Stroke

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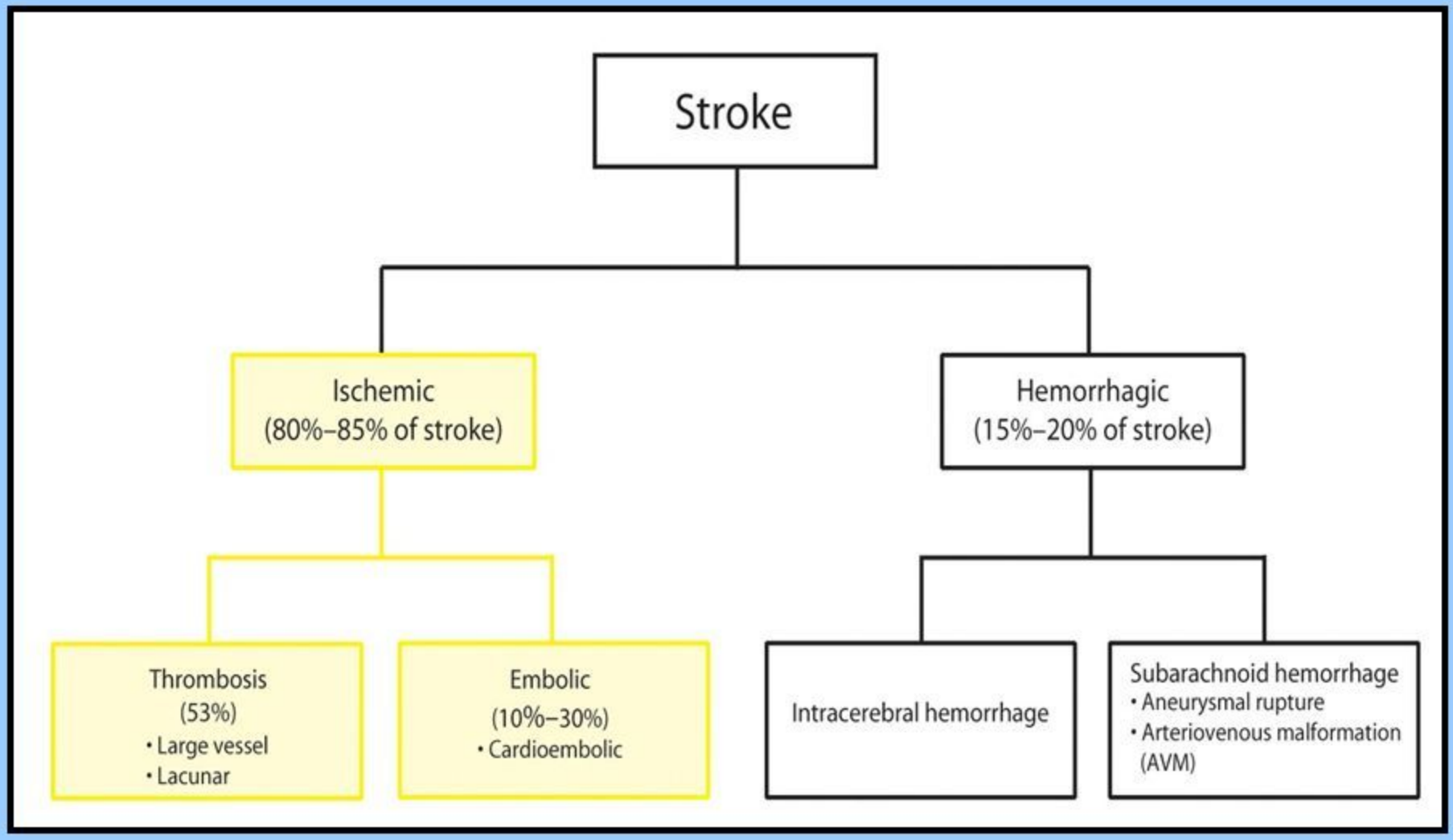
WHAT IS A STROKE

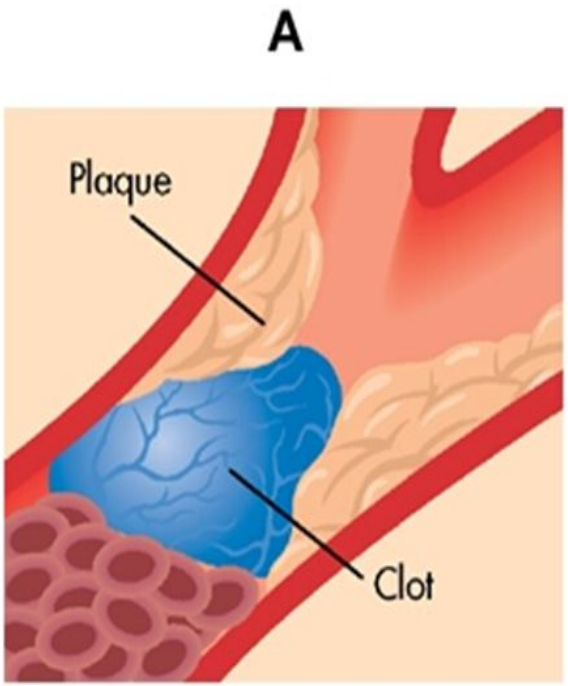
A stroke is a brain attack. It happens when the blood supply to part of the brain is cut off, so lack of oxygen and food subsequently cause killing brain cells . Damage to the brain can affect the way your body works, and it can also change how you think and feel.

