



A Stroke of bad luck.....?

Dr. Harmandeep Singh
Consultant Cardiologist
Ealing Community Cardiology
Imperial College Healthcare NHS Trust

Why talk about Stroke?

In England and Wales:

- Every **5** minutes, someone will have a stroke!
- **25%** of strokes occur in people aged under 65 years

Why talk about stroke?

There are around 1 million people who have had a stroke living in England



- What is a Transient Ischaemic Attack (TIA)?
- What is a stroke?
- How do I recognise a stroke?
- Why do strokes happen?



What is a transient ischaemic attack (TIA)?

- Also known as “**mini-stroke**”
- Caused by: An interruption to the blood supply to the brain
- Results in: Symptoms which go away in under 24 hours

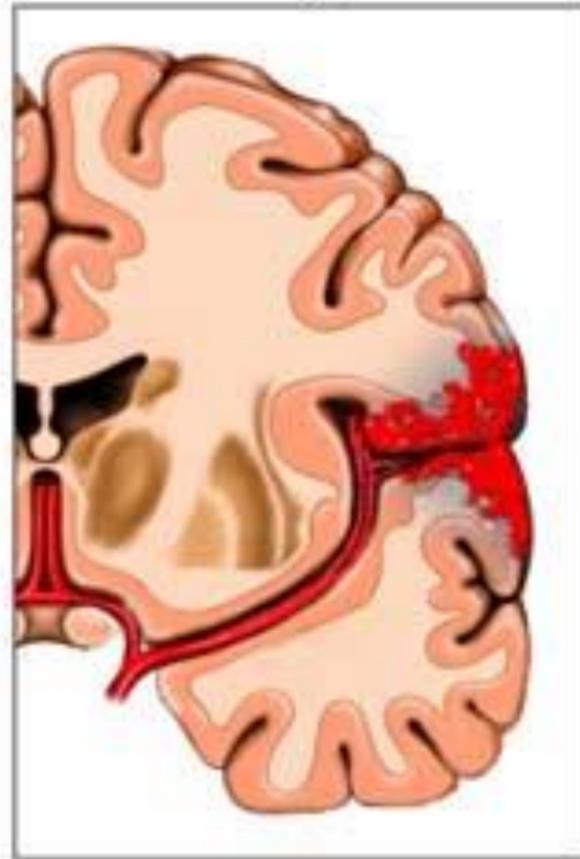


- TIAs can be **SERIOUS**
- TIAs are often followed by a stroke

The blood supply can be interrupted in two ways:

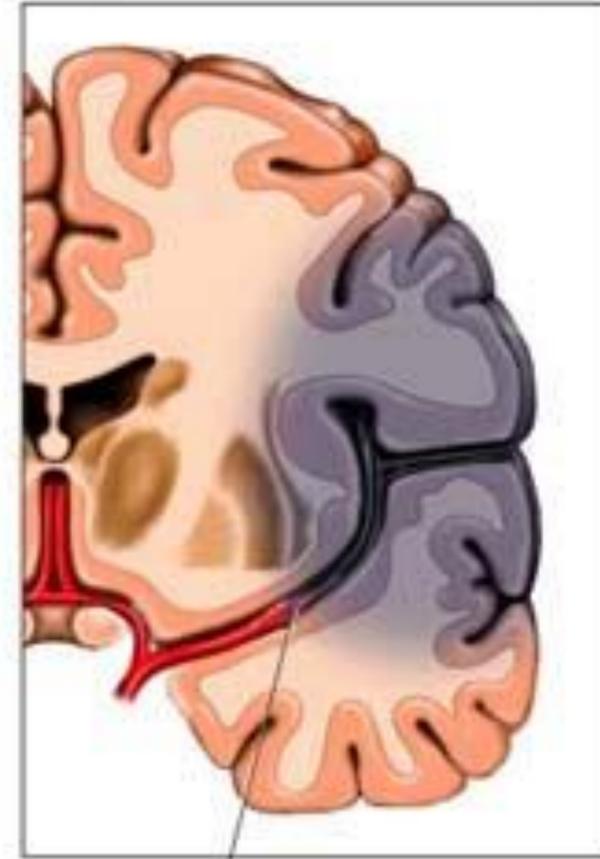
1. Bleeding
(20%)

