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NCFE Level 2
Certificate in Common
Health Conditions



Part B

SAMPLE



European Union
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These learning resources and assessment questions have been approved and endorsed by NCFE as meeting the requirements of the Level 2 Certificate in Common Health Conditions.



Disclaimer:

This resource uses real life case studies where specifically stated and referenced. All other references to individuals, groups and companies contained within these resources are fictitious.

Unit 3: Stroke awareness

Welcome to unit three.

This unit is split into **five** sections. These are:

Section 1: What a stroke is

Section 2: Recognising stroke

Section 3: Managing risk factors for stroke

Section 4: The importance of emergency response and treatment for stroke

Section 5: The management of stroke

Section 1: What a stroke is

This section will explore the following:

- Changes in the brain associated with stroke
- Conditions that may be mistaken for stroke
- Differences between stroke and Transient Ischaemic Attack (TIA).

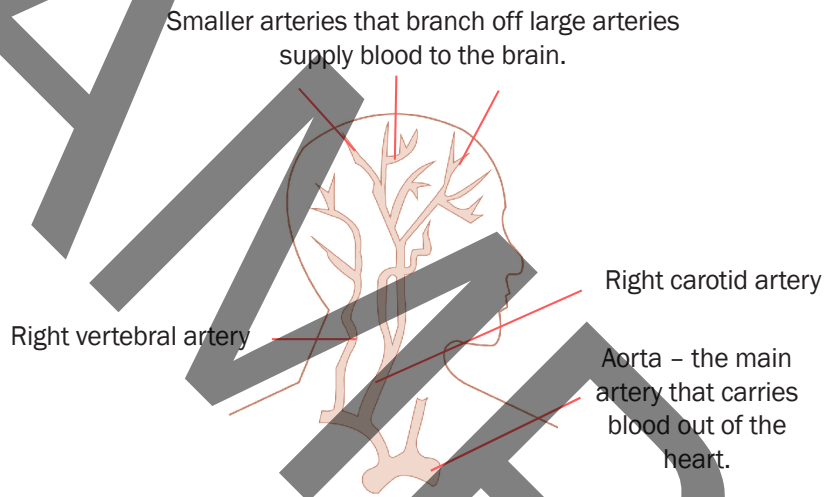


Changes in the brain associated with stroke

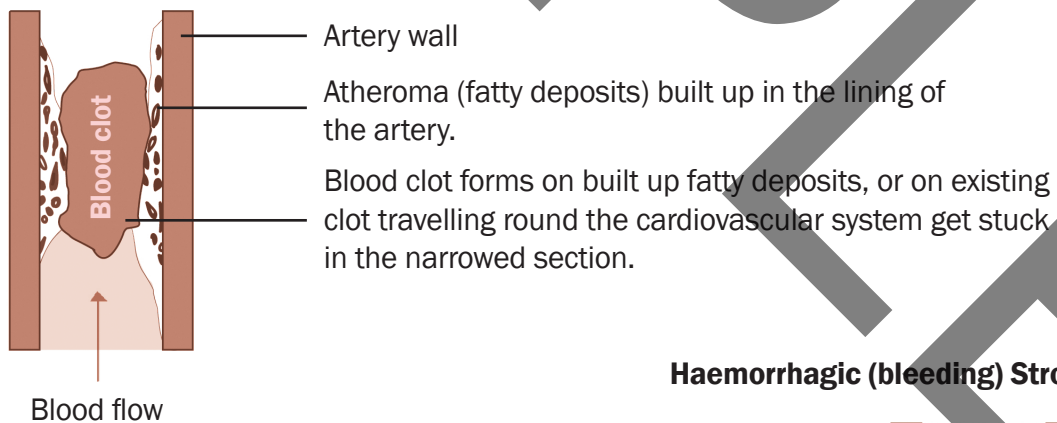
A stroke is where the blood supply to the brain is restricted or stopped resulting in the death of brain cells. There are **two main causes** of strokes:

- **Ischaemic** – where the blood supply is cut off due to a blood clot. This accounts for 85% of all cases
- **Haemorrhagic** – where a weakened blood vessel supplying the brain bursts.

