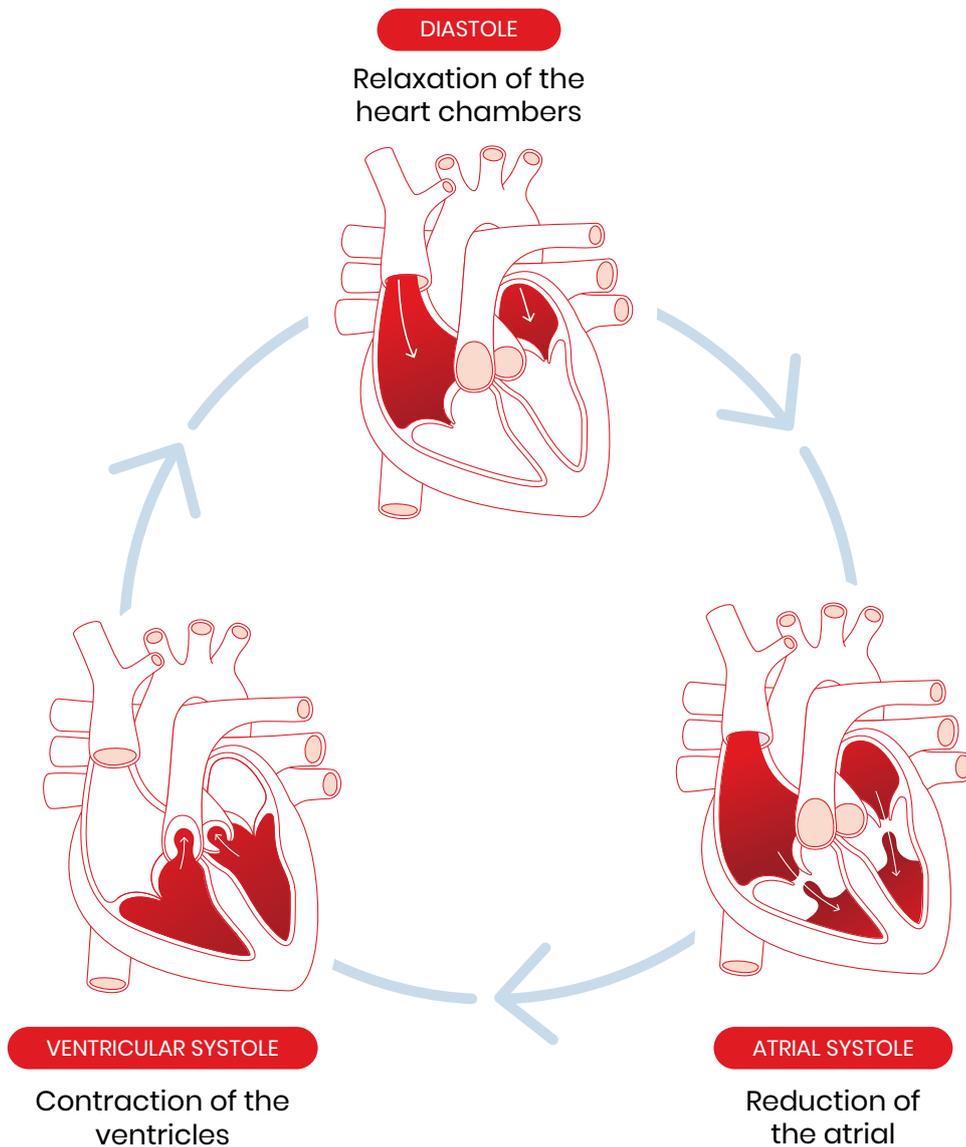


Once oxygenated, the blood returns to the heart into the left atrium. From here, it passes into the left ventricle. The left ventricle, being the most muscular chamber, is responsible for pumping the oxygen-rich blood out to the rest of your body.<sup>7</sup> The coordinated sequence of events that occur during each heartbeat is known as the cardiac cycle (figure 2).<sup>8</sup> This rhythmic cycle ensure the continuous flow of blood, allowing your body's cells to receive the oxygen and nutrients they need to functions properly.

Understanding the fundamental functions and structure of the heart will help you appreciate its incredible role in sustaining your overall wellbeing.

FIGURE 2

## The cardiac cycle



# Ejection fraction

## assessing heart function

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The ejection fraction is a critical measurement used by medical professionals to evaluate how effectively the heart is functioning in individuals with heart failure. It represents the percentage of blood that is pumped out from the left ventricle with each contraction. Essentially, it measures the heart's ability to pump blood.

A normal ejection fraction typically falls between 55% and 70%. Put more simply, a healthy heart pumps out approximately half to three-quarters of the blood in the left ventricle during each beat. This range indicates a well-functioning heart.<sup>4</sup> In general, the lower the ejection fraction, the weaker the heart. However, it's important to note that heart failure can still occur even if someone has a normal ejection fraction, as other factors contribute to the condition.

The treatment approach for heart failure may vary depending on whether the ejection fraction is preserved or reduced.<sup>14</sup> The specific course of action is determined by medical professionals based on the individual's condition and needs.

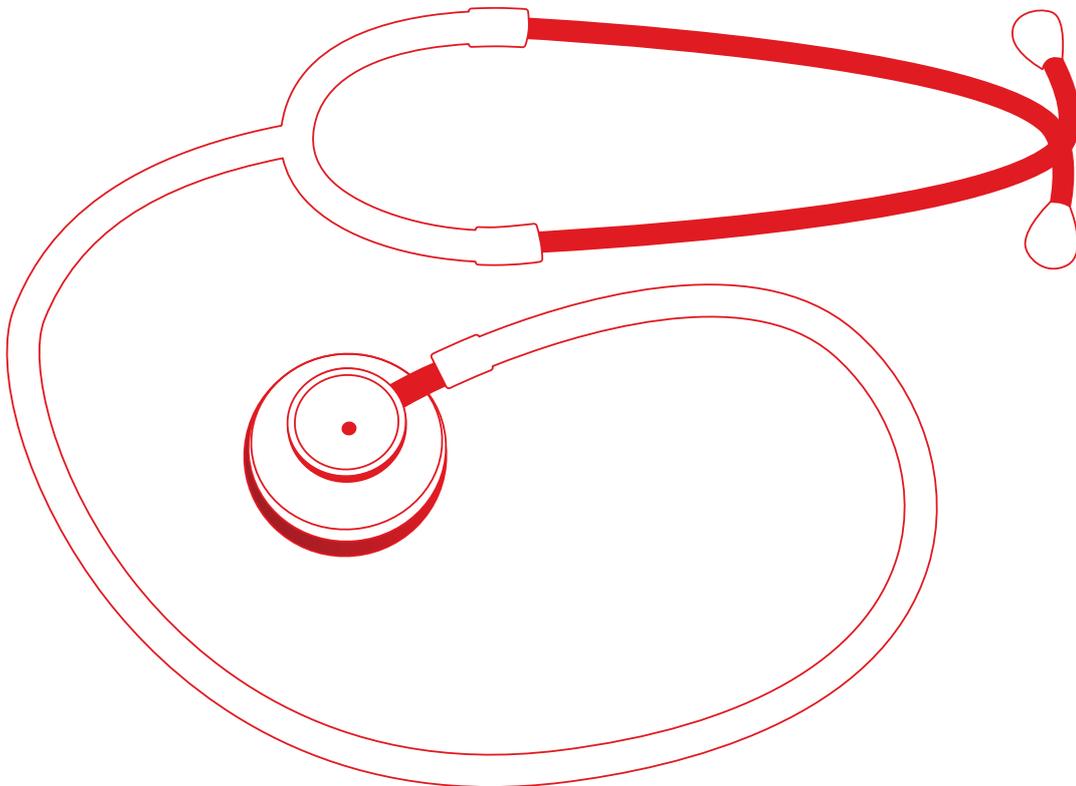
It's important to note that while ejection fraction serves as a valuable guide, it's not the only determining factor of heart failure. Some individuals with ejection fractions below 50% may not have heart failure, while others with "normal" ejection fractions can still experience heart failure symptoms. This highlights the complexity of the condition and the need to consider multiple factors in diagnosis and treatment.

### **Preserved ejection fraction (HFpEF)**

Heart failure with preserved ejection fraction (HFpEF) occurs when the muscles in the left ventricle become stiff, preventing normal relaxation and proper filling with blood.<sup>9</sup> This condition accounts for more than 70% of heart failure cases in individuals over 65 years old.<sup>3</sup>

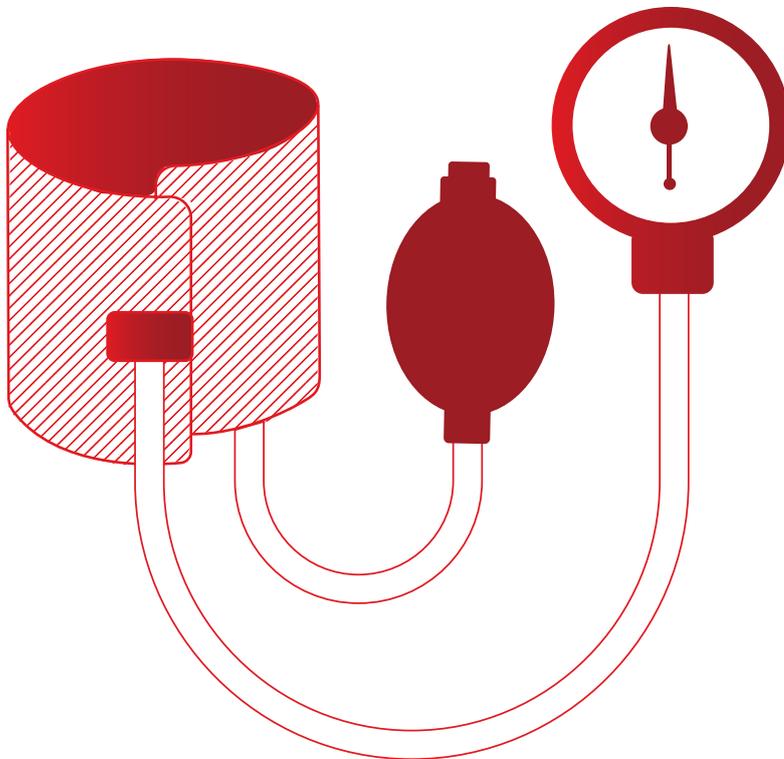
### **Reduced ejection fraction**

Many individuals living with heart failure have ejection fractions ranging from 20% to 30%, meaning their hearts pump out only a third to half of the normal amount.<sup>4</sup> This condition is referred to as “reduced ejection fraction” by the medical team. Heart failure with reduced ejection fraction (HFrEF) occurs when the left ventricle fails to contract adequately, resulting in an insufficient amount of pumping force to circulate blood effectively throughout the body.<sup>9</sup>



# Causes of heart failure

Heart failure occurs when the heart is unable to pump enough blood to meet the body's needs. It can be caused by various factors, including family history of heart disease, advancing age, reduced blood flow to the heart, high blood pressure, structural abnormalities in the heart, autoimmune diseases, obesity, certain medications, substance abuse, and other conditions. Even COVID-19 has been linked to an increased risk of heart failure. Understanding these causes is important for managing and reducing the risk of developing heart failure.