Hemorrhagic Stroke



Hemorrhage/blood leaks into brain tissue

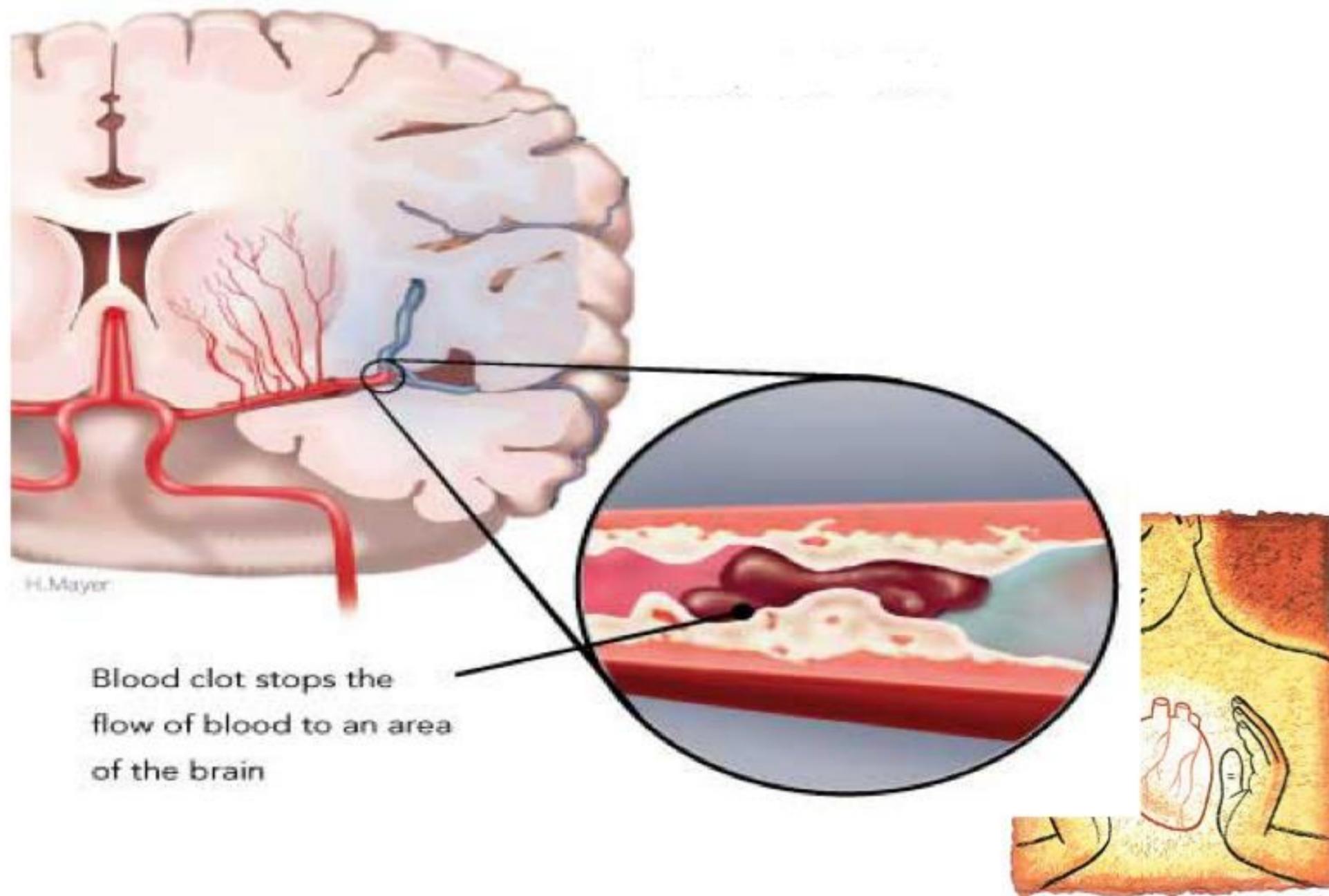
Ischemic Stroke



Clot stops blood supply to an area of the brain

2. A clot
(80%)

I schemic Stroke