Also stroke is a medical emergency that when happens this can cause serious symptoms, lasting disability, and even death

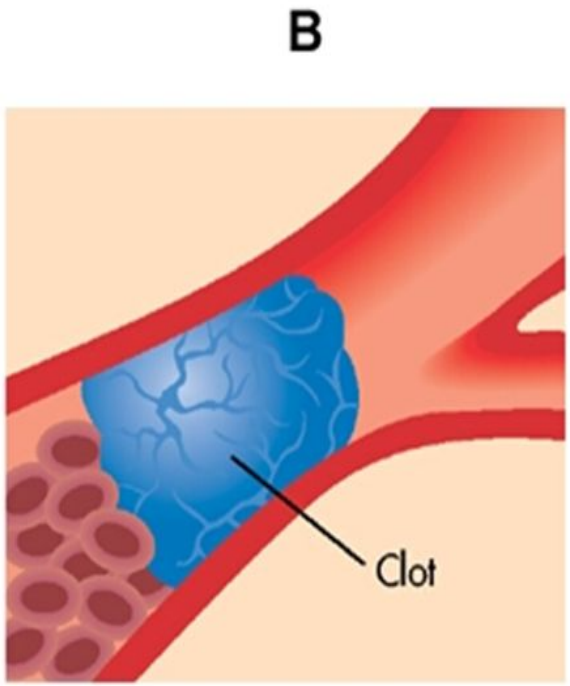
Stroke Classification



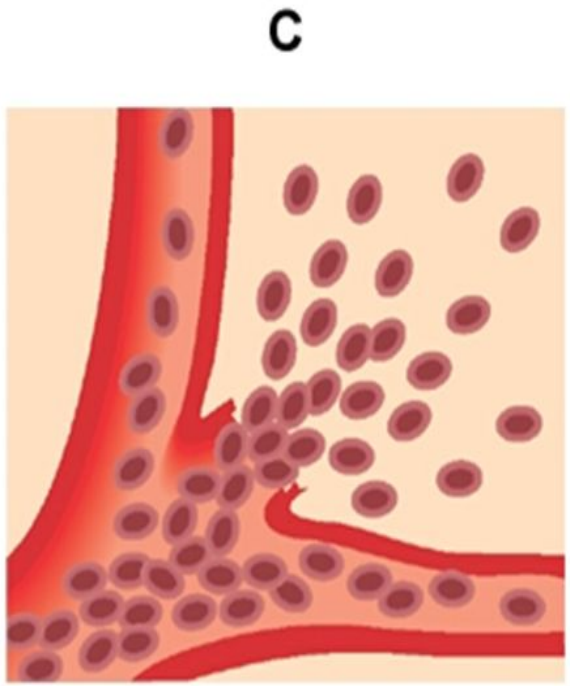
Different types of Stroke



Thrombotic stroke. Cerebral thrombosis is a narrowing of the artery by fatty deposits called *plaque*. Plaque can cause a clot to form, which blocks the passage of blood through the artery.

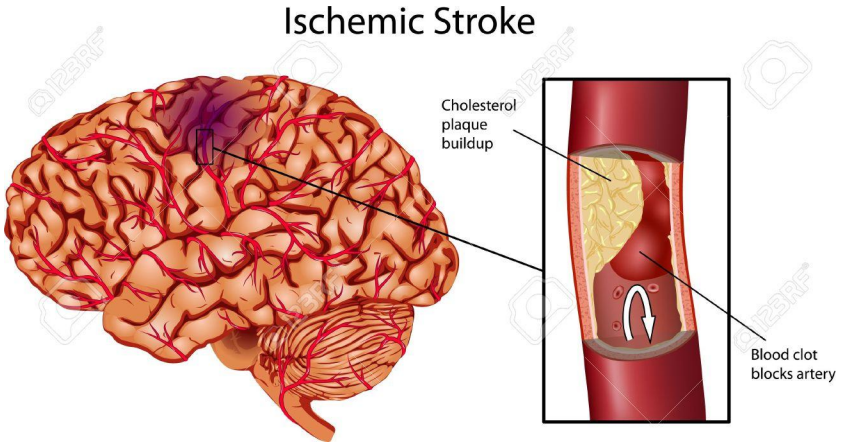


Embolic stroke. An embolus is a blood clot or other debris circulating in the blood. When it reaches an artery in the brain that is too narrow to pass through, it lodges there and blocks the flow of blood.



