STROKE

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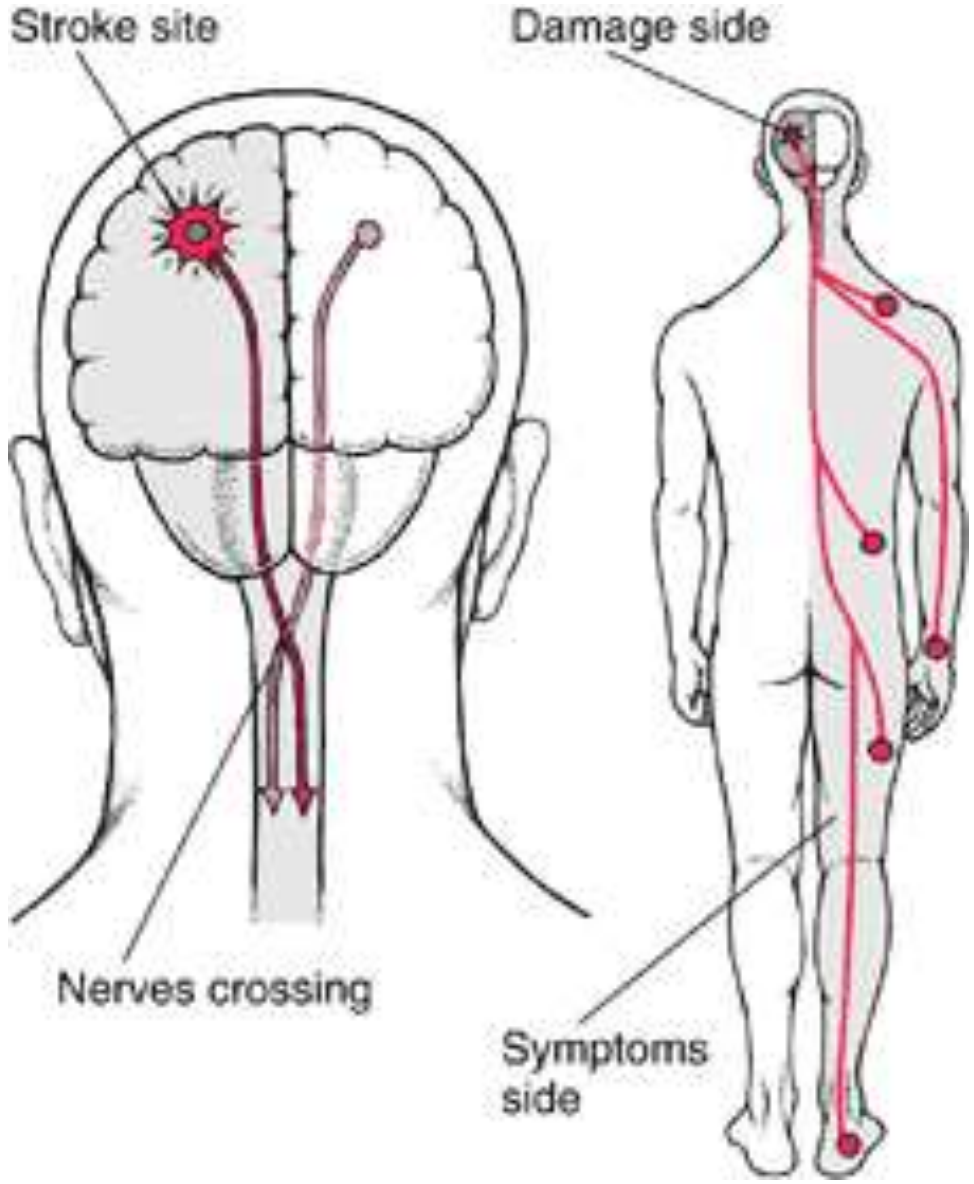
- **<u>What is STROKE?</u>**
  - Sudden brain damage
  - A stroke occurs when a blood clot blocks a blood vessel or artery, or when a blood vessel breaks, interrupting blood flow to an area of the brain
  - Lack of blood flow to the brain caused by a clot or rupture of a blood vessel