<p><b>FAMILY HISTORY</b> of heart disease can cause heart failure.<sup>5,2</sup></p>	<p><b>STRUCTURAL HEART DISEASE</b> including abnormalities in the structure of the heart valves, chambers, and blood vessels can cause heart failure. In some people, these abnormalities happen over many years. One example is thickened heart valves (valvular stenosis). Sometimes people are born with these structural abnormalities (congenital heart disease).</p>	<p><b>Certain MEDICINES</b> can contribute to heart failure. For example, the side effects of some cancer treatments.<sup>4</sup></p>
<p><b>ADVANCING AGE</b> can increase the risk of developing heart failure,<sup>2</sup> with individuals encouraged to have their hearts checked regularly from age.</p>		<p><b>DRUGS OF ABUSE</b> can increase the risk of heart failure. For example, alcohol, cocaine, cannabis, and methamphetamine.<sup>4,11</sup></p>
<p><b>CORONARY HEART DISEASE</b> can cause damage to the heart muscle and result in heart failure by reducing blood flow to the heart muscle caused by a build-up of fatty deposits (atherosclerosis), or a blood clot or wear or tear in the wall of the blood vessels supplying the heart.abnormalities (congenital heart disease).<sup>4</sup></p>	<p><b>Some AUTOIMMUNE DISEASES</b> (the immune system attacks health tissue), genetic and other diseases that damage (cardiomyopathies) or inflame (myocarditis) heart muscle can contribute to heart failure.</p>	<p><b>Other CONDITIONS</b> can increase your risk of developing heart failure, including under- and over-active thyroid, diabetes, abnormal heart rhythms and iron deficiency.<sup>1,4</sup></p>
<p><b>HYPERTENSION (high blood pressure)<sup>4</sup></b> can cause heart failure.<sup>4</sup> Between 80% and 90% of people living with heart failure with preserved ejection fraction have hypertension.<sup>3</sup></p>	<p><b>OBESITY</b> can increase the risk of heart failure.<sup>4</sup> Between 60% and 75% of people living with heart failure with preserved ejection fraction are obese.<sup>3</sup></p>	<p><b>COVID-19</b> can affect more than just our lungs. Emerging research is suggesting that the virus can also affect our heart by causing damage to the lining of our blood vessels, which can increase a person's risk of heart failure.<sup>53, 54</sup></p>

# Symptoms and signs of heart failure



Recognising the symptoms and signs of heart failure is important for managing your condition.<sup>1</sup>

**Symptoms** are changes you notice, like shortness of breath, being tired all the time, or having swollen ankles.<sup>1</sup>

**Signs** are measurable changes that your care team can observe, such as increased heartbeat or tachycardia (an increased heartrate), or changes in heart sounds, audible through a stethoscope.<sup>1</sup>

Refer to Figure 3 for a summary of typical signs and symptoms.

**While you may not experience all of these, it's crucial to communicate any signs or symptoms to your GP or care team:**



**A dry cough**



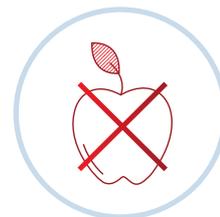
**Breathlessness**

With activity, when resting or when you can't lie flat comfortably

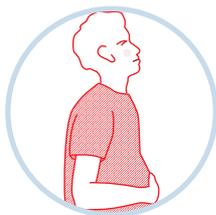


**Sudden weight gain**

More than 2-3 lbs (1-1.5kg) in 24 hours or 5lb (2.25 Kg) in a week



**Losing your appetite**



**Discomfort or swelling** in the tummy (abdomen) or lower body



**Increased swelling** of your legs, ankles or feet



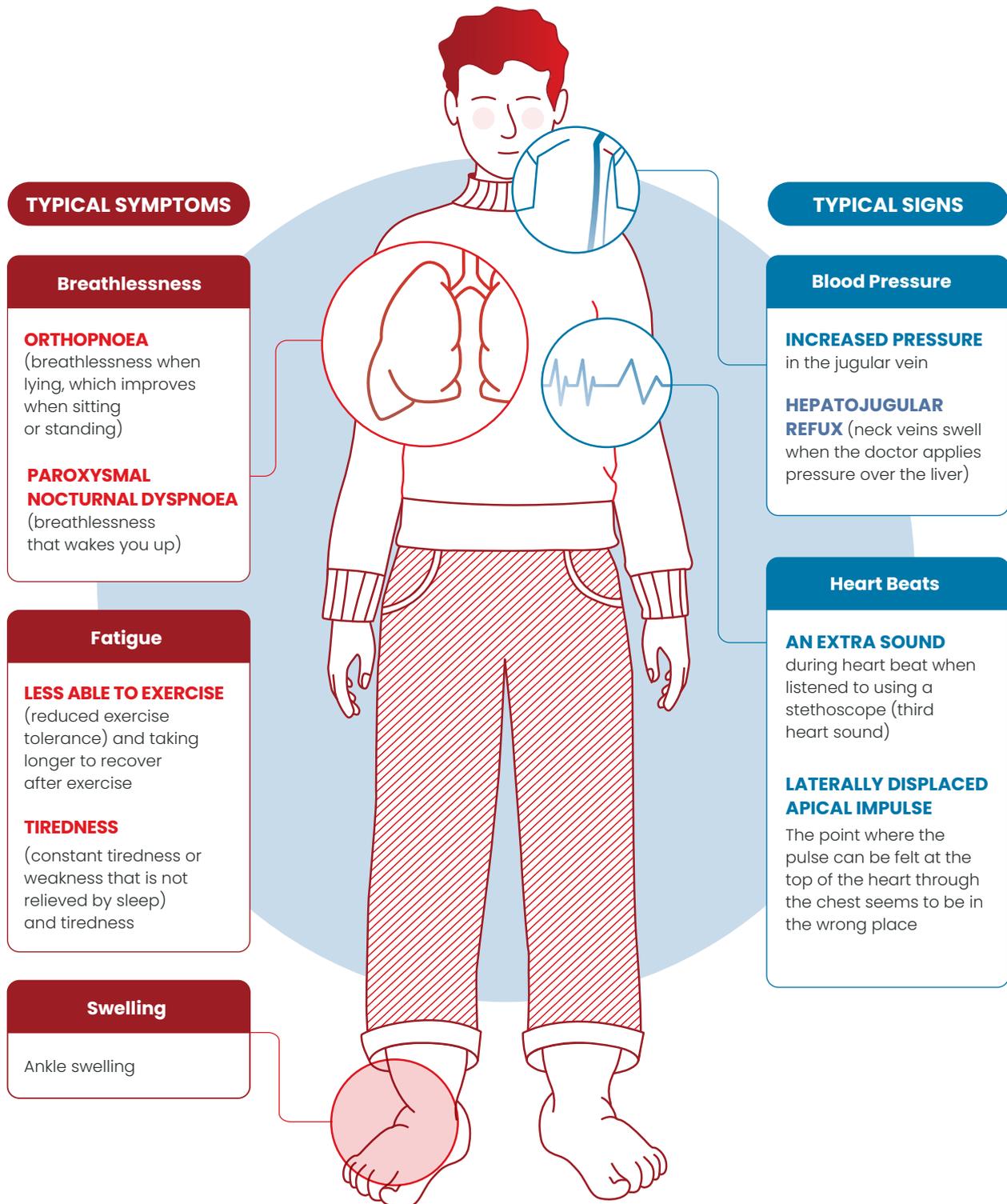
**Increased trouble sleeping**



**New or worsening dizziness, confusion, sadness or depression**

FIGURE 3

## Heart failure's typical signs and symptoms<sup>1</sup>



Laurie's experience:

## The importance of listening to your body

Laurie Jensen, a retired saddler and tourism worker, is living proof that ignoring symptoms of heart failure can have serious consequences. Laurie, who lives on a small farm outside of Bendigo with his partner and 11 harness horses, was diagnosed with heart failure following an admission to hospital with Covid.

Laurie had been experiencing shortness of breath, dry coughing fits, and extreme fatigue, but ignored these commonly dismissed heart failure symptoms, until his breathlessness was so severe, he had to be taken to Emergency.

He admits that he was an "independent bugger" who never reached out to anyone for support and went around without knowing information with a bit of a "no drama" attitude.

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**If you feel short of breath and can't breathe and you're exhausted for no reason, go and see what's wrong with your ticker.**

*- Laurie, living with heart failure, VIC*

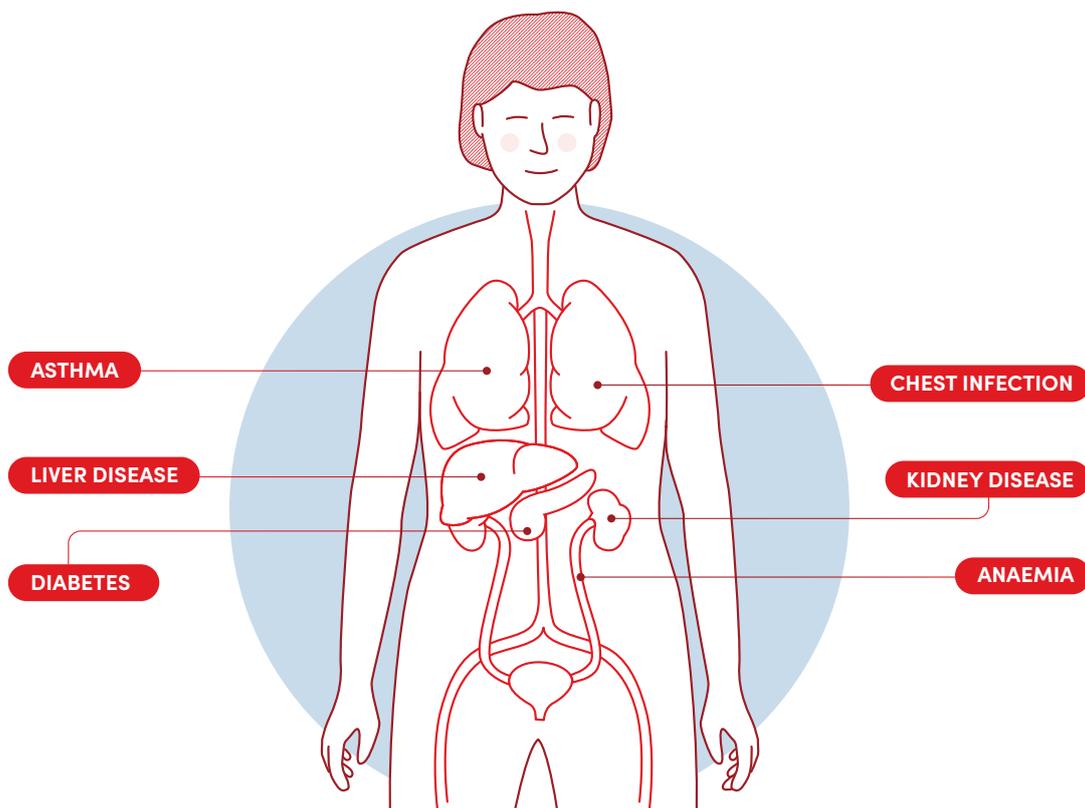
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# Investigating and diagnosing heart failure

When doctors diagnose heart failure, they use a process called differential diagnosis to carefully consider and rule out other conditions that have similar signs and symptoms<sup>13</sup>. It's important to know that heart failure can cause a wide range of different signs and symptoms. To diagnose heart failure correctly, the doctors not only look at your symptoms but also check the structure and function of your heart to see if anything is abnormal (Figure 5)<sup>5</sup>. They may use different tests to evaluate your heart's condition and find out what is causing the heart failure.

