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Stroke awareness and prevention workshop

With **all of us** in mind.

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AIMS OF THIS WORKBOOK

- What is a Stroke?
- Signs and symptoms of a stroke
- FAST
- Complication of stroke
- Stroke risk factors and prevention
- Stroke treatment and care

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KEY STROKE STATISTICS

100,000 strokes in the UK every year, 1 person has a stroke every **5 minutes**

Every **2 seconds**, someone in the world will have a Stroke

Stroke is the **4th single leading cause of death in the uk**

https://www.stroke.org.uk/resources/state-nation-stroke-statistics

State of the Nation – February 2018

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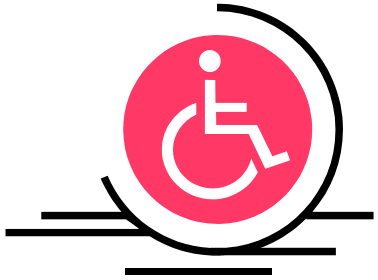
KEY STROKE STATISTICS

More than **400** children have a stroke every year in the **UK**



Stroke is a leading cause of disability in the UK – almost two thirds of stroke survivors leave hospital with a disability.

https://www.stroke.org.uk/resources/state-nation-stroke-statistics

State of the Nation – February 2018

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WHAT IS A STROKE?

- **A stroke is a brain attack**. It happens when the blood supply to part of your brain is cut off.

- Blood carries essential nutrients and oxygen to your brain. Without blood your brain cells can be damaged or die.

- This damage can have different effects, depending on where it happens in your brain.

- A stroke can affect the way your body works as well as how you think, feel and communicate.

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WHAT IS A STROKE?

There are 2 main types of stroke:-

1. **Ischaemic strokes:-** These are caused by blockages to the blood vessels in the brain by blood clots or fatty deposits

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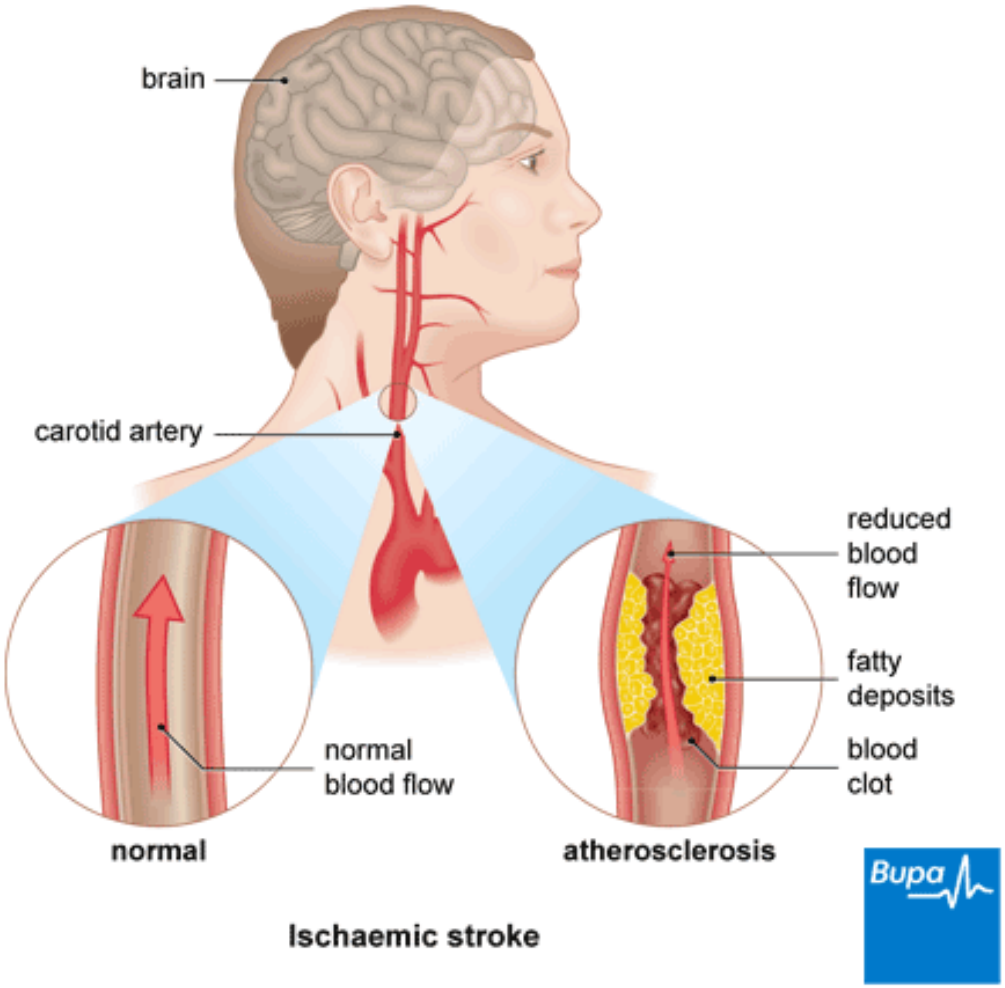
WHAT IS A STROKE?



https://www.bupa.co.uk/health-information/heart-blood-circulation/ischaemic-stroke
Accessed April 2019

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WHAT IS A STROKE?

