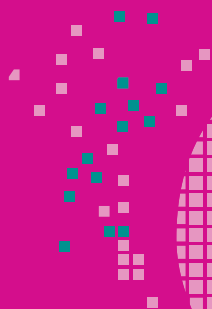


Chest  
Heart &  
Stroke  
Scotland



# Living with **HIGH BLOOD PRESSURE**

HEART SERIES H4



**NO LIFE HALF LIVED**



**NO LIFE HALF LIVED**

The information contained in this booklet is based on guidelines and practice and is correct at time of printing. The content has undergone peer, patient and expert review.

# LIVING WITH HIGH BLOOD PRESSURE

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# INTRODUCTION

Blood pressure is the pressure of blood in your arteries as it flows around your body. High blood pressure (or hypertension) is when your blood pressure is consistently higher than it should be.

Having high blood pressure increases your risk of a number of serious conditions, including heart attack and stroke.

High blood pressure doesn't usually have any symptoms, so most people don't know they have high blood pressure until they get their blood pressure checked. All adults 40 years old and over should have their blood pressure checked at least once every 5 years.

With a combination of lifestyle measures and medication blood pressure can usually be well controlled, reducing the risk of complications.

This booklet is for anyone who already has high blood pressure and is trying to reduce it. It is also for anyone who doesn't have high blood pressure, but wants to reduce their risk of developing high blood pressure as they get older.

## **The booklet is divided into 4 sections:**

***Understanding high blood pressure*** discusses what high blood pressure is and what causes it. It describes how blood pressure is diagnosed, and explains why controlling high blood pressure is so important.

***How is high blood pressure managed – lifestyle changes*** describes the lifestyle changes you can make to help manage your own blood pressure.

***How is high blood pressure managed – medication*** is for those people whose blood pressure remains high despite lifestyle changes. It explains what medication you might be prescribed and why it is so important to take it as recommended.

***Living with high blood pressure*** addresses some of the concerns that you might have about day-to-day living with a diagnosis of high blood pressure.

## **Further information**



Throughout the booklet, you will be referred to other CHSS booklets and factsheets for further information. These can be downloaded by visiting the CHSS website **[www.chss.org.uk](http://www.chss.org.uk)**. Paper copies can be ordered using the order form at the back of this booklet, by emailing **[publications@chss.org.uk](mailto:publications@chss.org.uk)**, or by calling the Advice Line nurses on **0808 801 0899**

# UNDERSTANDING HIGH BLOOD PRESSURE

## How does your heart work?

To understand what high blood pressure is, you need to know a little bit about how your heart works.

Your heart is a muscular pump that pushes blood around your body through your blood vessels. The blood provides your body with the oxygen and nutrients it needs.

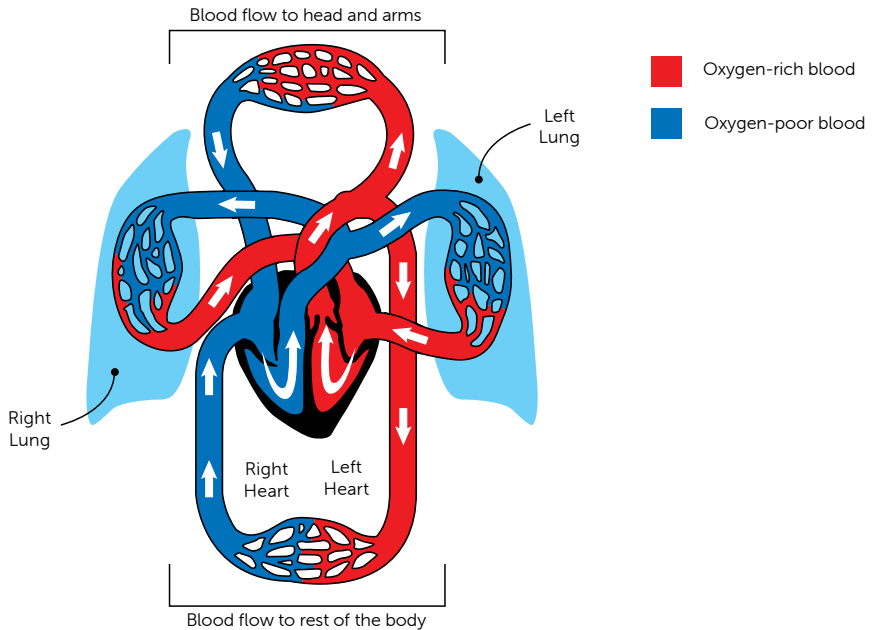
The pumping action is triggered by electrical signals that are sent through your heart's electrical system to the heart muscle. These signals tell the heart when to contract (squeeze) and when to relax.

This pumping action pushes blood from the right side of your heart out to the lungs where it collects oxygen. The blood then returns to the left side of the heart and is pushed out to be carried around the rest of your body by the blood vessels. Valves between the chambers of your heart keep the blood flowing in the right direction.

Your blood vessels are a series of tubes that carry blood to and from your heart:

**Arteries** carry oxygen-rich blood from your heart all over your body.

**Veins** carry blood which has delivered its oxygen back to the heart.

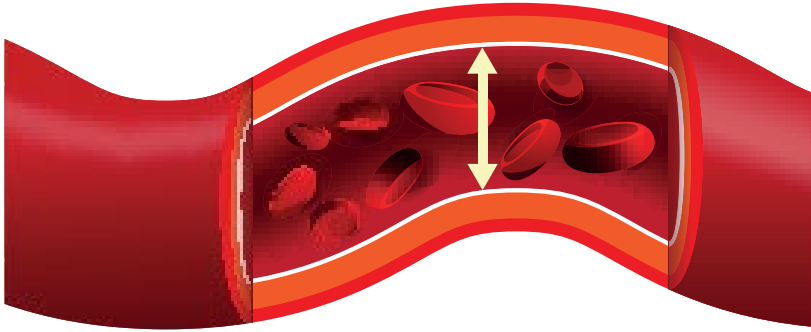


## What is blood pressure?

Blood pressure is the measure of the pressure (force) of blood in your arteries.

The pressure of the blood flowing through your arteries changes as your heart beats. The pressure is at its highest when your heart contracts, forcing blood out of the heart and around your body. The pressure is at its lowest when your heart relaxes between heart beats, while it fills with blood before pumping again.