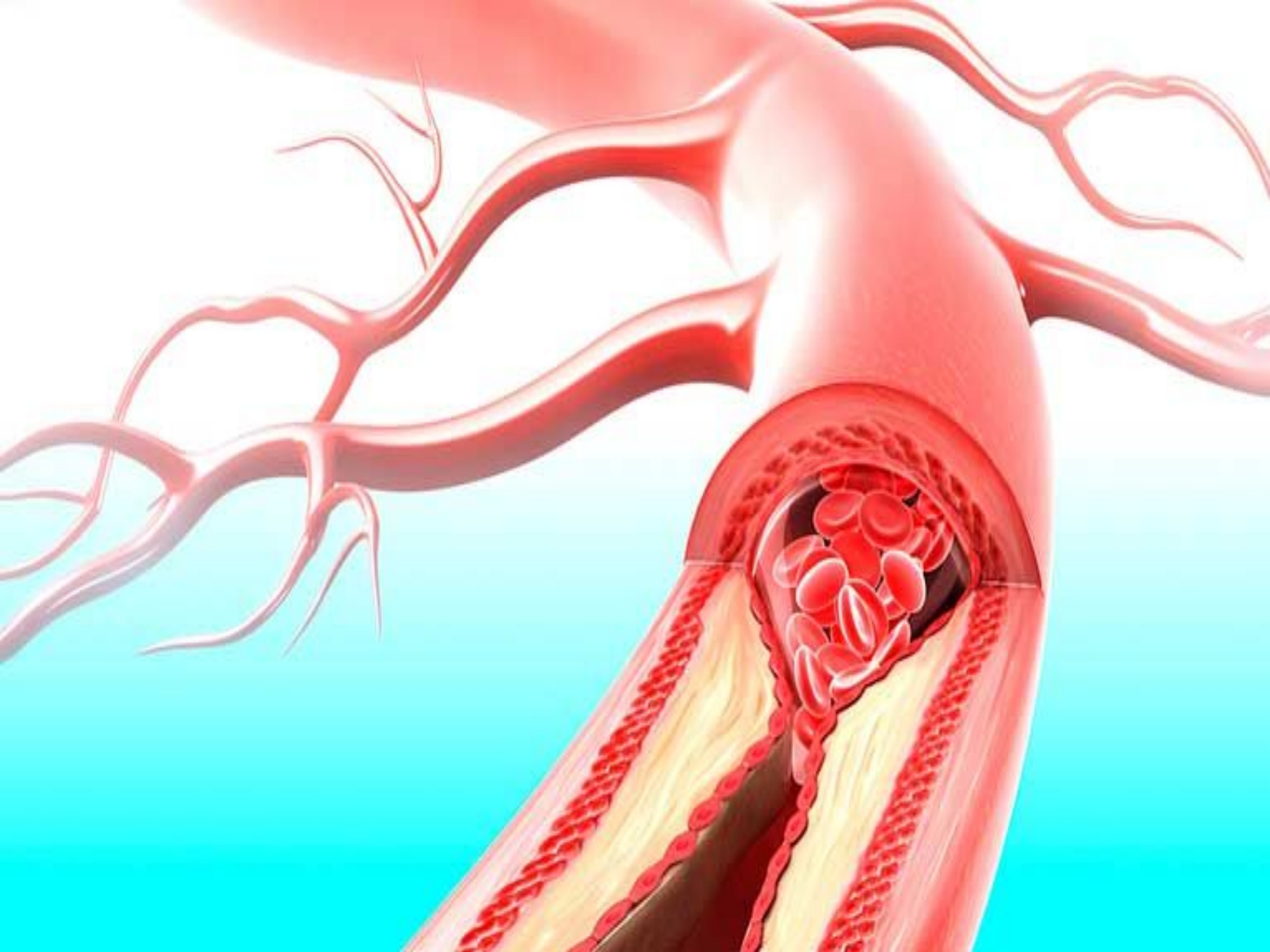
Hemorrhagic stroke. A burst blood vessel may allow blood to seep into and damage brain tissues until clotting shuts off the leak.

Ischemic Stroke



➢ Thrombotic stroke

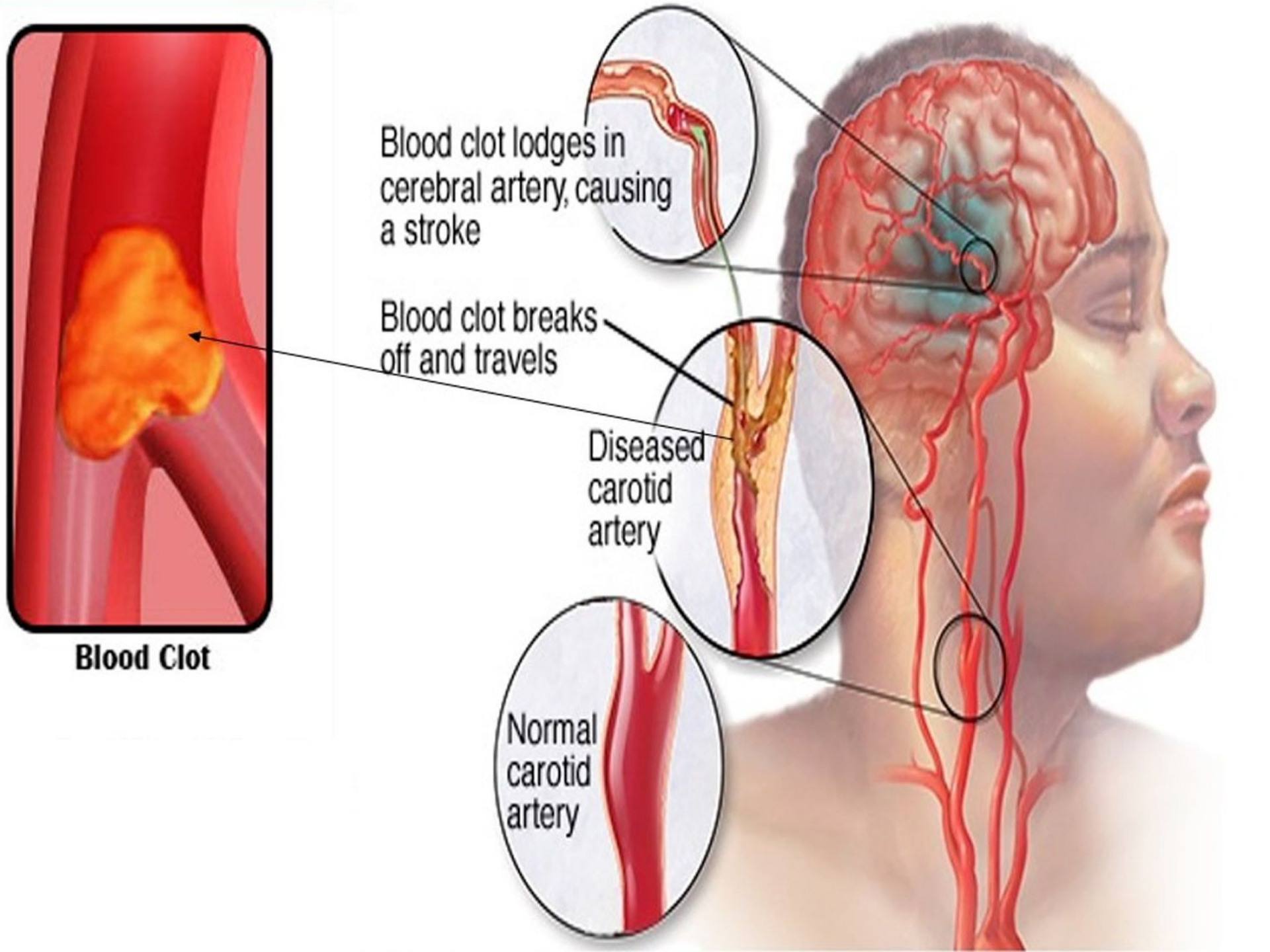
- Result of inadequate blood flow to brain due to partial or complete occlusion of an artery
- Constitute 85% of all strokes
- Most patients with ischemic stroke do not have a decreased level of consciousness in the first 24 hours
- Symptoms often worsen during first 72 hours
- Often preceded by a TIA



