

# Living With Heart Failure

*Information for you, your family and carers*



Clinical Support Systems Program

General practice and hospitals working together to  
improve quality of heart care

Brisbane North Division of General Practice  
Brisbane Southside Central Division of General Practice  
Princess Alexandra Hospital  
Queen Elizabeth II Hospital  
Royal Brisbane Hospital

Authors: Daniela Sanders and Justine Thiele (Clinical Pharmacists)

Contributors:

Dr John Atherton (Cardiologist, Royal Brisbane Hospital)

Dr Andrew Galbraith (Cardiologist, The Prince Charles Hospital)

Dr Alison Mudge (Clinical Services Development Research Fellow)

Dr Ian Scott (Director of Internal Medicine, Princess Alexandra Hospital)

Dr Charles Denaro (Director of Internal Medicine, Royal Brisbane Hospital)

With kind thanks to the patients and staff at the Princess Alexandra, Queen Elizabeth II, Royal Brisbane and The Prince Charles Hospitals, for all their help and support.

Published: April 2001

Revised: March 2002, May 2003, April 2004

Date for renewal: April 2005

For further supplies: Website – [www.health.qld.gov.au/bcc/consumer\\_resources](http://www.health.qld.gov.au/bcc/consumer_resources)

For more information:

National Heart Foundation – Queensland Branch

Phone - Heartline 1300 362 787 Website – [www.heartfoundation.com.au](http://www.heartfoundation.com.au)

Quitline - 131120

Websites: [www.americanheart.org](http://www.americanheart.org)

Brisbane Cardiac Consortium website - [www.racp.edu.au/cssp](http://www.racp.edu.au/cssp)

*The authors have taken every effort to ensure the content of this booklet is in accord with current recommendations and practice at the time of publication. However, in view of ongoing research and the constant flow of information relating to the treatment of heart failure, all patients should seek regular up to date information from their medical practitioners and relevant health care professionals.*

*The information in this booklet relating to medication use is not comprehensive and further information can be obtained from a medical practitioner or pharmacist.*

*The hospitals, divisions of general practice and governing bodies involved with the production of this booklet will hold no responsibility over any damage that occurs to any person as a result of reading the information provided in this booklet.*

# Living With Heart Failure

*Information for you, your family and carers*

## Contents

LIVING WITH HEART FAILURE CHECKLIST.....	4
INTRODUCTION .....	5
WHAT IS HEART FAILURE?.....	6
HOW DOES THE HEART WORK? .....	7
HOW COMMON IS HEART FAILURE? .....	8
WHAT CAUSES HEART FAILURE?.....	9
WHAT ARE THE SYMPTOMS OF HEART FAILURE? .....	11
HOW IS HEART FAILURE DIAGNOSED? .....	14
HOW CAN HEART FAILURE BE TREATED?.....	16
WHEN TO SEE A DOCTOR AND WHEN TO CALL AN AMBULANCE .....	42
INDEX .....	44

## Living With Heart Failure Checklist

Here's a checklist to make sure you understand everything you need to know about your heart condition.

### Diagnosis:

- I understand that I have congestive heart failure and this means that the pumping ability of my heart is reduced (see page 6).

**Medications:** I understand that the following medications may help to control my symptoms and/or help to extend my life (see pages 16-32):

- ACE inhibitor or  Angiotensin II antagonist /  Hydralazine and nitrate  
 Beta blocker  
 Spironolactone  
 Frusemide  
 Digoxin

I understand that I have not had one or more of these medications prescribed because:

**Diet:** I understand that a diet low in salt will help to prevent my symptoms from getting worse (see page 33):

- I have received  I have not received counselling about a low salt diet

I also understand that a diet low in saturated fat and cholesterol will reduce my risk of coronary heart disease (see page 34):

- I have received  I have not received counselling about a low fat and cholesterol diet

**Fluid intake:** I understand that if I drink fluids only if I am thirsty and do not drink excessive fluid I will help to prevent my symptoms getting worse (see page 35):

- I have received  I have not received counselling about fluid intake.

**Weight:** I understand that I should weigh myself daily. If I put on over 1.5 kg in 24hrs I should tell my GP (see page 35):

- I have received  I have not received counselling about daily weighing.

**Exercise:** I understand that I have regular exercise I will increase my energy levels and improve my heart failure symptoms (see page 38):

- I have received  I have not received information about exercise.

### Education:

- I have received  I have not received information about the medications I take for my heart.  
 I have received  I have not received a list of my medications  
 I have received  I have not received information on warning symptoms of worsening heart failure and action to take if they occur.

## **Introduction**

You and your family may have many questions about heart failure. The purpose of this booklet is to provide you with valuable information to answer some of these questions.

‘Living with Heart Failure’ describes heart failure and how it affects your body. It also provides you with a guide to making lifestyle changes to help control your condition and improve how you feel.

Keep this booklet handy so you can use it as a reference.

This booklet does not replace the care and advice from your health care team. It is important that you work closely with your health care team who will help you to manage your heart failure. Each section of the booklet will refer you to a member of your health care team who will answer any further questions or concerns you may have.

## What is heart failure?

Heart failure means that the pumping ability of your heart is **reduced**. It does not mean that your heart has stopped working.

Heart failure is also known as:

- Congestive Heart Failure (CHF)
- Congestive Cardiac Failure (CCF)
- Left or Right Ventricular Failure (LVF or RVF)

Heart failure is due to a weakening of the heart muscle. As this weakening gets worse, the heart finds it harder to pump enough blood around the body to meet the demands of the functioning organs and tissues.

The body responds to this by,

- narrowing blood vessels,
- causing less fluid to be lost out of the body (fluid retention),
- speeding up your heart rate.