2. **Haemorrhagic strokes:-** These are caused when a blood vessel bursts within or on the surface of the brain

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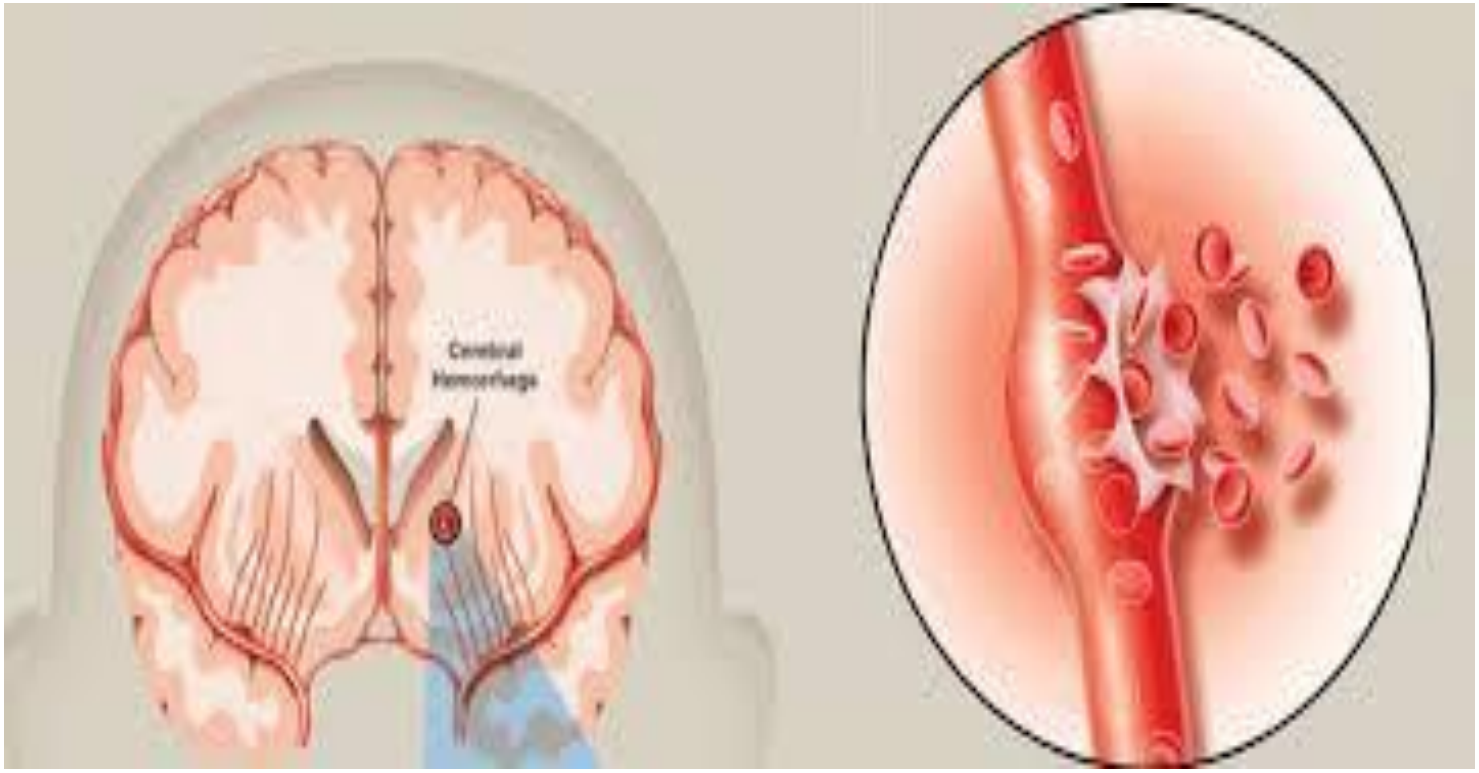
WHAT IS A STROKE?



https://www.stroke.org/understand-stroke/what-is-stroke/hemorrhagic-stroke/
Accessed April 2019

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WHAT IS A STROKE?

- A **Stroke** occurs **quickly and without warning** therefore it should be treated as a **medical emergency** in the same way a heart attack is

- The sooner a stroke is diagnosed the sooner treatment can be given to, hopefully, limit the disability suffered by the victim

TIME IS BRAIN

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STROKE SIGNS/SYMPTOMS

- Stroke signs/symptoms vary depending on what type of stroke it is, what area of brain is damaged and how severe it is
- As said previously stroke signs/symptoms come on very suddenly, although sometimes new symptoms occur over the course of hours or days . They can inculde:-
  - **Weakness, numbness or inability to move your face, arm or leg on one side of your body**
  - **Blurred vision or loss of sight in one or both eyes**
  - **Difficulty speaking or understanding what people are saying**
  - **Confusion**
  - **Severe headache**
  - **Dizziness and/or losing your balance**
  - **Difficulty swallowing**
  - **Passing out**

https://differentstrokes.co.uk/wp-content/uploads/downloads/2.%20Life%20After%20Stroke.pdf
Accessed April 2019

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THE NHS STROKE AWARENESS FAST CAMPAIGN

This campaign was launched in 2009 by the Department of Health to help raise awareness that stroke is a **Medical Emergency** and urges the public to take the above symptoms serious.

