



Leaflet: High blood pressure (hypertens

High Blood Pressure (Hypertension)

High blood pressure (hypertension) is where the pressure of the blood pumped through the blood vessels (arteries) is too high.

- ◆ Blood pressure less than 140/90 mm Hg is normal.
- ◆ Blood pressure above 140/90 but below 160/100 mm Hg is 'borderline' or mildly high.
- ◆ Blood pressure above 160/100 mm Hg is high. In general, the higher the blood pressure, the greater the health risk.

What do the numbers mean?

The top number is the systolic pressure. This is the pressure at the height of the contraction of each heart beat. The bottom number is the diastolic pressure. This is the pressure when the heart chambers are filling up with blood between heart beats. A doctor or nurse can listen with a stethoscope over the artery in the arm. Characteristic noises are heard corresponding to each of these two values as the pressure in the blood pressure cuff (sphygmomanometer) is gradually reduced. High blood pressure can be a high systolic pressure, a high diastolic pressure or both.

How common is high blood pressure?

About 1 in 4 middle aged adults in the UK have blood pressure above the normal range, that is, above 140/90 mm Hg. It is less common in younger adults and more common in the elderly. Most of these people have 'borderline' or mildly raised blood pressure but about 1 in 20 adults have quite high blood pressure. High blood pressure is more common in people from African-Caribbean origin and from the Indian sub-continent. About half of people aged over 40 of African-Caribbean origin have high blood pressure.

Why is high blood pressure a problem?

High blood pressure usually causes no symptoms. This is why it is important to have your blood pressure checked regularly. However, over the years, high blood pressure can slowly damage the arteries. It is a 'risk factor' for developing heart attacks, heart failure, strokes, blood vessel problems or kidney damage in the future. The risk is reduced if high blood pressure is lowered.

What causes high blood pressure?

The cause is not known in most affected people. It is then called 'essential' high blood pressure. Rarely it is due to other conditions such as kidney or hormone problems.

How is high blood pressure diagnosed?

A 'one-off' high reading does not mean ongoing high blood pressure. Blood pressure varies throughout the day. It may be high for a short time in someone who is anxious or not used to having their blood pressure taken. High blood pressure means a blood pressure that remains high even when you are relaxed. Consistently high readings, taken on several occasions and when relaxed, leads to the diagnosis of high blood pressure.

Observation period

It is usual to have a time of observation if blood pressure is found to be high. This means regular blood pressure checks at intervals over time. The length of the observation period varies depending on the level of the blood pressure readings. In many people where blood pressure readings are 'borderline' the period of observation may be for several months to see

In many people where blood pressure readings are 'borderline' the period of observation may be for several months to see which way things are going. A blood pressure check every few weeks may show the blood pressure settling down or becoming more definitely high. This observation period is also a good time to address any lifestyle factors (see below).

What can I do about high blood pressure?

There are a number of factors that can make high blood pressure worse. If appropriate, altering one or more of them may lower the blood pressure. In some people this may mean high blood pressure will reduce without the need for medication

- ◆ *Weight* - if you are overweight, losing some weight can make a big difference. On average, the blood pressure falls by 2.5/1.5 mm Hg for each kilogram lost.
- ◆ *Alcohol* - drinking heavily can raise blood pressure. Drinking should be limited to no more than 21 units of alcohol per week for men and 14 units per week for women. One unit is about half a pint of beer, one glass of wine or one pub measure of spirits.
- ◆ *Salt* - excess salt in the diet may raise blood pressure. It is difficult to measure the amount of salt eaten as so many foods have salt added. However, reducing salt in the diet is likely to reduce blood pressure, particularly in the elderly. You can start by not adding table salt to food. Try not to buy salty pre-packaged foods.
- ◆ *Exercise* - regular exercise has some effect on reducing high blood pressure. At least 3 strenuous exercise sessions a week of at least 30 minutes is best for maximum benefit. Swimming, cycling, jogging, brisk walking or any exercise that causes breathlessness is suitable. However, any increase in exercise is worthwhile. Doing such things as walking or cycling to work or the shops instead of going by car or bus will help. Evidence suggests that a walk for 30 minutes at least 5 times per week is beneficial.
- ◆ *Diet* - reducing the total fat content of the diet and increasing the amount of fruit and vegetables can lower blood pressure. For example, increasing the number of fruit/vegetable portions from 2 to 7 per day will, on average, reduce blood pressure by 7/3 mm Hg. (One portion is about two tablespoons of any vegetable OR one large fruit such as an apple, pear, etc OR 2 smaller fruits such as plums OR 150ml of fruit juice OR 1 tablespoon of dried fruit). If plenty of fruit and vegetables is combined with a low fat diet the effect is, on average, to reduce blood pressure by 11/6 mm Hg. A low fat diet will also help lower cholesterol if that is high too. Ask a practice nurse for dietary advice if you are unsure which foods are best.
- ◆ *Stress* - it is difficult to measure stress. Although hard to prove, avoiding stress and 'relaxation therapy' may help lower blood pressure.
- ◆ *Smoking* - does not affect the level of blood pressure. However, smoking is another high 'risk factor' for heart and stroke disease. Smoking should stop as it adds to the risks of high blood pressure.

When is treatment started?

- ◆ *High blood pressure* - medication is usually advised for all people with a blood pressure that remains over 160/100 mm Hg despite a period of observation and tackling any lifestyle factors.
- ◆ *Mildly high (borderline) blood pressure* - the advice about treatment varies from person to person. Medication is more likely to be advised if you have other 'risk factors' for developing heart or stroke disease. (Additional risk factors include diabetes, smoking, a high cholesterol level, obesity, a strong family history of heart disease and lack of exercise.) Mildly raised blood pressure may simply be observed in healthy people with no other risk factors. A doctor or practice nurse will take into account all risk factors - not just the blood pressure - before advising on treating or 'observing' a mildly high blood pressure.

What is the treatment for high blood pressure?

There are several medicines that can lower blood pressure. The choice of which one to use depends on such factors as whether there are other medical problems, whether other medication is being taken, side effects, age, etc. Some medicines work well in some people and not so well in others. Occasionally one or two medicines are tried before one is found to suit. In some people, two or more medicines may be needed to reduce the blood pressure to a normal level. The leaflet that comes with the medicine gives full information about the particular medicine. If a side effect is troublesome then changing to another medicine may be possible. Discuss with your doctor or practice nurse if you have any concern

about medication.

The aim or 'target' is to reduce blood pressure to below 140/85 mm Hg if medication is started.

How long is treatment for?

Until recently it was thought treatment of high blood pressure was for life. However, in *some* people whose blood pressure has been well controlled for 3 years or more, treatment *may* be able to be stopped. Your doctor will be able to advise. If stopping treatment is tried, regular blood pressure checks are advised. Some people may find that their blood pressure remains normal but others will find it gradually starts rising again if treatment is stopped. Treatment may then have to be started again.

Further help and information

The High Blood Pressure Foundation

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