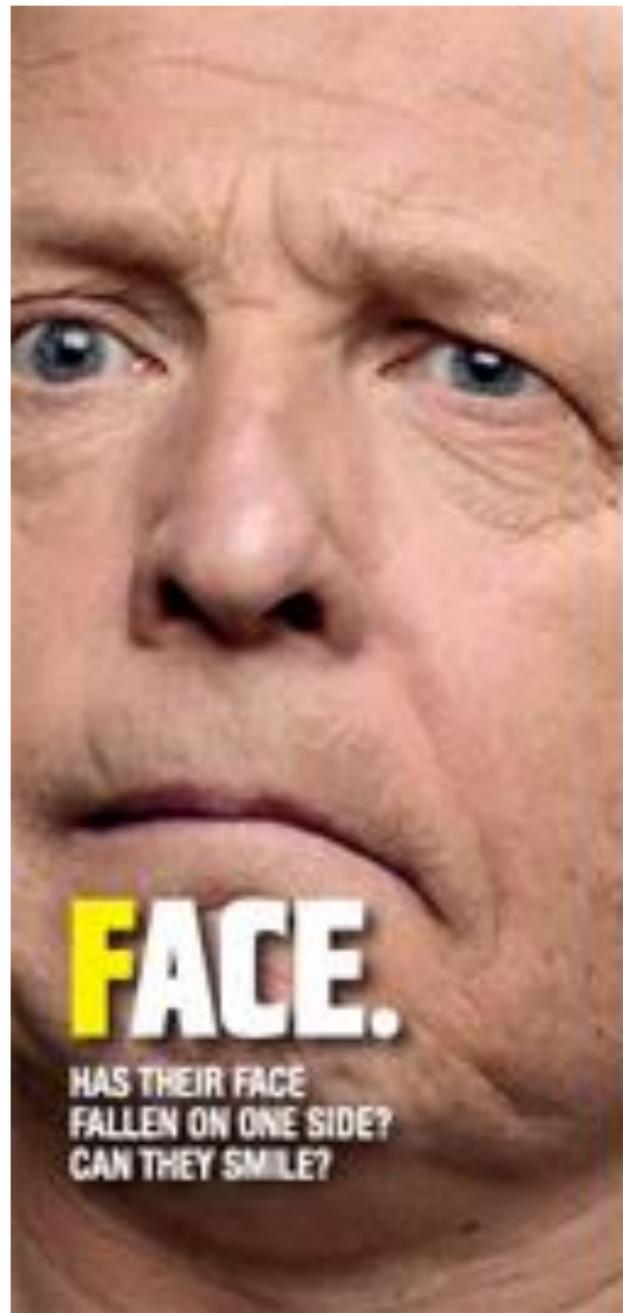


What are the effects of a stroke?

- Bodily functions
- Thought processes
- Memory and ability to learn
- Emotions
- Communication- understanding and expressing
- Death