Ischemic Stroke

- Embolic stroke

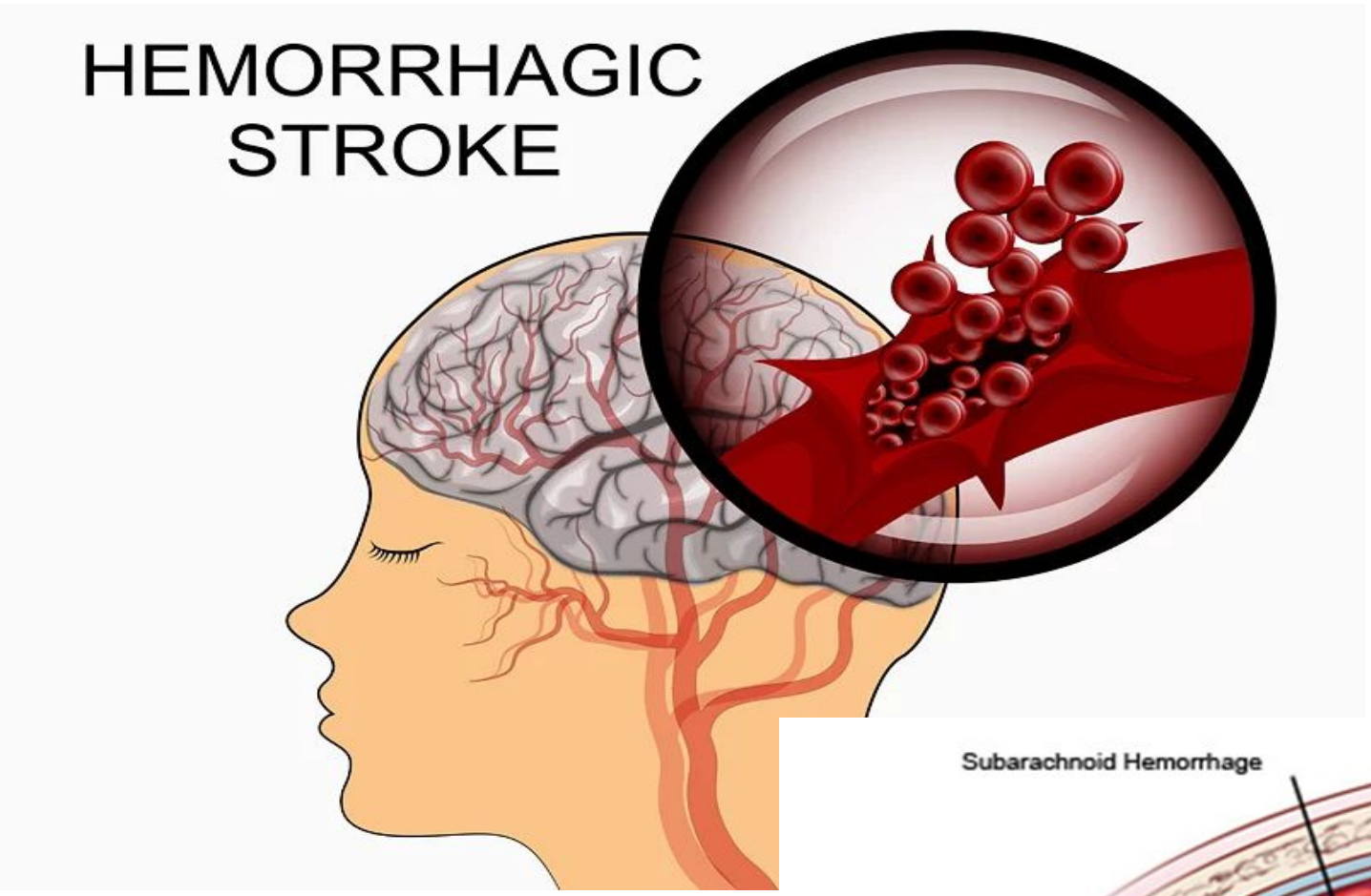
  - Embolus lodges in and occludes a cerebral artery
  - Second most common cause of stroke
  - Majority of emboli originate in heart, with plaque breaking off from the endocardium and entering circulation
  - Associated with sudden, rapid occurrence of severe clinical symptoms