This puts extra strain on your heart.

The severity of your heart failure depends on how much the pumping ability of your heart is reduced. The worse your heart failure is, the more it will impact on your life. Some people with mild heart failure maintain their normal lifestyle for many years, but severe heart failure can prevent simple activities being carried out and can shorten the length of your life.

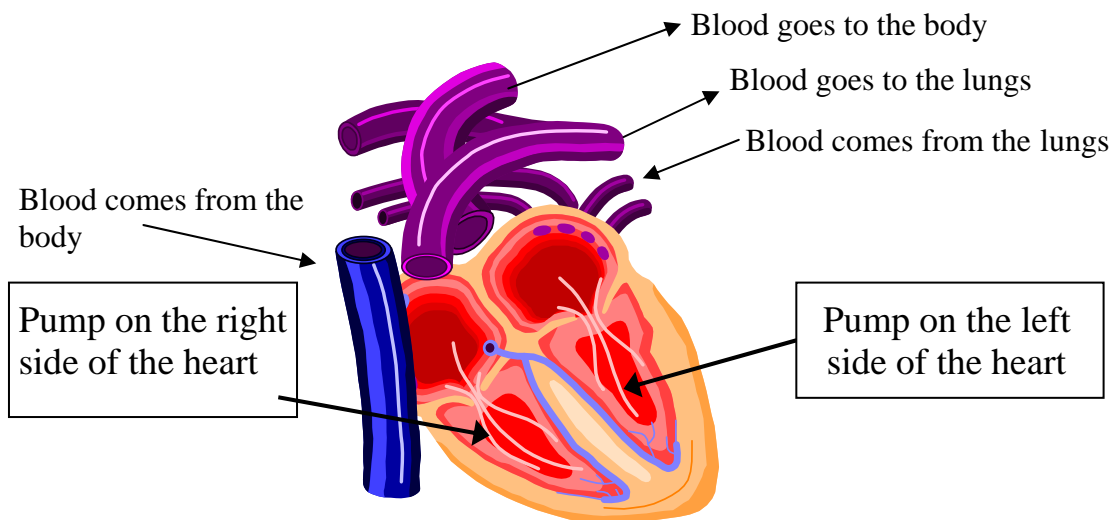
Large studies have shown that taking heart failure medications and making lifestyle changes can improve your symptoms, decrease your time in hospital and help you to live longer.

## How does the heart work?

The heart is a muscle which pumps blood to every part of the body.

Blood provides the body with oxygen and nourishment, which is needed for energy and growth. To do this properly, the heart muscle needs to be strong and have its own plentiful supply of blood.

The heart muscle is made up of two pumps, one on the left side and one on the right:



### The pump on the left side:

Blood collects oxygen in the lungs and flows into the left side pump of the heart. This blood is pumped out of the left side pump to all parts of the body. If the left side pump is not working well, a backpressure of the blood entering from the lungs builds up, which can cause fluid to collect in the lungs. This can make it difficult to breathe.

### The pump on the right side:

This pump receives blood returning to the heart from the body which is low in oxygen. This blood is then pumped out of the right side pump to the lungs. Here the blood collects more oxygen and gets rid of carbon dioxide and other waste.

The blood then flows back to the pump on the left side. If the right side pump is not working well, a backpressure of the blood returning from the body builds up which can cause fluid to collect in areas such as the ankles and feet.

Your heart beats around seventy times in a minute.



### **How common is heart failure?**

Heart failure is a common health problem. Data from around the world suggests that around 3 in every 200 of the adult population have heart failure.

In Australia,

- ♥ up to 5 in every 100 people over the age of 65 have heart failure.
- ♥ heart failure causes around 1 in every 100 hospital stays, each lasting an average of eight days.

Heart failure is most common in the middle-aged and elderly population. As people are living longer, the number of people with heart failure is increasing.

## What causes heart failure?

As we get older, the ability of the heart to pump slowly reduces, but there are also a number of other things that can lead to the heart losing its ability to pump.

Some of the common causes of heart failure are listed below. You should also be aware of other things that could worsen your heart failure (see table below).

Causes of heart failure	Things that can worsen heart failure
♥ <b>Coronary artery disease</b> ('narrowing' of the blood vessels which supply the heart)	<b>Cardiac arrhythmias</b> (irregular or fast heartbeats)
♥ <b>Hypertension</b> (high blood pressure)	<b>Forgetting to take your heart failure medications</b>
♥ <b>Cardiomyopathy</b>	<b>Too much fluid and salt in the diet</b>
♥ <b>Congenital abnormalities</b> (defect of the heart present at birth)	<b>Some painkillers</b> (ask your doctor or pharmacist)
♥ <b>Problems with heart valves</b>	<b>Some infections</b>
	<b>Too much alcohol</b>
	<b>Low red blood cell count (anaemia)</b>
	<b>Problems with the thyroid gland or thyroid medications</b>

**Coronary artery disease** is one of the main causes of heart failure. It is caused by the build up of fatty deposits inside the blood vessels (coronary arteries) which supply the heart muscle with blood. This is known as *atherosclerosis*.

As more of the fatty deposits are laid down, in what is called a 'plaque', the blood vessels become narrowed. This reduces the supply of blood to the heart muscle. This can result in chest pain or 'angina'. A coronary artery can actually get blocked. This is called a 'heart attack'.

This blockage prevents blood from supplying a part of the heart muscle with oxygen and nutrients. This in turn can cause damage to that part of the heart muscle.

This damage can lead to heart failure. It is therefore important to reduce any risk factors you have for the development of coronary artery disease. Some risk factors cannot be changed eg being male, diabetes and family history, but the risk factors listed below can be altered.

