Around 100,000 people in England and Wales have a first stroke each year – one every five minutes. Anyone can have a stroke, including babies and children, but the vast majority – nine out of 10 – affect people over 55. However, approximately 10,000 strokes a year occur in people under the age of 55 – nearly 30 every day. Stroke is also considered to be the single most common cause of severe disability, and some 300,000 people are living with disabilities caused by a stroke.

What is a stroke?

Stroke is the term used to describe the effects of an interruption of the blood supply to a localised area of the brain. The brain is the nerve centre of the body, controlling everything we do or think, as well as controlling automatic functions like breathing. In order to work, the brain needs a constant supply of oxygen and nutrients. These are carried to the brain by blood through the arteries. If part of the brain is deprived of blood, brain cells are damaged or die. This causes a number of different effects, depending on the part of the brain affected and the amount of damage to brain tissue.
What are the symptoms?

Stroke is well named because, for most people, symptoms come on literally at a stroke. The key symptoms include:

- sudden numbness, weakness or paralysis on one side of the body. Signs of this may be a drooping arm, leg or eyelid, or a dribbling mouth.
- sudden slurred speech or difficulty finding words or understanding speech.
- sudden blurring, disturbance or loss of vision, especially in one eye.
- dizziness, confusion, unsteadiness and/or a severe headache.

What is a TIA?

A Transient Ischaemic Attack (TIA), sometimes called a ‘mini-stroke’, occurs when the brain’s blood supply is briefly interrupted. Unlike a full-blown stroke, the symptoms of a TIA – which are very similar to a full stroke – last under 24 hours and afterwards there is full recovery. A TIA is an indication that part of the brain is not getting enough blood and that there is a risk of a stroke occurring. A TIA should never be ignored and should be reported to a medical professional as soon as possible.
What causes a stroke?

There are two main types of stroke, and each has different causes. The first type, an ischaemic stroke, occurs when a blood clot blocks an artery serving the brain, disrupting blood supply. Very often an ischaemic stroke is the end result of a build up of cholesterol and other debris in the arteries (atherosclerosis) over many years.

An ischaemic stroke may be due to:

- A cerebral thrombosis, in which a blood clot (thrombus) forms in a main artery leading to the brain, cutting off blood supply.

- A cerebral embolism, in which a blood clot forms in a blood vessel elsewhere in the body, for instance in the neck or the heart, and is carried in the bloodstream to the brain.

- A lacunar stroke, in which the blockage is in the small blood vessels deep within the brain.

The second main type of stroke is a haemorrhagic stroke, when a blood vessel in or around the brain bursts, causing a bleed or haemorrhage. Long-standing, untreated high blood pressure places a strain on the artery walls, increasing their risk of bursting and bleeding.

A haemorrhagic stroke may be due to:

- An intracerebral haemorrhage, in which a blood vessel bursts within the brain itself.

- A subarachnoid haemorrhage, in which a blood vessel on the surface of the brain bleeds into the area between the brain and the skull, known as the subarachnoid space.
Who is at risk?

A number of different factors increase the risk of stroke, including:

- Untreated high blood pressure (hypertension). This damages the walls of the arteries.

- Atrial fibrillation. This type of irregular heartbeat increases the risk of blood clots forming in the heart, which may then dislodge and travel to the brain.

- A previous TIA. Around one in five people who have a first full stroke have had one or more previous TIA's.

- Diabetes. People with diabetes are more likely to have high blood pressure and atherosclerosis, and so are at much higher risk of stroke.

- Smoking. This has a number of adverse effects on the arteries and is linked to higher blood pressure.

- Regular heavy drinking. Over time this raises blood pressure, while an alcohol binge can raise blood pressure to dangerously high levels and may trigger a burst blood vessel in the brain.

- Certain types of combined oral contraceptive pill. These can make the blood stickier and more likely to clot. They may also raise blood pressure.

- Diet. A diet high in salt is linked to high blood pressure, while a diet high in fatty, sugary foods is linked to furring and narrowing of the arteries.

- Age. Strokes are more common in people over 55, and the incidence continues to rise with age. This may be because atherosclerosis takes a long time to develop and
arteries become less elastic with age, increasing the risk of high blood pressure.

- **Gender.** Men are at a higher risk of stroke than women, especially under the age of 65.

- **Family history.** Having a close relative with stroke increases the risk, possibly because factors such as high blood pressure and diabetes tend to run in families.

- **Ethnic background.** Asians, Africans or African-Caribbeans are at greater risk. The reasons are not yet fully understood but are partly linked to factors like diabetes, which is more common in Asians, and high blood pressure, which is more common in people of African descent.

**What are the effects?**

The effects of a stroke vary enormously, and depend on which part of the brain is damaged and the extent of that damage. For some, the effects are relatively minor and short-lived; others are left with more severe, long-term disabilities. Common problems include:

- **Weakness or paralysis (hemiplegia) on one side of the body.** Because the right side of the brain controls the left side of the body (and vice versa), hemiplegia occurs on the opposite side of the body to where the stroke occurred.

- **Speech and language difficulties.** Many people experience problems with speaking and understanding, and with reading and writing. These can range from temporary difficulty in finding words, to a complete