

High Blood
Pressure –
Are you
at risk?



**Blood Pressure
Association**

Know your numbers!®

This information leaflet is about the **steps you can take** to keep your blood pressure healthy **to lower your risk** of stroke and heart disease.

If you already have high blood pressure and would like information on **how to manage and treat** the condition, please **contact the Blood Pressure Association (BPA)** – details are at the end of this leaflet.

Did you know?

16 million people in the UK have high blood pressure

Did you know?

One in three people with high blood pressure don't know they have it

Preventing high blood pressure

Why is it so important to prevent high blood pressure?

High blood pressure increases your risk of having a future stroke, heart attack or heart failure. High blood pressure is also a risk factor for dementia, kidney disease and some other diseases of the blood vessels. If you have high blood pressure then by lowering it, with lifestyle changes and medication, you can lower your risk of developing these conditions.

However, it makes sense not to develop high blood pressure in the first place.

Even if you do not have high blood pressure, the higher your blood pressure, the greater your risk of a developing a stroke or heart disease in the future. For example, someone with a blood pressure of 135/85mmHg is twice as likely to have a stroke or develop heart disease as someone with a blood pressure of 115/75mmHg, even though neither has a diagnosis of high blood pressure. What this means is that the lower you can get your blood pressure level, the lower your risk of heart disease, stroke and other conditions will be, and the more likely you are to prevent high blood pressure developing as you get older.

Blood pressure has a tendency to rise with age, so the lower your blood pressure is now, the less likely it is to be high in the future. For example, in the UK one in five people in their 20s has high blood pressure, by the time they reach their 40s two in every five will have it, and by their 60s three in every five have it. By taking action now to lower your blood pressure, or to keep it low, the rate at which your blood pressure rises over the years is slowed down. This will mean that you could avoid high blood pressure and therefore medication needed to treat it.

Developing high blood pressure is not always inevitable, even if you have a family history of the condition.

For people who do not have high blood pressure there is usually no benefit to taking blood pressure lowering medication*. However, it is never too early or too late to make changes – follow the simple diet and lifestyle plan outlined in this leaflet to help prevent high blood pressure and lower your risk of a stroke or heart attack in the future.

* If you have diabetes, heart or kidney disease, or have had a stroke, you may need to take medication even if you do not have high blood pressure; this is because it is very important that you keep your blood pressure levels as low as possible.

Who is most at risk of developing high blood pressure?

Since blood pressure tends to rise with age, the older you are the more likely you are to have high blood pressure.

Some ethnic groups are also at greater risk of strokes and heart attacks, particularly African-Caribbean and South Asian people. Because of this, if you are African-Caribbean or South Asian, it is even more important that you take steps to lower your blood pressure and keep it that way, from as early an age as possible.

If you have diabetes, or kidney disease, or have had a stroke or heart attack in the past then it is important that you Know Your Numbers!® – that you know what your blood pressure is and that you keep it as low as possible.



What is blood pressure?

Blood pressure is the force produced in your blood vessels (arteries) as your heart pumps blood around your body. When your heart contracts and forces blood through your arteries your blood pressure goes up; this is called the systolic pressure. When your heart relaxes your blood pressure goes down; this is called the diastolic pressure. Blood pressure is usually written as the systolic pressure over the diastolic pressure, eg, 110/75mmHg. 'mmHg', or millimetres of mercury, is the unit that blood pressure is measured in.

The systolic pressure is usually anywhere from 90 to 240 whilst the diastolic pressure can be anywhere from 60 to 140.

Every person has a different blood pressure and it can change in the same person during the day and night, as well as in response to certain factors like rushing around, which make it rise temporarily.

What should my blood pressure be?

The table below is a guide to your blood pressure levels and any action you may need to take. These levels come from the 2004 British Hypertension Society guidelines

for managing high blood pressure. Other research papers state that the ideal or optimal blood pressure is a level of 115/75mmHg or less.