One of the main objectives of the campaign is get people who witness somebody showing stroke symptoms to overcome their initial reluctance to call.

They are being asked to ‘Make the Call. Dial 999’ even if they are not sure that it is a stroke.

However, it is important to note that not all stroke survivors exhibit the FAST test warning signs. If in any doubt, seek urgent medical help.

https://campaignresources.phe.gov.uk/resources/campaigns/9-act-fast---stroke/overview
Accessed April 2019

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COMPLICATIONS AFTER A STROKE

Following a stroke, the person can have some challenging longer term problems

These vary, depending on the areas of the brain damaged by the stroke. For some they might be mild, for others they may be severe

It is important that each person is different but often the complications caused by a stroke often improve over time – **Sometimes over weeks, months or even years**

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COMPLICATIONS AFTER A STROKE

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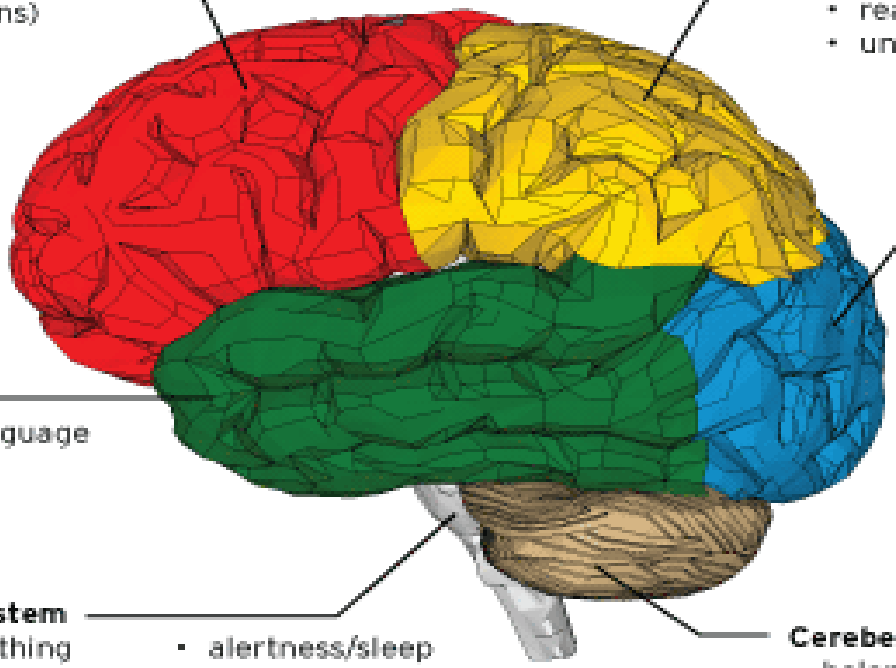

Frontal Lobe
- movement
- thinking initiation
- reasoning (judgement)
- behaviour (emotions)
- memory
- speaking

Parietal Lobe
- knowing right from left
- sensation
- reading
- understanding spacial relationships

Occipital Lobe
- vision
- colour blindness

Temporal Lobe
- understanding language
- behaviour
- memory
- hearing

Brain stem
- breathing
- blood pressure
- heartbeat
- swallowing
- alertness/sleep
- body temperature
- digestion

Cerebellum
- balance
- coordination
- fine muscle control

https://www.lexology.com/library/detail.aspx?g=cf698c56-5e00-43ba-a54f-f9c2004932ba
Accessed April 2019

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COMPLICATIONS AFTER A STROKE

Some complications can include:-

- **Movement** – a very common problem after stroke. Can be numbness, weakness or inability to move parts of your body or face
- **Concentration** – may have problems concentrating on things which make it difficult to carry out lengthy tasks
- **Memory** – may have difficulty remembering things or learning new information or skills
- **Clumsiness or loss of balance** – parts of the brain that deal with being aware of the space around you can be damaged

https://differentstrokes.co.uk/wp-content/uploads/downloads/2.%20Life%20After%20Stroke.pdf
Accessed April 2019

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COMPLICATIONS AFTER A STROKE

- **Difficulty reading or understanding speech** – words which you used to know can seem to make no sense
- **Difficulty speaking or writing** – not been able to find the right words or difficulty articulating words
- **Problems with planning ahead** – can make carrying out lengthy tasks or sticking to schedules difficult
- **Behaviour** – can lead to difficulty in handling social situations or behaving different in public
- **Pain** – many people develop pain in one of their shoulders or legs which can also lead to long term central nervous pain

https://differentstrokes.co.uk/wp-content/uploads/downloads/2.%20Life%20After%20Stroke.pdf
Accessed April 2019

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COMPLICATIONS AFTER A STROKE

- **Difficulty swallowing** - requiring altered texture diets or feeding tubes
- **Loss of sight** – may develop blurred or double vision, or lose half of your field of vision
- **Hearing Loss**
- **Fatigue** – getting tired more quickly, usually improves after a few weeks or months but can last longer
- **Epilepsy** – caused by damaged brain cells becoming overactive which can lead to seizures