### **Causes of coronary artery disease which can be changed**

- ♥ smoking,
- ♥ high cholesterol,
- ♥ high blood pressure,
- ♥ lack of exercise,
- ♥ being overweight
- ♥ poor diabetic control

### **High blood pressure (hypertension)**

Uncontrolled high blood pressure doubles your risk of heart failure. The higher your blood pressure, the higher your risk is for developing heart failure.



There are several ways of reducing your blood pressure if it is too high. You should have your blood pressure checked regularly and record your blood pressure in your diary.

### **What are the symptoms of heart failure?**

You may experience many different types of symptoms, but not all of them are only caused by heart failure.

Keep a daily record of new or worsening symptoms in your diary.

Common symptoms of heart failure are listed in the table below. Record when symptoms started, how often they occur and how bad they are. If your symptoms worsen or you notice a new symptom you should discuss this with your doctor.

### **Do you know what the cause of your heart failure is?**

**You should ask your doctor if you are unsure.**

<b>Common Symptoms of Heart Failure</b>
<b>Shortness of breath</b>
<b>Tiredness/fatigue/lethargy</b>
<b>Interrupted sleep due to difficulty breathing</b>
<b>Swelling of ankles/feet/legs</b>
<b>Weight gain (rapid)</b>
<b>Persistent cough</b>
<b>Faintness/dizziness</b>
<b>Rapid/irregular heart beat</b>
<b>Swelling of the tummy area</b>

## Shortness of Breath (difficulty breathing)

One of the most common symptoms of heart failure is **shortness of breath**. This is caused by the ‘back-up’ of blood into the lungs. This results in the collection of fluid in the lungs which makes it difficult to breathe. Fluid in the lungs can also make you cough. A reduction in the amount of blood supplying your muscles can also make you get breathless especially during exercise.

## Tiredness/fatigue/lethargy

You may feel tired or lethargic especially when you are active. This is due to a reduction in the amount of blood supplying your muscles.

## Swelling of Ankles, Feet and Tummy

Fluid can also collect in parts of your body and is usually seen as swelling of the ankles, feet, legs and sometimes around the tummy area. This is caused by the back up of blood in the body causing fluid to collect in these areas. This build up of fluid can be removed by taking medications called diuretics or ‘water tablets’ (see page 26. Treatment of heart failure – diuretics).

## Breathlessness at night time

At night time, breathing can worsen as a result of fluid accumulating in the lungs because you are lying down flat. You may need to prop yourself up on two or more pillows to improve your breathing at night.

## Faintness and dizziness

A reduction in the blood supply to your brain can cause dizziness or feeling faint.

## Emotional responses

It is normal to have feelings of anger, helplessness, feeling down, and loss of confidence because of changes to your lifestyle.

If you feel overwhelmed or would like some help to cope with your feelings, your doctor can refer you to social workers, psychologists or other professionals who work with individuals or families to cope with heart failure.

Remember that everyone is different. These are just some of the possible symptoms you may experience.

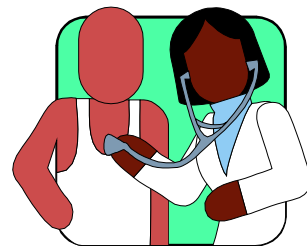
**If you notice any symptoms that you have not experienced before or your present symptoms are worsening, please discuss these with your general practitioner or specialist.**

## How is heart failure diagnosed?

### Symptoms and physical signs

In order to diagnose your heart failure your doctor will ask you about your symptoms and will examine your heart and body for physical signs of heart failure.

Using a stethoscope, the doctor can listen to your breathing and for signs of fluid in the lungs. The stethoscope can also be used to listen to your heart and may pick up abnormal sounds which may indicate heart failure, or an irregular rhythm that may be responsible for, or occur with, your heart failure.



Your doctor will also examine you to look for excess fluid.

### Electrocardiogram (ECG)

This is a painless test which is carried out by placing small electrodes onto your skin and recording the electrical activity of the heart. The electrocardiogram shows the rhythm and rate of your heartbeats and may show whether you have thickening of the heart muscle walls, or if you have had a heart attack in the past.

## X-Ray

An X-ray of your chest will show the size and shape of your heart. It also shows any fluid in the lungs.

## Echocardiogram

Echocardiography is a painless test which uses sound waves to show a picture of the heart. This enables the doctor to determine how efficiently the heart pump is working. It measures the quantity of blood that the heart pumps out at each heart beat and allows its size, shape and movement to be observed.

## Cardiac Catheterisation and Angiogram

You may have something called a 'cardiac catheterisation' with or without an 'angiogram'. A heart specialist may pass a thin tube through a blood vessel in your leg and into your heart. This allows the doctor to measure the pressure at which blood is being pumped through the heart.

If a dye is passed into the heart an angiogram can be carried out. This painless procedure allows the heart specialist to take pictures of the blood vessels of the heart (coronary arteries).

Sometimes a very small piece of heart muscle may be taken to be looked at under a microscope. This may help the doctor find out the cause of your heart failure.

## Other tests

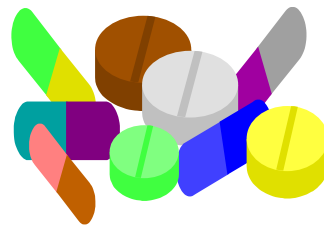
Your doctor may carry out other tests in order to rule out other causes for your symptoms such as an over-active thyroid gland or a low red blood cell count (anaemia).

## How can heart failure be treated?

Heart failure is usually treated with medications and lifestyle changes such as diet and exercise.

## Medications

There are a variety of medications available to help your heart condition.