High blood pressure (also known as hypertension) is diagnosed if your blood pressure is found to be **140/90mmHg** or above, after several readings taken on different occasions.

This means that either the systolic pressure is consistently 140 or above, or the diastolic pressure is consistently 90 or above, or that both values are consistently raised. If left raised at these levels, high blood pressure can damage the arteries and blood vessels in your body; they become narrowed and this can lead to damage to the brain or heart. The lower you can get your blood pressure the lower your risk of this damage – whether or not you have high blood pressure.

If you would like to know more about high blood pressure and how it is treated please contact the Blood Pressure Association (BPA) for our membership pack (free of charge). Details are at the end of this information leaflet.

Blood Pressure:	What this means:	Action needed:
Less than 120/80mmHg	Your blood pressure is at the optimal level but the lower you can get it the better	Follow the lifestyle advice in this leaflet to prevent your blood pressure going up with age
Between 121/81-129/84mmHg	Your blood pressure is average but you would benefit from lowering it	Make lifestyle changes as outlined in this leaflet and aim to lower it to below 120/80mmHg
Between 130/85-139/89mmHg	Your blood pressure is high-average – take action now to lower it	Make the lifestyle changes on pages 3, 4 and 5 to help lower your blood pressure
140/90mmHg Or higher	You have high blood pressure – take action as outlined on page 7	See your GP/practice nurse. Make the lifestyle changes in this leaflet; take medication if needed

How to prevent high blood pressure



Know Your Numbers!®

One in three people in the UK have high blood pressure, yet around one third of these do not know they have the condition. This is partly because raised blood pressure has no symptoms (unless it is very high). For this reason it is known as the “silent killer”. Because people do not feel ill when they have raised blood pressure they can live with the condition for years without realising it, until they suffer consequences such as a stroke or heart attack. It is therefore really important that you Know Your Numbers!®, ie, you know what your blood pressure numbers are. They should be as familiar to you as your weight or height. Having your blood pressure measured is quick, simple and painless.

You can have your blood pressure checked at:

- work, if you have an Occupational Health department
- your GP surgery – by your GP or nurse
- your local gym or health club, sometimes for a small fee
- local health events – look out for advertisements in local papers etc
- your pharmacy – many offer testing, sometimes for a small fee
- the BPA Know Your Numbers!® Week every September: see www.bpassoc.org.uk for details.

You should have your blood pressure checked at least every five years if it is in the optimal or average ranges (see page 2), or ideally every year if you are over forty or if your blood pressure is 130/85mmHg or higher. Keep a record of your blood pressure levels so that you can see if they start to rise. Encourage your friends and family to get checked too.



Improve your diet and lifestyle

To help avoid high blood pressure in the future there are five key diet and lifestyle changes you should make. These also lower blood pressure in people who already have high blood pressure:

Eat less salt

Eating too much salt is a cause of high blood pressure. Most people in the UK eat 10-12g of salt each day but we should be eating no more than 6g per day and ideally less than this.

Some people think they do not eat much salt because they do not add it to foods at the table or when cooking. But surprisingly most of the salt we eat does not come from salt added in this way – around 80 per cent is “hidden” in processed foods. Many foods that we do not think of as salty, like some breakfast cereals and bread, are high in salt and make up a large part of the salt we eat.

To help control your blood pressure, eat fewer processed foods or choose low-salt versions when available. Some foods are so salty that they should be avoided altogether. These include processed meats like bacon and sausages, salted snacks, tinned soups, ready-meals, takeaways and pizzas. For a fact sheet on how to eat less salt, and how to make salt-free bread, contact the BPA.



How to prevent high blood pressure

Eat more fruit and vegetables

Fruit and vegetables are the best source of potassium in the diet, which helps to lower blood pressure. Eat a variety of at least five portions of fruit and vegetables each day, but ideally seven to nine portions. For a fact sheet on how to eat more fruit and vegetables contact the BPA.