FIGURE 4

## Examples of conditions that the care team need to rule out before diagnosing heart failure



## Laboratory tests

You will undergo a series of laboratory tests (table 2) to determine the cause of your heart failure, guide your treatment, and monitor for any potential side effects. The care team will perform these tests to identify any underlying issues, assess your progress, and ensure the effectiveness of your treatment.

TABLE 1

## Examples of laboratory tests used to help diagnose heart failure

LABORATORY TEST	WHAT THE TEST MEANS
<b>Complete blood count</b>	Analysing the cells in your blood helps identify different diseases including infections, anaemia, immune disorders, and blood cancers.
<b>Urinalysis</b>	Analysis of a urine sample helps find various diseases including urinary tract infections, kidney disease and diabetes.
<b>Blood electrolytes</b>	Blood analysis is conducted to measure the levels of salts and minerals such as sodium, potassium, and chloride. These levels can vary in certain diseases or conditions.
<b>Creatinine</b>	Kidneys remove creatinine (a waste product) from your blood. Higher than normal levels of creatinine in blood or urine may show that your kidneys are not working properly
<b>Glucose in urine</b>	Normally, urine does not contain glucose or only a very small amount. However, if you have diabetes, the levels of glucose in your urine may be higher.
<b>Lipid profile</b>	Examines the fats and proteins responsible for transporting fats in your blood – alterations in this pattern can impact your risk of heart disease.
<b>Liver blood test</b>	Also known as liver function tests, liver blood tests measure a group of chemicals that indicate the functionality of your liver.
<b>Iron levels</b>	Iron is part of haemoglobin, which carries oxygen in red blood cells. Low levels may mean you have anaemia.
<b>Thyroid-stimulating hormone (TSH)</b>	The thyroid is a gland producing chemical messages (hormones) that control the way your body uses energy. Measuring TSH levels in blood shows if the thyroid is working properly.

## Monitoring natriuretic peptides

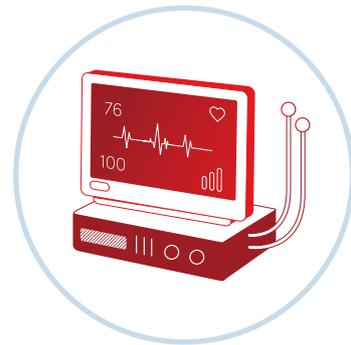
Natriuretic peptide levels, such as B-type natriuretic peptide (BNP) and N-terminal pro-B-type natriuretic peptide (NT-proBNP), are small proteins released in the body when there are changes in pressure or blood volume in the heart. Their levels can indicate the presence of heart failure. However, other factors like obesity, pulmonary embolism, arrhythmias, and kidney disease can also affect the levels of natriuretic peptides.<sup>4</sup> Therefore, measuring natriuretic peptides alone is not enough to diagnose heart failure.<sup>4</sup>

It's important to know your natriuretic peptide level, so don't hesitate to ask your medical team about the test and its results. Please note that testing for BNP and NT-proBNP may not be covered by subsidies in Australia, and there might be an out-of-pocket fee of around \$50. If you're interested in this testing, discuss its availability and usefulness with your doctor.

## Electrocardiogram (ECG)

Although electrocardiograms cannot diagnose heart failure, they can provide information about its causes and track your progress, so your care team may recommend ECGs from time to time.<sup>1</sup> An electrocardiogram (ECG) uses sensors attached to the skin to find changes in the heart's electrical signals.<sup>14</sup>

You may undergo an ECG while lying down or while using an exercise bike or treadmill if certain activities trigger your symptoms. Additionally, your care team may recommend ambulatory ECG (also called a Holter monitor) which involves wearing a small device at your waist for a few days.<sup>14</sup> This device records your ECG as you go about your daily activities.



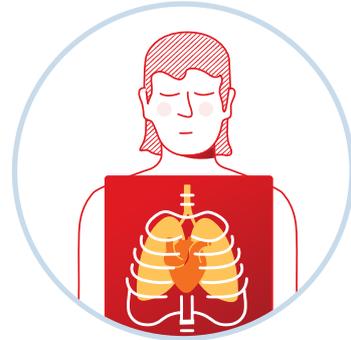
## Echocardiogram

Echocardiograms help the care team assess the performance of your heart, including measuring the ejection fraction.<sup>1</sup> An echocardiogram uses sound waves (ultrasound) to build a picture of your heart.<sup>14</sup> They provide information about the size, shape, and movement of the heart chambers, as well as the condition of the valves such as thickness or leakage.<sup>1</sup>



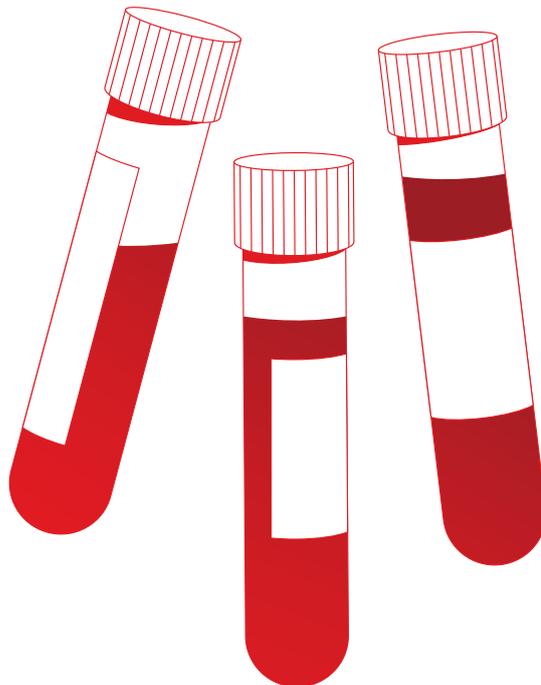
## Other types of imaging

Other types of imaging that you may undergo include a chest x-ray, which is helpful in identifying causes of breathlessness, such as lung disease.<sup>1</sup> X-rays can also reveal signs of pulmonary congestion (fluid in the lungs) and cardiomegaly (abnormal enlargement of the heart).<sup>1</sup> Your care team may suggest other imaging tests, such as cardiovascular magnetic resonance (CMR) imaging, single-photon emission computerised tomography (SPECT) or cardiac computed tomography.<sup>1</sup> These provide more information to echocardiograms.<sup>1</sup> If you need one of these tests your care team will talk with you about the reasons, risks and benefits.



## Genetic testing

If there is a suspicion of genetic or inherited cardiomyopathy as the underlying cause of your heart failure, genetic testing may be recommended.<sup>1,4</sup> Before and after the testing, you should receive counselling to gain a better understanding of the test and its implications, including any potential risks to your children.



Katrina's experience:

## Family history, diagnosis, and support

Heart conditions have always been present in Katrina's life. Katrina's sisters, brother, and nephew have all been diagnosed with cardiomyopathy, a condition that can lead to heart failure, and claimed the lives of Katrina's grandfather and uncle. The doctors have confirmed a strong genetic link, which worries Katrina, especially because she has two sons who have a fifty percent chance of inheriting a heart condition. Despite her family history, Katrina didn't think she was at risk.

In 2021, Katrina began experiencing extreme fatigue and was feeling "absolutely shockingly ill," but she dismissed her symptoms as a natural part of getting older. Ultimately, it was chest pain that prompted her to visit the local emergency department, where she was diagnosed with heart failure. Seeking care from her local cardiologist has since become an invaluable support system for Katrina.



Seeing my cardiologist was the best thing I could have done for my health. If you are always feeling tired or wanting to sleep, your body is trying to tell you something. Do what your body tells you to do. See your doctor.

- Katrina, living with heart failure, VIC

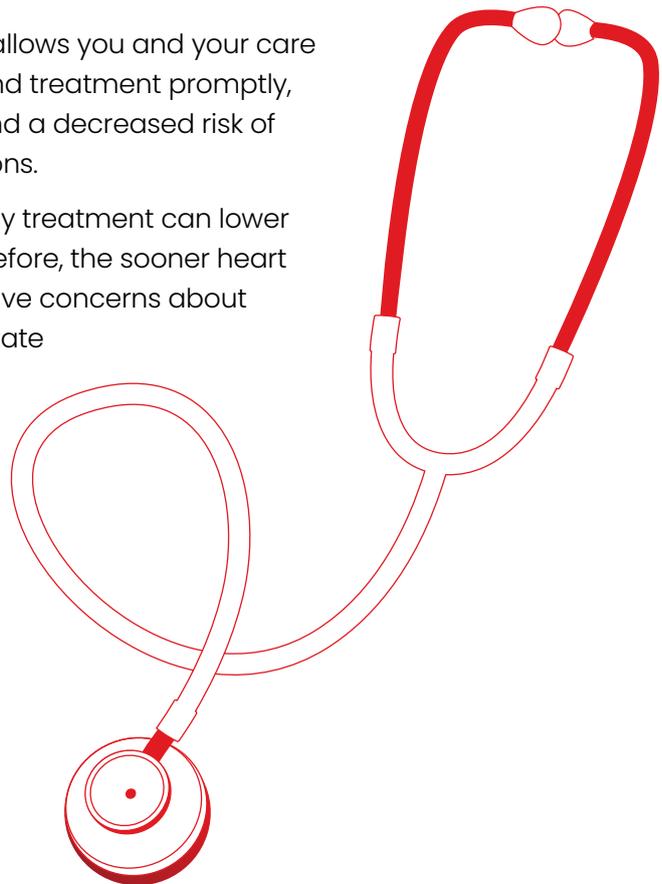


# The importance of early diagnosis

Detecting and intervening early in individuals at high risk of heart failure is critical in reducing the likelihood of developing the condition. Unfortunately, heart failure often goes unnoticed or gets misdiagnosed,<sup>2,51</sup> leading to delays in receiving the proper care. Surprisingly, research reveals that Australians living with heart failure visit their GP an average of 14 times a year, yet only 20 per cent of them receive a formal diagnosis of heart failure, and out of those, only half are provided with a management plan.<sup>50</sup>

Why is early diagnosis so important? It allows you and your care team to implement lifestyle changes and treatment promptly, leading to an improved quality of life and a decreased risk of developing life-threatening complications.

For those experiencing symptoms, timely treatment can lower the risk of advanced heart failure.<sup>4</sup> Therefore, the sooner heart failure is diagnosed, the better. If you have concerns about symptoms or your diagnosis, don't hesitate to communicate with your care team and continue expressing any worries you may have.



## Campbell's experience

# The reality of delayed diagnosis

For 77 years, Bendigo resident Campbell McCullough had never been in an ambulance or a hospital. Although he had a few underlying conditions, including diabetes and occasional heart rhythm issues, they were under control and not a major concern.

However, everything changed one July when Campbell experienced severe breathlessness. He was rushed to the local hospital and put on oxygen. After a six day stay, he was sent home without a clear diagnosis. This began a frustrating period where he wondered if the symptoms would reoccur, which lasted until late November when an ambulance was needed. Again, he was sent home after several days – the diagnosis being ‘respiratory’. This back-and-forth from hospital occurred twice more in December with the same possible diagnosis. After another emergency call in January, he was finally diagnosed with heart failure.



