



# BLOOD PRESSURE – AND HOW TO CONTROL IT

BEATING HEART DISEASE TOGETHER

# ABOUT THIS BOOKLET

People who have high blood pressure have a greater risk of developing coronary heart disease, or having a heart attack, stroke, heart failure and other health problems.

South Asians living in the UK are at greater risk of developing coronary heart disease than the rest of the UK population because they are more likely to develop high blood pressure or diabetes – both of which are risk factors for coronary heart disease. (A risk factor is something that increases your chance of developing a disease.) It is important to control your blood pressure in order to reduce that risk.

## **This booklet explains:**

- **what high blood pressure is**
- **what low blood pressure is**
- **how your blood pressure is measured**
- **why high blood pressure is harmful**
- **how medicines can help, and**
- **what you can do to help control your blood pressure.**

The information in this booklet is not a substitute for the advice your doctor may give you based on his or her knowledge of your condition.

This booklet is available in **Bengali, Gujarati, Hindi, Punjabi** and **Urdu**. This English version has been produced to help relatives, carers and health professionals who do not read these languages.

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## BUT I DON'T FEEL ILL!

**High blood pressure – also known as hypertension – rarely makes people feel ill. For most people, the only way of knowing if you have high blood pressure is to have your blood pressure measured.**

High blood pressure can cause headaches in a very small number of people, but only if their blood pressure is very high. Problems with sight, breathlessness and nose bleeds can sometimes be a sign of high blood pressure.

About one in every four South Asian adults in England has high blood pressure. It is more common in older people than in younger people.

## WHY IS HIGH BLOOD PRESSURE HARMFUL?

**To put it very plainly, the higher your blood pressure, the shorter your life expectancy. People with high blood pressure run a higher risk of having a heart attack or a stroke (which damages the brain).**

If left untreated for a long time, high blood pressure can lead to kidney failure and even damage your sight. It can also lead to heart failure, which is when the pumping action of the heart becomes less effective. Heart failure may happen in people whose heart has become enlarged because of uncontrolled high blood pressure.

If you have high blood pressure, reducing your blood pressure can lower your risk of having all of these problems. In this booklet we give information on the different ways of lowering blood pressure.

## WHAT IS HIGH BLOOD PRESSURE?

**Blood pressure is the pressure of the blood in your arteries – the blood vessels that carry the blood from your heart to the rest of your body.**

You need a certain amount of pressure to keep the blood flowing. High blood pressure develops if the walls of the larger arteries lose their natural elasticity and become rigid, and the smaller blood vessels become narrower.

Your heart is a pump that beats by contracting and then relaxing. The pressure of blood flowing through the arteries varies at different times in the heartbeat cycle.

- The highest pressure, known as **systolic pressure**, is the pressure when the beat or contraction of your heart forces blood round your body.
- The lowest pressure, **diastolic pressure**, is the pressure between heartbeats when the heart is resting.

Blood pressure is measured in millimetres of mercury – or ‘mmHg’ for short. A blood-pressure reading gives two numbers – for example, 130/80mmHg. The first number is the systolic pressure and the second is the diastolic pressure.

### **Your target blood pressure**

Your target is to have a blood pressure below 140/85mmHg (140 systolic and 85 diastolic). Or, if you have diabetes, kidney disease, or disease of the heart and circulation, your target is below 130/80mmHg.

## WHAT CAUSES HIGH BLOOD PRESSURE?

**There is no single definite cause of high blood pressure.  
The following can all play a part:**

- not doing enough physical activity
- being overweight
- having too much salt
- drinking too much alcohol, and
- not eating enough fruit and vegetables.

Genes are another factor. So, if one or both of your parents have (or had) high blood pressure, you have a greater chance of developing it too.

In a very small number of people, a single cause is found, such as narrowing of an artery to a kidney, or abnormal production of hormones from the adrenal glands. Occasionally, some medicines used to treat ulcers, arthritis or depression may cause a rise in blood pressure.

## WHAT ABOUT LOW BLOOD PRESSURE?

People with low blood pressure tend to live longer than people with high or even 'normal' blood pressure. Low blood pressure is sometimes discovered during a routine examination. Most people with low blood pressure don't have any noticeable symptoms.

In some people who have blood pressure below 90/60mmHg, this can cause dizziness or even fainting when they get up after bending over or lying down, especially in older people. If you are having symptoms of dizziness, it is important that you see your doctor. If your blood-pressure reading is unusually low, your doctor should check to make sure there is not a medical cause.