You may be prescribed more than one medication for your heart failure. These medications work well together as they work on different parts of the body. If you are concerned about any of these medications, please talk to your pharmacist or doctor.

The medications you have been prescribed aim to improve the way you feel, prevent your heart condition from getting worse and help you to live longer.

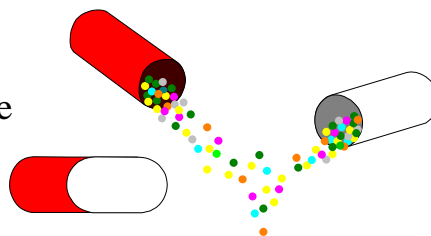
For you to achieve the most from your medications, you will need to continue taking your medications every day following your doctor's instructions. Some people experience problems taking medications such as they,

- think they may be causing unwanted effects
- believe the medications are unpleasant to take
- feel the medications are not working
- keep forgetting to take them
- have problems understanding the medications
- can not afford the medications

*If you have **any** problems with taking your medications, please talk with your doctor or pharmacist so that they can help you.*

## Tips on taking your medications

Here are a few tips which may help you to take your medications:



- Keep a list of the medications you take with you in your wallet or handbag.
- Take your medications at the same time every day. If you do not know the best time to take them, ask your pharmacist.
- Keep taking your medications even if you start to feel better.
- If you forget to take a dose, take the next dose as usual. Do not double-up the dose to ‘catch-up’.
- Talk with your pharmacist or doctor before taking ‘over the counter’ medications or herbal and ‘natural’ remedies. Some of these may have an effect on your heart, or interfere with the medications you take for your heart.
- If you experience a possible unwanted effect from your medications tell your doctor or pharmacist. Do not stop taking your medications until your doctor advises you to do so.
- If you have trouble remembering to take your tablets, let your pharmacist know and they will be able to help you.
- Do not share your medications with anyone else and do not take medications from anyone else.
- Do not leave your medications in the car. Keep them in a cool place away from direct sunlight and out of the reach of children.
- Check the expiry dates of all your medications.
- Before taking medications, check the labels! Is it your medication? Is it the correct medication? Do you have the right number of tablets?
- If you are unsure how to take your medications, please ask your pharmacist or doctor. **DON'T GUESS!**

## **Care with chemical names, brand names and strengths**

All medications have at least two names, a chemical name and a brand name. Each medication will have one chemical name but may have more than one brand name. For example 'lisinopril' is a chemical name and it has two brand names 'Zestril' and 'Prinivil'.

Your pharmacist may give you brand names which are different to those you have had before. If you are not sure of the medication you have been given, for example the box looks different to usual, ask your pharmacist to explain.

Most medications are available in different strengths. Make sure you check the strength of each medication before you take it.

Each of the main groups of medications is described in more detail over the next few pages. Not all of the medications discussed will be suitable for you. The severity of your heart failure, your symptoms and other medical conditions you may have will also determine which types of medications are most suited to you.

## **Unwanted effects**

Each group of medications has possible unwanted effects, but you may not experience any of these effects. Many of the unwanted effects occur when you start the medication and stop once your body gets used to them.

The following information may not answer all of your questions. If you would like further information please contact your pharmacist or doctor.



## Angiotensin Converting Enzyme (ACE) inhibitors

CHEMICAL NAME	BRAND NAME
Captopril	CAPOTEN <sup>®</sup> , CAPACE <sup>®</sup> , CAPTOHEXAL, ENZACE, ACENORM
Enalapril	RENITEC <sup>®</sup> , AMPRACE <sup>®</sup>
Fosinopril	MONOPRIL <sup>®</sup>
Lisinopril	ZESTRIL <sup>®</sup> , PRINIVIL <sup>®</sup>
Perindopril	COVERSYL <sup>®</sup>
Quinapril	ACCUPRIL <sup>®</sup> , ASIG <sup>®</sup>
Ramipril	TRITACE
Trandolapril	GOPTEN <sup>®</sup> , ODRIK <sup>®</sup>

### How do they work?

ACE inhibitors work by widening narrowed blood vessels. This makes it easier for the heart to pump blood to all parts of the body. ACE inhibitors also help to stop some of the body's harmful responses to heart failure such as fluid retention. Controlling fluid retention will improve your symptoms.

### Benefits of taking ACE inhibitors

#### ♥ Increased survival

Studies involving thousands of people with heart failure, found that over a period of one year, taking an ACE inhibitor will reduce your risk of dying by about one third (30%).

It was shown that, of 100 people with heart failure and who were **not** taking an ACE-inhibitor, 19 people died. This compared to the group of people who were taking an ACE-inhibitor in who only 15 out of 100 died. More lives are saved (up to 10 per year) in those people with more severe heart failure.

#### NOT taking an ACE-inhibitor



19 out of 100 die

#### Taking an ACE-inhibitor



15 out of 100 die

## **Other benefits of taking ACE inhibitors:**

- ♥ **Reduced time in hospital for heart failure**
- ♥ **Reduced risk of heart attacks**
- ♥ **Improved heart failure symptoms**

## **Possible unwanted effects – ACE inhibitors**

### **Tell your doctor if you have any of the following:**

- Dizziness or light-headedness (symptoms of low blood pressure)
- Persistent cough

---

### **SPECIAL PRECAUTIONS**

---

Tell you doctor immediately if you develop:  
Swollen face, lips or mouth  
Wheeziness or difficulty breathing  
Severe rash

---

## **Doctor check-ups**

- ✓ Potassium level in the blood
- ✓ Kidney function
- ✓ Blood pressure

Your doctor will also need to gradually increase your dose of ACE inhibitor until the correct dose for you is achieved.