It was scary going back and forth to hospital. I always felt uneasy wondering when the breathlessness was going to return, whether it was safe for me to go on a holiday, and if there was ever going to be a solution. But don't give up on hope. There is a solution, it just may not be instantaneous.

*- Campbell, living with heart failure, VIC*



# Stages of heart failure

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The New York Heart Association (NYHA) Classification is a globally used system that helps your care team understand the impact of heart failure on your daily life and assists in discussions regarding your treatment. This classification system categorises patients into four classes (I-IV) based on their ability to perform daily activities and four classes (A-D) based on signs of cardiovascular disease, providing valuable information about the severity of your condition that can guide your healthcare team in determining the most appropriate treatment plan for you (see table 1).<sup>12</sup>

Individuals with heart failure can transition between stages. Those in NYHA 4 heart failure often experience recurring symptoms and hospital stays. However, with appropriate treatment, symptoms can improve enabling individuals to move from NYHA 4 to 3. As a result, treatment goals will evolve throughout the journey. At each step, individuals living with heart failure need to consider the balance between quality of life and quantity of life. This balance may change along the journey. You also need to consider when a treatment should be stopped, such as when it does not seem to be working or the side effects are unacceptable. It is worth talking about this before you start a treatment.

TABLE 2

## The New York Heart Association (NYHA) Classification of heart failure<sup>12</sup>

CLASS	PATIENT SYMPTOMS
I	No limitation of physical activity. Ordinary physical activity does not cause undue fatigue, palpitations, dyspnea (shortness of breath).
II	Slight limitation of physical activity. Comfortable at rest. Ordinary physical activity results in fatigue, palpitation, dyspnea (shortness of breath).
III	Marked limitation of physical activity. Comfortable at rest. Less than ordinary physical activity results in fatigue, palpitation, dyspnea.
IV	Unable to carry on any physical activity without discomfort. Symptoms of heart failure at rest. If any physical activity is undertaken, discomfort increases.
CLASS	OBJECTIVE ASSESSMENT
A	No objective evidence of cardiovascular disease. No symptoms and no limitation in ordinary physical activity.
B	Objective evidence of minimal cardiovascular disease. Mild symptoms and slight limitation during ordinary activity. Comfortable at rest.
C	Objective evidence of moderately severe cardiovascular disease. Marked limitation in activity due to symptoms, even during less-than-ordinary activity. Comfortable only at rest.
D	Objective evidence of severe cardiovascular disease. Severe limitations. Experiences symptoms even while at rest.

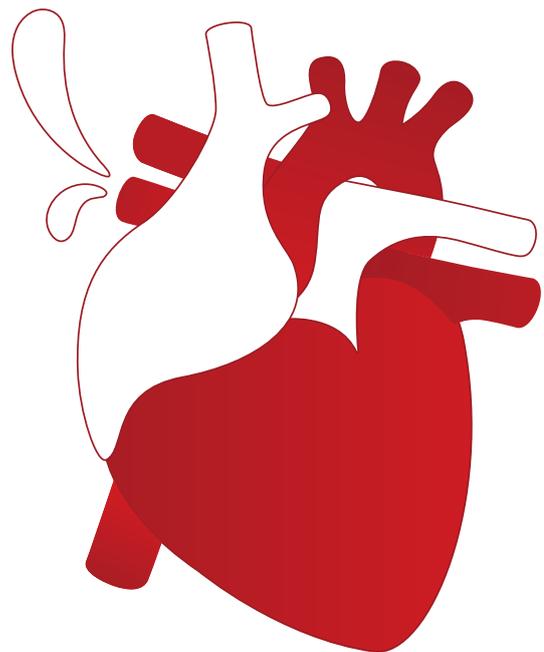
# Treatment goals for heart failure

The treatment goals for heart failure are tailored to the stage of the condition. For patients at risk of heart failure, the goal is to prevent its development.<sup>4</sup> This can be achieved through various measures such as maintaining a healthy lifestyle, managing underlying conditions, and following medical advice.

In symptomatic heart failure, the goals are centred around reducing symptoms, improving daily activities, and minimising the risk of the condition worsening. This typically involves a combination of self-care practices, taking prescribed medications, and using medical devices if necessary.<sup>4</sup>

In cases of severe heart failure, advanced therapies like Left Ventricular Assist Devices (LVAD) or heart transplantation may be suitable for some individuals. These interventions can provide additional support to the heart or replace it entirely, improving overall heart function. Palliative care, also known as supportive care, is another important aspect for individuals with severe heart failure. It focuses on improving symptoms and providing comfort to enhance quality of life.<sup>4</sup>

It is important for individuals with heart failure to work closely with their healthcare team to determine the most appropriate treatment goals and strategies for their specific situation. Regular medical check-ups, adherence to prescribed medications, and making necessary lifestyle adjustments are essential for managing heart failure effectively.



# Your team of healthcare professionals

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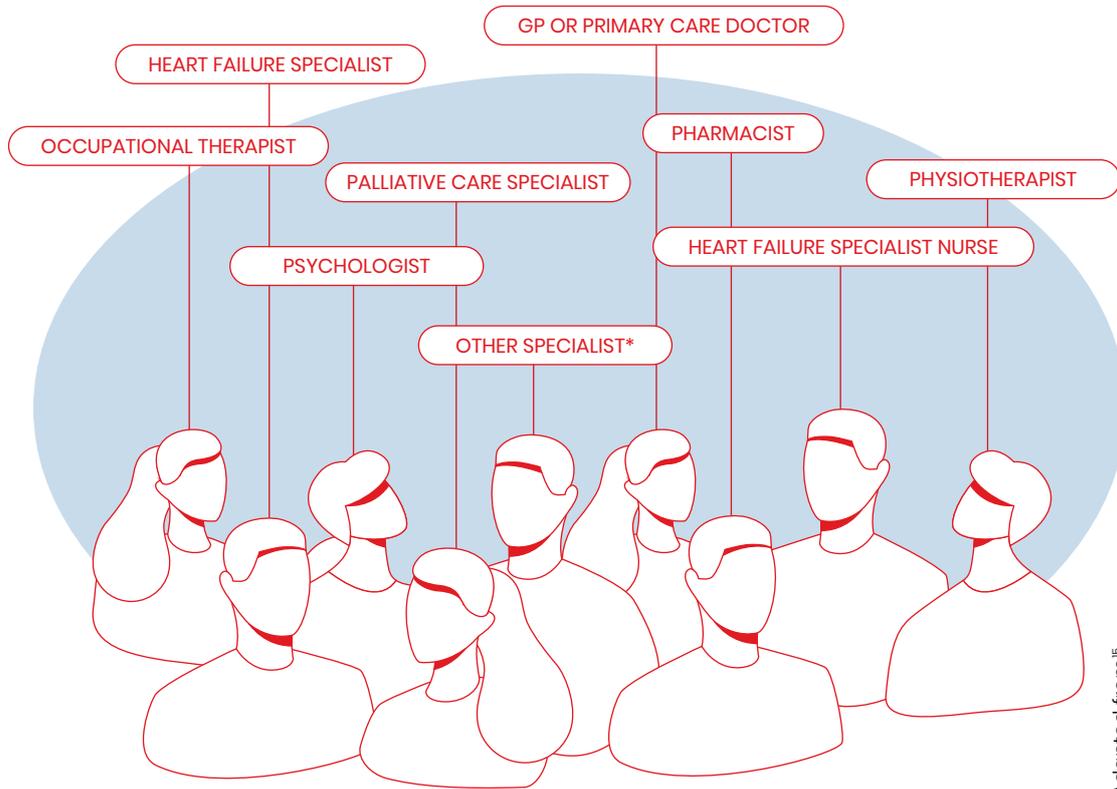
Every person with heart failure is unique, and their care team is tailored to meet their specific needs. Typically, the care team (figure 6) includes several key professionals. These include a cardiologist who specialises in heart failure, a specialist nurse, a pharmacist, and primary care doctor. There may be other healthcare professionals involved, depending on your situation. Occupational therapists can provide recommendations for aids and modifications to your work and home environment to make everyday activities easier. Psychologists may also be included if you are facing challenges with your mental health, ensuring a holistic approach to your care.<sup>15</sup>

Additionally, your care team may collaborate with professionals from different medical fields if you have other medical conditions (comorbidities) or require assistance to quit smoking or address drug use.<sup>16</sup> By integrating the expertise of various healthcare professionals, your care team aims to provide comprehensive support for your specific needs.

Studies show that having a care team improves the overall prognosis for individuals living with heart failure.<sup>15</sup> So, if you feel you need additional support or have specific concerns, it is important to communicate openly with your care team. They can assist you in achieving the best possible outcomes and enhance your quality of life.

FIGURE 5

## Example of members of your care team



Adapted from<sup>15</sup>

\*eg kidney disease, diabetes or chest disease

### Emergency contacts and knowing who to call

Make sure you and your carers know who to contact in your care team if you have questions or worries. Keep their contact details handy. Hearts4heart can also help answer questions from you and your carer and offer practical advice about living with heart failure.



# Choosing the right heart failure medication

Choosing the right heart failure medication is a critical aspect of your treatment plan. There are various medicines commonly used and the specific choice depends on several factors such as the cause, severity, and stage of your heart failure, any accompanying medical conditions, other treatments you may be undergoing, age, and whether your ejection fraction is preserved or reduced.

In the early stages of heart failure, certain changes occur in the body, including increased heart rate and narrowed blood vessels to compensate for the condition. However, these changes can eventually harm the heart in the long term. That's why heart failure medications target these specific changes to alleviate symptoms, reduce the risk of hospitalization and death, and improve overall outcomes. Some medications lower blood pressure or heart rate, while others prevent or slow down the progression of heart failure.

**Before starting any medicine, make sure you:**

- Consult with your healthcare provider to determine the most suitable medication for your specific condition and needs.
- Fully understand its purpose, benefits, recommended dosage, effects, and potential side effects.
- Always read the patient information that comes with your medicine.
- Discuss practical considerations with your care team, such as the best time to take the medicine and what to do if you miss a dose.



Keep your care team informed about any other medical condition you have and ensure that you continue to manage those conditions alongside your heart failure.

In some cases, you may need to temporarily stop certain medicines during a short-lived infection or illness and restart them once you've recovered. Your cardiologist or pharmacist will provide guidance on this matter.

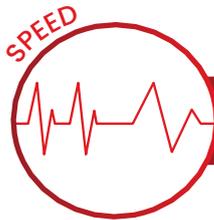
If you have any uncertainties or questions about your medication, don't hesitate to consult your care team or the pharmacist where you collect your prescription. Open communication and clarity are key to optimising your heart failure treatment and overall well-being.



Angiotensin-converting enzyme inhibitors (ACEIs) and angiotensin receptor blockers (ARBs) are medications that target the effects of angiotensin, a chemical produced by the body that constricts blood vessels.

ACE inhibitors reduce the production of the active hormone, effectively relaxing and dilating blood vessels.<sup>18</sup> This helps reduce the workload on the heart in individuals with heart failure with reduced ejection fraction.<sup>18</sup> ACE inhibitors are also commonly prescribed by cardiologists to treat high blood pressure.<sup>18</sup> Even if your blood pressure is already low, ACE inhibitors may still be necessary for many people living with heart failure.