There is usually no need to treat low blood pressure. Only a very small number of people need to take medication for it.







## HOW CAN MY DOCTOR TELL IF I HAVE HIGH BLOOD PRESSURE?

**Your doctor or nurse will probably measure your blood pressure using a digital blood-pressure monitor like the one in the photo opposite. And you may need to have some other simple tests too.**

We describe all this in more detail below.

### **How is blood pressure measured?**

A digital blood-pressure monitor is made up of a box with a tube leading to a cuff. The cuff is wrapped round your upper arm. At the press of a button, the cuff inflates to a certain level and then automatically deflates. While it is inflated, the cuff will feel slightly uncomfortable as no blood can get through to your lower arm. In the cuff there is a sensor which detects your pulse and changes the information into blood-pressure readings which appear on a display screen.

Before you have your blood pressure taken, you should have rested for at least five minutes. You should be sitting down when you have the measurement taken.

Some doctors or nurses may use a different type of machine – called a mercury sphygmomanometer (pronounced ‘svig-mo-man-ometer’) – to measure your blood pressure. The doctor or nurse wraps the cuff round your arm, pumps up the cuff, and then uses a stethoscope to listen to the blood flowing through the artery at the bend of your arm. He or she will then gradually release the pressure in the cuff.

Your doctor or nurse will probably check your blood pressure several times before confirming a diagnosis of high blood pressure. Once your blood pressure is well controlled, they will usually measure it every three to six months.



## 24-hour monitoring

Some doctors use '24-hour monitoring' to measure your blood pressure. This involves strapping a small recording device round your waist, or carrying it in a pouch as in the photo opposite. The monitor is connected by a narrow tube to a cuff which is wrapped round your upper arm. The cuff inflates and deflates regularly throughout the day and night to record your blood pressure.

Once the monitor has been attached, you will be allowed to go home and carry on as normal. You will need to return the following day to have the monitor removed. You should not take it off during the 24-hour period.

## Home blood-pressure monitors

Some people have their blood pressure assessed by using a blood pressure monitor at home. Many GP surgeries now loan out monitors, like the one below, for a week or two for people to use at home. This provides a number of blood-pressure readings which the doctor will assess, in much the same way as 24-hour monitoring. To get the best from your home monitor, ask your doctor or practice nurse to show you how to use it, and how to read and record the results.





## Wrist monitors

Some people buy their own wrist monitor, like the one above, so that they can measure their blood pressure at home. If you are using a wrist monitor, make sure that your wrist is level with your heart when taking the reading. Wrist monitors may not give as accurate a reading as other types of blood-pressure monitors.

## Changes in blood pressure

Everyone's blood pressure varies during the day. It tends to be highest in the morning and lowest at night. Your blood pressure may also become high if you are anxious or under stress. Some people get worried about seeing their doctor, and having their blood pressure taken can make it go up. That is why your doctor will probably want to take two or three separate measurements before deciding whether you really do have consistently high blood pressure.

## What other tests will I have?

If your doctor thinks you have high blood pressure, he or she will probably examine your chest and may look at your eyes with an ophthalmoscope to see whether high blood pressure has affected the blood vessels at the back of your eye.

Your doctor may also do some tests to find out more about the health of your heart and circulation. The main tests are:

- an **electrocardiogram** (ECG) – a test to record the rhythm and electrical activity of your heart
- **blood tests** to find out your cholesterol levels and blood sugar levels, and whether your high blood pressure has caused any damage to your kidneys, and
- a **urine test** to look for signs of blood, sugar or protein in the urine.

## Will I have to start taking medicines straight away?

Your doctor or practice nurse will probably monitor your blood pressure for a few weeks or months before deciding whether to treat it with medicines. In the meantime you can do a lot to help your own health by looking at your lifestyle and making changes where necessary. (See page 15.)







## WHAT CAN I DO TO HELP CONTROL MY BLOOD PRESSURE?

**This is what you can do to help control your blood pressure:**

- Be more physically active.
- If you're overweight, lose some weight.
- Cut down on salt.
- Eat more fruit and vegetables.
- If you drink alcohol, drink within sensible limits.

We explain all these things in more detail on the following pages.

It's also important to look at the other areas of your lifestyle that cause extra risk to your heart, such as smoking or having a diet that is high in fat. For more on this, see our booklet *Looking after your heart* (see page 28).