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https://differentstrokes.co.uk/wp-content/uploads/downloads/2.%20Life%20After%20Stroke.pdf
Accessed April 2019

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STROKE RISK FACTORS AND PREVENTION

AGE

- The average age for someone with a stroke is **72** for men and **78** for women
- Around **one in four** strokes happen to people of working age
- People are most likely to have a stroke after the age of 55

https://www.stroke.org.uk/system/files/sotn_2018.pd Accessed April 2019

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STROKE RISK FACTORS AND PREVENTION

GENDER

- Men are at a higher risk of having a stroke at a younger age than women. This is generally due to a combination of behavioural and medical factors
- Diabetes and heart disease, both risk factors for stroke, are more common amongst men
- In addition, on average, men consume more alcohol and are more likely to smoke
- More women than men die of stroke. This is because women tend to live longer than men, and the risk of stroke increases with age.
- Women tend to experience worse psychological and physical repercussions from stroke. This may be because women tend to have strokes when they're older and often living alone.

https://www.stroke.org.uk/system/files/sotn_2018.pdf Accessed April 2018

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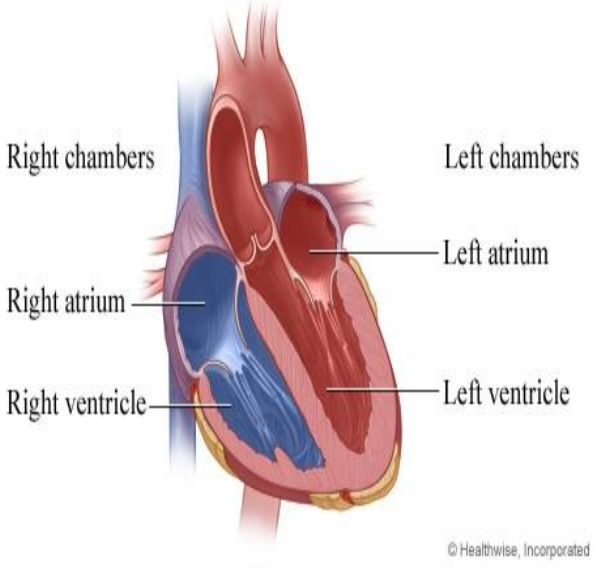
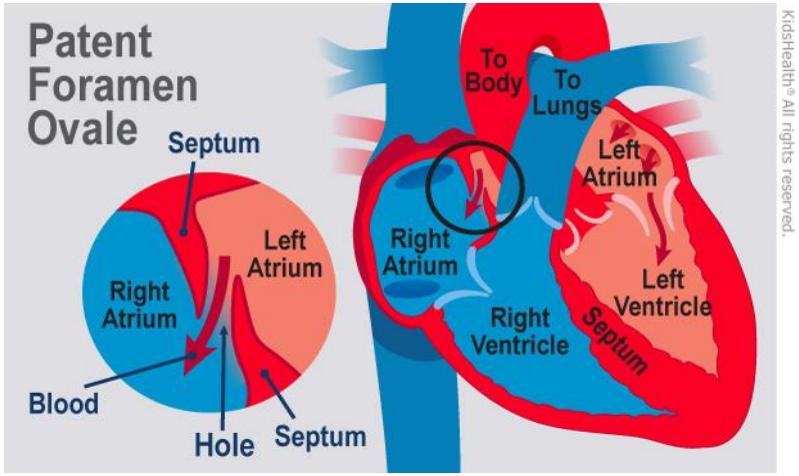
STROKE RISK FACTORS AND PREVENTION

PFO (Hole in the Heart)

- A patent foramen ovale (PFO or hole in the heart) is an opening between the left and right upper chambers of the heart.
- This hole normally closes at birth, but in as many as one in four people it remains open.
- A PFO is thought to increase stroke risk because it will allow a clot to travel through the heart and to the brain through the hole into the blood stream.





https://www.stroke.org.uk/system/files/sotn_2018.pdf Accessed April 2019

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STROKE RISK FACTORS AND PREVENTION

ATRIAL FIBRILLATION (AF)

- Atrial fibrillation (AF) is a heart condition that causes an irregular and often abnormally fast heartbeat
- There are about 1.2 million people with AF in the UK
- It is estimated there could be another half a million people in the UK with undiagnosed AF
- People with AF are five times more likely to have a stroke
- AF is a contributing factor in up to 1 in 5 strokes in the UK
- Anticoagulant drugs, such as warfarin, can be given to people with AF to reduce the risk of blood clots forming
- It is estimated that if AF were adequately treated, around 7,000 strokes would be prevented and over 2,000 lives saved every year in England alone

https://www.stroke.org.uk/system/files/sotn_2018.pdf Accessed April 2019

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STROKE RISK FACTORS AND PREVENTION

HIGH BLOOD PRESSURE

- Having high blood pressure can triple your risk of stroke and heart disease
- High blood pressure is a contributing factor in around half of strokes in England, Wales and Northern Ireland
- Treatment for high blood pressure significantly reduces the risk of stroke, heart attack and heart failure. Every 10 mmHg reduction in systolic blood pressure reduces the risk of stroke and heart attack by 20%
- Blood pressure is the measure of how strongly blood presses against the walls of the arteries when it is pumped around the body
- Blood pressure is measured in millimetres of mercury (mmHg) and is given as two figures:

  1. systolic pressure – the pressure your arteries experience when your heart beats
  2. diastolic pressure – the pressure when your heart rests between beats.