## Blood Pressure

Blood pressure is the pressure of blood in your arteries as it flows around your body

Blood pressure is measured in millimetres of mercury (mmHg) and is recorded as 2 numbers, for example 120/80 mmHg. This is usually referred to as '120 over 80'.

The top (first or highest) number is the **systolic pressure**. This is the pressure of blood in the arteries when the heart contracts and pushes blood out of the heart.

The second (bottom or lowest) number is the **diastolic pressure**. This is the pressure of blood in the arteries when the heart relaxes and refills with blood.

## What is high blood pressure?

High blood pressure (or hypertension) is when your blood pressure is consistently higher than it should be. As a general guide, the target blood pressure for most people is 140/90 mmHg when measured in a clinic setting, such as a GP's surgery.

## What causes high blood pressure?

Often, there is not an obvious cause for a person to develop high blood pressure. However, there are a number of factors that can increase your risk of developing high blood pressure.

These include:

- Your age (increasing age increases the risk)
- Other people in your family have high blood pressure
- Your ethnic background (people of African-Caribbean or South Asian ethnicity are more likely to have high blood pressure)
- Being overweight or obese
- Not being active enough
- Having a high salt intake
- Drinking too much alcohol

In some people a cause can be identified. Causes can include:

- Some medicines, such as oral contraceptives
- Kidney disease
- Diabetes

## Do any of these risk factors apply to you?

## How do I know if I have high blood pressure?

**The only way to know whether you have high blood pressure is to have it measured.**

High blood pressure doesn't usually have any symptoms, so most people don't know they have high blood pressure until they get their blood pressure checked.

Experts recommend that all adults 40 years old and over should have their blood pressure checked at least once every 5 years.

If you have already been diagnosed with high blood pressure, or you have another health condition such as diabetes, kidney disease, heart disease or you have had a stroke, you will need to have your blood pressure checked more often.

You can get your blood pressure checked:

- At your GP surgery (by your GP or practice nurse, or using an automated machine)
- At some pharmacies
- In some workplaces
- At a health event

## How is blood pressure measured?

Blood pressure is usually measured using an automated blood pressure monitor. This device uses a 'cuff' that is wrapped around your upper arm.

**Monitor**



**Cuff**

When taking a reading you will feel the cuff tighten around your arm and then slowly begin to release.

The person taking your blood pressure should check your pulse at the same time. This is to ensure that the rhythm of your heartbeat is regular. Having an irregular heartbeat can make the reading on an automated blood pressure monitor less reliable.

## **When having your blood pressure taken:**

- Avoid alcohol, smoking and exercise for 30 minutes before you have your blood pressure measured.
- Make sure you have emptied your bladder.
- Rest for at least 5 minutes before taking your reading. Ideally you should be sitting down quietly with your arm supported and resting on a firm surface.
- Remove any long-sleeved clothing or roll up your sleeves so that the cuff can be placed around your upper arm.
- Don't talk during the blood pressure measurement as this can affect the reading.

A single high blood pressure reading does not necessarily mean that you have high blood pressure. Blood pressure fluctuates throughout the day. Feeling anxious or stressed when you go to have your blood pressure measured can also increase your blood pressure. If your blood pressure is high in the clinic (higher than 140/90 mmHg), your doctor may ask you to monitor your blood pressure at home over a period of time. This will confirm whether your blood pressure is consistently high or whether it was just a one-off.

Monitoring at home can be done either using 24-hour ambulatory blood pressure monitoring (ABPM) or home blood pressure monitoring (HBPM).

**ABPM** involves wearing a device that automatically takes your blood pressure at regular intervals over 24 hours as you go about your normal daily activities. These measurements give your doctor a clear idea of how your blood pressure changes throughout the day. It also avoids the problems of 'white coat syndrome' where your blood pressure increases in clinic because you are anxious about having it measured.

**HBPM** is when you measure your own blood pressure at home, using an automated blood pressure monitor. This can help to give you and your doctor a more accurate picture of your blood pressure over time.

As a general guide:

- **High blood pressure** is considered to be 140/90 mmHg or above in clinic and an average of 135/85 mmHg or above at home.
- High blood pressure is considered to be **severe** if your clinic systolic blood pressure is 180 mmHg or higher or clinic diastolic blood pressure is 110 mmHg or higher.

If your blood pressure is lower than 140/90 mmHg you may still be at risk of developing high blood pressure in the future. Adopting a healthy lifestyle can help to reduce this risk. See page 16 for more information.

If your blood pressure is not considered to be high, your doctor or nurse should offer to measure it again within 5 years, or sooner if it is close to 140/90 mmHg.

## What other tests might I have?

If your clinic BP is 140/90 mmHg or above, your doctor should:

- Assess your risk of cardiovascular disease.
- Check the health of your heart, kidneys and eyes.



See the CHSS booklet *Reducing the Risk of Heart Disease or Reducing the Risk of Stroke* for more information about cardiovascular risk assessment.

## Why is having high blood pressure dangerous?

**Having high blood pressure increases your risk of having a heart attack or a stroke.**

Persistent high blood pressure can increase your risk of a number of serious and potentially life-threatening conditions, such as:

- Heart attack
- Stroke and transient ischaemic attacks (TIAs)
- Heart failure
- Peripheral arterial disease
- Kidney disease
- Vascular dementia
- Damage to your eyes

## Damage to your arteries

Over time, high blood pressure causes damage to the lining of the arteries. Fatty deposits get caught and build up in the damaged areas. This build-up of fatty deposits is known as a plaque or an atheroma. As the plaque grows, the artery becomes narrower, making it harder for blood to flow through the artery.