Effects may be sudden or step-wise





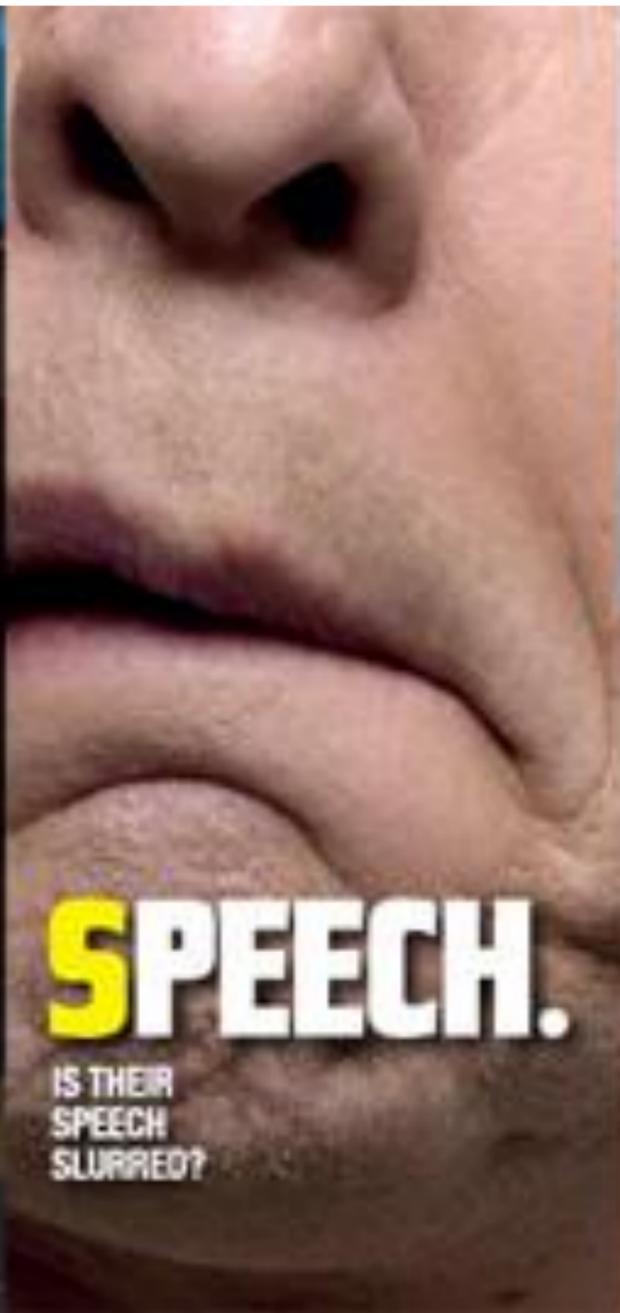
FACE.

HAS THEIR FACE
FALLEN ON ONE SIDE?
CAN THEY SMILE?



ARMS.

CAN THEY RAISE
BOTH ARMS AND
KEEP THEM THERE?



SPEECH.

IS THEIR
SPEECH
SLURRED?



TIME.

TIME
TO
CALL
999
IF YOU SEE ANY SINGLE
ONE OF THESE SIGNS

nhs.uk/octfast

NHS

When stroke strikes act **FAST!!**

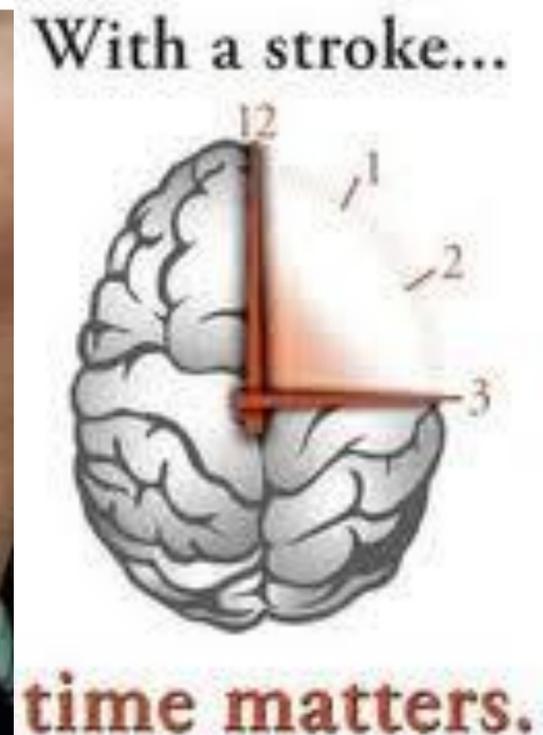
Face - Is it drooping on one side, can they smile or raise their eyebrows?