- Normal blood pressure is around 120/80. High blood pressure is considered to be 140/90 or higher

https://www.stroke.org.uk/system/files/sotn_2018.pdf Accessed April 2019

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STROKE RISK FACTORS AND PREVENTION

HIGH CHOLESTEROL

- Cholesterol is a fatty substance in the blood
- It is vital to the healthy working of the body, but too much cholesterol in the blood can cause fatty deposits to build up in your arteries, restricting blood flow
- It can also increase the risk of a blood clot developing, which can lead to stroke
- Cholesterol is carried in your blood by proteins and when they combine they form lipoproteins.
- There are two types of lipoprotein:

  • **high-density lipoprotein (HDL)** – is known as 'good' cholesterol, because it carries 'bad' cholesterol away from the cells and to the liver, where it is broken down or processed out of the body as waste.

  • **low-density lipoprotein (LDL**) – carries cholesterol to the cells that need it. It is often known as 'bad' cholesterol because if there's too much it can build up on the artery walls.

https://www.stroke.org.uk/system/files/sotn_2018.pdf Accessed April 2019

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STROKE RISK FACTORS AND PREVENTION

HIGH CHOLESTEROL

- It is the overall balance of good and bad cholesterol in the body that affects your risk of having a stroke

- The recommended levels of cholesterol vary between people who have high and low risk of developing arterial disease

- As a general guide, 'bad' cholesterol (LDL) levels should be:
  - 3mmol/L or less for healthy adults
  - 2mmol/L or less for those at high risk

- Reducing cholesterol by 1mmol/L reduces stroke risk by 21%

https://www.stroke.org.uk/system/files/sotn_2018.pdf Accessed April 2019

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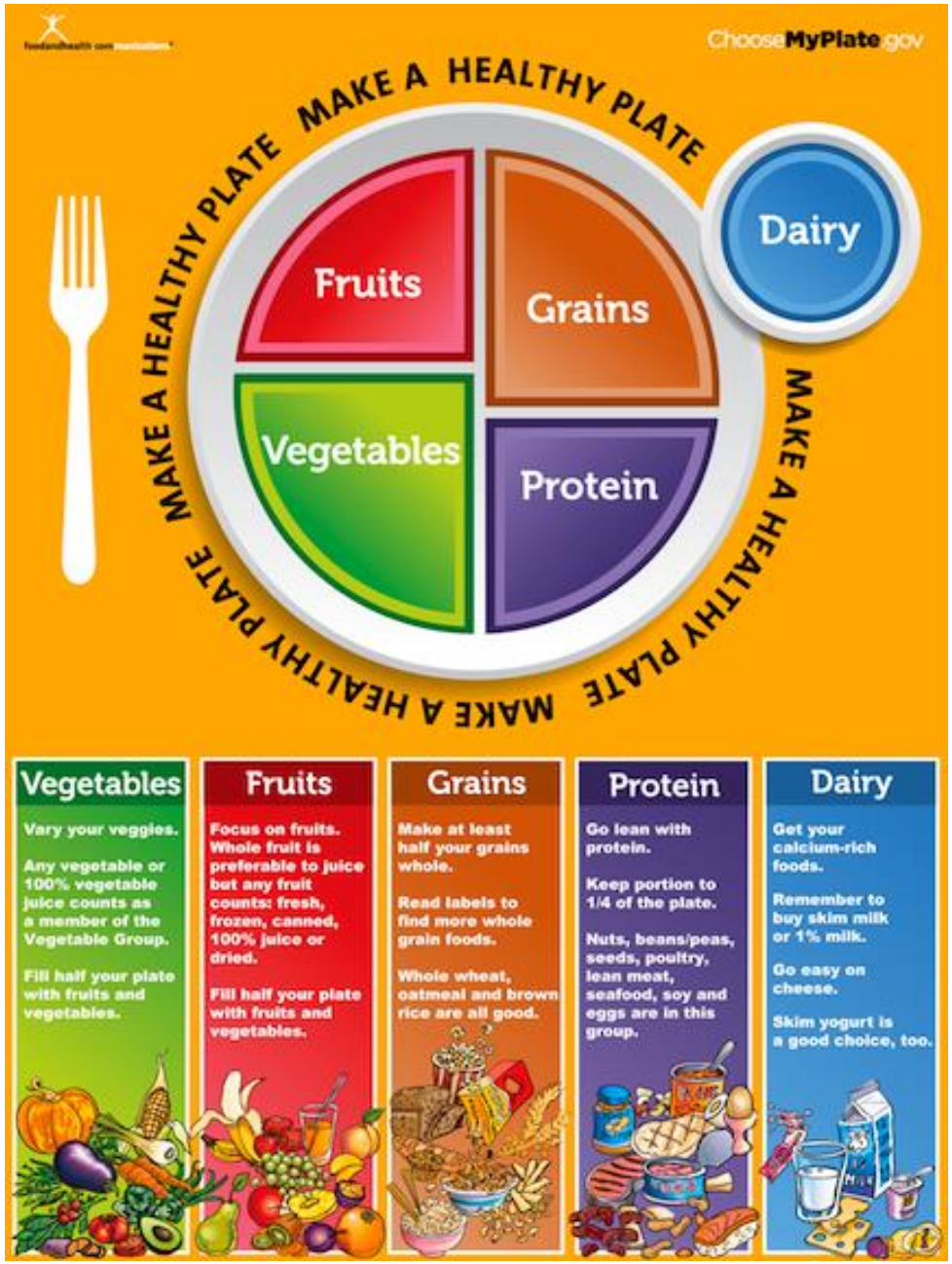
STROKE RISK FACTORS AND PREVENTION