- Strokes occur in the brain and affect the opposite side of the body
- National Stroke Association encourages everyone to spread awareness about stroke in May about how to:

  -**STOP** primary and secondary stroke through risk factor management

  -**Act F.A.S.T.** to increase recognition of and response to stroke symptoms

  -**Spread HOPE** about recovery from stroke May is National Stroke Awareness Month

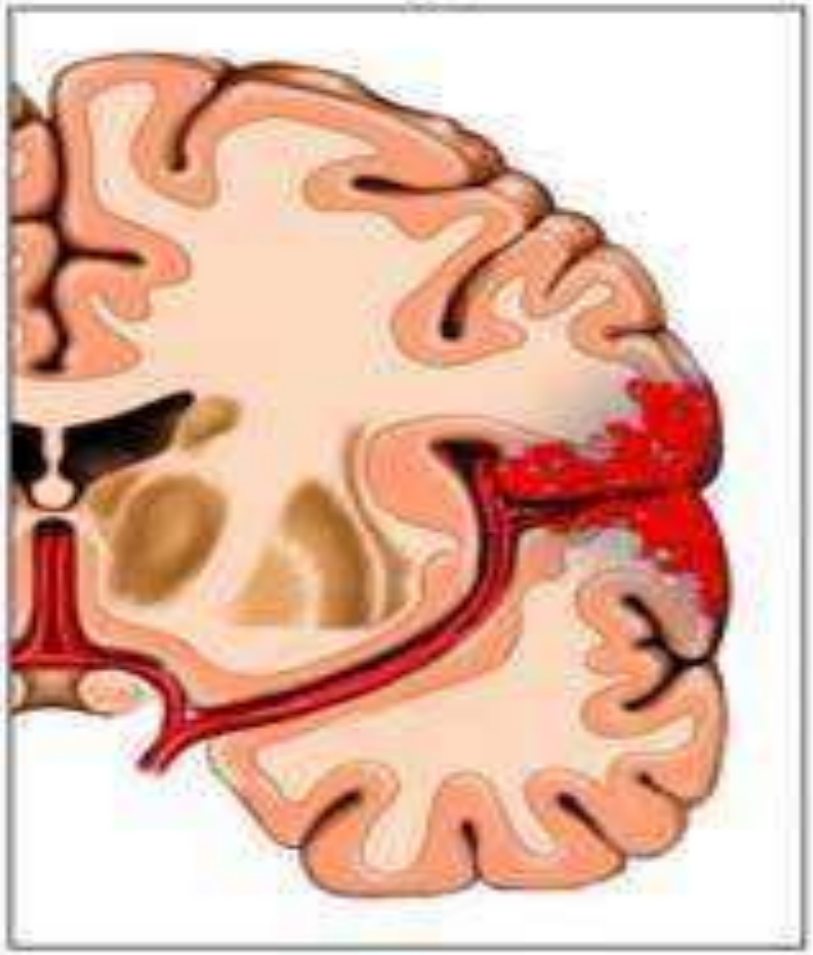
STROKE FACTS

- A leading cause of death in the United States
- 795,000 Americans suffer strokes each year
- 134,000 deaths each year
- From 1996 to 2006, the stroke death rate fell 33.5% and number of deaths fell by 18.4%
- A leading cause of adult disability
- Up to 80% of all strokes are preventable through risk factor management