### **Be more physically active**

The type of activity recommended for the heart is moderate, rhythmic (aerobic) activity such as brisk walking, cycling or dancing. Walking and cycling are particularly good as you can often build them into your daily routine.

## **If you have high blood pressure but do not have heart disease or angina**

If you have high blood pressure that is well controlled, and you don't have heart disease or angina, your target is to build up to 30 minutes of moderate activity a day on at least five days of the week. 'Moderate activity' means any activity that makes you feel warm and slightly out of breath – for example, brisk walking. You can split the 30 minutes a day into two sessions of 15 minutes, or three sessions of 10 minutes.

Start off slowly and build up your exercise time and intensity gradually. If you are starting a new activity, it is important to ask your GP if you are fit enough, and whether the activity is suitable for you. If you have high blood pressure, it is best to avoid exercises such as weightlifting or weight training.

## **If you have angina as well as high blood pressure**

If you have angina, you need to find out what you can easily manage without getting chest pain, and then gradually increase the amount of activity you do. You should discuss your exercise plans with your doctor.

You could plan a weekly exercise programme based on walking. Choose a walking distance and speed that you know you can cover easily without getting angina. Make this your target. Do this much twice a day for two days. Each time, assess whether the activity was easy or difficult. If it was fairly easy or easy, very gradually increase the distance each day for the next two days. If the activity was difficult, limit yourself to a slower speed or shorter distance until you find it easy. Make sure that you can easily do the activity before increasing your target. And keep your activity regular and frequent and within, rather than beyond, your limits.

## If you're overweight, lose some weight

If you are **overweight**, losing weight will help control your blood pressure. For some people, losing weight is all they need to do to get their blood pressure down.

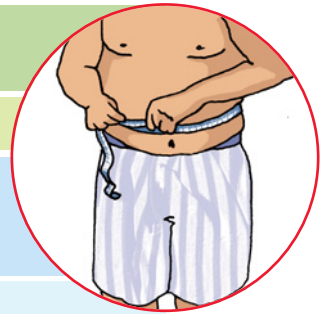
Your **body shape** is important too. People from South Asia tend to be apple-shaped (where much of the body fat is around the waist), rather than pear-shaped (where the body fat is found around the hips) like many Europeans. People who have too much fat around their waist have a much greater risk of developing diabetes, which is a risk factor for coronary heart disease.

### Waist measurements

To find out how the body fat around your waist increases the risk to your health, you need to measure your waist.

How to measure your waist:

1. Find the top of your hip bone and the bottom of your ribs.
2. Breathe out naturally.
3. Place the tape measure mid-way between these points and wrap it around your body.
4. Make a note of this measurement. This is your waist measurement.



Your risk of developing diabetes, high blood pressure and coronary heart disease is greater if you are a South Asian woman with a waist measurement of 80 centimetres (32 inches) or more, or if you are a South Asian man and your waist is 90 centimetres (36 inches) or more.

## Losing weight

If you need to lose weight, don't try to lose the extra weight too quickly. Losing weight slowly and steadily (about a pound a week) is more healthy, and you're more likely to keep the weight off for good. Being physically active plays an important part in losing weight. For more information on losing weight and how to do more physical activity, see our booklet *Looking after your heart*. (See page 28.).

## Cut down on salt

There is a link between having too much salt in your diet and having high blood pressure. It is the sodium in the salt that contributes to high blood pressure. The body needs very small amounts to function properly. In the UK we eat much more than twice what we need. The target should be to have less than 6g of salt a day, although we don't even need as much as this.

Try cooking without adding any salt, and not adding salt to your food at the table. Use spices to flavour your food instead. In fact, many spices already contain some salt.

Most of the salt we eat is 'hidden' in processed foods and bread. Check the ingredients labels on foods to find out which have the least salt. Avoid foods that contain a lot of salt – such as sauces, canned soups, processed meats, dried fish, fried or roasted peanuts, cashew nuts, and snacks such as Bombay mix, crisps and biscuits. You will find that within a month your taste will have adjusted and you won't need so much salt to enjoy the flavour of your food.

## Eat more fruit and vegetables

Fruit and vegetables contain potassium, which can help keep blood pressure down. They're also low in salt.

Aim to eat at least 5 portions of a variety of fruit and vegetables each day, but preferably have 7 to 9 portions a day to help lower your blood pressure.



## If you drink alcohol, drink within sensible limits

Drinking too much alcohol can contribute to disorders of the heart and circulation, including high blood pressure and stroke.

