



Each year over 100,000 people in England and Wales will have their first stroke, of which ten per cent are under the age of 55. As well as being one of the biggest killers of our time, it is also the most common cause of disability with over 300,000 people being affected.

A stroke occurs when the blood supply to the brain is interrupted causing a loss of functioning (neurologic deficits) as vital cells are killed. This interruption can be caused either by a blood clot (ischaemic stroke) or by the rupture of a blood vessel (hemorrhagic stroke), which causes bleeding within or around the brain. Eighty per cent of strokes are due to a blood clot. Depending upon the gravity of the condition, it can leave the victim with various degrees of disability, from loss of speech to the loss of the use of limbs, and in extreme cases it can cause death.

The good news is that, according to The American National Stroke Association, approximately 80 per cent of strokes could be prevented. This is particularly welcome

what are your chances of suffering a st

It's the third most common cause of death in the UK after coronary heart disease and cancer. Anne-Marie Williams established how to reduce the odds – before it's too late

news given that the treatment for stroke is very limited and this is why prevention really is better and more effective than cure. What's more, medical and surgical treatments to prevent stroke are not only costly but they also carry a limited risk, it is therefore easier to make small lifestyle modifications which can significantly reduce the risks of having a stroke, and in taking these preventative measures the risk of heart disease is also significantly reduced.

Unfortunately, certain people are more predisposed to suffer from a stroke than others, this is because they have what is known as a non-modifiable risk. The risk of a stroke increases with age, and people of Afro-Caribbean or South Asian descent have a higher risk factor, as do sufferers of diabetes and those who have a family history of stroke.

Those who fall into these categories have to pay even more attention to reducing their modifiable risk factors which are linked to lifestyle habits. While there is nothing we can do to alter the non-modifiable risk factors this does not mean that it is necessary to take a fatalistic attitude towards stroke. On the contrary, by controlling the modifiable risk factors the risk of a stroke can be considerably reduced.

"The most important modifiable stroke risk factor is high blood pressure. However, about a third of the people who have high blood pressure (hypertension) are unaware of it, and this is why it is often considered to be a silent killer"

explaining blood pressure measurements

When we have our blood pressure measured we are given two numbers. The higher (systolic) number represents the blood pressure while the heart is beating. The lower (diastolic) number represents the blood pressure when the heart is at rest between beats. Those who have a blood pressure level of 140/90 mm Hg or above not only have an increased risk of having a stroke, but also increase their risk of heart disease. A blood pressure reading of 130/85 mm Hg or above needs to be monitored regularly. Ideally we should aim to have a systolic pressure level of 120 mm Hg and a diastolic pressure between 70 and 80 mm Hg.

Unfortunately medical research has shown that approximately 20 per cent of adults aged over 40 have a blood pressure which is more than 140/90 mm Hg. This is particularly frightening as someone with a blood pressure of 140/90 mm Hg has a 100% higher risk of stroke than someone of the same age who has a blood pressure of 125/75 mm Hg.

smoking

There are a number of lifestyle changes which can be made to reduce blood pressure, and these changes are also important in reducing the risk of stroke, both independently and dependently of their effects on blood pressure. Tobacco, for example, was thought to be an important risk factor for stroke due to the causal relationship between tobacco smoking and blood pressure. However, recent studies have shown that tobacco smoking has a direct causal effect on stroke, a quarter of all strokes being linked to smoking. Smoking increases both types of stroke, that is ischaemic stroke caused by a clot and also haemorrhagic stroke which is caused by bleeding.

Research shows that tobacco smoking increases the risk of a stroke three-fold and passive smoking is increasingly considered to be an important risk factor. The more cigarettes smoked the higher the risk of a stroke becomes: heavy smokers (those who smoke 40+ cigarettes a day) have a relative risk of stroke two to four times greater than non-smokers. The good news is that it is never too late to stop smoking: as soon as a smoker breaks the habit the risk of a stroke begins to decrease immediately, and in five years the risk returns to the same level as that of a non-smoker.

stroke?