The main types of stroke

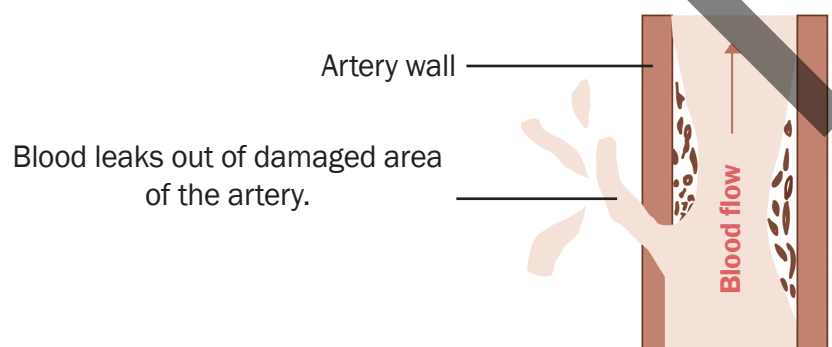


Ischaemic Stroke



Blood clot forms on built up fatty deposits, or on existing clot travelling round the cardiovascular system get stuck in the narrowed section.

Haemorrhagic (bleeding) Stroke



Blood carries oxygen and nutrients which all organs, including the brain, need in order to function properly. If the supply of blood is restricted or stopped, cells within the brain begin to die. When this happens it can result in brain injury, disability and possibly death. Even where the person survives, if blood flow cannot reach the region of the brain that controls a particular bodily function, that part of the body will not work properly.

This means that a stroke results in changes in the brain that can alter a person's behaviour and bodily functions. These changes vary depending on the severity of the stroke and the part of the brain in which the stroke takes place, but can include changes to:

- Emotions
- The ability to make judgements about things
- Attention span – this can become shorter
- Memory – resulting in short-term memory loss
- Speech and the ability to use language
- Vision.

Because one side of the brain controls the opposite side of the body, a stroke affecting one side will result in changes to the other side of the body.

Effects of changes to the right of the brain

If a stroke occurs in the brain's right side, the left side of the body and the left side of the face will be affected, which could produce any or all of the following:

- Paralysis on the left side of the body
- Vision problems
- A quick, inquisitive style of behaviour
- Memory loss.

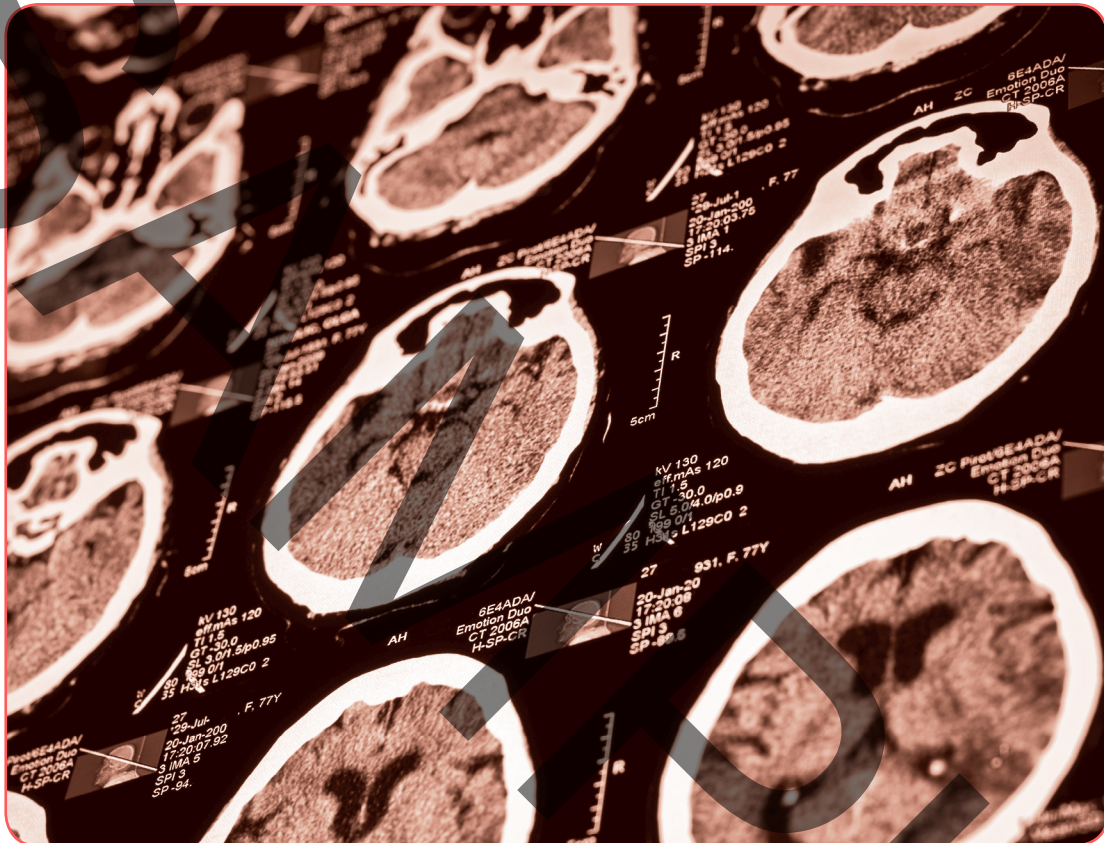
Effects of changes to the left of the brain