**If you're a man**, drink **no more than 3 to 4 units** of alcohol a day.

**If you're a woman**, drink **no more than 2 to 3 units** of alcohol a day.

If you do drink alcohol, spread your drinking over the whole week rather than drinking large amounts in any one day.



### Men

No more than **3 to 4 units** of alcohol a day



### Women

No more than **2 to 3 units** of alcohol a day

## 1 unit of alcohol =



**a small glass (100ml) of wine**  
(10% ABV [alcohol by volume])

*or*



**half a pint (300ml) of normal strength lager, cider or beer**  
(3% to 5% ABV)

*or*



**a pub measure (25ml) of spirits**



## What about stress?

Stressful situations can cause your blood pressure to rise, but the blood pressure usually returns to normal once the stress has gone away. Relaxation or meditation may help you to avoid those short-term rises in blood pressure. Also, things that cause long-term stress – such as financial worries, or strain at work – may contribute to high blood pressure, but more research is needed.

## Smoking

Smoking is a major risk factor for coronary heart disease. Your blood pressure rises during the time you actually smoke a cigarette. If you smoke and you also have high blood pressure, your arteries will become narrowed much more quickly. Stopping smoking is a great lifestyle change. If you stop smoking, your risk of having a heart attack or stroke falls to about half that of a smoker within one year.

If you don't smoke but live with someone who does smoke, breathing in their smoke could be harmful to you. It can increase your risk of developing coronary heart disease, as well as theirs.



## MEDICINES FOR BLOOD PRESSURE

**There are many drugs available for reducing high blood pressure. The aim is to lower blood pressure gradually over several weeks or months.**

Most people need at least two types of medicine to lower their blood pressure enough. Don't be worried if your doctor changes your medicines several times in order to try to get your blood pressure to the recommended level. Your doctor may also change your medicines if they give you side effects.

### **Side effects**

Most people taking medicines for high blood pressure feel perfectly well and have no side effects from the medicines. If you do seem to have any side effects, tell your doctor about them, but don't stop taking your medicines without his or her advice.

### **If a rash develops soon after you start a new treatment**

Report this to your doctor immediately. You may have an allergy to the medicines.

### **If you feel light-headed or dizzy, or if you faint**

These effects may be particularly noticeable when you get up from bending or lying down, or if you are older. If these side effects are severe, it may be that your tablets have reduced your blood pressure too much. Tell your doctor. He or she might reduce the dose of the drug, or give you different medicine.

### **If you forget to take your medicine**

If you forget to take your medicine, there's no need to take an extra one. Just take your normal dose next time.

## Other medicines

Medicines for high blood pressure can react with other medicines, including some that are available without a prescription. So always check with your doctor or pharmacist before you take them. Tell your doctor if you are taking any herbal remedies too.

## Types of medicines to treat high blood pressure

There are several groups of medicines that are given to treat high blood pressure, including ACE inhibitors, angiotensin II antagonists, beta-blockers, calcium channel blockers (calcium antagonists), diuretics, alpha-blockers and centrally-acting drugs. People with high blood pressure are not all given the same medicines to control their blood pressure, as different medicines suit different people.

Getting the right combination of medicines to control your blood pressure may take some time. It is important that you do not stop taking your medicines without speaking to your doctor. If you get side effects, discuss these with your doctor who will know whether the dose can be adjusted or if your medication needs to be changed.

For more information on the types of medicines that you might need, see our booklet *Taking medicines for your heart*. (See page 28.)









## EVERYDAY ACTIVITIES

### **Can I still drive?**

High blood pressure has few symptoms, so it should not affect your ability to drive. However, you should not drive if your medicines cause symptoms which affect your driving ability. This includes visual disturbances or fainting episodes. If this happens, ask your doctor if he or she can change your medicines to prevent the symptoms.

If you have a licence to drive a large goods vehicle (LGV) or passenger-carrying vehicle (PCV), you will need to tell the Driver and Vehicle Licensing Agency (DVLA, Swansea SA99 1TU) if you have uncontrolled high blood pressure or if your medicines cause symptoms which affect your driving ability. You may need to stop driving and apply to renew your licence once your high blood pressure is under control.

### **What about holidays?**

Always remember to take enough medicines to last the whole holiday. Carry some in your hand luggage, and keep a note of their names and strength separately, in case your baggage goes missing.