The Healthy Plate



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STROKE RISK FACTORS AND PREVENTION

DIABETES

- Diabetes is a condition that causes a person's blood sugar (glucose) levels to become too high
- Persistently elevated glucose levels from diabetes can raise the likelihood of atherosclerosis, where the blood vessels become clogged up and narrowed by fatty substances
- This can increase the risk of stroke
- There are two main types of diabetes.

1. **Type 1 diabetes** develops when the immune system attacks and destroys the cells producing insulin. Insulin is a hormone that moves glucose from the bloodstream into body cells to produce energy

2. **Type 2 diabetes** develops when the body does not produce enough insulin or when the body does not react to it in the right way. **This type of diabetes is largely preventable and manageable**. It is mainly caused by being overweight; however family history, ethnicity, age and genetics may also play a part.

https://www.stroke.org.uk/system/files/sotn_2018.pdf Accessed April 2019

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STROKE RISK FACTORS AND PREVENTION

DIABETES

- Type 2 diabetes almost doubles the risk of stroke
- is a contributing factor in up to 1 in 5 strokes in England, Wales and Northern Ireland
- Obese people are 80 times more likely to develop diabetes than a healthy person with a BMI under 22

https://www.stroke.org.uk/system/files/sotn_2018.pdf Accessed April 2019

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STROKE RISK FACTORS AND PREVENTION

BEING OVERWEIGHT

- Being overweight increases your risk of having a stroke

- Being overweight puts you at risk of high blood pressure, heart disease and type 2 diabetes, all of which increase your risk of a stroke

- It's not just how much weight you carry, but how you carry it as well. If you carry extra weight around your waist, you are more likely to have high blood pressure, diabetes or other health problems

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https://www.stroke.org.uk/what-is-stroke/what-can-i-do-to-reduce-my-risk/stay-a-healthy-weight Accessed April 2019

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STROKE RISK FACTORS AND PREVENTION

For most healthy adults, the Department of Health and Human Services recommends these exercise guidelines:

150 minutes of moderate aeorbic activity

or

75 minutes of vigerous aeorbic activity per week

or

A combination of the 2

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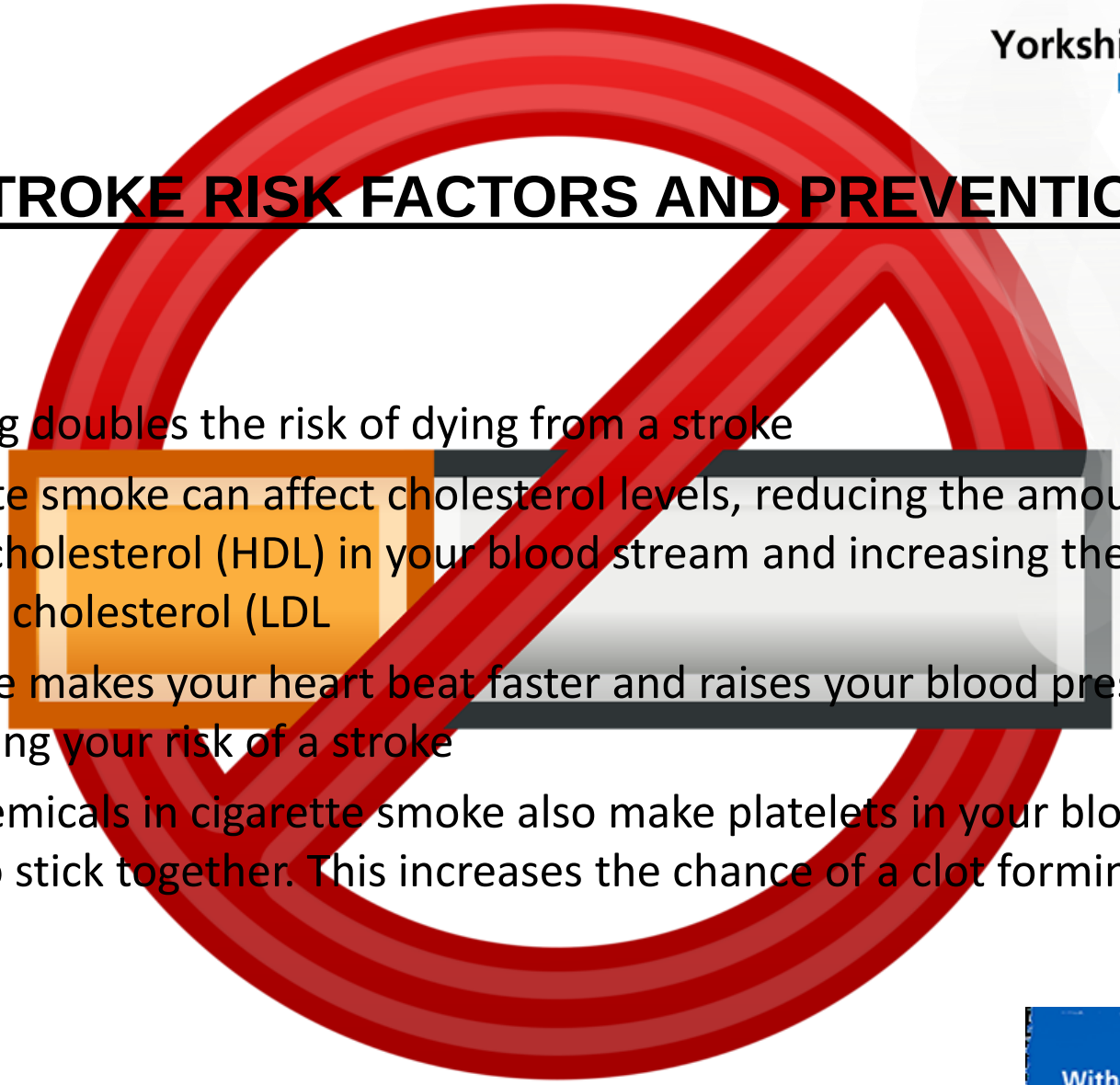
STROKE RISK FACTORS AND PREVENTION