Types of Strok

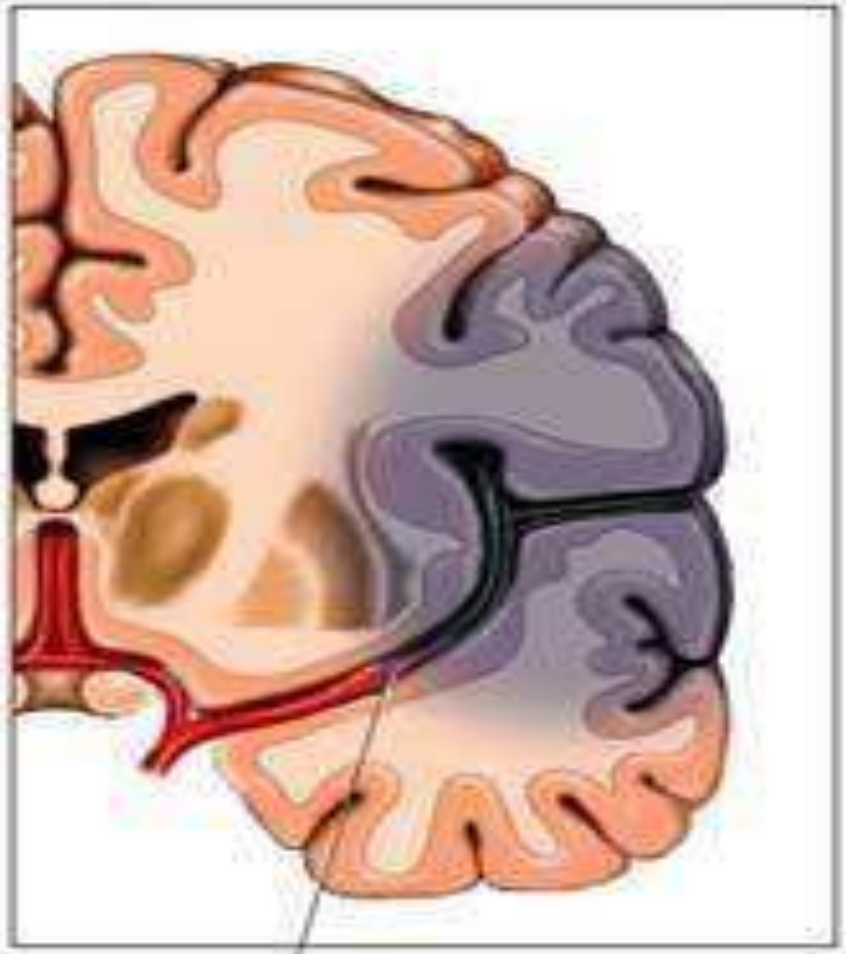
- Hemorrhagic Stroke
- Ischemic Stroke

Hemorrhagic Stroke



Hemorrhage/blood leaks into brain tissue

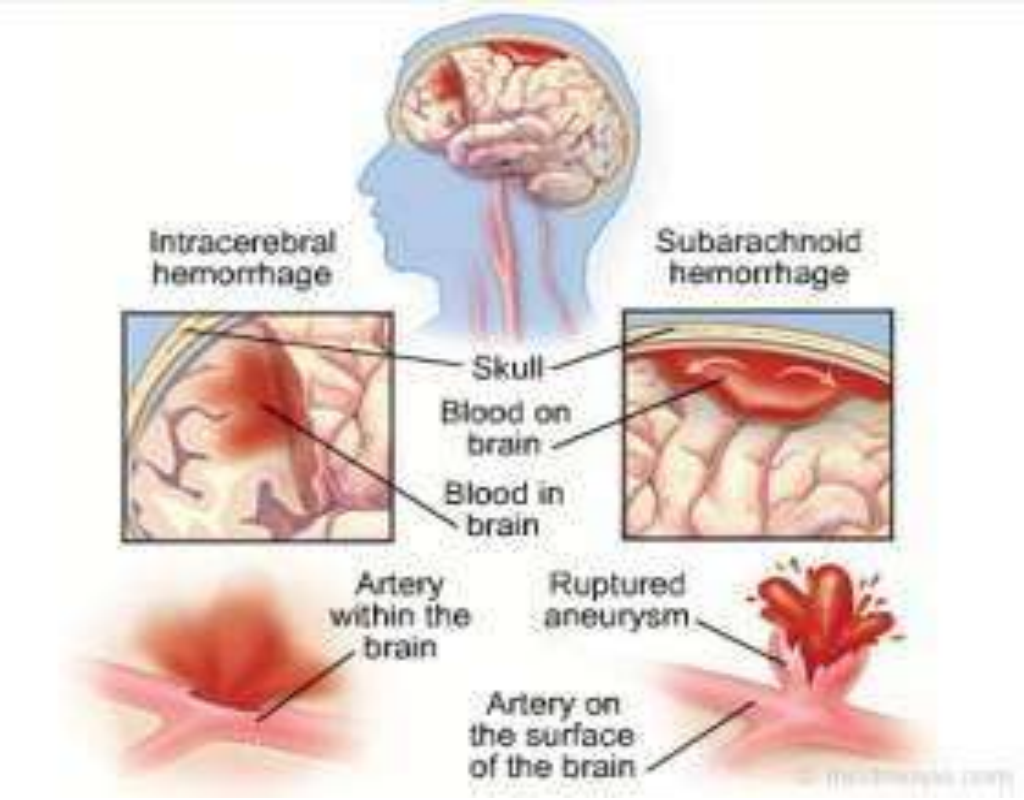
Ischemic Stroke



Clot stops blood supply to an area of the brain

HEMORRHAGIC STROKE

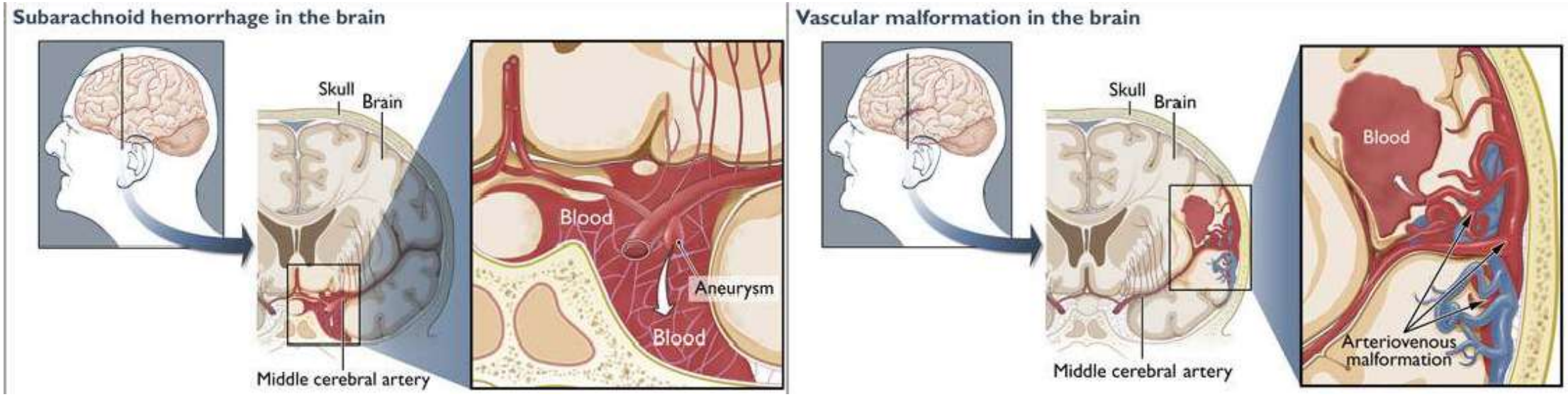
- Hemorrhagic Stroke is a type of stroke which occurs when a blood vessel in the brain breaks or ruptures
- Approximately 20% of the strokes are hemorrhagic in nature
- Most leading cause is high blood pressure occurring when a blood vessel bursts and blood accumulates
- Two types of Hemorrhagic strokes:
  - Subarachnoid hemorrhage and
  - Intracerebral hemorrhage



- **ETIOLOGY:**
  - Traumatic head injury
  - Burst of cerebral aneurysm
  - A defect of the circulatory system/a cluster of abnormally formed blood vessels (also called arteriovenous malformation or AVMs, usually inherited at birth)