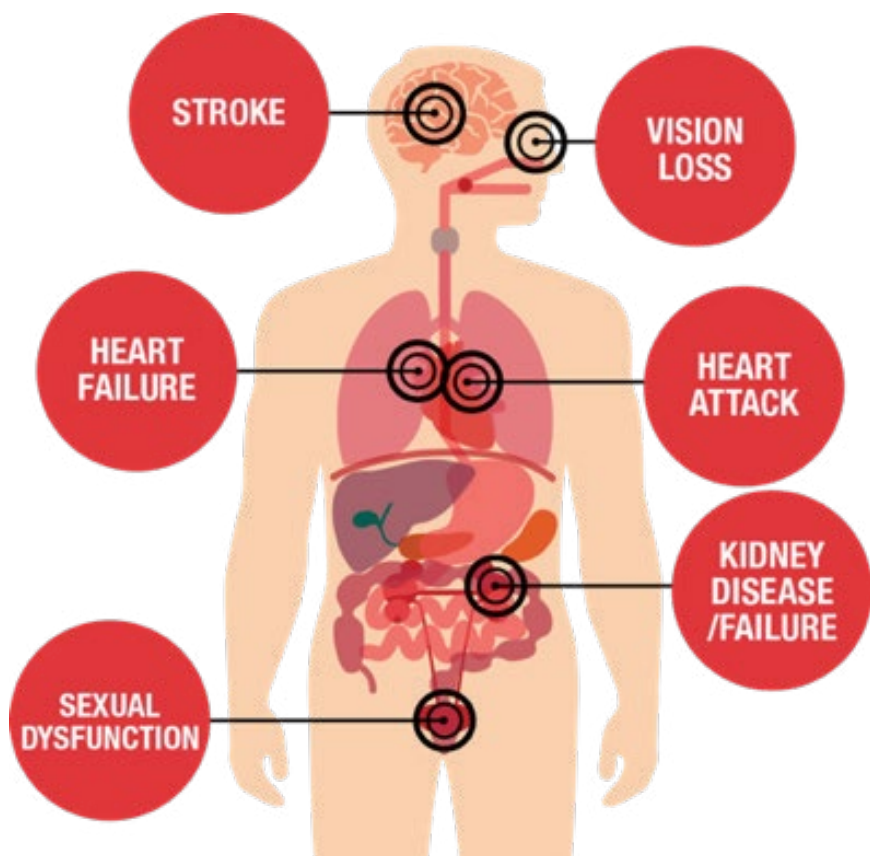
Sometimes the narrowed section becomes damaged and the plaque will tear or break. If this happens, your blood cells rush to try to repair the damage by forming a blood clot. Usually this heals the damage, but sometimes the blood clot grows too large and blocks the artery. Blood carrying oxygen and nutrients is unable to get through the artery. If the blockage is in the blood vessels that supply oxygen to your heart this can cause a heart attack. If the blood vessels in your brain are affected this can cause a stroke.

The higher pressure in the arteries can also cause a piece of the plaque to break off and block a smaller artery. Depending where the blockage is, this can cause a heart attack or a stroke. This blockage can also affect your limbs, which is a condition known as peripheral arterial disease.



## Damage to your heart

High blood pressure means that the heart has to work harder than usual to force blood out of the heart and into the arteries. This extra work can cause the muscular walls of the ventricles to become thick and stiff. Over time, the strain on the heart causes the heart muscles to weaken and they cannot work as well. This can lead to heart failure.



## HOW IS HIGH BLOOD PRESSURE MANAGED?

**Evidence shows that lowering your blood pressure can reduce your risk of heart disease, stroke, heart failure and death.**

The good news is that you may be able to lower your blood pressure by making some simple lifestyle changes. Even if you don't have high blood pressure now, making some of these changes can help you maintain a healthy blood pressure and prevent you developing high blood pressure in the future.

Depending on how high your blood pressure is and whether you have any other risk factors for heart disease and stroke, your doctor may also recommend that you take medication to help control your blood pressure.

Even if you need to take blood pressure medication, it is still important to try and make these changes to keep your risk of a heart attack or a stroke as low as possible.

### **Managing high blood pressure – lifestyle changes**

By making lasting lifestyle changes, you can lower your blood pressure, improve how well your medication works and reduce your risk of heart disease and stroke. Making more than one change can achieve even better results!

The information on the following pages explains the changes you can make. Some of these can lower your blood pressure in a matter of weeks, while others may take longer.

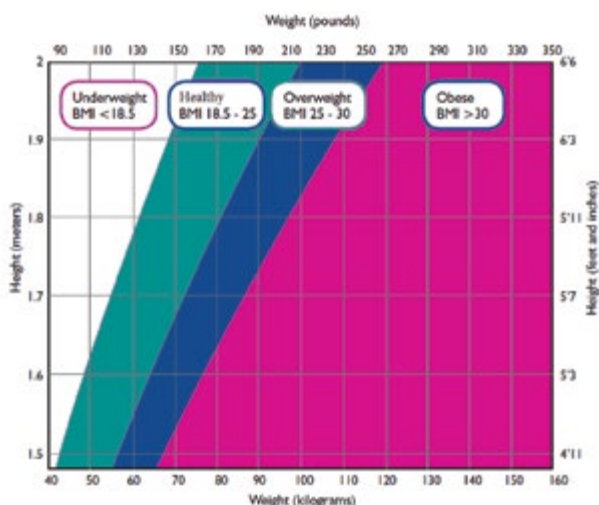
Change	Target	Further information (page number)
Lose weight (if you are overweight)	Maintain ideal body mass index (BMI 18.5-25) and a healthy waist size	18
Eat a healthy diet	<p>Increase fruit and vegetables</p> <p>Reduce fat intake, especially saturated fats</p> <p>Increase wholegrains</p>	20
Reduce your salt intake	Reduce to 6g salt or less	22
Get active	Aim to do at least 150 minutes (2½ hours) of moderate-intensity physical activity a week, in bouts of 10 minutes or more	24
Limit the amount of alcohol you drink	Do not drink more than 14 units of alcohol per week	26

## Lose weight (if you are overweight)

Being overweight increases your risk of developing high blood pressure - as your weight increases, so does your blood pressure.

Losing weight is one of the best things you can do to control your blood pressure. If you are overweight, losing weight (even as little as 2-4kg or 5-10lbs) can help to lower your blood pressure. For each kg (2.2lbs) of weight you lose, you can expect to reduce your blood pressure by about 1 mmHg.

You can work out whether you are overweight by working out your body mass index (BMI). To do this you will need to know your weight and your height. Then, use the chart below to work out which BMI range you are in.



Aim for a BMI between 18.5 and 25. By achieving a healthy BMI and keeping it at a healthy level you can reduce your blood pressure.

Your body shape can also affect your risk of developing high blood pressure and cardiovascular disease. If you carry extra fat around your waist, you are at increased risk of heart disease and stroke. To find out if your body shape is affecting your risk, you can measure your waist size.

	Ideal	High Risk	Very High Risk
Women	Less than 80cm (32")	80cm to 88cm (32" to 35")	More than 88cm (35")
Men	Less than 94cm (37")	94cm to 102cm (37" to 40")	More than 102cm (40")

Being overweight can cause disrupted breathing while you sleep (sleep apnoea), which further raises your blood pressure.