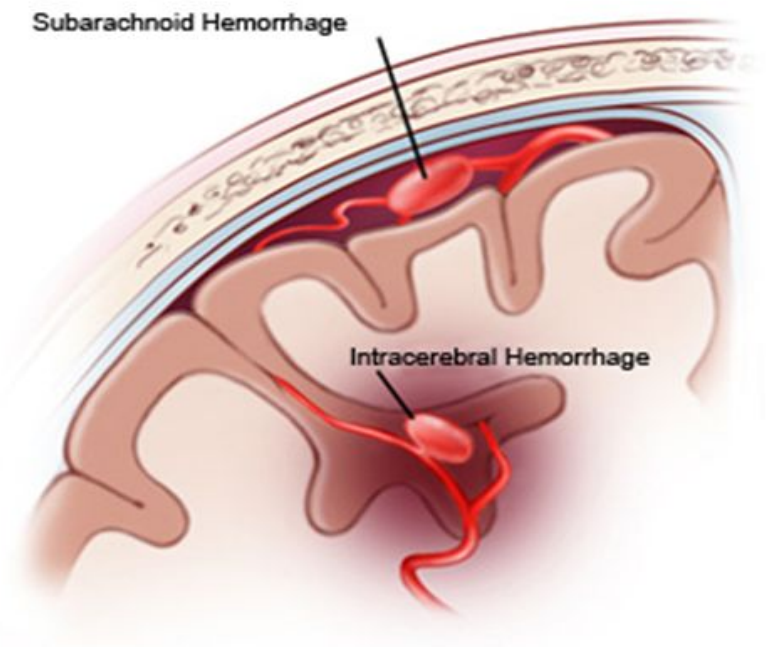

Blood clot lodges in cerebral artery, causing a stroke
Blood clot breaks off and travels
Diseased carotid artery
Normal carotid artery
Blood Clot

Hemorrhagic Stroke

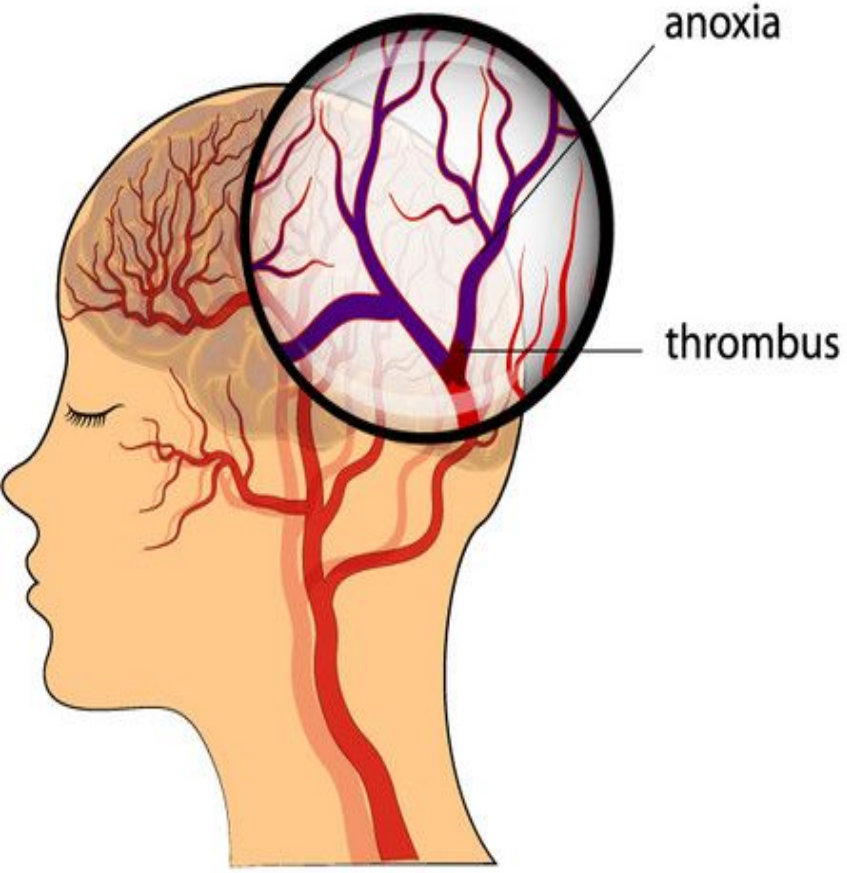
- Account for approximately 15% of all strokes
- Result from bleeding into the brain tissue itself or into the subarachnoid space or ventricles
- Intracerebral hemorrhage
  - Bleeding within the brain caused by a rupture of a vessel
  - Hypertension is the most important cause
- Subarachnoid hemorrhage
  - Bleeding into cerebrospinal space between the arachnoid and pia mater
  - Commonly caused by rupture of a cerebral aneurysm

HEMORRHAGIC STROKE

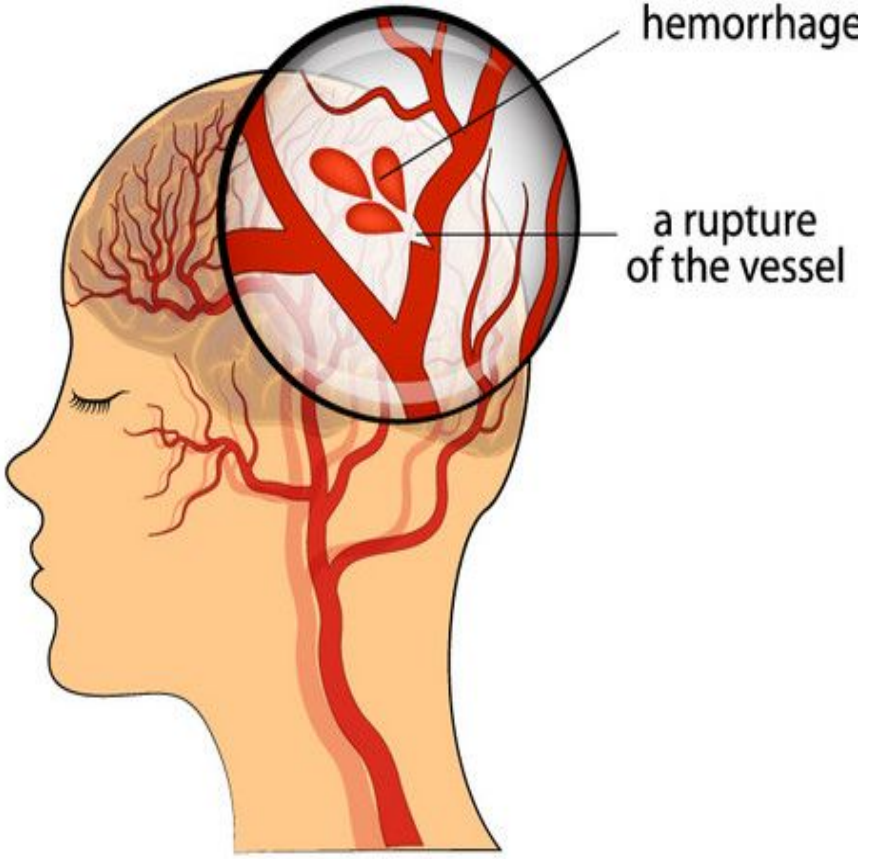




ISCHEMIC AND HEMORRHAGIC STROKE



ISCHEMIC STROKE



HEMORRHAGIC STROKE

Symptoms of a stroke may include

sudden onset of followings:

Numbness

Weakness, of the body especially on one side

Difficulty swallowing

Sever headache with unknown

Problems with dizziness

Walking, or balance confusion

Difficulty speaking or understanding

Risk factor

Hypertension

Hormonal Contraception

Smoking

Heart Disease

Obesity

Family History

Inactivity

alcohol Drinking & Substance Misuse

Diabetes

Previous Stroke & TIA

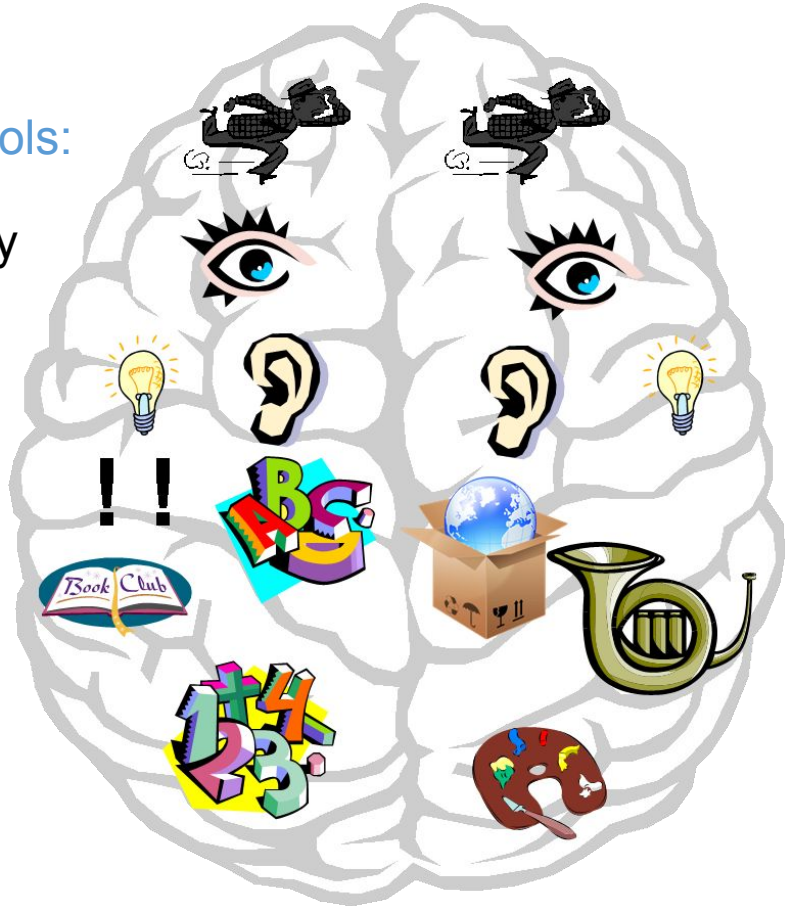
Age


RIGHT side damaged
LEFT side affected

What happens in the brain?

LEFT BRAIN controls:

Right side of body
Movement
Vision
Hearing
Memory
Reading
Writing
Speaking
Understanding
Mathematics