Be as active as you can

Try to be as active as possible. In the long-term this helps to lower your blood pressure and helps you maintain a healthy weight. Aim to be active for at least 30 minutes on five days of the week; this means any activity that makes you breathe faster and warms you up. Be creative – you don't have to do a hectic workout in the gym if you don't enjoy that. Get off the bus a stop early or park your car further away so you walk the rest of the way to your home or workplace; take up an active hobby like gardening or bowling; join a running club.



Drink alcohol in moderation

If you drink alcohol it is important not to drink more than the recommended amount, which means no more than three to four units a day for men and no more than two to three units a day for women; the following is a guide:

- **1 unit** = a single pub-measure of spirits, half a pint of normal strength draught lager, bitter or cider, a small glass of wine (125ml)
- **1.5 units** = half a pint of strong lager, eg, Stella Artois, Kronenbourg 1664, or one bottle of alcopop such as Reef, Smirnoff Ice, Bacardi Breezer, WKD
- **Around 2 units** = 175ml glass of wine (depending on the strength of the wine; 175ml is a large glass, but is often the size now served in bars, pubs and restaurants)

Binge drinking is particularly bad for your blood pressure and puts you at much greater risk of having a stroke. Binge drinking is defined as drinking eight or more units of alcohol in one session if you are a man, and more than six units in one session if you are a woman. The BPA has an information sheet on alcohol, contact us for a copy.

Lose weight if you need to

If you are overweight your blood pressure is likely to be higher than if you were the correct weight for your height. You are also more at risk of developing other health problems including diabetes, which further increase your risk of heart disease. By losing the excess weight you should find that your blood pressure is lowered. If you only need to lose a little weight, try increasing your exercise levels. If you need to lose a lot of weight, visit your GP or practice nurse to ask for help and find out if there are any weight-loss services in your area.



Other ways you can help lower your risk of a stroke or heart attack

Raised blood pressure puts you at increased risk of having a stroke or heart attack but there are other factors that also increase your risk of these conditions, such as getting older, having high cholesterol, diabetes or a family history of strokes or heart attacks. Some of these factors you cannot change, but some you can control by making other changes to your diet and lifestyle. By making these changes in addition to the five key diet and lifestyle changes on pages 3, 4 and 5, you will reduce your risk even further of a stroke or heart attack in the future. The changes to make are:

Give up smoking

Raised blood pressure causes your blood vessels to narrow, as does smoking. So if you smoke and you have high blood pressure your arteries will become narrow at a much faster rate, putting you at a much greater risk of having a stroke or heart attack. Narrowing of blood vessels can also lead to impotence in men who smoke, particularly as they get older.

If you do smoke, stop. Ask your GP or nurse for help, or contact an organisation offering advice on giving up smoking – see page 8 for details.



Making these five key changes may sound hard. But they really can make a big difference in lowering your blood pressure and keeping it that way, helping you avoid high blood pressure and its consequences. In addition, making these changes should have a more immediate effect; eating a healthy diet and exercising regularly helps to boost energy levels and will make you feel and look better. As one BPA member told us: **“I am not heavy or overweight... I have switched to a healthy diet and I exercise by walking every day...I feel so much better and have more energy”.**

For more detailed information on diet and lifestyle changes to lower blood pressure, contact the BPA for a copy of “Healthy Eating and Blood Pressure”.



Are there any supplements I should take?

There are no vitamins or mineral pills or other supplements that have been proven in scientific trials to help lower blood pressure and some supplements have even been shown to be harmful in some instances. The five lifestyle changes on pages 3, 4 and 5 have however been shown to lower blood pressure. So to keep your blood pressure at healthy levels and protect your future health the best thing you can do is make the five changes outlined above.