For more information about your BMI and waist size, see the CHSS factsheet *Losing Weight*. This also provides advice on how to lose weight if you are overweight.

## **Eat a healthy, balanced diet**

Studies have shown that eating a diet that is rich in whole grains, high in fruits and vegetables and low in saturated fat and cholesterol can lower your blood pressure by up to 11 mmHg if you have high blood pressure. This eating plan is known as the Dietary Approaches to Stop Hypertension (DASH) diet. The main features of a healthy diet to help reduce your blood pressure are:

**Fruit and vegetables** – aim to eat at least 5 portions per day. Fruit and vegetables are rich in fibre, vitamins and minerals.

**Reduce your fat intake, especially saturated fats** – choose lower-fat options such as semi-skimmed milk and low-fat yoghurts. Try to keep saturated fat to a minimum (saturated fats are usually solid when cold and found mainly in animal sources such as butter, lard and fat on meat.). If you are using fats in cooking, choose fats such as extra virgin olive oil, sunflower, rapeseed or canola oil.

**Wholegrains** – choose wholegrain options where possible, such as wholegrain pasta and rice. Aim for 2-3 portions per day to boost your fibre intake. Try to include legumes (such as peas, beans and lentils) in your diet every day.

**Oily fish** – oily fish (such as salmon, sardines and mackerel) are rich in omega-3 fatty acids which have been shown to help reduce blood pressure. Aim to have 2 portions of fish per week, one of which should be an oily fish.

There is no evidence that taking dietary supplements such as calcium, magnesium or potassium can reduce your blood pressure.

To reduce your overall risk of heart disease and stroke you should also reduce the amount of sugar in your diet and limit the amount of red meat you eat.

Use the **Eatwell Guide** (see Appendix 1) to help you to make healthier food choices.

If you have high blood pressure and are considered to have a high risk of going on to develop cardiovascular disease (CVD), or you already have CVD, you may want to consider adopting a Mediterranean diet supplemented with 30g extra virgin olive oil or a small handful of unsalted nuts each day.



For more information about eating a healthy, balanced diet see the CHSS factsheet *Healthy Eating*.

## Cut out the salt

Having too much salt in your diet has been shown to increase the risk of developing high blood pressure. If you have high blood pressure, by cutting down the amount of salt you eat you can reduce your blood pressure. Even a small reduction in the salt in your diet can reduce blood pressure by about 5 to 6 mmHg.

Most people eat far more salt than they need, and we should all try to cut down on the amount of salt we have. Adults should eat no more than 6g of salt per day. This includes salt added to food (in cooking or at the table).

6g of salt is about the same as 1 level teaspoonful of salt. If you have high blood pressure, you should aim to reduce your salt intake as much as possible to help lower your blood pressure.

### Each of these contains

#### **1/4 teaspoon salt\***

- 1 individual pork pie
- 1 sausage roll
- 60g cornflakes with milk



### Each of these contains

#### **1/2 teaspoon salt**

- 2 noodle sachets
- 1 tin cream of tomato soup
- 3 rashers bacon



### Each of these contains 1 teaspoon salt

- 3-4 slices meat pizza
- 12 slices bread
- 3 tablespoons soy



\* All figures are approximations



Making simple changes to the food you buy and the way you cook your food, as well as how much salt you add at the table, can help reduce your salt intake.

- Most of the salt we eat is 'hidden' in the food that we buy. Foods such as processed meat products (bacon, ham), salted snacks (crisps, nuts and biscuits), ready meals, soups and sauces are almost always high in salt. In other foods, such as bread or breakfast cereals, salt levels vary a lot.
- To help you make healthier choices about the food you buy, check the food labels for salt content and go for the lower salt choices.
- Reduce the amount of salt you use in cooking – make more use of herbs and spices (but be aware of the amount of salt in stock cubes and sauces).
- Taste your food before adding salt – don't automatically reach for the salt pot.
- Be wary about using a salt substitute. It won't help you get used to the taste of less salt. Salt substitutes may not be suitable for some people (such as those with heart failure or kidney problems).

The great news is that within a few weeks, your taste buds will change and you will get used to less salt and appreciate other flavours more.



For more information about the health effects of eating too much salt and advice on ways to reduce your salt intake (including how to check food labels) see the CHSS factsheet *Salt*.

## Keep active

If you have raised blood pressure, exercise can help you avoid developing hypertension. If you already have high blood pressure, regular physical activity can bring your blood pressure down to safer levels. Regular physical activity can help to reduce your blood pressure by about 5 to 8 mmHg. It also strengthens your heart and can help you lose weight. If you maintain the recommended level of physical activity, you will be helping to keep your blood pressure controlled.

Try to do some sort of physical activity every day and reduce the amount of time that you spend being inactive.

Aim to build up to at least 150 minutes of moderate intensity physical activity every week. This can be broken down into bouts of 10 minutes or more.

Moderate intensity activity means that you should feel that you are putting a bit of effort into the activity. You should feel warm and slightly out of breath and your heart should beat a little faster than normal. However, you should still be able to hold a conversation while exercising. Examples of moderate intensity activities include brisk walking, swimming, dancing, gardening and cycling.

## What counts as moderate physical activity

Any physical activity is better than none. It is never too late to get more active to improve health. Activities could include:



Activities that raise your blood pressure quickly and put unwanted strain on your heart can be unsuitable for people who have high blood pressure. Examples of such activities include weight lifting, sprinting or squash. If you are not sure about which type of activity would best suit you and how much you should do, check with your doctor or nurse.

If you haven't been very active, the thought of starting any activity may seem quite scary. Start slowly and gradually increase both the intensity and duration of your activity to build your confidence, strength and stamina.

Tips to help you get more active include:

- Choose something you enjoy
- Start gently and build up gradually
- Set realistic goals
- Build activity into your daily routine
- Track your progress (keep a diary or use an app)
- Make it social if that helps to motivate you
- Reward yourself

If you have any other health condition(s) or your blood pressure is very high, speak to your doctor or nurse before starting a new exercise routine.



For more information about the importance of getting active and activities and resources that can help you get moving see the CHSS factsheet *Just Move*.

### **Limit the amount of alcohol you drink**

Drinking too much alcohol increases your risk of developing high blood pressure as well as a range of other health problems. It can also make you gain weight (alcohol is high in calories), which in turn can increase your blood pressure and your cardiovascular risk.