SMOKING

- Smoking doubles the risk of dying from a stroke
- Cigarette smoke can affect cholesterol levels, reducing the amount of 'good' cholesterol (HDL) in your blood stream and increasing the amount of 'bad' cholesterol (LDL
- Nicotine makes your heart beat faster and raises your blood pressure, increasing your risk of a stroke
- The chemicals in cigarette smoke also make platelets in your blood more likely to stick together. This increases the chance of a clot forming

https://www.stroke.org.uk/system/files/sotn_2018.pdf Accessed April 2019

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STROKE RISK FACTORS AND PREVENTION

ALCOHOL

- Regular consumption of large amounts of alcohol greatly increases the risk of having a stroke, as it can lead to high blood pressure, diabetes, obesity, and trigger atrial fibrillation
- Drinking too much alcohol can also damage the liver and stop it from making substances that help your blood to clot, increasing your risk of having a stroke caused by bleed

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STROKE RISK FACTORS AND PREVENTION

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STROKE RISK FACTORS AND PREVENTION

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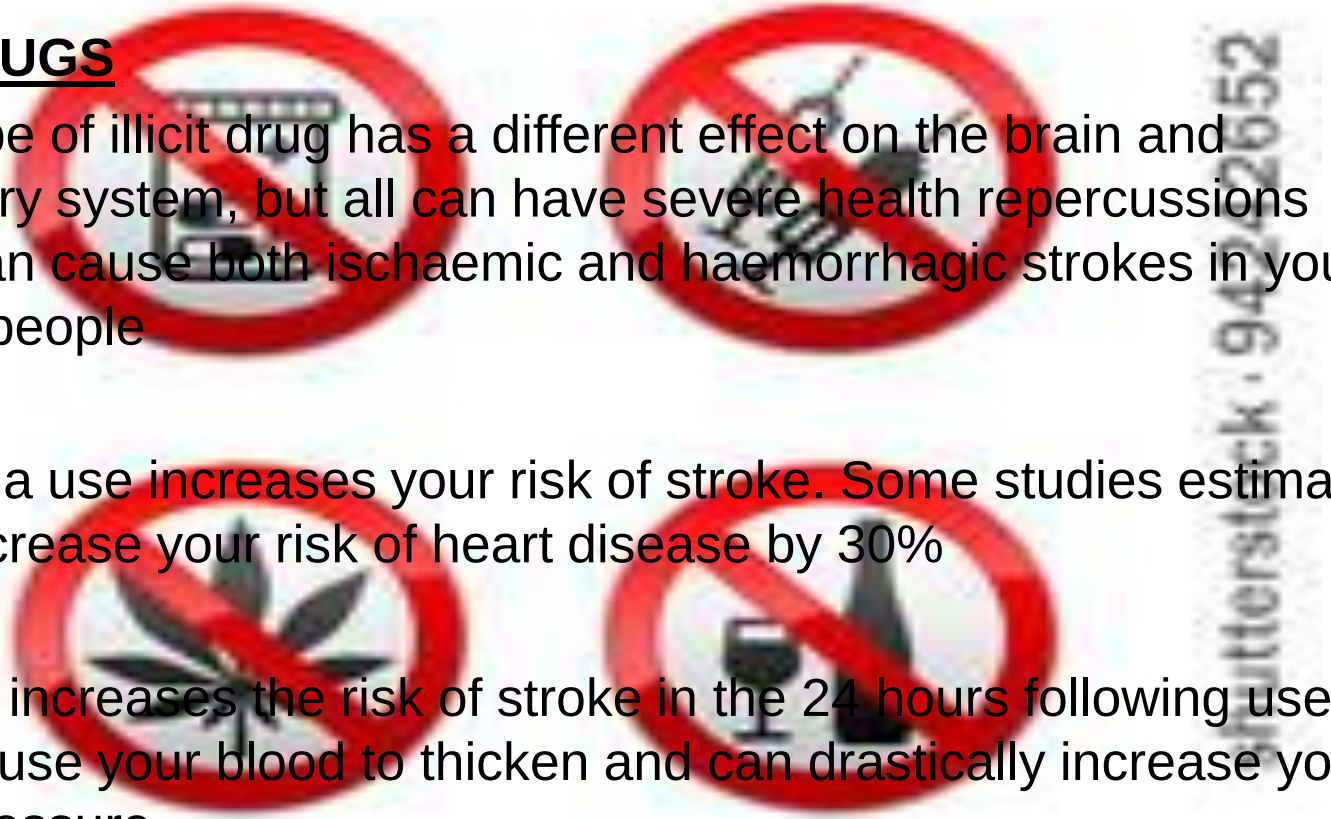