Arms - Can they hold up their arms and keep them there?

Speech - Any difficulty speaking, is their speech confused or slurred?

Time - When did symptoms start/ how long did they last?

**CALL
999!**



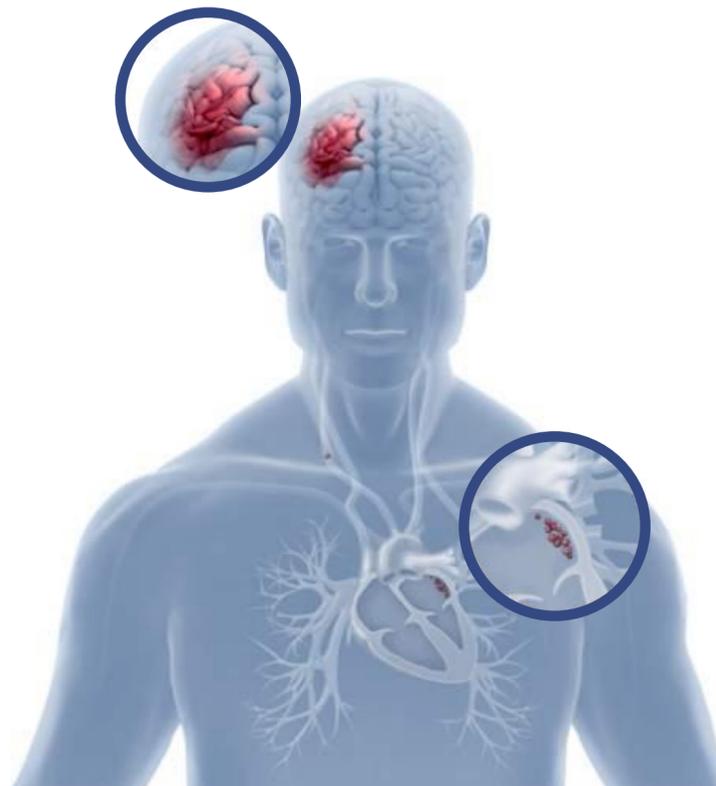
Causes of stroke: who is at risk?

- Previous **TIA**
- High **blood pressure**
- **Smoking**
- High **cholesterol**
- **Diabetes**
- Excess **alcohol**
- **Irregular heart beat** (Atrial Fibrillation)
- Other **heart disease** such as valve problems or poor blood supply

AF is associated with an increased risk of stroke

Prevalence of AF = 1–2%¹

- AF is responsible for almost **20%** of all strokes²
- AF-related stroke has a **30-day mortality rate** of **33%** (vs 16% for non-AF strokes)²



- On average, **19.4%** of patients in the UK had a **known diagnosis** of AF prior to stroke admission³

Due to an ageing population, improved AF diagnostics and enhanced ability to treat chronic cardiac and non-cardiac diseases, the incidence of AF in Europe is projected to grow significantly, and at least double by 2060^{4,5}

What can I do to prevent a stroke?

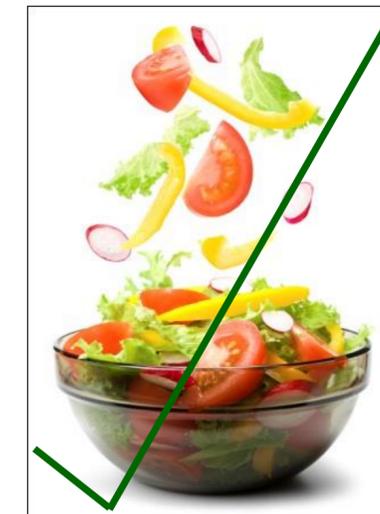
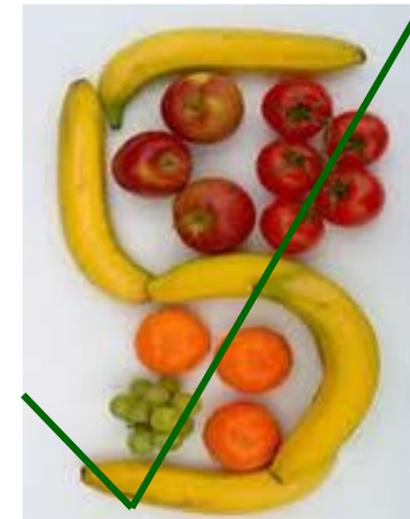
- Two approaches:
 - What I can do?
 - What the doctor can do?