There is no 'safe' level of alcohol to drink. However, if you do choose to drink alcohol, you can keep your risk low by drinking within the recommended limits:

- Men and women should not drink more than 14 units of alcohol per week.
- If you drink as much as 14 units in a week, don't save it all up to drink in one session. Spread it over 3 days or more.
- Aim to have at least 2 alcohol-free days each week.
- Avoid binge drinking (drinking large amounts over a short period of time). Binge drinking is particularly harmful and can increase your risk of heart attack and stroke.



By limiting the amount of alcohol you drink you can lower your blood pressure by about 4 mmHg. However, drinking more than moderate amounts of alcohol can actually raise blood pressure by several mmHg. It can also reduce the effectiveness of blood pressure medications.

## Other things that may affect your blood pressure

### Smoking

The relationship between smoking and high blood pressure is a bit more complicated. After each cigarette, blood pressure rises temporarily. This rise lasts for up to 30 minutes, but evidence suggests that smoking does not increase blood pressure in the long term.

Although smoking does not directly cause high blood pressure, it is known to increase your risk of developing and worsening cardiovascular disease (heart disease and stroke). Therefore, if you smoke and have high blood pressure, stopping smoking is an important step to reducing your chances of developing heart disease and stroke.

**You are more than 4 times more likely to stop smoking if you have specialist support.**

For more information and support to help you stop smoking, call a Quit Your Way Scotland advisor free on 0800 848484 or visit [www.nhsinform.scot/healthy-living/stopping-smoking](http://www.nhsinform.scot/healthy-living/stopping-smoking).



For more information about the benefits of stopping smoking and tips and advice to help you stop, see the CHSS factsheet *Stopping Smoking*.

## Caffeine

Caffeine can cause a sharp but short-lived increase in your blood pressure. If you drink a lot of coffee (4 or more mugs a day) or other caffeine-rich products, consider switching them for decaffeinated or caffeine-free options.

Caffeine-rich products include:

- **Coffee** – a major source of caffeine for many people
- **Tea** – black tea has more caffeine than green tea
- **Energy drinks** such as Red Bull, Monster, V or Relentless
- Some foods, such as **chocolate** (dark chocolate has more caffeine than milk chocolate; white chocolate has no caffeine)
- Some **medicines** such as cold and flu remedies and some pain killers contain caffeine. Caffeine can make these medications more effective.

## Recreational drugs

Some recreational drugs, such as cocaine, ecstasy and amphetamines, can cause a dramatic increase in your blood pressure and raise your risk of having a stroke or a heart attack. They are best avoided if you have high blood pressure.

## Stress

Stress itself has not been proven to cause high blood pressure.

One stressful situation can cause your blood pressure to increase for a short amount of time. Once the stressful situation has passed, your blood pressure will return to its previous level.

However, the way you deal with stress can affect your blood pressure. Some people deal with stress by developing unhealthy behaviours (such as drinking too much alcohol, poor diet or not doing enough physical activity). It is these unhealthy behaviours that can contribute to high blood pressure. So, it is important to learn how to relax and manage stressful situations.

If you are concerned about coping with stress or anxiety, talk to your GP. They will be able to help you decide how best to manage it.



For more information about how stress can affect you and suggestions on how to reduce your levels of stress see the CHSS factsheet *Managing stress and anxiety*.



## **Sleep**

There is some evidence that not getting enough sleep every night may be linked to high blood pressure. Over time, a lack of sleep can affect the body's ability to regulate stress hormones, possibly leading to high blood pressure or poorly controlled blood pressure. Try to get at least 6 hours of uninterrupted sleep a night if you can, to keep as healthy as possible.

## **Managing high blood pressure – medication**

Depending how high your blood pressure is and whether you have any other risk factors for heart disease and stroke, your doctor may also recommend that you take medication to help control your blood pressure.

- You will probably need to continue taking blood pressure tablets for the rest of your life.
- You may need to take more than one type of blood pressure tablet to control your blood pressure.
- Take your blood pressure medicines as prescribed by your doctor.
- Do not stop taking your blood pressure medication without speaking to your doctor first.

## **Will I need to take blood pressure medication?**

Your doctor should offer you blood pressure medication if:

- You have a clinic blood pressure of 160 mmHg or higher
- You already have clinical evidence of cardiovascular disease and your clinic blood pressure is more than 140/90 mmHg
- You have had a stroke or a transient ischaemic attack (TIA); even if your blood pressure is considered to be normal

## **What should I aim to get my blood pressure down to?**

- If you have high blood pressure and no other health conditions, your doctor will probably recommend that you aim to get your blood pressure down to 140/90 mmHg or lower.
- If you have cardiovascular disease and diabetes, kidney disease or signs of damage caused by high blood pressure, your doctor will probably recommend that you aim for a slightly lower target of 135/85 mmHg or lower.

These target values are just a guide. Your healthcare professional will discuss with you what target is best for you.

## **For how long will I have to take blood pressure medication?**

Unfortunately, high blood pressure does not go away once you and your doctor have found the right combination of medicines. You will need to keep taking your medicines for the rest of your life to make sure that your blood pressure stays controlled. You should have your blood pressure checked regularly and, if necessary, your medication may be adjusted.

## **How many medicines will I need to take?**

Most people need to take more than one type of medicine to keep their blood pressure controlled. There is some evidence that taking two or more medicines controls your blood pressure better than just one. You may be started on one or more medication at a lower dose to reduce side effects. You may also be started on one or more medication to reduce the need for you to take more than one daily dose.

Some people have blood pressure that is very hard to treat. Their blood pressure remains high despite taking three or more blood pressure medicines. This is known as resistant hypertension. However, before making a diagnosis of resistant hypertension, your doctor may want to look at other reasons why your blood pressure does not appear to be responding to treatment.

Reasons might include:

- Are you taking your medicines correctly?
- Is your blood pressure affected by other medications you might be taking?
- Is your blood pressure falsely high when it is measured in a clinic setting (white coat effect)?
- Is poor sleep affecting your blood pressure?
- Is there an underlying cause of your high blood pressure?

Even if you do have resistant hypertension, it is still important to make appropriate lifestyle changes such as weight-loss, diet (including salt restriction) and exercise.

## **But I feel OK – what if I don't take my medication?**

Taking medication everyday can be difficult, especially if you feel ok. However, it is really important that you take your blood pressure medicines as they have been prescribed to prevent the risk of complications in the future.

