

Blood Pressure

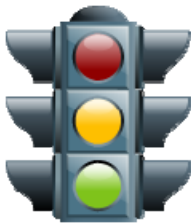
What is blood pressure?

Your heart is a pump that beats by contracting and then relaxing. The pressure of the blood flowing through the arteries varies at different times in the heart beat cycle. Blood pressure is the pressure of blood in your arteries – the tubes that take the blood away from your heart to the rest of your body. You need a certain amount of pressure to keep the blood flowing:

- The highest measurement, known as systolic pressure, is the pressure when the heart beat forces blood round your body.
- The lower measurement, known as diastolic pressure, is the pressure between heartbeats when the heart is refilling.

Blood pressure is measured in millimetres of mercury (shortened to mmHg). A blood pressure reading gives two numbers. The first number is the systolic pressure and the second is the diastolic pressure.

What should your blood pressure measure?



Red - Blood Pressure:

>160/100mmHg –

High risk to health.

See your GP or Practice Nurse for further assessment.

Amber - Blood Pressure:

>140/90mmHg but <160/100mmHg

Or <130/80mmHg if you have diabetes, kidney disease or disease of the heart and circulation.

Increased risk to health.

See your GP or Practice Nurse for further advice.

Green - Blood Pressure:

<140/90mmHg

Or <130/90mmHg if you have diabetes, kidney disease or disease of the heart and circulation.

Satisfactory result.

What is high blood pressure?

High blood pressure – also known as hypertension is when your blood pressure is constantly at a higher level than the recommended level.

It rarely makes people feel ill, although it can cause headaches in a very small number, but only if their blood pressure is very high. Problems with sight, breathlessness and nosebleeds can sometimes be a sign of high blood pressure. But the only way of knowing if you have high blood pressure is to have your blood pressure measured.

What causes high blood pressure?

In 9 out of every 10 people there is no definite cause of high blood pressure.

The following can play a part:

- Not doing enough physical exercise.
- Being overweight.
- Having too much salt in your diet.
- Drinking too much alcohol and/or caffeine.

Family history is another factor. So if either of your parents have (had) hypertension, you have a greater chance of developing it too.

If your blood pressure is constantly raised it will need to be treated. Treatment may involve making changes to your lifestyle and /or taking medication.

How does high blood pressure affect your heart?

The higher your blood pressure, the shorter your life expectancy. People with high blood pressure run a higher risk of having a stroke or a heart attack. If left untreated for a long time, high blood pressure can lead to kidney failure and even damage your sight.

It can also make the heart abnormally large and less efficient, leading to heart failure.

Controlling high blood pressure lowers the risk of developing these problems.

Body Mass Index and Waist Measurement

Why is being overweight bad for your health?

Carrying a lot of extra weight as fat can greatly affect your health.

The extra weight may lead to wear and tear on joints and cause symptoms such as pain and breathlessness. Also the additional weight makes other health problems like high blood pressure, heart failure, diabetes and some cancers more likely.

What should your Body Mass index measure?

BMI measures whether you are the best weight for your height. Because weight and health are so closely linked, BMI can be helpful to assess health risks in most adults.



Red - BMI: 30 – 40
High risk to health.

Very overweight or obese – losing some weight may improve your health.

Amber - BMI: 25 – 30
Increased risk to health.

Overweight – it's a good idea to lose some weight or at least try to stop further weight gain.

Green - BMI: 18.5 – 25

Ideal – you are a healthy weight and should aim to stay that way.

Because muscle weighs more than fatty tissue, adults with a very athletic build could fall into the overweight or very overweight bands even though they have a healthy amount of fat. So BMI in athletic people is not accurate. Similarly as you get older, BMI may underestimate your risk of being overweight, because a greater proportion of your body will be fatty tissue rather than muscle.

What should your waist measurement be?

Waist measurement is an easy way to find out if the fat on your body is stored in places that put your health at risk. Science shows that people with a more 'apple' shaped body – with most of their fat in and around their abdomen (middle) – have a greater risk of developing conditions such as heart disease and diabetes. But 'pear' shaped figures – where most of the fat is around the hips – are linked to a lower risk of developing these diseases.



Red - Waist: Men >102 cm (40") Women >88 cm (35") or Asian Men >90cm (35") Asian Women >80cm (32")
High risk to health.

Amber - Waist: Men >94cm (37") Women >80cm (32")
Increased risk to health.

Green - Waist: Men <94cm (37") Women <80cm (32")
Satisfactory result.

How do you lose weight?

An effective weight loss plan should involve regular physical activity and a healthy eating plan. Avoid crash diets as these are not a healthy option and you will find it difficult to keep the weight off. The good news is that research shows that losing even small amounts of weight can benefit your health. And you can do this by making small, but healthy changes to what you eat and by being more active.

Cholesterol

What is cholesterol?

Blood lipids are the name for all the fatty substances in the blood, including cholesterol and triglycerides. Cholesterol is a white waxy substance, vital in small amounts for good health and required for the body to function.

There are two main types of cholesterol, low-density lipoprotein (LDL) cholesterol and high-density lipoprotein (HDL) cholesterol. The LDL cholesterol is thought of as the 'bad' cholesterol as it is the main carrier of harmful cholesterol to your arteries where it builds up and causes narrowing. The HDL is the 'good' cholesterol as it picks up excess cholesterol and takes it away from the arteries.