What can I do to prevent a stroke?

- Maintain a diet low in fat (saturated fats are worst)



- Increase fruit/vegetable intake



- Weight reduction if overweight



- Stop smoking!!



- Regular exercise



- Reduce salt intake to lower blood pressure



How can your doctor help prevent stroke?

BLOOD PRESSURE

Should be monitored and controlled

DIABETES

Regular checks and good control

CHOLESTEROL

Regular checks and good control

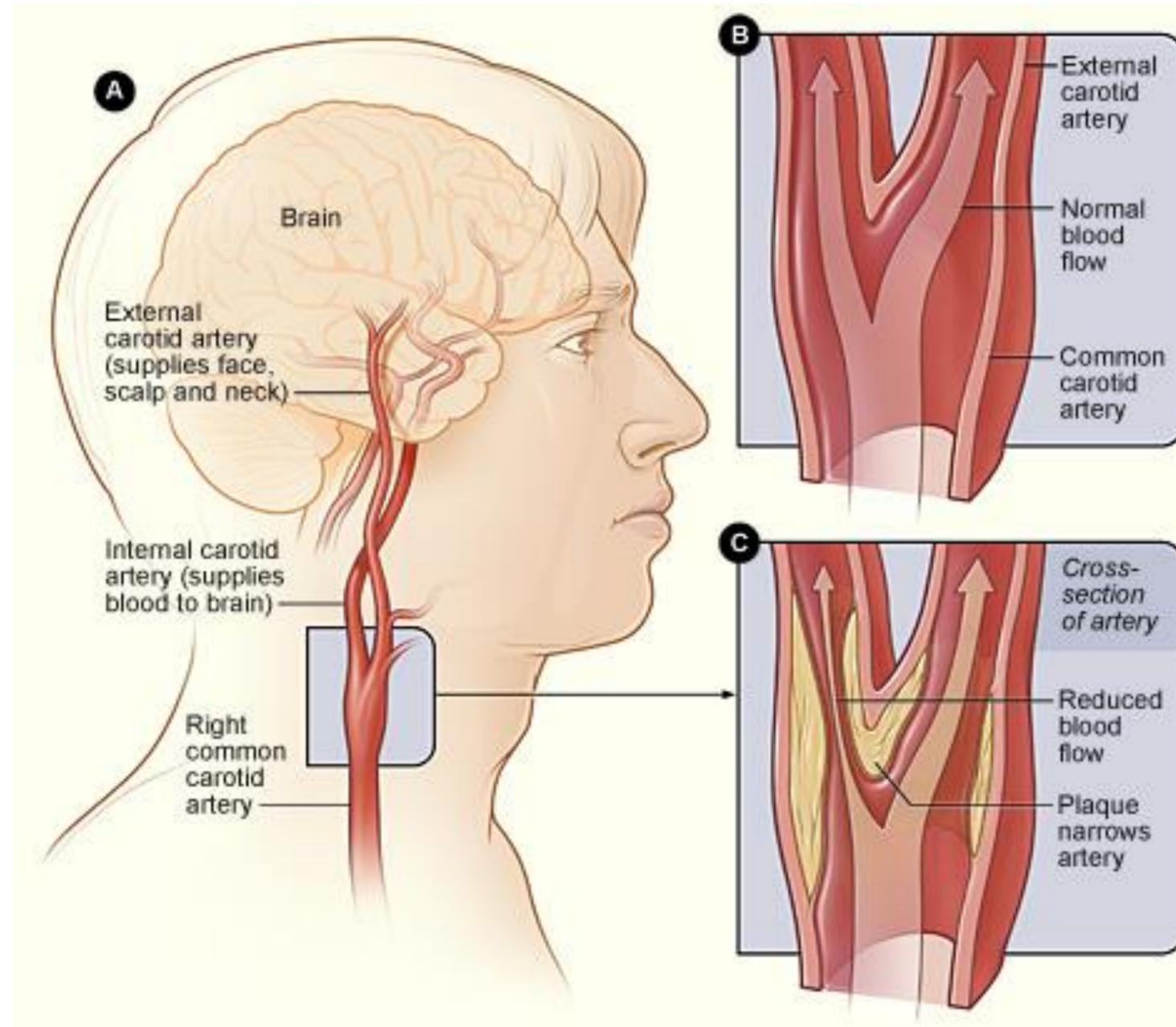
ATRIAL FIBRILLATION

Life-long doac or warfarin should be considered

How to prevent stroke after TIA