Up to half of all people who have been prescribed antihypertensive medication do not take their medication as prescribed. Do you?

Take a few minutes to think about the following questions:

- How often do you miss a dose or doses (per week)?

- Do side effects ever stop you taking your medicines as prescribed?

- Is the schedule too complicated?

- Do you understand fully why you are taking your medicines?

- How important is it to you to manage your blood pressure?

You may find it useful to find ways to remind yourself to take your medication regularly. This may be through using an alarm or app on your watch or phone, using a dosette box or storing your medicines in a safe place where you will see them every day. Ask your pharmacist if you need help to remember to take your tablets.

If you experience side effects from your blood pressure medication, discuss them with your GP. They may be able to reduce the dose or try a different medication. It is important that you continue to take your blood pressure medicines to keep your blood pressure under control and reduce your risk of complications.

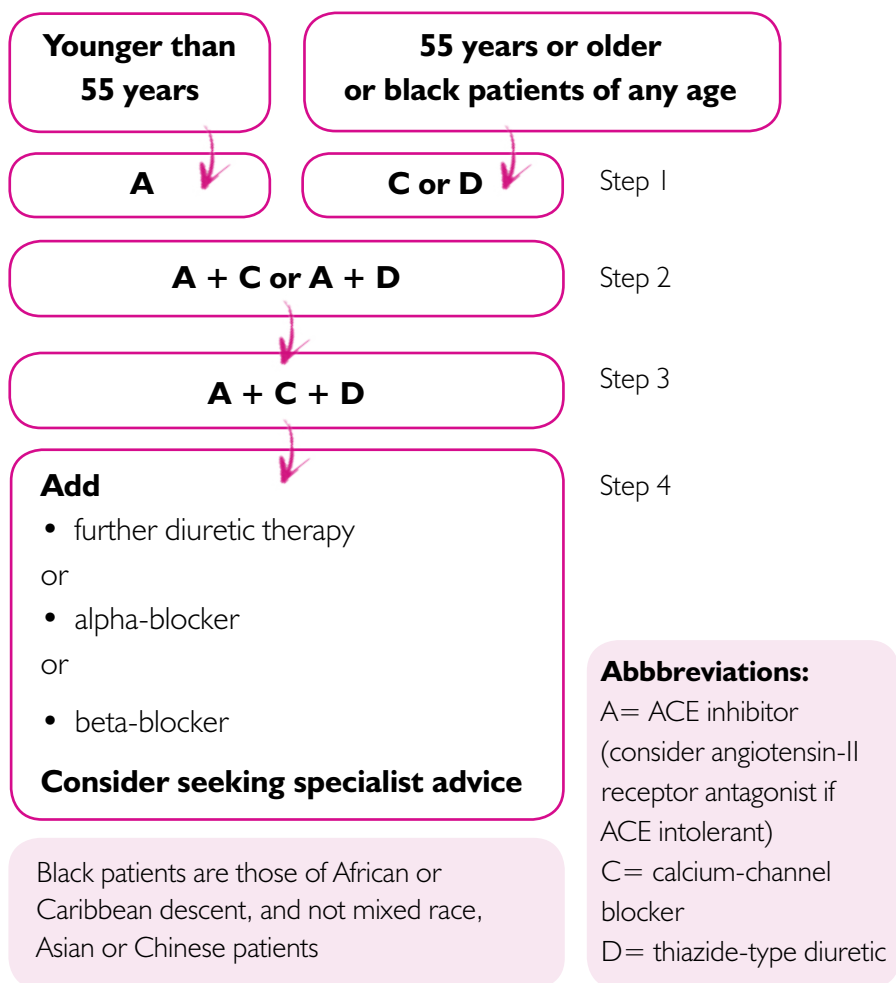
If you take medicines for high blood pressure, you should be careful when taking any other medicines, whether they are prescription or 'over-the-counter' medicines, or even herbal remedies. For example, some cold and flu remedies can raise your blood pressure. Ask your doctor or pharmacist for advice and always speak to them about any new prescription or over-the-counter medicines you are going to take.

Some effervescent (dissolvable) medicines contain up to 1 g salt per tablet. If you take these and have high blood pressure, you might want to consider changing to a non-effervescent equivalent.

## What medication will I be prescribed?

The initial choice of blood pressure lowering medicine will depend on factors such as your age, your ethnicity, the possibility of side effects, other medicines you may already be taking and any other medical conditions that you already have.

Your doctor will use the latest guidelines to help decide which blood pressure medicine(s) may work best for you.



The most commonly used medicines to treat blood pressure are:

- **Angiotensin Converting Enzyme (ACE) Inhibitors** (for example, enalapril, lisinopril, perindopril, ramipril)
- **Angiotensin receptor blockers (ARBs)** (for example, candesartan, irbesartan, losartan, valsartan)
- **Calcium channel blockers** (for example, amlodipine, diltiazem, lacidipine, nifedipine, verapamil)
- **Diuretics** (thiazide-type) (for example, bendroflumethiazide, chlortalidone, indapamide)
- **Beta-blockers** (for example, atenolol, bisoprolol, metoprolol)

For more information about the medicines that you may be prescribed to control your blood pressure, see Appendix 2.



# LIVING WITH HIGH BLOOD PRESSURE

## Driving

High blood pressure has few symptoms and should not affect your ability to drive.

**If you drive a car or motorbike**, you can continue to drive and you do not need to tell the Driver and Vehicle Licensing Agency (DVLA) if you have high blood pressure.

- You should not drive if your blood pressure medicines affect your driving ability. Speak to your doctor if you are not sure if your blood pressure treatment will affect your driving.
- If you have malignant hypertension (extremely high blood pressure that has developed rapidly) you must stop driving. You will be able to drive again once:
  - Your doctor confirms that your blood pressure is well controlled *and*
  - Your blood pressure is regularly below 180/110 mmHg

**If you have a bus, coach or lorry licence**, you should still be able to drive, but you must let the DVLA know that you have high blood pressure. You will need to fill in form BP1 and send it to the DVLA.

- If you have malignant hypertension (extremely high blood pressure that has developed rapidly) you must stop driving. You will also need to inform the DVLA. You will need to fill in form VOCH1 and send it to the DVLA.

Forms are available from [www.gov.uk/blood-pressure-driving](http://www.gov.uk/blood-pressure-driving).

Whatever type of licence you have, it is important to tell your insurance company and let them know what medication you are on. If you don't your insurance might not be valid.