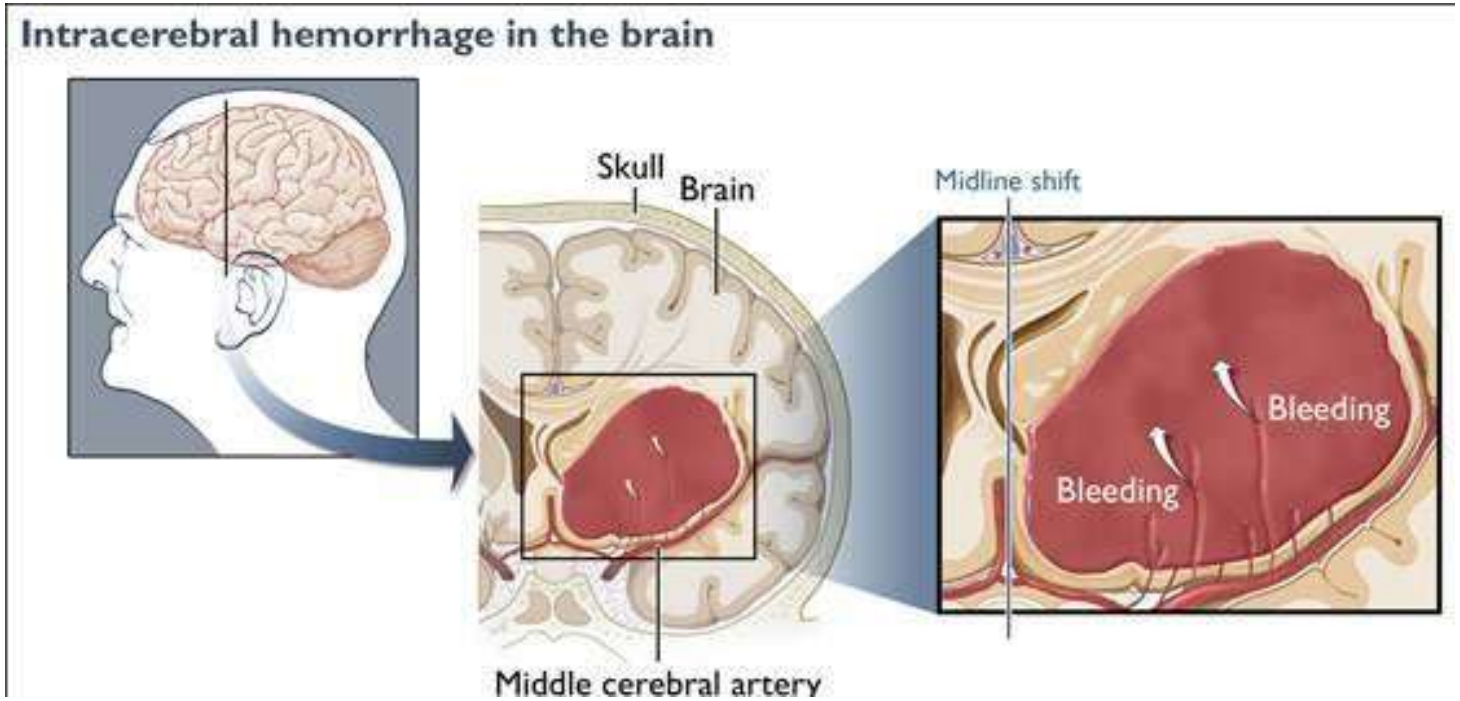
1.Subarachnoid Hemorrhage

- Subarachnoid hemorrhage - most severe form of a stroke - permanent disability or death
- It can happen suddenly when a major blood vessel bursts upon the surface of the brain causing spilling blood into the cerebrospinal fluid surrounding the brain
- Due to bleeding, the amount of fluid increases in the affected area - enormous pressure on the whole brain - damage to the brain tissue
- Aneurysm is a ballooning of a weakened area of an artery and when left untreated the aneurysm can continuously become weakened until it ruptures and finally bleeds into the brain
- Burst aneurysm can lead to a sudden and severe headache, usually with a description of “thunderclap”
- CT scan or an MRI - detect the presence of subarachnoid hemorrhage