ILLICIT DRUGS

- Each type of illicit drug has a different effect on the brain and circulatory system, but all can have severe health repercussions which can cause both ischaemic and haemorrhagic strokes in young healthy people

- Marijuana use increases your risk of stroke. Some studies estimated it can increase your risk of heart disease by 30%

- Cocaine increases the risk of stroke in the 24 hours following use, as it can cause your blood to thicken and can drastically increase your blood pressure

https://www.stroke.org.uk/system/files/sotn_2018.pdf Accessed April 2019

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STROKE TREATMENT AND CARE

STROKE UNITS

- Stroke Units are a specialist hospital wards where stroke patients are cared for by a team of professionals who specialise in stroke care
- Stroke patients are more likely to be alive and living independantly a year after having a stroke when cared for on a dedicated stroke unit then patients cared for on regular wards

Hyper-acute Stroke Units (HASU)

- HASUs are a type of stroke unit that exist in some hospitals in the UK. HASUs bring experts and specialist equipment for the emergency treatment of stroke under one roof to provide world-class treatment, 24 hours a day, seven days a week

https://www.stroke.org.uk/system/files/sotn_2018.pdf Accessed April 2019

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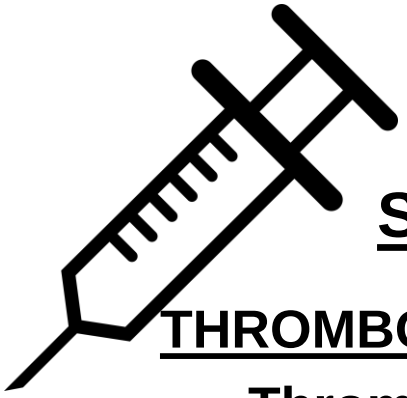

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STROKE TREATMENT AND CARE

THROMBOLYSIS

Thrombolytic therapy is the administration of drugs called lytics or “clot busters” to dissolve blood clots that have acutely (suddenly) blocked your major arteries or veins and pose potentially serious or life-threatening implications

- treatment **must** begin within 4.5 hours of symptom onset (https://bnf.nice.org.uk/drug/alteplase.html)
- This can restore blood flow to the part of the brain blocked and help to limit the effects of the stroke on the patient
- Main **complication** is bleeding
- Every patient is assessed as being eligible but not every one receives thrombolysis for a variety of reasons, It is the decision of the stroke consultant

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STROKE TREATMENT AND CARE

REHABILITATION

- Some patients require a period of rehabilitation after their stroke to help regain function before they go home
- Can be either as an inpatient or if able in their own home
- Can continue for a long time

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TRANISENT ISCHAEMIC ATTACK

Transient ischaemic attack, or TIA (also known as a mini-stroke) is the same as a stroke, except that the symptoms last for less than 24 hours

A TIA should be treated as seriously as a full stroke

You should always call 999 if you spot the signs of a stroke

Patients with a confirmed TIA should receive a specific treatment to reduce their risk of stroke

Patients with a suspected TIA should be given aspirin and assessed urgently by a neurological specialist or on an acute stroke unit

https://www.stroke.org.uk/system/files/sotn_2018.pdf Accessed April 2019

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VASCULAR DEMENTIA

Cognitive impairments after a stroke may improve in some patients, but in others it may worsen and develop into dementia

Vascular dementia has similar symptoms to other types of dementia, including difficulties with understanding and responding to things quickly; struggling to remember things; and problems concentrating

The main difference is that vascular dementia is caused by a loss of blood supply to the brain, which often happens over a long period of time

Vascular dementia can happen through a single stroke or a series of strokes, and is linked to small vessel disease

https://www.stroke.org.uk/system/files/sotn_2018.pdf Accessed April 2019

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Have you got any questions?
Get in touch at:
01924 316946 &
wakefieldrecoverycollege@swyt.nhs.uk
(we're still here!)

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