## Beta-blockers

CHEMICAL NAME	BRAND NAME
Bisoprolol	BICOR <sup>®</sup>
Carvedilol	DILATREND <sup>®</sup>
Metoprolol	BETALOC <sup>®</sup> , MINAX <sup>®</sup> , LOPRESSOR <sup>®</sup>

## How do they work?

Beta-blockers work by allowing the heart muscle to conserve energy. The overall effect is to strengthen the pumping action of your heart and therefore improve your symptoms of heart failure.

## Benefits of taking beta-blockers

### ♥ Increased survival

Studies involving thousands of people with heart failure, found that over a period of one year, taking a beta-blocker, along with standard heart failure medications, will reduce your risk of dying by about two thirds (60%).

It was shown that, of 100 people with mild to moderate heart failure who did **not** take a beta-blocker, 13 people died. This compared to the group of people who were taking a beta-blocker in whom only 8 out of 100 people died.

Survival rates are also improved if patients with severe heart failure take a beta-blocker.

#### NOT taking a beta-blocker



13 out of 100 die

#### Taking a beta-blocker



8 out of 100 die

## Other benefits of taking beta-blockers:

- ♥ Reduced time in hospital for heart failure
- ♥ Reduced risk of heart attacks

## ♥ Improved heart failure symptoms

### Possible unwanted effects – beta-blockers

**Tell your doctor if you have any of the following:**

- Chest tightness / wheeze
- Dizziness / light-headedness
- Lethargy / fatigue
- Shortness of breath
- Ankle swelling
- Difficulty sleeping / nightmares
- Depression
- Cold hands or feet
- Impotence

You are most likely to experience unwanted effects during the first few weeks after starting your beta-blocker, or after an increase in dose. These unwanted effects should go away as you continue taking your beta-blocker. If unwanted effects are troublesome or do not go away, contact your doctor.

### Doctor check-ups

- ✓ Pulse
- ✓ Blood pressure
- ✓ Unwanted effects

Beta-blockers may take several months to work. Your doctor will need to increase the dose of your beta-blocker gradually for you to get the most benefit from the treatment.

# Spironolactone

## Brand names

ALDACTONE<sup>®</sup>, SPIRACTIN<sup>®</sup>

## How does it work?

Spironolactone is a type of diuretic (or ‘water’ tablet) which means it helps relieve some of the symptoms of heart failure which are due to fluid retention. However, unlike other diuretics, low doses of spironolactone have also been found to increase the survival of people with moderate to severe heart failure.

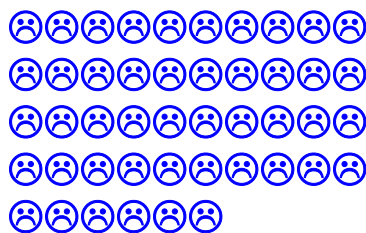
## Benefits of taking spironolactone

### ♥ Increased survival

Studies involving thousands of people with **severe** heart failure have shown that over a two year period, taking low doses of spironolactone, along with standard heart failure medications, will reduce your risk of dying by about one fifth (20%).

It was shown that of 100 people with **severe** heart failure who were **not** taking spironolactone, 46 people died. This compared to the group of people who were taking spironolactone in whom only 35 out of 100 people died.

#### NOT taking spironolactone



**46 out of 100 die**

#### Taking spironolactone



**35 out of 100 die**

## **Other benefits of taking spironolactone:**

- ♥ **Reduced time in hospital for heart failure**
- ♥ **Improved heart failure symptoms**

## **Possible unwanted effects - spironolactone**

### **Tell your doctor if you have any of the following:**

- Persistent headaches
- Nausea
- Stomach cramps / diarrhoea
- Lethargy
- Breast pain or breast enlargement in men
- Confusion
- Impotence
- Rashes

### **Doctor check-ups**

- ✓ Potassium level in the blood
- ✓ Kidney function

## Digoxin

**Brand name**  
**LANOXIN<sup>®</sup>**

### How does it work?

Digoxin helps the heart to beat more strongly and in a regular rhythm and rate. Digoxin has been shown to improve the symptoms of heart failure if other treatments are not helping. Digoxin also reduces symptoms you can get if your heart rate is too fast, such as shortness of breath or feeling that the heart is 'pounding'.

### Benefits of taking digoxin

- ♥ **Reduced time in hospital for heart failure**
- ♥ **Improved heart failure symptoms**

### Possible unwanted effects - digoxin

**Most of the unwanted effects are usually caused if you have too much digoxin in your blood. Tell your doctor if you have any of the following:**

- Loss of appetite, nausea or vomiting
- Irregular pulse, slow or fast
- Palpitations
- Unusual tiredness
- Seeing yellow / green circle around objects

If you notice any of these unwanted effects your doctor will do a blood test to see how much digoxin you have in your blood and change the dose as appropriate.

### Doctor check-ups

- ✓ Potassium level in the blood
- ✓ Kidney function
- ✓ Pulse

## Diuretics

There are many diuretics available. The most common is **Frusemide** (Brand name **LASIX<sup>®</sup>**, **UREX<sup>®</sup>**, **UREMIDE<sup>®</sup>**).

Some people call diuretics water or fluid tablets.

### How do they work?

Diuretics work on your kidneys to cause your body to pass more urine. This helps your body to remove excess water and salt. Removing excess fluid from the body reduces the amount of fluid that builds up in areas such as the lungs, ankles and feet. Removing fluid from the lungs will make breathing easier.