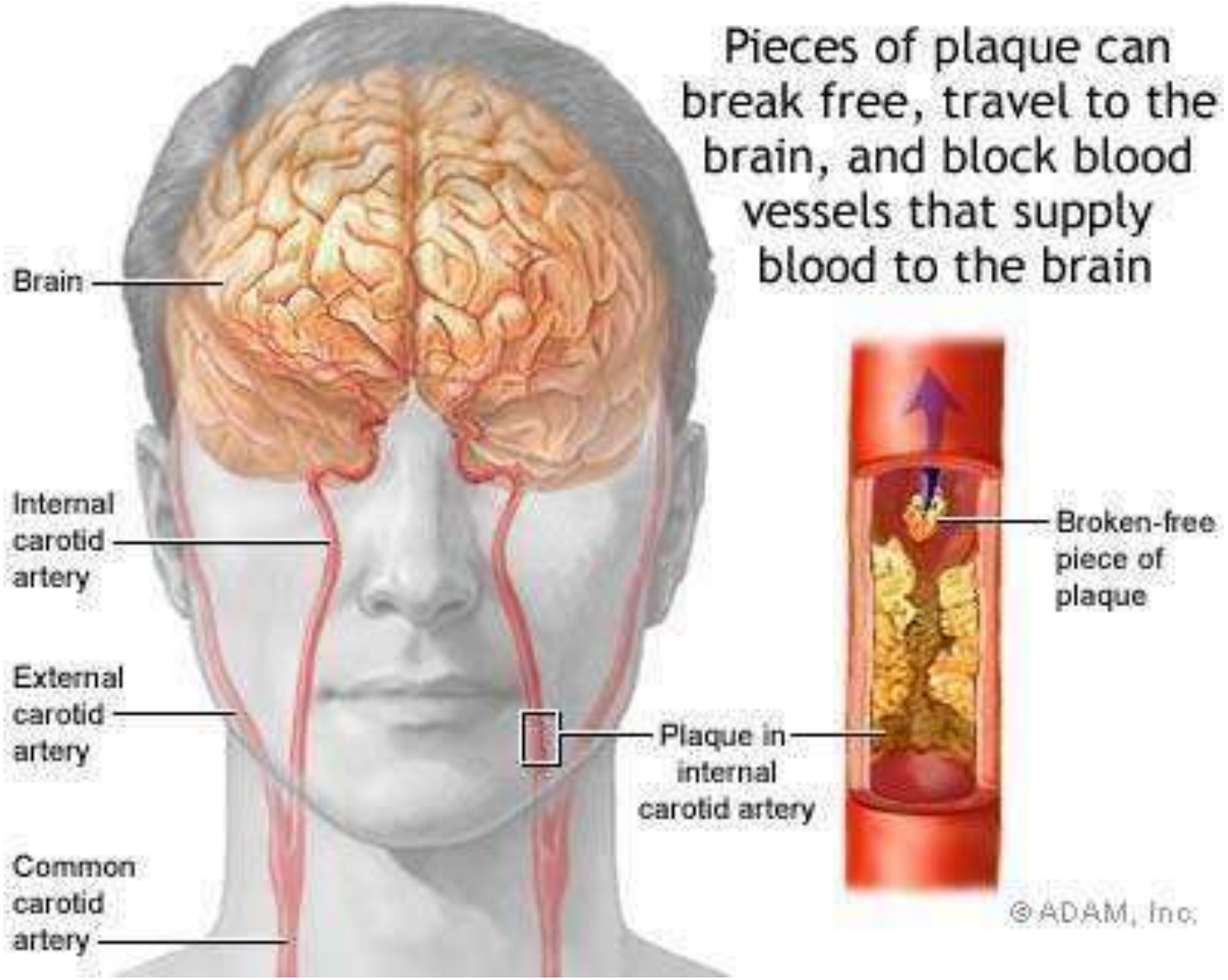
Intracerebral hemorrhage

- Intracerebral hemorrhage happens when there is a burst of a blood vessel in the brain - leaking of blood into the brain
- It is more common among people aged above 60 and can be most commonly caused by high blood pressure
- It can also be a result of infections, a burst aneurysm tumors or head injuries