ARBs, on the other hand, block the action of angiotensin on blood vessels. They are typically used when ACE inhibitors are not well-tolerated in heart failure patients. For individuals with heart failure and reduced ejection fraction (EF <40%), most should receive an angiotensin receptor neprilysin inhibitor (ARNI). ARNIs combine an ARB with a neprilysin inhibitor to relax blood vessels and improve cardiac health. Studies have shown that ARNIs are superior to ACE inhibitors in enhancing overall cardiac function.

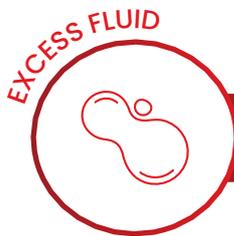


## Beta-blockers

Beta-blockers are medications that have multiple beneficial effects in heart failure. They work by reducing blood pressure, slowing down the heart rate, and aiding in the relaxation of the heart.<sup>18</sup> However, it is important to note that beta-blockers can initially worsen heart function in individuals with deteriorating heart function.<sup>18</sup> For this reason, beta-blockers are typically prescribed to individuals with stable heart failure.

This short-term decrease in functional status when starting beta-blockers usually improves over time.<sup>1</sup> So, while there may be a temporary decline in symptoms, the long-term benefits of beta-blockers in managing heart failure outweigh this initial setback.

Beta-blockers can narrow airways and make asthma worse.<sup>18</sup> So, always tell your care team if you have asthma. Other side effects include cold fingers and toes, insomnia, depression, fatigue and problems getting or keeping an erection.<sup>1</sup>



## Diuretics

Diuretics are medications commonly used in individuals with heart failure and reduced ejection fraction to address the accumulation of fluid in the ankles and lungs. These medications function by lowering blood pressure and increasing excretion of sodium and water. In other words, you pass more urine. This helps to alleviate symptoms associated with fluid retention<sup>18</sup> and can contribute to the overall management of heart failure.

In people with heart failure with reduced ejection fraction and signs and symptoms of congestion (fluid build-up in tissues), diuretics can ease heart failure symptoms improve how much you can exercise, and reduce heart failure related hospital stays.<sup>1</sup>

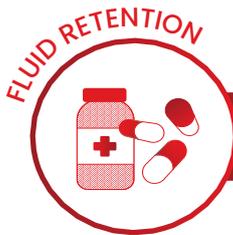
People with heart failure are often prescribed loop diuretics like furosemide, which may result in excessive potassium loss.<sup>18</sup> To ensure your well-being, your care team will closely monitor your potassium levels.



## Sodium-Glucose Cotransporter 2 (SGLT2)

SGLT2 inhibitors are widely used to treat type 2 diabetes.<sup>4</sup> Researchers are still trying to work out how SGLT2 inhibitors work in heart failure but individuals with heart failure benefit whether or not they have type 2 diabetes.<sup>4</sup> In individuals with heart failure, certain sodium-glucose cotransporter 2 (SGLT2) inhibitors reduce hospital stays and make death from heart failure less likely.<sup>1, 21-23</sup>

SGLT2 inhibitors increase the amount of glucose in the urine in patients with diabetes. Glucose can act as an energy source for bacteria and fungi. Urinary tract infections, usually caused by a yeast called Candida (thrush), happen in about 1 in 10 women and 1 in 20 men taking SGLT2 inhibitors.<sup>24</sup> Your care team may be able to suggest ways to make a thrush infection less likely. It is important to temporarily stop SGLT2 inhibitors if you are unwell and cannot have a normal intake of fluid and food, or need a procedure that requires fasting. They should be restarted once you are well again or after the procedure.



## Mineralocorticoid receptor antagonists

Aldosterone is a hormone that regulates the levels of water and sodium in the blood. It plays an important role in keeping the body healthy. However, in individuals with heart failure, aldosterone levels can be up to 60-times higher than in healthy individuals.<sup>25</sup> This leads to the body retaining too much fluid, which puts extra strain on the heart. High levels of aldosterone can also cause inflammation, stiffness, and scarring of the heart muscle, contributing to heart failure.<sup>25</sup>

To counteract these harmful effects, mineralocorticoid receptor antagonists are used. These medications block the actions of aldosterone in individuals with heart failure with reduced ejection fraction (HFrEF), ease the workload on the heart, and improve the overall condition of the heart.<sup>1, 25</sup>

Mineralocorticoid receptor antagonists can cause high levels of potassium in the blood (hyperkalaemia), which can cause symptoms including palpitations, feeling sick, muscle pain and weakness, pins and needles, or paraesthesia. These side effects happen because the high potassium levels mean that muscles or the heart do not work properly.<sup>25, 27, 28</sup>

Your care team may suggest medications such as patiromer sorbitex calcium and sodium zirconium cyclosilicate. These bind to potassium in the gut, normalising and preventing rises of potassium levels.<sup>1</sup> In up to 1 in 10 men, spironolactone causes breast tenderness and enlargement called gynecomastia.<sup>25</sup> Spironolactone can also cause taste changes, or dysgeusia, such as an unpleasant metallic taste. Epleronone is an alternative MRA that has demonstrable benefits in patients with HF without many of the side effects of spironolactone, but its use is restricted in Australia.

# Addressing concerns about side effects

Occasionally, medications used to treat heart failure may cause side effects, although the chances are small. Your care team will closely monitor your blood pressure, heart rate, blood tests and symptoms to make sure that the benefits of the medication outweigh any potential risks.

Side effects, also called adverse events, can vary. Some side effects are expected and are part of how the medication works. For example, diuretics may cause increased urination. Other side effects may be unexpected.

If you have concerns that a symptom that you're experiencing may be a side effect, it's important to discuss it with your care team. There are often alternative medications available that can be considered. In some cases, your care team may have suggestions on how to minimise the impact of a side effect, such as adjusting the timing of diuretic intake.



*Never stop or adjust the dose of any medication without consulting your care team.*

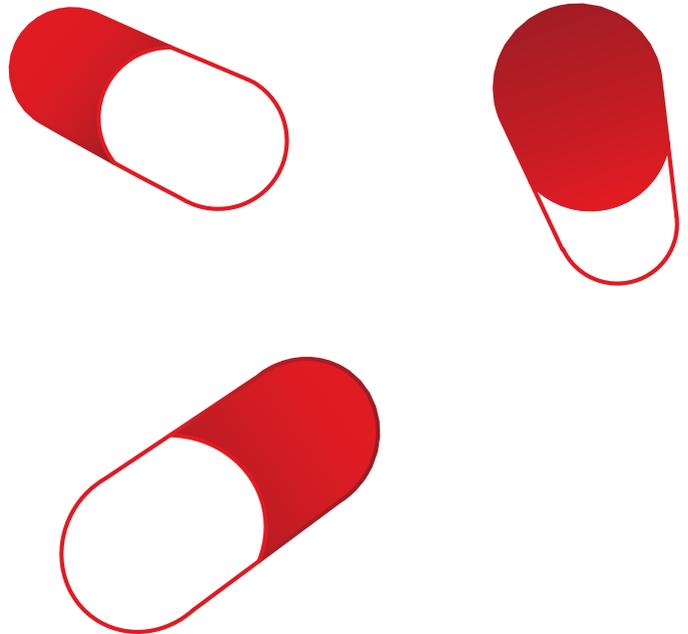


# Management of coexisting conditions

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Managing other conditions alongside heart failure is important. Conditions like chronic kidney disease, chronic obstructive pulmonary disease, high blood pressure, sleep disordered breathing, diabetes, and anaemia or iron deficiency can worsen heart failure.<sup>1</sup> It's important to address these conditions and keep your care team informed.

Additionally, individuals with heart failure often experience iron deficiency, which may require iron supplements.<sup>14</sup> Don't forget to properly manage your other conditions alongside your heart failure and consult your care team if you haven't had your iron levels checked recently.



# Devices and surgical interventions

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If your heart failure progresses to a stage where medication alone is no longer sufficient, consulting with a specialist at the appropriate time can ensure that you receive the most appropriate and advanced treatments available to manage your heart failure effectively. You might be a candidate for advanced interventions such as a heart transplant or a cardiac assist device, which provide additional support for your heart condition. To help remember this, you can use the acronym “I NEED HELP”.<sup>17</sup>

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**At this stage I haven't had the need for surgery for heart failure. However, my cardiologist has mentioned a pacemaker when the time is right.**

*- Russell, living with heart failure, QLD*

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TABLE 3

## I NEED HELP: When to see a specialist about a heart transplant or cardiac assist device

<b>I</b>	<b>Inotropes</b>	You need inotropes (medicines that affect the way heart muscles beat), such as dobutamine, milrinone, dopamine, levosimendan
<b>N</b>	<b>NHYA grade III or IV</b>	You have NYHA grade III or IV heart failure, high BNP or NT-ProBNP, or both
<b>E</b>	<b>End organ damage</b>	You have kidney or liver disease as well as heart failure
<b>E</b>	<b>Ejection fraction</b>	You have very low ejection fraction (for instance, less than 20%)
<b>D</b>	<b>Defibrillator</b>	You have required defibrillator shocks on several occasions to make sure your heart is working properly
<b>H</b>	<b>Hospital stays</b>	You had more than one hospital stay because of heart failure in the last year
<b>E</b>	<b>Oedema / escalating diuretics</b>	You have oedema, such as swelling in the feet, legs and ankles, or you need higher doses of diuretics
<b>L</b>	<b>Low blood pressure</b>	Your blood pressure is constantly low
<b>P</b>	<b>Prognostic medication</b>	You are unable to increase or need to decrease or stop certain heart failure drugs, such as beta-blockers, angiotensin-converting enzyme (ACE) inhibitors, angiotensin receptor blockers, neprilysin inhibitors or mineralocorticoid receptor antagonists

# Recommendations for surgery by your care team

Your care team may recommend an operation if medications alone are not effectively managing your signs and symptoms of heart failure. This could be due to various reasons, such as the presence of additional issues like arrhythmias or diseased heart valves (as shown in figure 1) or if your heart failure progressively worsening.<sup>14</sup> These devices or surgical procedures are suggested to provide additional support and improve your condition.

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**Following the implantation of my pacemaker, everything is wonderful now. I can finally travel the world and really enjoy what I love doing every day, like art classes, walking, volunteering, and having coffee with friends.**

*- Campbell, living with heart failure, VIC*

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An example of an intervention is the implantation of an implantable cardioverter defibrillator (ICD) (figure 6). This small battery-powered device is surgically placed in your chest. It constantly monitors your heartbeat, and if it detects any irregular heart rhythms (arrhythmias), it delivers electrical pulses to restore a regular heartbeat. In certain individuals with heart failure, the two ventricles may not pump in sync with each other. To address this, cardiac resynchronisation therapy (figure 7) involves using a specialised pacemaker that helps reset the heart's pumping action.