If a stroke occurs in the left side of the brain, the right side of the body will be affected, producing some or all of the following:

- Paralysis on the right side of the body
- Speech and language problems
- A slow, cautious style of behaviour
- Memory loss.

Effects of changes to the brain stem

When stroke occurs in the brain stem, depending on the severity of the injury, it can affect both sides of the body and may leave someone in a 'locked-in' state. When a locked-in state occurs, the person is generally unable to speak or achieve any movement below the neck.



Key Fact

A stroke results in changes in the brain that can alter a person's behaviour and bodily functions.

Conditions that may be mistaken for stroke

Conditions that can mimic the symptoms of a stroke, and can therefore be mistaken for a stroke, include:

Epilepsy	A person who has epilepsy will experience seizures, which are episodes of abnormal brain activity that can cause unconsciousness and violent body shakes. They may resemble Transient Ischaemic Attacks (TIAs) or 'mini strokes', and may produce symptoms such as weakness in one limb, memory disturbance and inattention.
Migraines	Migraines are debilitating headaches. Some types of migraines are accompanied by symptoms that can be confused with a mini stroke, including temporary facial paralysis, vertigo, blurry vision and weakness or numbness in the limbs.
Dizziness	People can feel similar degrees of 'dizziness' from a stomach virus as they would do from a stroke.
Memory disturbance	Seizures and migraine headaches can cause temporary memory disturbances that are symptoms of a stroke.
Hypoglycaemia	Hypoglycaemia occurs when a person has low levels of blood glucose. The symptoms can be mistaken for a stroke – for example, sweating, tingling lips, feeling weak, difficulty concentrating, confusion and disorderly or irrational behaviour.
Hyperventilation	Hyperventilation is breathing to a greater extent than the lungs require. Excessive breathing produces symptoms that may resemble a stroke – for example, dizziness, weakness, a sense of unsteadiness, muscle spasms in the hands and feet and a tingling feeling around the mouth and fingertips.

Where such symptoms as those above are present, it is important to check that the person is not suffering from a stroke.



Key Fact

There are a number of conditions that may be mistaken for a stroke.

Differences between stroke and Transient Ischaemic Attack (TIA)

A Transient Ischaemic Attack (TIA) occurs when the supply of blood to the brain is temporarily interrupted, resulting in a lack of oxygen to the brain and causing a 'mini stroke'. This can cause symptoms similar to those of a stroke, such as speech and visual disturbance, and numbness or weakness in the face, arms and legs. TIAs are often a warning sign that the person is at risk of having a full stroke in the near future.

The only differences between a TIA and a full stroke are:

- A TIA does not last as long as a stroke. Most TIAs last less than five minutes – the average is about a minute – and fully resolve within 24 hours.
- Unlike a stroke, when a TIA is over, there is no permanent injury to the brain.



Key Fact

A TIA is caused by a blood clot, as are ischaemic strokes. The only differences between a stroke and a TIA are that with a TIA the blockage is temporary and the symptoms last a relatively short time, leaving no permanent injury to the brain.

Let's Summarise!