### When should they be taken?

Each dose of diuretic works for about four hours so you may notice an increased need to pass urine over this time. Therefore, doses should usually be taken in the morning and or midday to reduce the need to pass urine during the night. If you find that taking your diuretic at a particular time of the day interrupts or is inconvenient to your lifestyle, talk to your doctor or pharmacist.

Fluid build up in the body results in weight gain, which can sometimes occur rapidly over a few days. If you put on 1.5 kg (one and a half kilograms) or more in 24 hours, you should go and **see your general practitioner for advice.**

### Benefits of taking diuretics

- ♥ **Reduced time in hospital for heart failure**
- ♥ **Improved ability to exercise**
- ♥ **Control of fluid retention resulting in improved heart failure symptoms**

## Possible unwanted effects - diuretics

### Tell your doctor if you have any of the following:

- Nausea / vomiting
- Abdominal pain / diarrhoea or constipation
- Dizziness or lethargy
- Dry mouth / blurred vision
- Gout (pain and swelling in joints such as toes and fingers)
- Persistent headaches

### Doctor check-ups

- ✓ Kidney function
- ✓ Potassium and magnesium levels in the blood

## Potassium

If your potassium level is low you may be given a potassium supplement eg SPAN-K® or SLOW-K®, which should be swallowed whole, or CHLORVESCENT®, which should be taken after food.

## Dehydration

If you take diuretics you are at greater risk of becoming dehydrated especially if:

- the weather is hot
- you have had diarrhoea or vomiting
- you have had a fever
- you have reduced your fluid intake too much

**You may need to reduce your dose of diuretic during warmer weather when you lose more fluid with sweating. Discuss this with your doctor.**

## Signs of dehydration

It is important that you look out for signs that you may be dehydrated:

- Dry mouth / thirst
- Weakness, tiredness, drowsiness
- Muscle pain or cramps
- Passing less urine than normal
- Fast heart beat

If you think you may be dehydrated you should see your doctor.

## Angiotensin II Receptor Antagonists

CHEMICAL NAME	BRAND NAME
Candesartan	ATACAND <sup>®</sup>
Eprosartan	TEVETEN
Irbesartan	AVAPRO <sup>®</sup> , KARVEA <sup>®</sup>
Losartan	COZAAR <sup>®</sup>
Telmisartan	MICARDIS <sup>®</sup> PRITOR <sup>®</sup>

### How do they work?

Angiotensin II receptor antagonists (AII receptor antagonists) work in a similar way to Angiotensin Converting Enzyme (ACE) inhibitors. They widen narrowed blood vessels, which makes it easier for the heart to pump blood to all parts of the body. Like ACE inhibitors, AII receptor antagonists also stop some of the body's harmful responses to heart failure such as fluid retention. This will improve your symptoms. AII antagonists may be used if ACE-inhibitors give you a persistent cough.

### Benefits of taking angiotensin II receptor antagonists

AII receptor antagonists work in a similar way to ACE inhibitors and are expected to show similar benefits. AII receptor antagonists may reduce your risk of dying, improve heart failure symptoms and reduce the time you spend in hospital with heart failure. You may be prescribed an AII receptor antagonist if you cannot take an ACE inhibitor.

### Possible unwanted effects - Angiotensin II receptor antagonists

#### Tell your doctor if you have any of the following:

- Dizziness / light-headedness (symptoms of low blood pressure)
- Persistent headaches
- Nausea or vomiting

---

## SPECIAL PRECAUTIONS

---

Tell your doctor immediately if you develop:

Swollen face, lips or mouth

Wheeziness or difficulty breathing

Severe rash

---

Note: If you have experienced any of the above from ACE inhibitors, you should not take an AII receptor antagonist.

### Doctor check-ups

- ✓ Potassium level in the blood
- ✓ Kidney function
- ✓ Blood pressure

Your doctor will need to gradually increase your dose of AII receptor antagonist until the correct dose for you is achieved.

## Antiarrhythmics

The most common antiarrhythmic medication used for patients with heart failure is called **Amiodarone (Brand name - Cordarone X<sup>®</sup> or Aratac<sup>®</sup>)**

### How do they work?

Antiarrhythmic medications are used in people who have fast or irregular heart rate. If the heart is beating irregularly or too fast it may have trouble pumping blood around the body. This can cause a worsening of the symptoms of heart failure.

### Benefits of taking amiodarone

- ♥ **Reduced symptoms from a fast or irregular heartbeat**

### Possible unwanted effects - amiodarone

**Tell your doctor if you have any of the following:**

- Persistent headaches
- Dazzling by headlights of cars at night / Impaired vision

- Persistent cough
- Nausea or vomiting / Metallic taste
- Numbness or tingling in fingers or toes
- Rash
- Insomnia (inability to sleep) / Nightmares
- Blue / Grey-ish colouring of the skin
- Impotence

**Sunburn** - Amiodarone can increase your skin's sensitivity to the sun. It can make you burn more easily. The skin should be covered up as much as possible and sun block should be used on exposed skin. Use a sun block with sun protection factor (SPF) 30 on exposed skin.

▪ **Rare unwanted effects**

Amiodarone can cause some rare but serious unwanted effects.