FIGURE 6  
Implantable  
cardioverter  
defibrillator

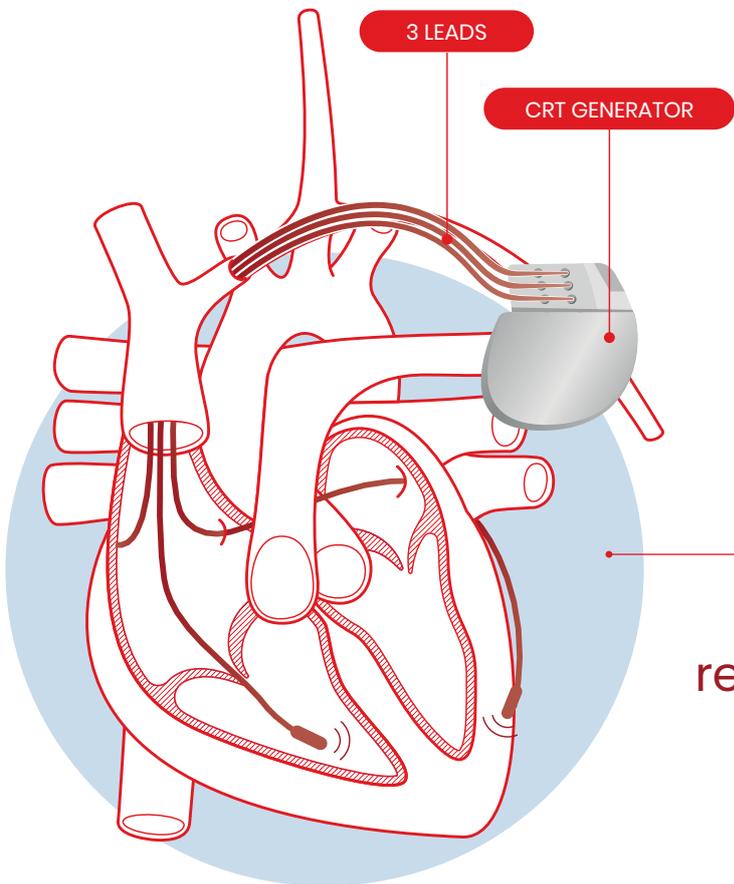
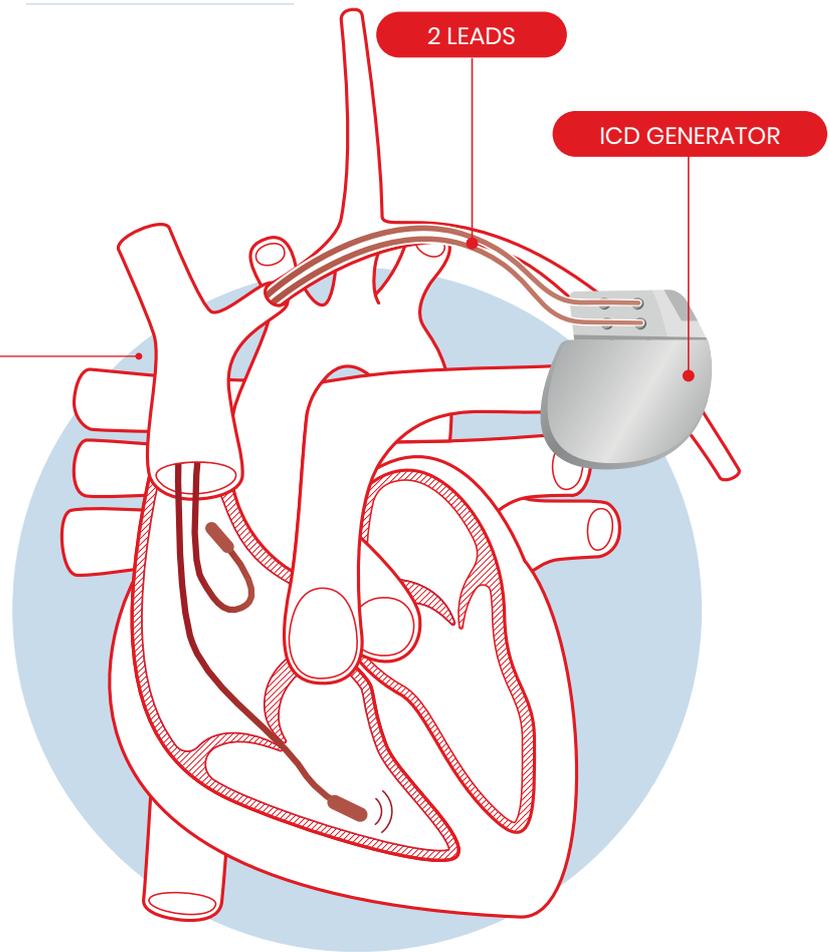


FIGURE 7  
Cardiac  
resynchronisation  
therapy

Table 4 provides an overview of additional devices and procedures used in the treatment of heart failure. It is important to have discussions with your care team regarding what to anticipate, potential risks, and circumstances under which the device may be deactivated or removed.<sup>1,29</sup> Your care team will recommend a device or intervention only when they are confident that the benefits outweigh the risks. Open communication with your care team will help you make informed decisions about your treatment.

TABLE 4

## The main devices and operations used to treat heart failure

PROCEDURE	WHAT THE PROCEDURES DOES	RARE COMPLICATIONS
<p><b>Surgical revascularisation</b></p>	<p>Revascularisation widens narrowed parts of a coronary artery.</p> <p>Coronary artery bypass grafting (CABG) uses a vein or artery from another part of the body to bypass the blockage.</p> <p>Percutaneous coronary intervention (PCI) uses a metal mesh (stent) to open the vessel.</p>	<p><b>CABG:</b> heart attack during the procedure; the graft becomes blocked; low output from the heart; arrhythmias.</p> <p><b>PCI:</b> the vessel may suddenly close, causing a heart attack; blood may pool in nearby tissue; the stent may perforate and rupture the coronary arteries; a blood clot may form on the stent increasing the risk of heart attacks and stroke</p>

PROCEDURE	WHAT THE PROCEDURES DOES	RARE COMPLICATIONS
<p><b>Percutaneous valvular intervention</b></p>	<p>Many individuals with heart failure have thick or leaky valves. Sometimes, the valve can be replaced or repaired by percutaneous mitral valve repair, a type of key-hole surgery. Some valves can be repaired by placing small catheters (thin, flexible tubes) in the artery at the top of the leg. A cardiologist can place a clip on the mitral valve. Some valves need to be replaced with tissue or mechanical heart valve replacements</p>	<p>Infections, blood clots, or endocarditis (infection of the inner lining of the heart) atrial fibrillation (an abnormal rhythm in the atrium). The risk partly depends on whether the replacement valve is mechanical or tissue. Mechanical valves need lifelong treatment with a drug called warfarin to prevent blood clots</p>
<p><b>Extracorporeal membrane oxygenation (ECMO)</b></p>	<p>An ECMO machine is like heart-lung bypass machine used for open heart surgery. It replaces the breathing function of the heart and lungs. While potentially lifesaving, ECMO has serious risks. So, ECMO is used while individuals are seriously ill, such as waiting for an urgent heart transplant</p>	<p>Bleeding, blood clots, infection, kidney problems, injury to local blood vessels, stroke or loss of blood flow to hands or feet (ischaemia)</p>

Continue to next page >

PROCEDURE	WHAT THE PROCEDURES DOES	RARE COMPLICATIONS
<p><b>Left ventricular assist device (LVAD); Right ventricular assist device; Bi-ventricular assist device (bi-VAD)</b></p>	<p>Some individuals with heart failure whose symptoms are severe and persistent despite medicines and other devices, may need a VAD, which is connected to the left or both ventricles. The VAD pumps a normal supply of blood to the body, rapidly improving heart failure symptoms</p>	<p>Device malfunction, blood clots in the pump, bleeding, stroke, infection, right ventricular failure, arrhythmias, and abnormal blood flow through other parts of the heart, called mitral regurgitation</p>
<p><b>Transplantation</b></p>	<p>A healthy heart from a donor who recently died replaces a damaged or failing heart. Used in advanced heart failure that still causes severe and persistent symptoms despite medicines and other devices. Each country has clear criteria about who can have a heart transplant</p>	<p>The transplant may fail; the drugs used to prevent the body rejecting the organ may not work well or cause side effects including infection and some cancers (because they suppress the immune system), kidney failure, hypertension and diabetes</p>

Adapted from<sup>1,4,30-36</sup>

# Hospital admission and management of heart failure

Individuals with heart failure may need to be hospitalised for various reasons (table 5). It is important for them and their care team to discuss the cause of the hospital stay. Sometimes, the hospitalisation is necessary for a new heart failure treatment. Other times, the heart failure treatment is effective, but an infection or another condition adds stress to the body.

For some individuals, challenges may arise in taking medications or following lifestyle advice. However, it is important to know that the care team will not judge you. They understand the difficulties of living with heart failure.<sup>1,4,37</sup>

A hospital stay also offers the chance to look at underlying causes of your heart failure and review management goals.<sup>4</sup> After being discharged, it is important for individuals with heart failure to schedule a follow-up appointment with their care team within two weeks. This follow-up allows the care team to evaluate the effectiveness of the treatment and minimise the likelihood of future hospitalisations. If you haven't received an appointment within two weeks after leaving the hospital, please reach out to your care team directly.



**My advice to patients living with heart failure would be to definitely follow up on all your ongoing appointments and any further testing needed.**

*- Katrina, living with heart failure, VIC*



FIGURE 8

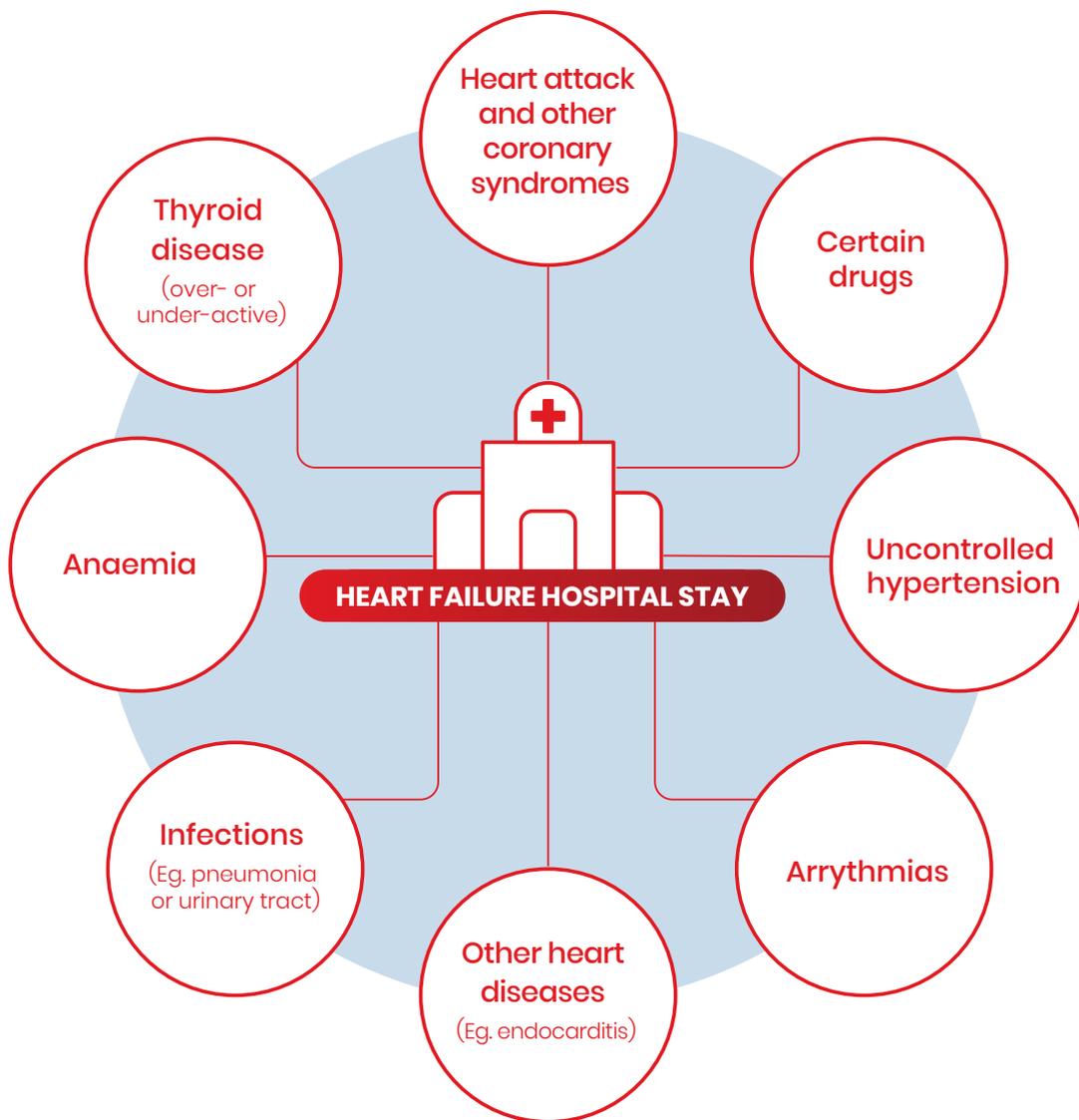
## Checklist of factors that may have triggered hospital treatment of heart failure