How to prevent high blood pressure

Eat less fat

Cut down the amount of fat you eat and cut out saturated fat as much as possible. Too much saturated fat (found in meat, poultry skin, cheese, cakes, biscuits, pastry, takeaway foods and ready meals for example) causes raised cholesterol. Raised cholesterol levels are another major risk factor for stroke and heart disease. As a general rule, do not eat foods with more than 20g total fat or more than 5g saturated fat per 100g. Ideally:

- Choose foods with less than 3g of fat per 100g and less than 1g saturated fat per 100g

You can eat other types of fat, such as monounsaturated and polyunsaturated oils, since they provide your body with 'essential fats' needed for good health, although you should only eat them in very small amounts to avoid gaining weight. These fats are found in foods like unsalted nuts and seeds, avocados, rapeseed and olive oil and oily fish, eg, unsmoked mackerel and salmon, fresh tuna and sardines.



Deal effectively with your stress

It is often thought that stress causes high blood pressure. It is true that anxiety can cause a temporary rise in blood pressure but there is no scientific proof that stress causes sustained high blood pressure.

People who are under a lot of stress do however often put themselves at risk of high blood pressure by drinking too much alcohol and eating an unhealthy diet. Rather than dealing with stress in this way look for healthy ways to relax and unwind. Being active, for example, is a great way to reduce stress, with the advantage that it helps keep your blood pressure healthy too.

There is some evidence that stress may be linked to heart disease, at least in a few people. However, other risk factors are much more important, like high blood pressure and high cholesterol. For more on this contact the British Heart Foundation (BHF) for a copy of 'Stress and Your Heart' (see contact details, page 8).

What to do

if your blood pressure rises

Your diet and lifestyle is really important for keeping high blood pressure at bay, but for a few people making the changes outlined in this leaflet may not be enough, if, for example, you have a strong family history of high blood pressure. If you do find that your blood pressure starts to rise over time, try making extra efforts with your diet and lifestyle and ensure that you seek advice from your doctor or practice nurse if it goes above 140/90mmHg.

If you make all the right diet and lifestyle changes but your blood pressure is still not lowered enough, your doctor may advise that you take medication. Today's blood pressure tablets are very effective in lowering blood pressure to safe levels. There is very strong scientific evidence to show that getting your blood pressure under control with medication really does reduce your long-term risk of strokes and heart attacks. At the same time you should still keep up the healthy diet and lifestyle, to stop your blood pressure from rising any further and to help your medication work more effectively.



Summary:

10 steps to a healthy heart & brain

Here is a summary of what you need to do to keep your blood pressure under control and to reduce your risk of the conditions caused by high blood pressure:

- 1. Know Your Numbers!®**
 - have your blood pressure checked at least every five years, or every year if it is 130/85mmHg or higher or you are over 40
- 2. Eat less than 6g of salt each day**
 - eat more low salt and salt-free foods, cut down on processed foods to avoid “hidden salt”
- 3. Eat at least five portions of fruit and vegetables per day**
 - preferably seven to nine portions
- 4. Be as active as possible in everyday life**
 - at least for 30 minutes, five times per week
- 5. Stay within recommended daily limits for drinking alcohol**
 - two to three units for women; three to four units for men
- 6. Lose weight if you need to**
 - or maintain a healthy weight
- 7. If you smoke – stop!**
- 8. Eat less fat and cut out saturated fats**
- 9. During times of stress try to deal with it in healthy ways**
- 10. If your blood pressure does rise, make extra efforts with your diet and lifestyle and seek advice from your doctor or nurse**

Where can I get more information?

Contact the BPA:

The BPA has a range of information sheets and booklets and a website with further information

Blood Pressure Association
60 Cranmer Terrace
London
SW17 0QS

Telephone: 020 8772 4994
www.bpassoc.org.uk

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The BPA is a registered charity that relies on donations to fund its work.

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Publication: Journal of Human Hypertension 2004. Volume 18, Pages 139-185

Authors: B Williams and others

Article: Age-specific relevance of usual blood pressure to vascular mortality: A meta-analysis of individual data for one million adults in 61 prospective studies

Publication: The Lancet 2002. Volume 360, Issue. 9349, Page 1903 -1913

Authors: Prospective Studies Collaboration

Article: How far should salt intake be reduced?