- Following a TIA patient should be tested and managed for the risk factors mentioned before
- May also need a neck scan (carotid Doppler)
- Furred up neck arteries may need surgery to prevent further strokes

Carotid stenosis (narrowing of neck arteries)



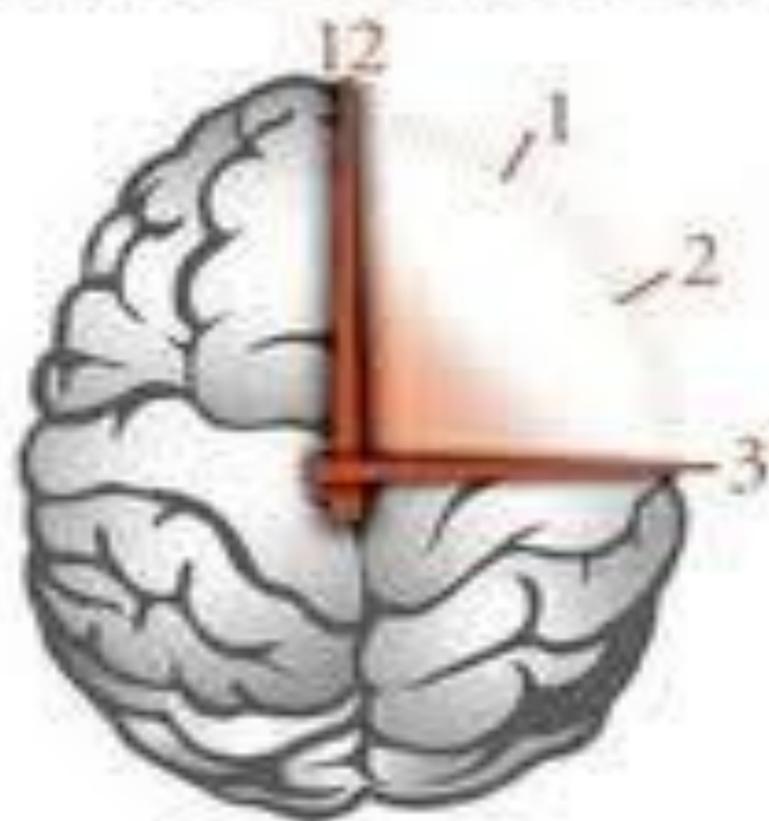
- What happens after having a stroke?
- Investigations and treatment
- Multidisciplinary team and after care



Immediately following stroke

- CALL **999**
 - You will be taken to a *hyper-acute stroke unit*
- **SOME STROKES CAN BE REVERSED**
 - if caught early enough
- **TIME IS BRAIN**

With a stroke...



time matters.