Adapted from<sup>37</sup>

FIGURE 9

## Examples of diseases and drugs that can trigger hospital treatment of heart failure



Adapted from<sup>4</sup>

# What to expect during a hospital stay

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When admitted to the hospital due to heart failure, several steps will be taken to address the specific issues associated with your condition. Most patients admitted to hospital with heart failure experience fluid build-up, commonly in the lungs or ankles, which can have detrimental effects on lung function or lead to a drop in blood supply to vital organs, known as cardiogenic shock.<sup>14</sup> To tackle these challenges, medications may be administered to remove excess fluid (decongestion) and open up blood vessels (vasodilation).

Other patients may need special oxygen masks that supply oxygen at high pressure and keep the airways open. For individuals experiencing cardiogenic shock, a life-threatening condition where the heart fails to pump enough blood to meet the body's needs, immediate intervention is crucial. Short-term support may involve procedures like Extracorporeal Membrane Oxygenation (ECMO), or the use of a pump inserted into the body via a catheter to maintain blood circulation. Severe cases may necessitate kidney replacement therapy, such as dialysis.

Patients with heart failure also have an increased risk of developing blood clots, which can lead to heart attacks, strokes, or pulmonary embolisms. To mitigate this risk, specific medications may be prescribed to reduce the likelihood of blood clot formation.

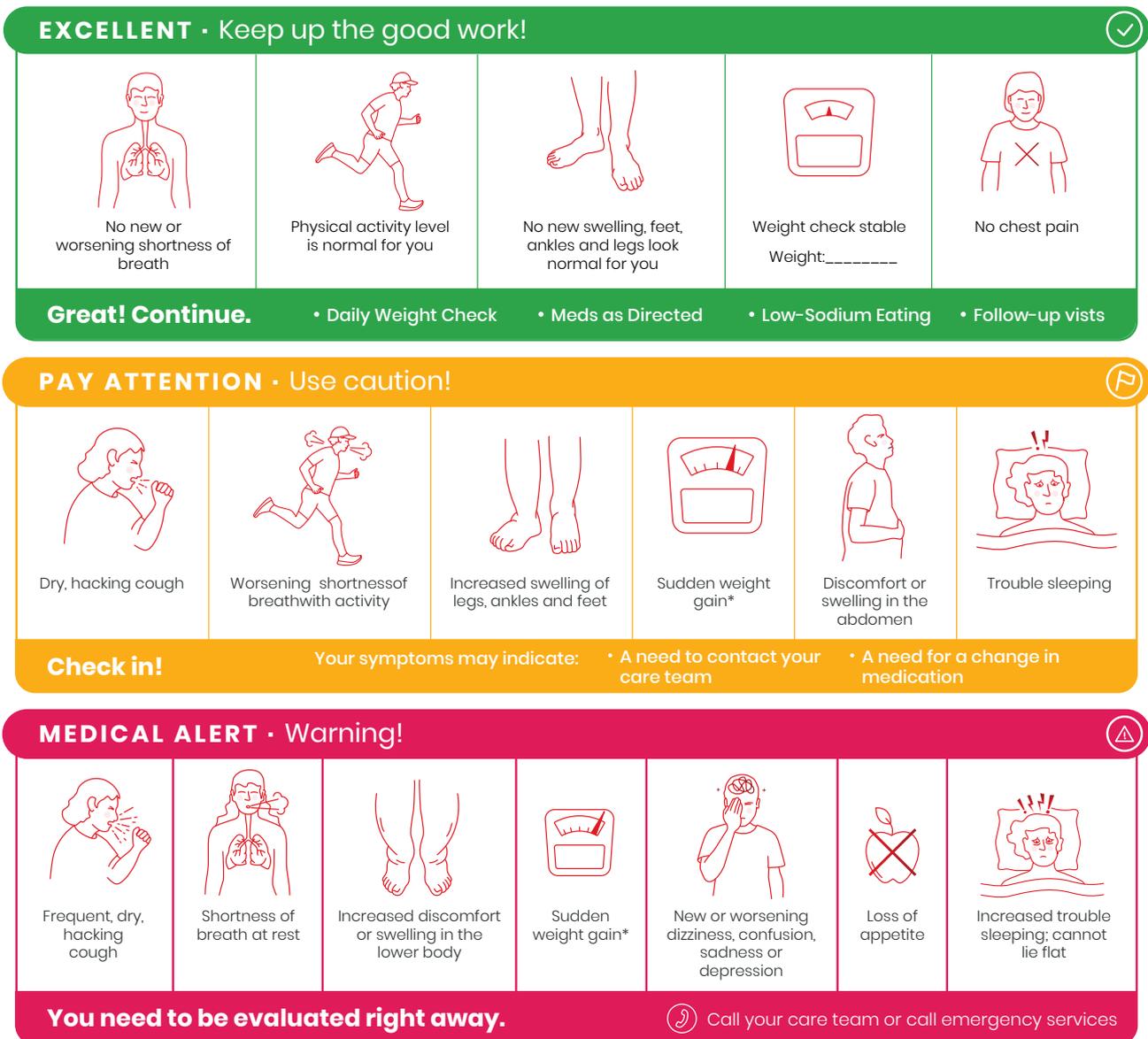
Throughout your hospital stay, the medical team will closely monitor your condition, administer appropriate treatments, and ensure that the benefits of each intervention outweigh any potential risks. This comprehensive approach aims to stabilize your heart function and effectively manage the complications associated with heart failure.

# Knowing when to seek hospital care

If your heart failure symptoms suddenly worsen, go to hospital immediately for evaluation (figure 10).

FIGURE 10

## An action plan for people with heart failure based on symptoms



\*of more than 2-3lbs or 1kg in an 24 hours period (or 5lbs/2.5kg in a week)

# Living with heart failure

## Self-care strategies

A healthy lifestyle is an important part of your treatment and helps you to live as full life as possible with heart failure. Improving heart failure selfcare lowers the risk that you will need hospital stays, saves lives and improves quality of life.<sup>4</sup> Your care team will tailor the advice to your condition and circumstances.

### → **Monitoring and recognising symptoms**

Record your symptoms, perhaps in a diary, and report them to your care team during appointments. You should contact your doctor or go to hospital if your condition gets worse. Do not wait until your next routine appointment.

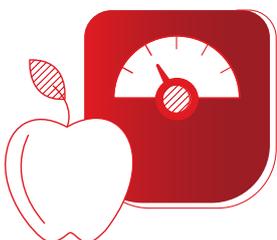
### → **Maintaining an active lifestyle**

Keeping active boosts energy and improves sleep and quality of life for individuals with heart failure.<sup>1, 41</sup> Your care team can tell you about the type and level of activity that is safe for your particular case.<sup>1</sup> Individuals with heart failure should not start an exercise programme without speaking to their care team.



### → **Managing weight and following a healthy diet**

Keeping to a healthy weight and eating a healthy balanced diet boosts your overall health and limits the strain on your heart.<sup>41</sup> Do not eat a lot of salt because excessive sodium intake, for instance table salt, can cause fluid to build up in the body.<sup>1, 4, 41</sup>



The care team may suggest that some individuals with heart failure, such as those with severe disease, limit their fluid intake. For instance, 1.5 to 2 L a day. This can relieve symptoms and congestion. You should talk about how to adapt fluid intake to weight, heat and humidity, especially when travelling abroad, and when you are feeling or being sick.<sup>1</sup>

→ **Alcohol management, smoking cessation, and substance avoidance**

Limiting your alcohol intake reduces the chance of arrhythmias, high blood pressure and diseases, such as stroke, liver problems and some cancers.<sup>41</sup> Ask your care team how much is safe for you.<sup>4,41</sup>

Stop smoking, using other tobacco products and drugs of abuse such as methamphetamine, cannabis and cocaine. This will reduce your risk of heart failure and other heart and circulatory diseases.<sup>4,11,41</sup> If you find this difficult, your care team can put you in touch with specialist services to help you.



→ **Regularly weighing for fluid management**

Weigh yourself regularly, even every day. Sudden weight gain may mean fluid is building up in your body.<sup>41</sup> If you gain more than 1-1.5 kg (2-3lb) in 24 hours or 2.25 kg (5 pound) in a week, contact your care team as soon as possible.<sup>10</sup>

→ **Importance of vaccinations**

Vaccination against Covid-19, flu and pneumonia reduces the risk of heart disease.<sup>1,4</sup> For instance, flu jabs reduce the risk of major adverse cardiovascular events such as cardiovascular death, myocardial infarction and strokes.<sup>42,43</sup>



→ **Mental wellbeing and heart failure**

Depression makes it harder to look after yourself, increasing the risk of hospital visits and death.<sup>4</sup> The care team should regularly ask about your mental health. However, if you feel anxious, depressed or that you cannot cope, speak to your care team. Carers should also take care of their mental health. As a caregiver, helping yourself helps you help the person with heart failure.

Individuals with heart failure and their carers can also bolster their stress defences. For instance, mindfulness improves anxiety symptoms and quality of life in individuals with heart failure.<sup>44</sup>



### → **Rest and recovery strategies**

Getting good quality sleep is also important. If you have trouble sleeping, speak to your care team. There are often things you can do, such as adjusting the timing of diuretics if you keep waking at night to urinate,<sup>1</sup> which could disturb anyone sleeping with you as well as yourself.

### → **Building a supportive network**

Social isolation seems to increase mortality in individuals with heart failure.<sup>4</sup> So make the effort and reach out to other individuals. As heart failure is common, there are likely to be individuals nearby who also live with the condition who you may want to connect with. Hearts4heart can put you and your loved ones in touch with other individuals with heart failure.