Publication: Hypertension 2003. Volume. 42, Pages 1093 -9

Authors: F He and G MacGregor

For information about heart disease, including the leaflet 'Stress and Your Heart':

British Heart Foundation
14 Fitzhardinge Street
London
W1H 6DH

Heart Information Line: **08450 70 80 70**
Website: **www.bhf.org.uk**

For information about stroke:

Stroke Association
Stroke House
Whitecross Street
London
EC1Y 8JJ

Helpline: **0845 30 33 100**
Website: **www.stroke.org.uk**

For information about cholesterol:

HEART UK
7 North Road
Maidenhead
Berkshire
SL6 1PE

Telephone: **01628 628 638**
Website: **www.heartuk.org.uk**

For information about giving up smoking:

Quit – www.quit.org.uk
(tel. Quitline on **0800 002200**)

NHS Giving Up Smoking
www.givingupsmoking.co.uk
(tel. Smoking Helpline on **0800 169 0 169**)

Useful websites for information on diet:

Consensus Action on Salt and Health
www.actiononsalt.org.uk

Food Standards Agency
www.eatwell.gov.uk

Five a Day (fruit and vegetables)
www.5aday.nhs.uk/

For more information on high blood pressure, become a free member of the Blood Pressure Association

Membership of the BPA is free. By becoming a member of the BPA you are helping us to support and campaign on behalf of all people with high blood pressure. As a member you:

- Receive a free information pack and have access to a wide range of information on managing and treating high blood pressure, via our website, leaflets and fact sheets
- Can get involved in shaping services and information for people with high blood pressure
- Add your support to the BPA's work to improve the treatment and prevention of high blood pressure in the UK

Becoming a member

Please use the form to register to become a member and receive our free information pack. If you would prefer not to be a member, but would still like information, please tell us on the form.

Please send me a free information pack on high blood pressure

If you do not wish to be a member, please tick here

My details (in BLOCK CAPITALS please)

Title: _____ First name: _____

Surname: _____

Address: _____

Post Code: _____

Telephone: _____

Email: _____

Date of birth: _____

Ethnic group (optional): _____

Donations

You may also like to make a general donation to support our activities. Please choose one category below:

£50 £20 £10 Other £ _____

OR

Please send me information about (tick appropriate boxes):

Leaving a legacy to the BPA

Fundraising for the BPA

Gift Aid Declaration

You can increase the value of your contribution at no cost to you. Please read and sign below:

I am a UK taxpayer and I want all donations I've made to the Blood Pressure Association since 6 April 2000 and all donations in the future to be treated as Gift Aid donations until I notify you otherwise:

Please sign: _____

[NB: Remember to notify us if you no longer pay an amount of income tax and/or capital gains tax equal to the tax we reclaim on your donations.]

Ways to Pay

All cheques/CAF vouchers/postal orders should be made payable to:

The Blood Pressure Association

OR

My credit/debit card details are as follows:

Card Number:

Expiry date: /

Issue Number (debit cards only):

3-digit Security Number

(last 3 digits printed on the signature strip on the back of the card):

Signature: _____ Date: _____

Please send this form to:

Blood Pressure Association
60 Cranmer Terrace
London SW17 0QS

Key Facts:

- Raised blood pressure causes more than half of all strokes and heart disease in the UK
- Only 17 per cent of adults in the UK (around one in every five adults) have an optimal blood pressure (systolic level of 120mmHg or less). All other adults are at increased risk of strokes and heart attacks and can benefit from lowering their blood pressure
- The lower your blood pressure the better, no matter what age you are. Even people with optimal blood pressure should take action to help prevent high blood pressure in the future, since blood pressure tends to rise with age
- It is never too early or too late to take action. A reduction in your blood pressure now could be the best policy you ever invest in to protect your future health

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www.bpassoc.org.uk

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