Take a few moments to answer the following questions to help you summarise what you have learnt in this section. This will help you answer the questions in your assessment booklet.

1. An ischaemic stroke happens when the blood supply to the brain is stopped due to a blood clot.

True False

2. Give an example of a change that you could expect to see if the right of the brain is affected by stroke.

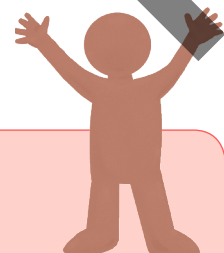
3. Why is migraine a condition that could be mistaken for a stroke?

4. Strokes and TIAs are similar because they both leave permanent injury to the brain.

True False

Check your answers by looking back over this section.

**CONGRATULATIONS, YOU HAVE NOW COMPLETED SECTION 1.
PLEASE NOW GO TO YOUR ASSESSMENTS AND ANSWER
QUESTIONS Q1a TO Q3.**



Section 2: Recognising stroke

This section will explore the following:

- Signs and symptoms of stroke
- The key stages of stroke
- Assessment tests for listing signs and symptoms
- Potential changes a person may experience after a stroke.

Signs and symptoms of stroke

The signs and symptoms of stroke vary from person to person but generally begin suddenly. The **F.A.S.T.** test can help you to recognise some of the most common symptoms:

Face	The face may have dropped on one side, the person may not be able to smile or their mouth or eye may have dropped.
Arms	The person with suspected stroke may not be able to lift both arms and keep them there because of arm weakness or numbness in one arm.
Speech	Their speech may be slurred or garbled, or the person may not be able to talk at all despite appearing to be awake.
Time	The speed at which a person who is experiencing symptoms of stroke receives medical help is important, so if any one of these symptoms is present you should get appropriate help immediately.



Other symptoms and signs may include:

- Complete paralysis of one side of the body
- Sudden loss or blurring of vision
- Dizziness
- Confusion
- Difficulty understanding what others are saying
- Problems with balance and coordination
- Difficulty swallowing
- Sudden and very severe headache resulting in a blinding pain unlike anything experienced before
- Loss of consciousness.



Key Fact

If a person shows signs and symptoms of a stroke, you should get medical help immediately. A stroke is a medical emergency.

The key stages of stroke

The key stages of stroke can be identified as follows:

- **Onset** – Symptoms usually develop quickly and suddenly as a result of a blockage or bleed in the brain. Everyone's stroke is different depending on the area of the brain that is affected and the damage that is done.
- **Diagnosis** – Using the F.A.S.T. test can help recognise the symptoms. Emergency treatment is needed and the person is admitted to hospital where tests and scans, such as MRI and CT, are performed to confirm the stroke and its type.
- **Treatment** – The person is admitted to a specialist stroke unit and treatment is given depending on the type of stroke – such as clot busting medication for ischaemic strokes. As the swelling decreases, damaged areas of the brain may recover. Other areas of the brain can learn to take over from the parts that are too damaged to recover.
- **Rehabilitation** – Most recovery usually happens in the first few months following a stroke, however, recovery can take many years. Assessments and support would be available to aid rehabilitation in specialist units or at home.
- **Prevention** – Prevention is important, as following a stroke the person is more at risk of having another.

Assessment tests for listing signs and symptoms

The initial assessment test used to enable listing of the signs and symptoms is the F.A.S.T. test.

Further tests to provide more a more detailed assessment of the condition include:

- A **Computerised Tomography (CT) scan** – A CT scan is like an X-ray, but uses multiple images to build up a more detailed, three-dimensional picture of the brain.
- A **Magnetic Resonance Imaging (MRI) scan** – An MRI scan uses a strong magnetic field and radio waves to produce a detailed picture of the inside of the body.
- A **swallow test** is also essential for anybody who has had a stroke. Swallowing problems affect over a third of people after a stroke.