### → **Medication adherence**

The most effective drugs will not work unless you take them. It can be easy to forget, but getting into a routine (e.g., taking your pills after breakfast each morning, setting a regular alarm) can help you remember.

Your pharmacist can also offer aids such as large print labels, packaging that is easier to open (if you also have arthritis for instance) and boxes that allow you to divide treatment by time and day. A cardiologist may be able to suggest other ways of taking your medicine if you find it disrupts your lifestyle. For instance, taking it less often.<sup>1</sup>

### → **Scheduling and attending appointments**

Follow your care team's recommendations and attend your appointments, whether these are in a clinic, in your home, on the telephone or over the internet.<sup>1</sup> Some appointments are now held using video cameras (called telehealth). You may also be asked to monitor some measurements, such as blood pressure, and send these to the care team using an app or over the internet (telemonitoring).

### → **Addressing sexual and reproductive health**

Individuals with heart failure can have sex. However, some medicines (such as beta blockers), psychological distress and symptoms can make sexual relationships difficult or less desirable. Speak to your care team if you would like more advice.

Pregnancy with heart failure can be serious. So, women of reproductive age with heart failure should avoid unplanned pregnancy by using effective contraception. If you are thinking about a pregnancy, speak to your care team. They will be able to give you information about your particular risk in pregnancy and help you make an informed decision.

### → **Managing work and disability**

Provided you are well enough, individuals with heart failure can keep working for as long as they feel able. Talk to your employer as soon as you feel your heart failure is affecting your ability to do your job. You may not have to give up work. You may be able to work part-time or from home. You may be able to change or modify tasks, use special equipment or find other ways to travel to work.<sup>45</sup> You should find out about your employment rights and other sources of support, such as occupational therapy and disability benefits. Your local heart failure patient group should be able to help.

### → **Driving considerations**

Many individuals with heart failure can continue to drive. You need to know the driving regulations both at home and in any country you visit.<sup>1</sup> Your care team will help determine if you are fit to drive and if you need to inform any authorities.

### → **Travelling tips**

Individuals with heart failure can travel abroad but you should talk about your travel plans with your care team. You should know where to get medical help while away from home and make sure you have the right health insurance. You should keep medicines in your hand luggage and carry a list of your medication, device and treatment centres.<sup>1</sup> It is also worth checking with the embassy of the country you are travelling to if there are any restrictions on medication. For instance, certain painkillers are banned in some countries. Some medications can make your skin highly sensitive to sunlight so it is important to cover up, wear spf 50 sunscreen, and drink plenty of fluids when humidity or heat are high to avoid dehydration.<sup>1</sup> Levels of oxygen reduce at high altitudes, which can worsen symptoms of heart failure.<sup>1</sup> So, always check with your care team before travelling.



# Maximising well-being and preparedness

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## **Cardiac rehabilitation**

Cardiac rehabilitation It encompasses various aspects such as promoting healthier eating habits, aiding smoking cessation, safely increasing exercise levels, and addressing personal concerns, including sexual health.

It is a beneficial option for certain individuals with heart failure, as it is customised to address their specific condition, challenges, and personal circumstances.<sup>38</sup> This rehabilitation program typically combines exercise, educational sessions, and psychological support to assist individuals in coping with the physical and emotional impacts commonly associated with heart failure.<sup>38</sup> Additionally, participating in cardiac rehabilitation provides an opportunity to connect with others who have heart failure or other heart conditions.<sup>38</sup> By engaging in cardiac rehabilitation, individuals with heart failure can receive comprehensive support and guidance.

## **Anticipatory care planning**

Anticipatory or advanced care planning provides an opportunity for individuals with heart failure and their loved ones the chance to discuss their treatment preferences, including end-of-life care.

Anticipatory care planning is often neglected or done poorly.<sup>39</sup> There are several reasons for this, including individuals being reluctant to acknowledge a poor prognosis, difficulties in understanding the limitations of life-sustaining treatments, and disagreements among family members. Patients and their families may be uncertain about the type of care they want and may be unsure which member of the care team is responsible for guiding them.<sup>39</sup> If you have any questions or uncertainties, it is important to communicate with your care team.

Engaging in discussions about anticipatory care planning can bring a sense of relief and empowerment to individuals. Since heart failure is often unpredictable, it is beneficial to start these conversations well in advance, long before the need to consider end-of-life care arises.<sup>39</sup>

### **Advance directives and why they are important**

You may want to consider an advance directive, sometimes called a living will. It will reflect your personal values and your goals for future care. The advance directive also helps the care team and your family ensure they do what you would prefer if you can no longer communicate well.<sup>140</sup>

For instance, an advance directive could include when to deactivate devices, whether you want to be resuscitated and where you would like to die. An advance directive helps you safeguard your care in case you develop very advanced heart failure. You can change the advance directive at any time. Although the process can be distressing, advance care planning often improves the quality of life for individuals with heart failure.<sup>140</sup>

### **Palliative care**

Palliative care, sometimes called supportive care, aims to improve the quality of life of patients, families, and carers who are facing challenges associated with illness, whether physical, psychological, social or spiritual. The focus is on making symptoms better, such as by using oxygen to help with breathing, treating anxiety and depression, or using painkillers and other approaches to relieve pain.<sup>1</sup> The care team may, for instance, frequently check symptoms (including dyspnoea and pain) of advanced heart failure and other comorbidities.

The palliative care team will talk to you about your outlook (prognosis), your core values, including religious and spiritual, which treatments are reasonable to continue and which should stop in certain circumstances.<sup>14</sup> These conversations should begin early in your illness and get more focused as heart failure moves into the advanced stage. Discussions should continue, if needed, to help carers and family members deal with bereavement.<sup>4</sup>

Palliative care does not mean treatment ends.<sup>4</sup> You may get as much, if not more, input from your care team during palliative care, which can last many months or even years.

# Thriving with heart failure

Discovering that you have, or may have, heart failure can be a challenging experience. However, effective treatment can bring relief from symptoms, improve your quality of life, make daily activities easier, minimise hospitalisations and promote longevity.

Your care team, along with Hearts4heart, are also here to provide support and guidance, helping you to live life to the fullest. We hope you found the true stories about Laurie, Russell, and Katrina inspiring and that they served as powerful reminders of the importance of being heart smart, particularly for individuals over 65, those with other risk factors, and anyone experiencing symptoms.

Remember, you've only got one heart. Don't fail it.

## Where to find additional information

For more information and valuable resources about heart failure, visit [hearts4heart.org.au](https://hearts4heart.org.au). Stay updated with the latest news and developments by joining the hearts4heart community on Facebook, Instagram, LinkedIn, and Twitter. If you would like to speak with someone, you can call **1300 3 HEART (1300 343 278)** or email [info@hearts4heart.org.au](mailto:info@hearts4heart.org.au).

Questions about heart failure to ask your healthcare professional



One thing I learnt from my experience is the importance of asking questions. Nurses and doctors are extremely busy and time-poor, but if you ask questions, you can gain meaningful answers.

- Russell, living with heart failure, QLD



## General Questions to Ask About Heart Failure

1. How can maintaining a healthy lifestyle help with managing my condition?
2. Which specific symptoms do I need to monitor closely?
3. Given my condition, what level of physical activity is considered safe for me?
4. What is the recommended safe limit of alcohol consumption for someone living with heart failure?
5. Which vaccines are necessary for me, and do any of them require regular boosters?
6. How often should I schedule follow-up appointments with my care team?
7. What strategies can I use to manage sleep disturbances that may be caused by my diuretics?
8. Is it likely that my condition will impact my work? How can I manage this?
9. What dietary guidelines should I follow when living with heart failure?
10. Are there any heart failure patient communities available, and how I can connect with them?
11. How might my condition affect my sexual relationships, and are there any considerations or recommendations to be aware of in this regard?

## **Diagnosis**

- 1.** What caused my heart failure?
- 2.** Is the cause of my heart failure well controlled? If not what else can we do?
- 3.** Are other conditions (comorbidities) and risk factors well controlled? If not what else can we do?
- 4.** Which laboratory tests were abnormal? What does this mean for me and my treatment?
- 5.** Is testing for BNP and NT-proBNP available?
- 6.** How often should I have my iron levels tested? Should I take an iron supplement?
- 7.** How often will I need a follow-up appointment? Who should I contact if I have concerns in the meantime?
- 8.** What is my ejection fraction? What does this mean for me and my treatment?
- 9.** What is my NYHA classification? What does this mean for me and my treatment?
- 10.** What is my stage of heart failure? What does this mean for me and my treatment?
- 11.** What did my ECG show? What does this mean for me and my treatment?
- 12.** What did my echocardiogram show? What does this mean for me and my treatment?
- 13.** Do I need any other imaging tests? What do the results mean for me and my treatment?
- 14.** What is my natriuretic peptide number? What does this mean for me and my treatment?

## **Treatment: Medicines**

- 1.** Why is this medicine right for me now?
- 2.** What does the medicine do? How does it work?
- 3.** Why is this medicine right for me now?
- 4.** Why does the medicine have a generic and brand name? Does it matter that the same generic drug sometimes looks different?
- 5.** Is this medication safe with my other medicines and any supplements?
- 6.** How do I know that treatment is working?
- 7.** What are the 'rules' for stopping my medicine?
- 8.** What are the most common side effects? What should carers look for?
- 9.** Can I do anything to prevent or manage the side-effects?
- 10.** When should I contact my care team about side effects?
- 11.** What do I do if I miss a dose of my medicine?
- 12.** What do I do if I take an extra dose by mistake?
- 13.** What do I do with my medicine if I am sick, have an infection, diarrhoea and so on?

## **Treatment: Devices & Procedures**

- 1.** What is my ejection fraction? What does this mean for me and my treatment?
- 2.** What is my NYHA classification? What does this mean for me and my treatment?
- 3.** What is my stage of heart failure? What does this mean for me and my treatment?
- 4.** What did my ECG show? What does this mean for me and my treatment?
- 5.** What did my echocardiogram show? What does this mean for me and my treatment?
- 6.** Do I need any other imaging tests? What do the results mean for me and my treatment?
- 7.** What is my natriuretic peptide number? What does this mean for me and my treatment?
- 8.** Why is this device or procedure the right treatment for me now?
- 9.** What does the device or procedure do? How does it work?
- 10.** How long will I take to recover?
- 11.** How do I know that device or procedure is working?
- 12.** What are the most common complications?
- 13.** Can I do anything to stop or manage the complications?
- 14.** Will the device or procedure affect my work, driving or exercise?
- 15.** What should carers look for?
- 16.** When should I contact my care team about complications?

# Contributions

Hearts4heart wishes to acknowledge the invaluable contribution of all people involved in the creation of this resource. This includes Katrina, Laurie, Campbell, and Russell who have with lived experience with heart disease and shared their unique stories to support others affected by the condition. This document also could not have been created without the patients and clinicians who formed the editorial advisory board including:

- Professor John Amerena, Director of Cardiology Research, Barwon Health
- Tanya Hall, CEO and Founder, Hearts4heart
- Neil Johnson, Executive Director, Global Heart Hub, The International Alliance of Heart Patient Organisations
- Aistė Štaraitė, Chair of Heart Failure Patient Council, Heart Failure Development Executive, Global Heart Hub, The International Alliance of Heart Patient Organisations

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