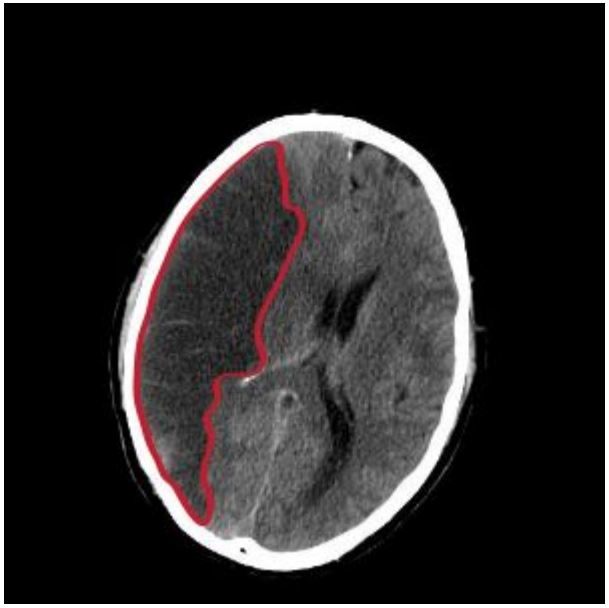


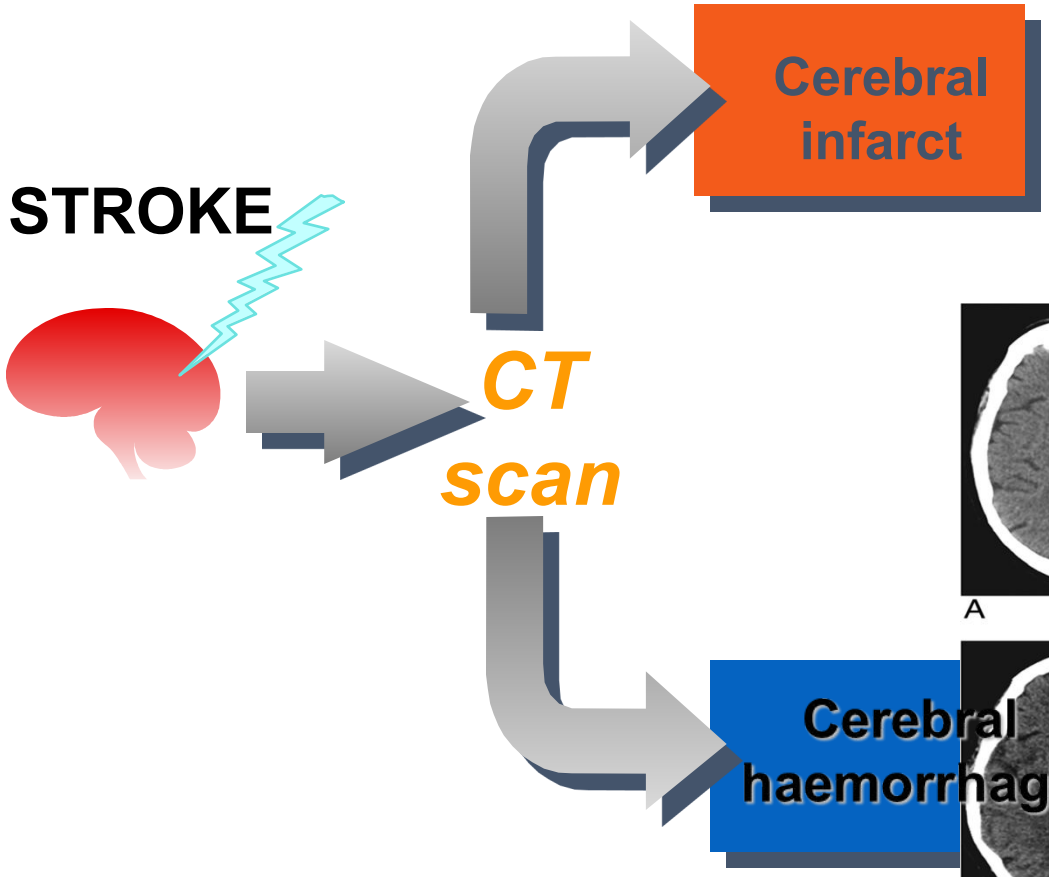
RIGHT BRAIN controls:

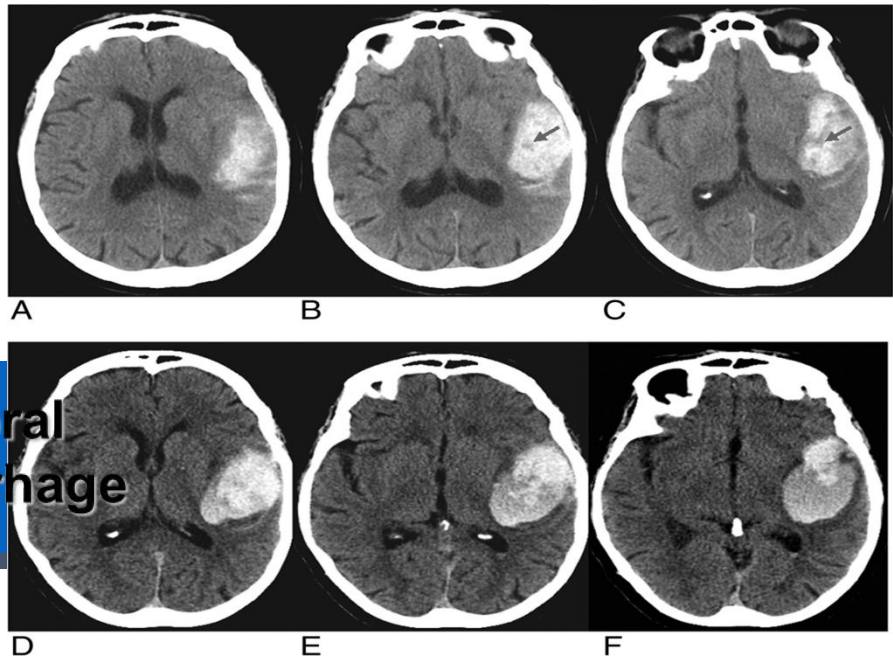
Left side of body
Movement
Vision
Hearing
Memory
Art
Music
Spatial awareness

Diagnosis stroke

- Computerized tomography (CT) scan.
- Magnetic resonance imaging (MRI).

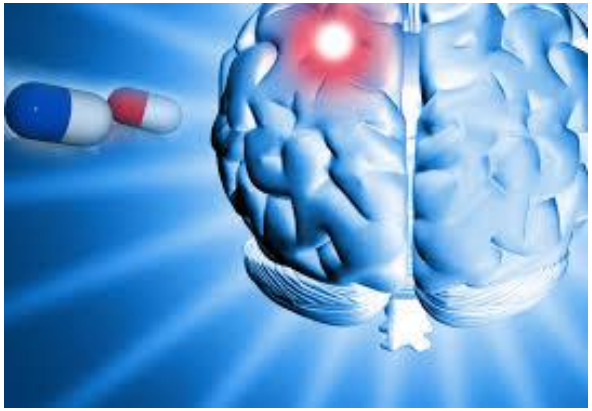






TREATMENT

(A) MEDICATION
(B) SURGERY
(C) Rehabilitation



Rehabilitation Goal

To restore lost abilities as much as possible
To prevent stroke-related complications
To improve the patient's quality of life
To educate the patient and family about how to prevent recurrent strokes

Successful Rehabilitation

Depend on
- how early rehabilitation begins
- the extent of the brain injury
- the rehabilitation team’s skill
- the cooperation of family and caregiver

