

### SMOKING AND HYPERTENSION

Smoking has no direct effect on blood pressure but, like high cholesterol, is another important risk factor in heart disease and stroke. Smoking increases the amount of narrowing in your arteries and stopping smoking will reduce your chance of a heart attack by 50% in the first year. Clearly, stopping this habit may be very difficult and requires a great deal of will power. A genuine desire to stop is essential and often "cold-turkey" is best but treatments for nicotine addiction are available such as nicotine gum, patches and sprays. The drug Zyban (bupropion) and specialist clinics, hypnosis and acupuncture may also be helpful.

### ALCOHOL AND HYPERTENSION

Regular, heavy drinking may cause your blood pressure to be too high and more difficult to control if you are on medication. A small amount of alcohol may be beneficial, however, and may increase your HDL cholesterol (the "good" type of cholesterol.) The recommended maximum weekly intake of alcohol is 21 units for men and 14 units for women (one unit is equivalent to  $\frac{1}{2}$  pint of beer, a small glass of wine or a single tot of spirits.) This should be spread over the week and binge drinking should be avoided.

### HOW SHOULD I CHANGE MY DIET?

You should eat at least 5 portions of fruit and vegetables every day and reduce your salt intake. Fruit and vegetables are a good source of fibre and also of potassium, which has the opposite effect of salt and may help reduce your blood pressure. They are also full of anti-oxidants such as vitamins C and E, which help prevent heart disease.

You should reduce your salt intake to about 6 grams a day (one teaspoonful); most people eat at least 12 grams daily and this has a direct effect on blood pressure. At least  $\frac{1}{3}$  of the salt we eat is "hidden" in processed foods and you should cut down on these and always read the labels. Food high in salt includes bread, breakfast cereals, processed meats, soups, sauces and pre-prepared and instant meals.

### EXERCISE AND WEIGHT REDUCTION

Being overweight increases blood pressure and leads to many other health problems such as diabetes, heart disease and some cancers. Weight reduction by dieting and regular exercise is essential to the management of hypertension and may prevent or postpone the need to take blood pressure medication. The best guide to your weight is the BMI (body mass index, calculated from your height and weight), which should ideally be less than 25. Anybody can lose weight by reducing the number of calories they eat or burning off more calories by exercise. Crash diets or meal replacements are usually difficult to sustain and it is better to begin a healthy diet and aim for a target of about 1 lb (0.45 kg) per week. Weight lifting and vigorous sports such as squash are not advised if you have hypertension and if you are very overweight you should check with your doctor before starting an exercise programme.

Your doctor at the Roodlane Medical will be happy to offer you further advice.

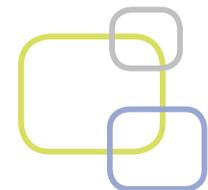
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### FURTHER READING:

British Heart Foundation [www.bhf.org.uk](http://www.bhf.org.uk)  
The Blood Pressure Association [www.bpassoc.org.uk](http://www.bpassoc.org.uk)

# explaining...

## High Blood Pressure (hypertension)



RoodlaneMedical

### **WHAT IS BLOOD PRESSURE?**

Blood pressure is the pressure of blood in your arteries. The systolic pressure ("top" reading) is the pressure at which blood is pumped around your body when your heart contracts and the diastolic pressure ("bottom" reading) is the pressure while your heart is relaxing and filling with new blood from your lungs. Normal blood pressure varies greatly but average readings are between 110/70 and 130/80.

### **WHY IS BLOOD PRESSURE IMPORTANT?**

High blood pressure ("hypertension") is diagnosed when the blood pressure is consistently above 140/90. Hypertension increases the chance of developing hardening of the arteries and subsequent strokes, heart and kidney problems. Since blood pressure varies greatly through the day a single slightly high reading is not necessarily a cause for concern. Many people get "white coat" hypertension when visiting their doctor and home blood pressure monitoring may be useful to exclude this.

### **WHAT CAUSES HIGH BLOOD PRESSURE?**

In most people with hypertension the cause is unknown ("essential hypertension") but a few people have "secondary" hypertension due to problems with the kidneys or adrenal glands (small glands near the kidneys). Hypertension can affect anyone, but is more common in people with a family history of hypertension, strokes and heart attacks. Being overweight, eating too much salt, drinking too much alcohol and taking too little exercise are all likely to increase your blood pressure and these factors, unlike your family history, are all modifiable.

### **WHAT ARE THE SYMPTOMS OF HIGH BLOOD PRESSURE?**

Since it usually causes no symptoms, hypertension is often called the "silent killer" but a few people with high blood pressure may notice headaches, dizziness and nose bleeds. Low blood pressure is not generally important in otherwise healthy people with no symptoms.

### **WHAT INVESTIGATIONS MAY BE NEEDED?**

Your doctor will take a personal and family history from you and give you a physical examination. He will also do urine and blood tests to check for any kidney problems or other causes of secondary hypertension. He may also do an ECG (electrocardiograph), which checks the electrical activity of the heart and may show changes if the blood pressure has been elevated for some time. Increasingly, home monitoring is used to assess whether blood pressure elevations are sustained. Good quality digital home blood pressure monitors are accurate if used correctly and it is often useful to take a written record of your blood pressure readings when you visit your doctor.

### **HOW WILL MY HYPERTENSION BE TREATED?**

Unless your blood pressure is extremely high when hypertension is diagnosed, the initial treatment is invariably by modification of lifestyle. Reduction of weight, taking more regular exercise and cutting down on salt and alcohol intake all help to reduce blood pressure. The incentives to achieve these lifestyle changes should be great since, apart from lessening the possibility of severe, or even fatal heart attacks or strokes, the only other alternative is drug treatment. Once the decision is made that you need

treatment. Once the decision is made that you need drugs it is likely that these will have to be continued for many years, if not for life. Modern hypertension drugs are effective and safe but most people would prefer to try to control their lifestyle than start long-term medication.

### **WILL I NEED TO TAKE TABLETS?**

In many people lifestyle changes are difficult to achieve or do not reduce the blood pressure adequately and drugs become necessary. There are many different types of anti-hypertensive drugs and the initial choice depends on several factors, which your doctor will discuss with you. He will also monitor your response closely to begin with to ensure that the blood pressure is responding and that you are having no side effects from the pills. If your initial response is not satisfactory he may increase the dose or change the medication to find one that suits you. Whichever medication you are on it is still important that you continue to modify your lifestyle as mentioned above. Low dose aspirin and statin treatment to lower cholesterol may also be recommended if your doctor thinks you have a high risk of heart disease or stroke.

The British Hypertension Society recommends that medical therapy be started if the systolic blood pressure is sustained above 160 mmHg and the diastolic blood pressure is sustained above 100 mmHg. Treatment in people with levels of 140-159/90-99 depends on whether other risk factors are present such as evidence of heart disease or a high-risk assessment. In diabetics, treatment is started if the blood pressure is sustained over 140/90. Treatment goals should be to reduce blood pressure to less than 140/85 mmHg (130/80 in diabetics.)