Further tests on the heart and blood vessels may be carried out later to confirm what caused the stroke – for example:

- **Ultrasound** – An ultrasound scan uses high frequency sound waves to produce an image of the inside of the body that will show if there is any narrowing or clotting in the arteries leading to the brain.
- **Catheter angiography** – Dye is injected into the carotid or vertebral artery. This gives a more detailed view of the arteries than can be obtained using ultrasound, CT or MRI scans.
- **Echocardiogram** – An echocardiogram may be used to produce images of the heart using an ultrasound probe placed on the chest.
- **Transoesophageal echocardiography (TOE)** – This involves an ultrasonic probe which is passed down the food pipe to produce a clear image of blood clots that may not get picked up by the echocardiogram.



Key Fact

There is a range of assessment tests for listing the signs and symptoms of stroke.

Potential changes a person may experience after a stroke

STOP AND THINK!

On the basis of what you have learned so far, what do you think are the potential changes that an individual may experience as a result of a stroke? Jot down your thoughts below. There is one already provided to start you thinking.

- *Stroke can cause weakness or paralysis in one side of the body.*

Did you think about any of the following changes?

- **Coordination and balance** – Many people have problems with coordinating their body movements and balancing.
- **Fatigue** – People can suffer from extreme tiredness in the first few weeks after a stroke.
- **Communication** – People can experience problems with speaking and understanding, as well as with reading and writing.
- **Vision** – Stroke can sometimes damage the parts of the brain that receive, process and interpret information sent by the eyes. Some people may have double vision, or lose half of their field of vision in one eye.
- **Continence** – Some strokes damage the part of the brain that controls bladder and bowel movements, which can result in urinary incontinence and difficulty with bowel control.
- **Changes in mood and personality** – The two most common psychological conditions found in people after a stroke are depression and anxiety. Some people may experience intense bouts of crying and feel hopeless and withdrawn from social activities. Others may experience general feelings of fear and anxiety, often punctuated by panic attacks.

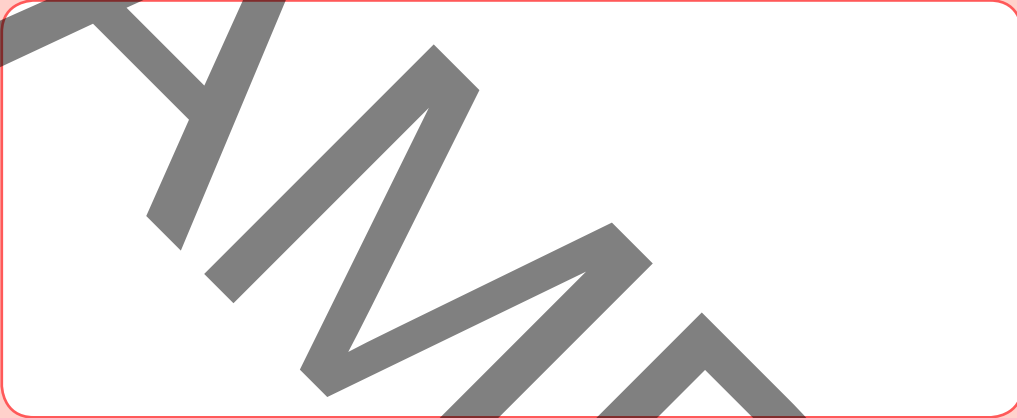
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Further Research: Experiences of stroke

Use the link below to access the Healthtalk website. Here you can find out about the experience of stroke by seeing and hearing people share their personal stories on film. Find out what people said about issues such as diagnosis, physical changes after stroke and its impact on work and family, and make notes in the space below.

www.healthtalk.org/peoples-experiences/nerves-brain/stroke/

If you need help using the internet, seek advice from your tutor or local library.



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Key Fact

A person may experience major changes in behaviour and bodily function as a result of stroke.

Let's Summarise!

Take a few moments to answer the following questions to help you summarise what you have learnt in this section. This will help you answer the questions in your assessment booklet.

1. What does the acronym F.A.S.T. stand for?

ANSWER

2. Why is a swallow test essential for anybody who has had a stroke?

ANSWER

3. How is ultrasound used to confirm what caused a stroke?

ANSWER

4. What are the two most common psychological conditions found in people after a stroke?

ANSWER

Check your answers by looking back over this section.



**CONGRATULATIONS, YOU HAVE NOW COMPLETED SECTION 2.
PLEASE NOW GO TO YOUR ASSESSMENTS AND ANSWER
QUESTIONS Q4 TO Q7.**