**Amiodarone – Rare unwanted effects**

**Tell your doctor immediately if you get any of the following whilst taking amiodarone:**

Yellowing of the skin or eyes (called jaundice – a sign of liver changes)  
 Weight loss and restlessness (a symptom of an over active thyroid gland)  
 Weight gain, constipation and tiredness (symptoms of an under active thyroid gland)  
 Worsening breathlessness or any difficulty breathing (a symptom of lung injury)  
 Blurred or changes in vision  
 Changes of heartbeat such as 'pounding'

**Doctor check-ups**

To look out for possible unwanted effects caused by amiodarone, your doctor will need to carry out the following before and while you take amiodarone:

- ✓ Thyroid test (before treatment and then every six months)
- ✓ Liver test (before treatment then every six months)
- ✓ Chest x-ray (before treatment)
- ✓ Regular electrocardiogram

## Lifestyle Changes

There are a number of changes you can make to your lifestyle which will:

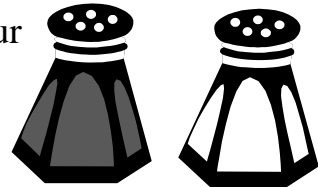
- help to improve your symptoms of heart failure
- allow you to live a longer life
- reduce the time you spend in hospital
- allow you to carry out the daily activities you enjoy

Taking your medications every day according to the plan agreed with your doctor is one way to make sure you are helping yourself.

**Lifestyle changes such as diet and exercise are just as important.**

## The importance of reducing salt

Many Australians eat too much salt in their diet. The salt in your diet can make your heart failure worse and raise your blood pressure. Salt in your diet makes you drink more and cause your body to retain fluid. This can worsen your symptoms and make it harder for your heart to work efficiently.



Here are some tips on reducing the salt in your diet:

- ♥ Avoid salty foods such as salted nuts, crisps, ready made meals, soups and sauces, tinned and processed foods
- ♥ Avoid adding extra salt to food
- ♥ Try to use less salt in your cooking
- ♥ Look at the nutritional data on the packet, the amount of salt will be listed as **sodium**. Try to buy foods which contain less than 120mg sodium per 100g. Some items will be labelled 'low in salt'.

## Healthy diet

In order to reduce the risk of heart disease it is important that you eat a healthy, balanced diet which is low in cholesterol and saturated fat.



We all need a certain amount of fat in our diet, but most people have far more than they need.

If you have a diet which is high in saturated fat or cholesterol, this can cause weight gain and an increase your blood cholesterol level. If you have a high cholesterol level you have an increased risk of having a heart attack or stroke. Your doctor may test your blood cholesterol level to see if this is a problem.

Your doctor may put you in contact with a dietician who can give you ideas of how to manage a healthy diet. By following these simple steps below you can dramatically reduce your saturated fat intake;

- ♥ Use low fat cooking techniques such as boiling, grilling and steaming.
- ♥ Use low fat dairy products such as milk, yoghurt and cheese, and use spreads high in polyunsaturated fats instead of butter.
- ♥ Eat lean meats or trim the fat from meat, remove the skin from chicken.
- ♥ Avoid high fat baked goods and snack foods, such as cakes, potato crisps and chocolate.

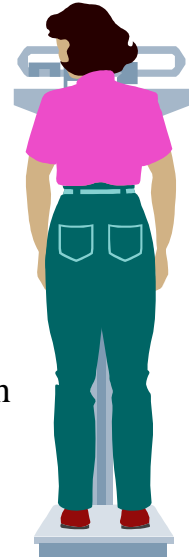
## Weight control

Being overweight means that your heart has to work harder to supply your body with blood.

One of your goals should be to maintain your ideal body weight which will help you to feel better.

Exercise and a healthy diet is the ideal way to lose weight.

Losing weight can also reduce your blood cholesterol, which in turn will reduce your risk of further heart complications.



### **Weight gain**

If you put weight on quickly it is likely to be a gain of excess fluid. This may be a sign that your heart condition is worsening.

You will need a set of scales to weigh yourself daily. Ideally, you should weigh yourself every morning before breakfast and after going to the toilet. Record your daily weight in your diary.

**If you have put on 1.5 kilograms or more over 24 hours you should contact your doctor.**

Your doctor may increase your dose of ‘fluid’ tablets to remove the extra fluid.

## Watch your fluid intake

You may need to be aware of your fluid intake.

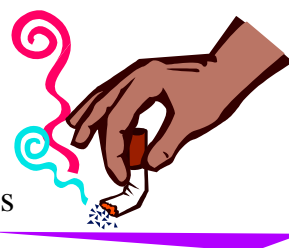


Sometimes it may be necessary to watch the amount of fluid you drink and in the food you eat such as soups or juicy fruits such as oranges and watermelon.

Check with your doctor regarding your fluid intake.

## Smoking

Cigarette smoking is very dangerous to your health, especially if you have heart problems.



- ⊖ Smoking can damage your lungs meaning that less oxygen is getting to your heart. If you have heart failure your body already finds it difficult to obtain enough oxygen supply from the blood, so if you smoke you will become even more breathless.
- ⊖ Smoking can cause your arteries to thicken and spasm and increases your risk of having angina or a heart attack.
- ⊖ Smoking also increases the risk of having a stroke

If you are currently a smoker, one of your goals should be to stop. There are a number of ways of getting help to quit. Speak to your doctor or pharmacist for advice.

## Alcohol

Alcohol has been shown to contribute to heart failure by causing further damage to the heart muscle.

For some people with heart failure the best idea is to avoid alcohol altogether. Other people should reduce their alcohol intake. If you are unsure you should ask your doctor.

**Remember-** alcoholic drinks also count as part of your daily fluid intake. Alcoholic beverages also contain calories and salt (eg beer) which will contribute to making your heart pump less efficiently.

## Vaccination

Because you have heart failure you are more likely to become very sick if you get influenza or pneumonia. It is important that you have a vaccination to prevent these infections.

*Remind your doctor that you will need a vaccination for flu every year and for pneumonia every 5 years.*

## Exercise

For those who are well enough, exercise is an excellent way to help your heart and make you feel better both physically and mentally.