Triglycerides are another type of fatty substance in the blood. These are found in foods such as dairy products, meat and cooking oils. People who are very overweight, eat a lot of fatty and sugary foods, or drink too much alcohol are more likely to have a high triglyceride level.

What should your cholesterol measure?



Red - Total Cholesterol: >7.8mmol/l

High risk to health.

See your GP or Practice Nurse for further assessment.

Amber - Total Cholesterol: 5.0 -7.8 mmol/l

Increased risk to health.

See your GP or Practice Nurse for further advice.

Green - Total Cholesterol: <5.0mmol/l

Satisfactory result for those without pre-existing medical problems.

The average total cholesterol level in the UK is approximately 5.5 mmol/l in men and 5.6mmol/l in women, although many people have much higher levels. The latest guidance recommends that the treatment targets for those at high risk of cardiovascular disease should be a total cholesterol of 4 mmol/l or a 25% reduction (whichever is lower).

What is the risk of cardiovascular disease?

People who have high cholesterol and a high triglyceride level have a greater risk of coronary heart disease (such as heart attacks and strokes) than those with lower levels. The risk is particularly high if you have a high level of LDL cholesterol and a low level of HDL cholesterol. The risk is also much higher if you also have other risk factors, e.g. if you have high blood pressure or you smoke and/ or you have diabetes.

Will I need to take medication?

Whether you need to take cholesterol-lowering medication or not depends not just on your total cholesterol, HDL and LDL levels, but also on your overall risk of cardiovascular disease. Doctors prescribe cholesterol-lowering medication such as 'statins' for people who are at greatest overall risk of suffering from cardiovascular disease.

Are there other ways to improve your cholesterol level?

You can help lower your cholesterol level by eating a high-fibre diet; foods high in 'soluble fibre' including porridge, beans, pulses, lentils, nuts, fruit and vegetables. A high-fibre diet also helps fill you up and makes you less likely to snack on fattening foods. There is evidence that substances called 'plant sterols and 'sterols' may reduce cholesterol levels. They are added to certain foods including margarine, spreads, soft cheese and yogurts. They may be helpful for people who cannot take cholesterol-lowering medication, or for those who still have high cholesterol levels even though they have already made changes to their diet. They can also be taken with cholesterol-lowering medication. But even if you do eat sterol-enriched foods, it is important to make sure you follow a healthy diet.

Regular exercise and a keeping a healthy weight will also help.

Glucose

What is diabetes?

Diabetes is a condition where the amount of glucose (sugar) in the blood is too high. Glucose is released into the blood when the body digests certain foods. The blood glucose level then rises. A hormone called insulin is released in response to the increase in blood glucose. As this happens, the glucose level in the blood is kept down. In diabetes, insulin release is impaired and the blood glucose levels can remain high. High blood glucose has adverse consequences which are seen in people with diabetes. Diabetes currently affects 1.9 million people in the UK and its incidence is increasing rapidly. Some ethnic groups have a higher rate of diabetes; particularly people of African, Caribbean and South Asian origin.

What are the signs and symptoms of diabetes?

The signs and symptoms of diabetes include: increased thirst, passing water more frequently (especially at night), extreme tiredness, weight loss, blurred vision, genital itching or recurrent episodes of thrush and slow healing of wounds.

What should your blood glucose measure?



Red - Random glucose: >11.0 mmol/l

Probability of diabetes

See your GP or Practice nurse for re-test on a fasting sample and further assessment.

Amber - Random glucose: 5.6 – 11.0 mmol/l

Test does not indicate diabetes but result too high to rule it out.

See your GP or Practice Nurse for re-test on fasting sample and further advice.

Green - Random glucose: <5.6 mmol/l

Low probability of diabetes.

The diagnosis of diabetes cannot be based on a single random blood glucose test. Further confirmatory testing is essential.

What are the types of diabetes?

Type 1 diabetes often starts in childhood or early adult life. People who have type 1 diabetes will usually have symptoms at the time of diagnosis and need treatment with daily insulin injections.

Type 2 diabetes is the more common type and tends to develop more gradually. People are more likely to develop type 2 diabetes if there is a family history of the condition or if they are overweight and/or inactive. It is worrying that type 2 diabetes is increasingly being diagnosed in younger people. The risk of developing this condition in the first place can be significantly reduced by controlling weight and doing regular physical activity. Type 2 diabetes may be controlled with a healthy balanced diet. Some people will need to take medication and perhaps eventually require daily insulin injections.

How is diabetes linked to cardiovascular disease?

Diabetes substantially increases the risk of cardiovascular disease. High glucose levels in the blood may affect the lining of the walls of the arteries, making it more likely for arteriosclerosis (furring of the arteries) to develop. Diabetes also increases the effect of other risk factors such as smoking, high blood pressure, high cholesterol and obesity.

What can you do if you have diabetes?

If you have diabetes, it is important to make sure you control your blood glucose blood pressure and cholesterol. To maintain good glucose levels and reduce your risk of cardiovascular disease it is also recommended that you:

- Take regular physical activity.
- Follow a healthy balanced diet.
- Control your weight.
- Have regular checks with your doctor.