Air travel does not affect blood pressure, but rushing and carrying heavy cases might. So leave plenty of time for your journey, and make sure that you don't have to carry your cases too far.

Before you travel, you should always check with your airline what medicines they will allow you to take on board the plane. This is particularly important if you need injections for diabetes.

## FOR MORE INFORMATION

### BRITISH HEART FOUNDATION WEBSITE

**bhf.org.uk**

For up-to-date information on coronary heart disease, the British Heart Foundation (BHF) and its services.

### HEART HELPLINE

**0300 330 3311**

For information and support on anything relating to heart health. This service is available in English only.

### BOOKLETS

The following booklets are available in Bengali, Gujarati, Hindi, Punjabi and Urdu:

- **Blood pressure – and how to control it**
- **Cholesterol – and what you can do about it**
- **Diabetes – and how it affects your heart**
- **Heart failure**
- **Living with angina and heart disease**
- **Looking after your heart**
- **Taking medicines for your heart**

The following booklets are available in English only:

- **Eating for your heart**
- **Healthy meals, healthy heart**
- **Physical activity and your heart**
- **Smoking and your heart**
- **So you want to lose weight ... for good**

## DVDs

The following DVDs are available in Urdu, Hindi, Gujarati, Punjabi and Bengali. They are free, but a donation of £5 per DVD would be welcome.

- **Living to prevent heart disease**
- **Get fit, keep fit – prevent heart disease**
- **Cardiac surgery**
- **Cardiac rehabilitation**
- **Affairs of the heart**

## MAGAZINES

**Heart & soul** is a glossy lifestyle magazine aimed at the South Asian community. This free magazine is packed full of information on leading a healthy lifestyle and features celebrities talking about their own health, delicious recipes and real-life stories. To receive your free copy call **0870 600 6566**.

**Heart health** is a **free magazine**, produced by the BHF especially for people with heart conditions. The magazine, which comes out six times a year, includes updates on treatment, medicines and research and looks at issues related to living with heart conditions, like healthy eating and physical activity. It also features articles on topics such as travel, insurance and benefits. To subscribe to this free magazine, call **0300 330 3300** or go to **bhf.org.uk/hearthealthmag**

## HOW TO ORDER

The British Heart Foundation also produces other educational materials that may be of interest. To find out about these, to order a *Heart health catalogue*, or to order publications, please call the BHF Orderline on **0870 600 6566**, go to **bhf.org.uk/publications** or email **orderline@bhf.org.uk**. You can download many of our publications from **bhf.org.uk/publications**

Our publications are free of charge, but we would welcome a donation.

## TECHNICAL TERMS

**arteries** The tubes that take the blood away from the heart to the rest of the body.

**blood pressure** The pressure of blood in the arteries.

**cholesterol** A fatty substance mainly made in the body by the liver. Cholesterol plays a vital role in how every cell in the body works, but too much cholesterol in the blood can increase the risk of getting coronary heart disease.

**coronary heart disease** When the walls of the arteries become narrowed by a gradual build-up of fatty material called atheroma.

**diastolic blood pressure** The lowest pressure, which occurs between heartbeats, when the heart is resting.

**digital electronic monitor** An instrument to measure blood pressure.

**ECG** See 'electrocardiogram'.

**electrocardiogram** A test to record the rhythm and electrical activity of the heart. Also called 'ECG'.

**heart failure** When the pumping action of the heart is poor.

**hypertension** High blood pressure.

**monitor** See 'digital electronic monitor'.

**sphygmomanometer** An instrument used to measure blood pressure.

**systolic blood pressure** The highest pressure, which occurs when the beat or contraction of the heart forces the blood round the body.

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## HAVE YOUR SAY

We would welcome your comments to help us produce the best information for you. Why not let us know what you think? Contact us through our website at **[bhf.org.uk/contact](https://www.bhf.org.uk/contact)**. Or, write to us at the address on the back cover.

The **British Heart Foundation** is the nation's heart charity, saving lives through pioneering research, patient care and information. We rely on donations to continue our vital work. If you would like to make a donation to the British Heart Foundation, please ring our **donation hotline** on **0300 330 3322** or contact us through our website at **bhf.org.uk/donate** or send it to us at the address below.

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To order further copies, please call the BHF Orderline on **0870 600 6566**.

## HEART HELPLINE

**For information and support on anything heart-related**



**0300 330 3311**

local rate number



**bhf.org.uk**

Phone lines open 9am to 6pm Monday to Friday

This service is available in English only.



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