## Insurance

Finding adequate insurance after a new diagnosis of high blood pressure can be difficult and frustrating. CHSS has a factsheet with insurance companies who specialise in providing travel and motor insurance for people with long-term health conditions.



See the CHSS factsheet *Travel and motor insurance*.

## Work

Having high blood pressure should not usually affect your current job or your future career. You do not have to tell your employer that you have high blood pressure, unless it could affect your ability to do your job.

However, there are certain jobs you may not be able to do if you have high blood pressure, or you may have to limit what you do.

- The restrictions for driving may also affect your ability to do some jobs, such as taxi driver and HGV driver. This will depend on how well controlled your blood pressure is. See page 39 for more information.
- Anything that causes extreme changes in speed or pressure can be harmful for people with high blood pressure. Certain jobs, such as a diver, submariner or airline pilot, may not be suitable for someone with high blood pressure.
- Some blood pressure medicines can make you feel sleepy. If you work with machinery or you need to be physically active, make sure that you tell your doctor when you are discussing any treatment.

## Sexual activity

Having high blood pressure should not affect your normal sexual activity. In terms of exertion, sex should be thought of as another form of physical activity, no more stressful to the heart than other forms of moderate exercise.

The risk of having a heart attack or stroke during sexual activity is incredibly small.

Being in a loving relationship, physical touch and sex have all been shown to have a variety of health benefits.

Sometimes high blood pressure or certain blood pressure medicines can cause difficulties with sex.

- Some men may experience impotence (erectile dysfunction) and ejaculation problems. This is because sustained high blood pressure can affect the blood vessels in the penis, making it more difficult to have an erection.
- Occasionally, some women find that sex is painful or they have difficulty achieving an orgasm. This is because high blood pressure can reduce blood flow to the vagina.
- Some blood pressure medicines can also cause impotence and sexual problems.
  - If you think that your blood pressure medicines are causing a problem, speak to your GP. A change of medication may be all that is needed.
  - Do not buy or use medicines such as Viagra® (sildenafil) unless it has been prescribed for you by your doctor.

If you have any concerns regarding sexual activity, speak to your GP.

## Holidays and flying

If your blood pressure is well controlled then you should be OK to fly. If your blood pressure is very high, or poorly controlled, then you should speak to your GP before you arrange to fly.

Before you go:

- If you are planning to go to somewhere at high altitude, check with your GP whether this is OK. At high altitude your blood thickens and your blood pressure rises. This may increase your risk of stroke.
- It may be worth getting a blood pressure check a few months before you travel. This is to make sure that any adjustments to your medication are completed before you go.
- Check that you have enough medication for your trip.
- Check your insurance. High blood pressure is a medical condition and it is important to declare this to your insurance provider. This is to ensure that if you need treatment while abroad you are fully covered.



See the CHSS factsheets *Travel and motor insurance* and *Air travel with a long-term condition* for more information.

## **Women and high blood pressure**

### **Pregnancy**

If you have high blood pressure, there is no reason why you cannot have a perfectly healthy and successful pregnancy. However, you do have a slightly greater chance of complications than other women.

So, if you are planning to have a baby, before you start trying you will need to talk to your doctor about preparing to conceive. This will allow your doctor to arrange the necessary support and help. For example, your doctor may wish to change your blood pressure medicines so that when you do become pregnant, your baby will not be affected by the medicines you are taking.

### **Contraception**

When you attend for family planning advice, make sure they are aware that you have high blood pressure.

Some contraceptive pills may cause your blood pressure to rise. In most women, the rise in blood pressure due to the combined (oestrogen and progesterone) oral contraceptive pill is small, but unpredictable. Progestogen-only pills are thought to have no effect on blood pressure at all.

Many women with high blood pressure can take the combined oral contraceptive pill but will need to have their blood pressure closely monitored. If your blood pressure does rise while you are taking the contraceptive pill you may be asked to try a different form of contraception.

## **Hormone replacement therapy (HRT)**

The current evidence suggests that, in general, the use of HRT does not cause an increase in blood pressure.

HRT can be used by women who have hypertension, as long as their blood pressure is well controlled. If you have high blood pressure and you are taking HRT, you should have your blood pressure checked every few months.

## HELP AND SUPPORT FROM CHSS

**For information on any of our services across Scotland, contact the Advice Line nurses on 0808 801 0899.**

### **Advice Line**

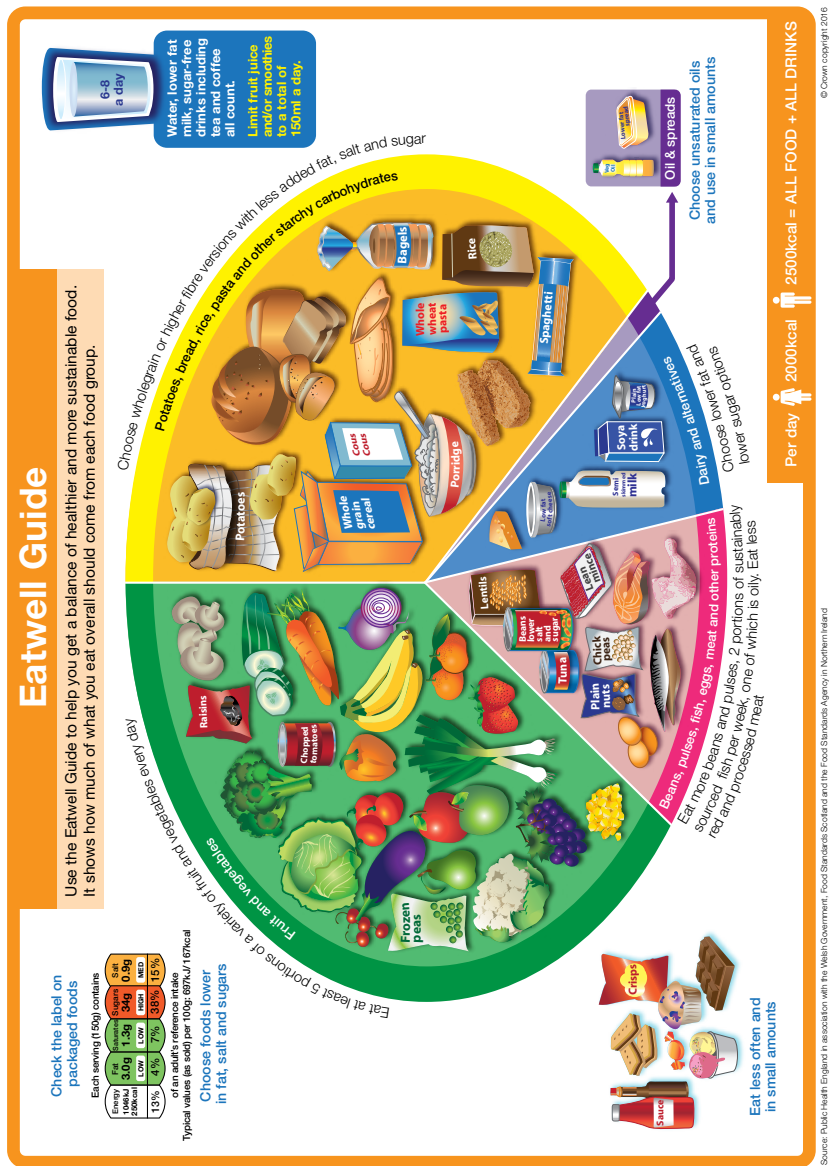
For confidential, independent advice on all aspects of living with a heart condition call the CHSS Advice Line on 0808 801 0899. Staffed by nurses, the Advice Line is open Monday to Friday 9.30am – 4.00pm. Whether you need someone to talk to, information about your treatment or you are looking for details of local services, the Advice Line nurses will help with any information you or your family needs. All calls are FREE from landlines and mobiles.