Arrival at hospital



- Patient will be seen by Doctors
- Scans arranged (CT +/- MRI)
- Blood tests
- Other tests

Immediate treatment

- THROMBOLYSIS (Clot-busting drugs)
 - Will be considered for *early, ischaemic* strokes
 - Can only be given in *hyperacute stroke units*
 - Thrombolysis will not be given if the stroke is too old, or it is a haemorrhagic stroke

Admission to hospital



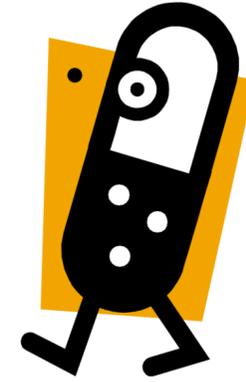
- **Observation** after treatment
 - OR
- **Stroke rehabilitation** - if thrombolysis was not performed or if it failed
- **Risk factors** will be investigated as mentioned previously



Investigations

- **CT/ MRI SCAN** of head to identify type of stroke and site
- **BLOOD PRESSURE MONITORING** – BP will be raised acutely
- **BLOOD TESTS** to look at cholesterol and blood sugar
- **HEART TRACING (ECG)** to look for irregular rhythm
- **HEART SCAN (ECHO)** to look for clots in the heart chambers
- **NECK SCAN** to look for narrowing of neck arteries

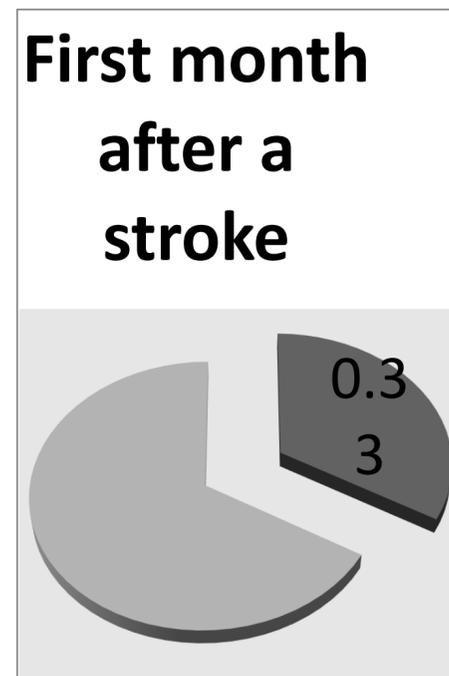
Treatment - Medications



- Treatment after stroke
 - Acute (1-2 years)
- Medication for risk factors
 - Lifelong

Can people get better?

- **YES!**
- 1/3 of people will make a significant recovery within one month



Can people get better?

- Outcome depends partly on type of stroke
 - **BUT**
- Almost all stroke survivors will have some long term disability



Rehabilitation Treatment -

- Following stroke, all patients will undergo some rehab
- Can take place in acute hospital setting, cottage hospital or in the community (patient's place of residence)

What is “rehab”?

- Working to improve your function in “activities of daily living”

- May include:

- Physiotherapy



- Occupational therapy



- Speech and Language therapy



Stroke Rehab – The MDT

- Multidisciplinary team made up of different specialists:
 - Stroke physician
 - Stroke specialist nurse
 - Occupational Therapist
 - Physiotherapist
 - Speech and Language therapist
 - Social worker
 - Dietician
 - Input from other specialties...

Stroke Rehab – The MDT

- **Physiotherapist** – specialist in mobility, movement, function and potential.
- **Occupational therapist** – specialist in functionality other activities of daily living.
- **Speech and Language therapist** – specialist in therapy for the mouth and throat, speech, language and swallowing
- **Dietitian** – addresses dietary needs and special diets

Summary

- Strokes are preventable
- Strokes are reversible
- ACT FAST!!! – Call 999!!!

Useful resources

- Your own GP
- Stroke association:
 - <http://www.stroke.org.uk/>
- Patient UK
 - <http://www.patient.co.uk/health/Stroke.htm>
- BBC
 - http://www.bbc.co.uk/health/physical_health/conditions/in_depth/stroke/