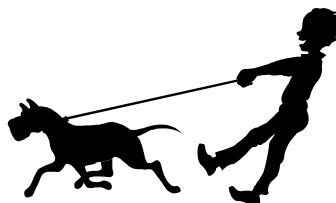
Just remaining active, not sitting in a chair or lying in bed all day, can help you to stay fit, prevent excess weight gain and keep your muscles healthy and strong.



Check with your doctor about how much exercise you should do. Some people may not be able to carry out regular exercise. Your doctor may put you in contact with a physiotherapist to give you some exercise ideas.

After checking with your doctor you may like to start a simple walking program. Whichever exercise you choose to do, you should start off with a **very light** exercise which does not tire you out or cause any muscle pain. If you get tired **have a rest**. Aim to exercise 5 to 7 times a week, and gradually increase the duration of your exercise at weekly intervals.

### Healthy heart walks



The 'healthy heart walks' are organised walks which take place several times a week. They are supported by local doctors and health care professionals and give you the opportunity to meet other people who have heart conditions. They are fully supervised by medical staff and are an excellent way to improve your health in a safe and social environment. Ask your doctor for further information.

### Rest

Even though regular exercise is good for your heart and helps you to feel better, it is also important not to overdo it and become exhausted. Pace yourself. If you become tired or short of breath stop and have a rest. Overdoing it can put extra stress on your heart.



### Tips on conserving energy

- Do not try to do too much in the one day
- Have frequent short breaks between activities
- If you become tired during an activity, stop and rest
- Try not to plan an activity immediately after a meal
- Ask someone else to lift heavy objects for you or use a trolley
- If you are tired, sit down rather than stand up, eg. if preparing food or ironing

- Learn some relaxation techniques
- Store things in convenient places so you don't need to stoop and bend

For more information on energy conservation or relaxation techniques, ask your doctor to refer you to an occupational therapist.

## Sexual activity

Questions concerning sexual activity usually go unanswered, as many people are too embarrassed to ask. You should feel comfortable asking your doctor or other health care professionals if you have any concerns about your sex life if you have heart failure, or if you have other heart disease. Some heart failure medications can cause or worsen impotence. If you think this is occurring, please discuss it with your doctor.

## Cardiac rehabilitation

Cardiac rehabilitation programs are useful for a number of reasons. They will help you learn more about:

- ♥ your heart
- ♥ lifestyle changes
- ♥ medications
- ♥ exercising sensibly
- ♥ relaxation

Health care professionals including physiotherapists, occupational therapists, dieticians, pharmacists and nurses are present at the cardiac rehabilitation sessions and give you the opportunity to ask questions. It is also a good opportunity to meet other people who have heart conditions.

Ask your doctor or health care professional for a program nearest to your home.

## Benefits of cardiac rehabilitation

♥ increased survival

Studies involving people, who have had a heart attack, found that over a one year period, participating in cardiac rehabilitation reduces the risk of dying by one quarter (25%).

**It was shown that, of 100 people who had a previous heart attack and were not participating in cardiac rehabilitation, 18 people died. This compared to the group of people who were participating in cardiac rehabilitation where only 14 out of 100 people died.**

**NOT participating in  
Cardiac rehabilitation**



**18 out of 100 died**

**Participating in  
Cardiac rehabilitation**



**14 out of 100 died**

## What is the outlook?

Heart failure is a serious problem, but your condition can be improved by taking medications and altering your lifestyle.

Even though you may be taking care of yourself, heart failure can worsen. The rate at which your heart failure worsens and the severity of your symptoms depends on the lifestyle changes you make and your ability to take your medications.

Your individual long-term outlook will depend on your age, severity of heart failure, and other diseases you may have.

It is important to discuss your individual long-term outlook with your doctor.

## When to see a doctor and when to call an ambulance.

### When to see a doctor;

You should have regular check-ups with your general practitioner, but if you notice **an increase of more than 1.5 kg (one and a half kilograms) per day in 24 hours** you should make an appointment to see your GP as soon as possible. Also, if any of the following symptoms seem to be worsening, or occur for the first time, please see your GP.

- Shortness of breath
- Tiredness/Fatigue/Lethargy
- Swelling of ankles/feet/legs
- Chest pain
- Waking at night with breathlessness
- Persistent coughing
- Feeling faint/dizziness
- Unable to do usual activities

## When to call an ambulance

If any of the following occur, ring for an ambulance **as soon as possible**,

- **Severe chest pain** for more than 15 minutes (with no relief from angina medications)
- **Severe shortness of breath**
- **Blackout / loss of consciousness**

# Index

## **A**

ACE..... 4, 20, 21, 30, 31  
Amiodarone..... 32  
Anaemia..... 9, 16  
Angiogram..... 15  
Antiarrhythmics..... 31  
Atherosclerosis..... 9

## **B**

Beta-blockers..... 22, 23

## **C**

Cardiac arrhythmias..... 9  
Cardiac catheterisation..... 15  
Cardiac rehabilitation..... 39, 40  
Cardiomyopathy..... 9  
Cholesterol..... 4, 10, 34, 35  
Conserving energy..... 38  
Coronary arteries..... 9, 15  
Coronary artery disease..... 9

## **D**

Diagnose your heart failure..... 14

Digoxin..... 4, 26  
Diuretics..... 27

## **E**

Echocardiogram..... 15  
Echocardiography..... 15  
Electrocardiogram (ECG)..... 14

## **F**

Fluid tablets..... 27

## **H**

Heart attack..... 10, 14, 34, 36, 40  
Heart valves..... 9  
High blood pressure..... 10  
Hypertension..... 9  
Hypertension (high blood..... 9

## **S**

Salt..... 4, 9, 27, 33, 37  
Sexual activity..... 39  
Sodium..... 33  
Spironolactone..... 4, 24