### **Health Information**

A full range of booklets and factsheets is available from the CHSS website at [www.chss.org.uk](http://www.chss.org.uk) or email [publications@chss.org.uk](mailto:publications@chss.org.uk) or call 0131 225 6963.



# Appendix I: The Eatwell Guide



## **Appendix 2: Blood pressure lowering medicines**

### **Angiotensin converting enzyme (ACE) inhibitors**

ACE inhibitors work by relaxing and widening your blood vessels. This lowers your blood pressure and makes it easier for your heart to pump blood around your body.

You will need to have regular blood tests to check your kidney function and potassium levels. ACE inhibitors may increase the level of potassium in your blood, so you should avoid having salt substitutes because these contain potassium too.

Up to 15 in every 100 people who take an ACE inhibitor develop a cough. If you develop a cough and it becomes troublesome, speak to your doctor.

### **Angiotensin receptors blockers (ARBs)**

ARBs work in a similar way to ACE inhibitors. However, they are less likely to cause the persistent dry cough that some people get when taking an ACE inhibitor. You may be given an ARB instead of an ACE inhibitor if you are unable to take an ACE inhibitor.

As with an ACE inhibitor, you will need to have regular blood tests if you are taking an ARB.

## **Calcium channel blockers**

These medicines restrict the movement of calcium into the cells of the heart and blood vessels. This relaxes and widens the blood vessels, which lowers blood pressure and reduces the amount of work your heart has to do.

You need to avoid grapefruit juice with calcium channel blockers, except for diltiazem.

## **Thiazide-type diuretic**

(For example, bendroflumethiazide, indapamide, chlortalidone)

Thiazide diuretics make your body get rid of extra fluid that has built up in your tissues and blood vessels. They do this by increasing the amount of salts (such as sodium and potassium) and water that you pee out (as urine). Diuretics are sometimes also known as water tablets as they can make you need to pass urine more frequently.

This means you have less fluid in your tissues, which helps get rid of swelling and a build-up of fluid in the body. You will also have less fluid in your blood vessels, which helps reduce blood pressure.

Like calcium channel blockers they can also cause a relaxation of the lining of the vessel wall which lowers your blood pressure as the widened vessels make it easier for blood to pass through.

## **Beta Blocker**

Beta-blockers work by blocking the effect of the hormones adrenaline and noradrenaline. This results in the slowing of your heart rate and lowering of your blood pressure, making it easier for your heart to pump blood around your body.

Beta-blockers are not usually recommended for people with asthma as they can make it worse. They can be used for people with some lung conditions and diseases, such as chronic obstructive pulmonary disease (COPD), but you might need to be monitored more closely than usual.

Other side effects include tiredness or fatigue, cold hands and feet, erectile dysfunction (impotence), dizziness, and disturbed sleep or even nightmares. These will usually improve over time. It is important that you do not stop your beta-blockers suddenly. If you do experience side effects, speak to your doctor, pharmacist or nurse as they may be able to reduce the dose or try another beta-blocker.



# HAVE YOUR SAY...

**Chest Heart & Stroke Scotland welcomes your comments and feedback on this resource to help us to develop the best information for you and others who have high blood pressure.**

**If you have any comments regarding this booklet or any of our other publications you can contact us through:**



[www.chss.org.uk](http://www.chss.org.uk)



[healthinformation@chss.org.uk](mailto:healthinformation@chss.org.uk)



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## PERSONAL STORIES

We would also like to hear from you if you would like to tell us about your experience of living with high blood pressure, heart disease or stroke.

Chest  
Heart &  
Stroke  
Scotland



# Advice Line Nurses



For confidential help, support and advice,  
call our specialist nurses or visit

[www.chss.org.uk](http://www.chss.org.uk)

Chest Heart & Stroke Scotland (CHSS) is a wholly Scottish charity  
Scottish Charity Number SC018761

**Helplines**  
STANDARD

# OUR PUBLICATIONS

We hope this information has been useful to you.

Our publications are available free to anyone in Scotland who needs them.

To view, download or order any resources, visit **[www.chss.org.uk/publications](http://www.chss.org.uk/publications)**

If you'd like more information about our publications, please contact our Health Information team:



[www.chss.org.uk](http://www.chss.org.uk)



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Please note: Our publications are currently being reviewed and updated. Some of the publications referred to in this booklet may no longer be available. For a complete list of our current publications, please visit [www.chss.org.uk/publications](http://www.chss.org.uk/publications)

## **Chest Heart & Stroke Scotland**

is a Scottish charity. Our ambition is to make sure that there is no life half lived in Scotland.

After a diagnosis of a chest or heart condition or a stroke, many people experience fear and isolation and struggle with the impact on their lives. **Chest Heart & Stroke Scotland** won't stand for that. The care and support we deliver every day ensures everyone can live the life they want to.

## **CONTACT US**

**For confidential advice, support and information  
call the CHSS Advice Line nurses on  
Freephone 0808 801 0899 or email [advice@chss.org.uk](mailto:advice@chss.org.uk)**

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