TREATMENT STROKE BY PHYSIOTHERAPY

Divided in two parts

1-Electro therapy

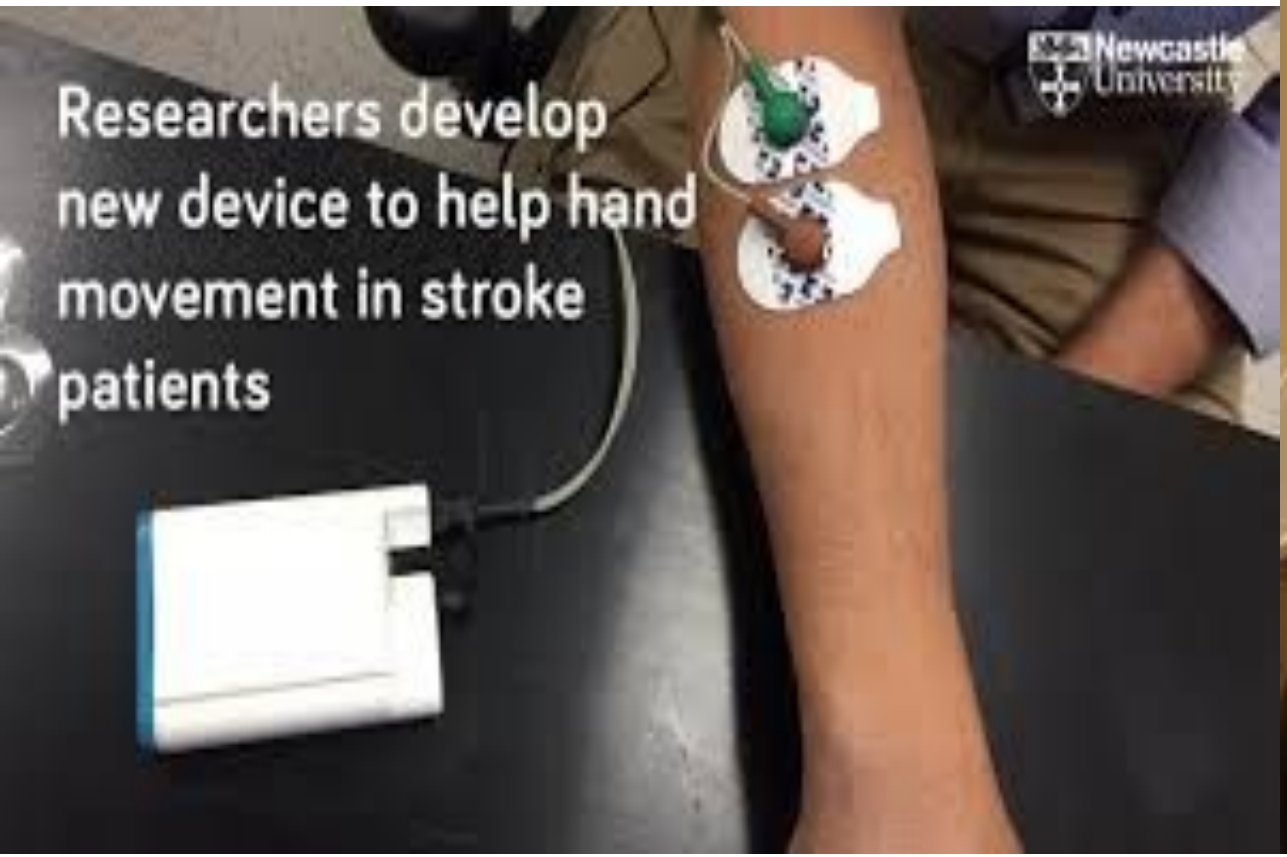
- Galvanic Stimulation
- TEN Stimulation

2- Manual therapy

- Exercise for upper and lower limb

Electrical stimulation for stroke recovery can help to improve movement in affected muscles even if have severely limited movement .

Stroke rehab starts in the brain ,not the body .once the brain retain to send the correct signals to muscles ,the movement will improve .



1-Electro therapy

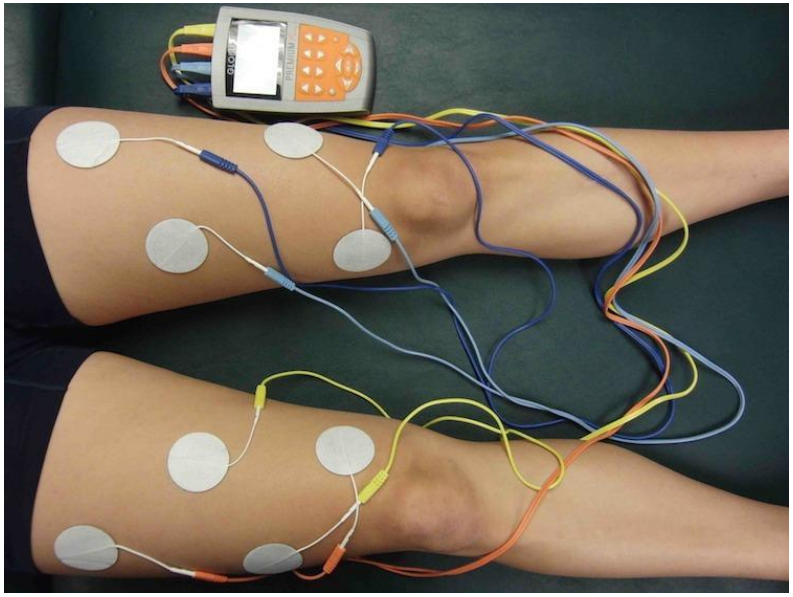
-Galvanic Stimulation

Stimulate the nerve and muscle

-TEN Stimulation

Stimulate the muscle

and relieve the pain



2- Manual therapy

- Exercise for upper and lower limb

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Do you have any questions?

THANK YOU FOR YOUR ATTENTION !