risk factor

the importance of lowering blood pressure levels

The most important modifiable stroke risk factor is high blood pressure. However, about a third of the people who have high blood pressure (hypertension) are unaware of it, and this is why it is often considered to be a silent killer. As there are rarely any outward symptoms of high blood pressure it is important that blood pressure is checked regularly, this means at least every six months for women who take the contraceptive pill, and at least every 12 months otherwise. Keeping an eye on one's blood pressure is important in preventing a stroke: medical studies show that monitoring hypertension could lead to a 38 per cent reduction in stroke.

modifiable

exercise

Exercise is the theme of this year's Stroke Awareness Week and it plays a key role in preventing stroke, lowering blood pressure and improving circulation. It also has beneficial effects on diabetes, an important stroke risk factor. What's more, exercise also helps stop the build-up of fatty plaque deposits in the arteries therefore contributing to the prevention of atherosclerosis.

Existing studies show that, in order to reduce the risk of a stroke, it is not necessary to carry out vigorous exercise as moderate levels of exercise have been shown to be effective. Moderate means exercise that leaves a person slightly breathless and warm. A minimum of 30 minutes a day five days a week is all that it takes to reduce the risk of stroke, and these 30 minutes can be broken down into ten or 20 minute sessions of exercise. What is more important than practising an exercise vigorously is to practice it regularly. Unfortunately, government statistics show that 60 per cent of women aged between 16 and 24 take part in less than one hour's sport or exercise per week, this percentage increases to 74 per cent for women aged between 35 and 44, and continues to increase with age.



alcohol consumption

Medical studies have shown that there is an important link between alcohol consumption and the risk of having a first stroke: heavy drinkers double their risk of stroke in comparison to non-drinkers. The Department of Health guidelines suggest that men should not consume more than three to four units of alcohol per day, and for women the limit is between two to three units. However, a 1998 government survey shows that 21 per cent of men consumed more than eight units of alcohol on their heaviest drinking day during the week before the survey, and eight per cent of women consumed more than six units of alcohol during their heaviest drinking day during the week that preceded the survey. It is therefore of vital importance that alcohol consumption is reduced if stroke risk is to be lowered, this will also help lower blood pressure levels.

sodium, fat & processed foods

Although weight plays an important role in reducing blood pressure and is a general reflection on health, this does not mean that thin people are at no risk from stroke. Being slim does not necessarily mean that a person is healthy, this is why it is important to eat a healthy diet by cutting down on salt and saturated fat.

Salt has an adverse effect on blood pressure, and is therefore indirectly related to causing stroke. Salt can be replaced by mineral salt alternatives, or better still it is advised to experiment with fresh herbs which complement a meal more than salt ever will. It is not just the salt that is added to your food at the dinner table that has to be watched. There is also the hidden salt already present in the foods we buy, particularly in processed food and snacks. These foods also often contain saturated fats which clog up the arteries. This is why it is important to try to eat more fresh produce, especially fresh fruit and vegetables. Yet another reason to eat more of these foods is the protection they offer through their anti-oxidant mechanisms. These anti-oxidants which include vitamin E, vitamin C and beta-carotene, are thought to inhibit the build up of fatty deposits in the blood vessels which disrupt the flow of blood, and therefore help to reduce further the risk of a stroke. Eating at least five daily

servings of fruit and vegetables is thought to reduce the risk of ischaemic stroke by up to 30 per cent. It is also thought that a higher intake of whole grain foods has a positive impact on the reduction of ischaemic stroke in women. Another food of which we can increase our consumption is fish. The results of a study published earlier this year show that women who eat five or more servings of fish a week are 30 per cent less likely to have a stroke, compared to women who eat only one portion of fish a month or less.

These simple lifestyle changes will not only help reduce the risk of stroke and a number of other arterial diseases but they will also benefit the body as a whole. Stroke may be the third leading cause of death in both the UK and the USA but this needn't be the case as stroke prevention is not only possible, it is also the most effective solution.

guide

• To receive information about Stroke Awareness Week (30 September – 6 October) which is organised by the Stroke Association, please call 0845 30 33 100.

Useful websites

- The Stroke Association
<http://www.stroke.org.uk>
- Chest, Heart and Stroke Scotland
<http://www.chss.org.uk>
- Chest, Heart and Stroke Northern Ireland
<http://www.nichsa.com>
- Different Strokes
<http://www.differentstrokes.co.uk>