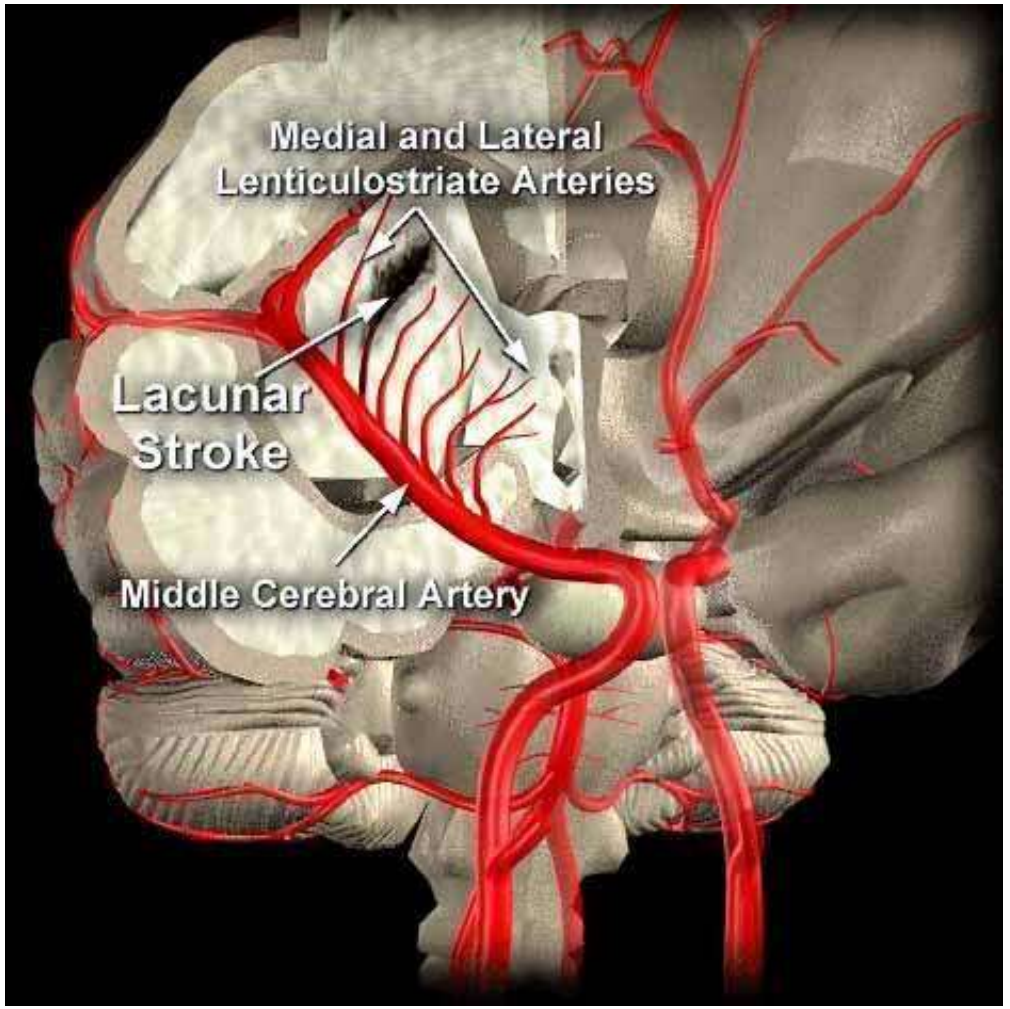


ISCHEMIC STROKE

- Ischemic stroke is a sudden loss of brain function and can be caused by partial or complete obstruction of a blood vessel supplying the brain
- Approximately 80% of strokes are ischemic in nature, and it occurs when there is a blockage inside the carotid arteries or in the vertebral arteries
- A fatty deposit (a plaque) or mass of blood cells (a clot) travelling in the blood can get trapped in a narrowed or small artery - obstruct blood flow - occurrence of a stroke



- There are three types of Ischemic stroke:
    - Lacunar stroke
    - Thrombotic stroke
    - Embolic stroke
- **Lacunar stroke:**
    - Lacunar stoke contributes to 25% of ischemic strokes and occurs when there is a blockage in one of the smaller blood vessels found inside the brain
    - A “hole” of scar tissue is due to the blockage that starves a small part of the brain
    - As only small portion of the brain is affected, lacunar stroke is usually hard to be diagnosed



2.Thrombotic stroke:

- It happens when the artery is clogged by plaque and hardens, or when a cholesterol-filled plaque of atherosclerosis especially in a brain (cerebral), carotid or vertebral artery breaks open - formation of a blood clot over the plaque obstructing blood flow
- Thrombus (blood clot) is a condition where the blockage seals off the blood vessel

3.Embolic Stroke:

- An embolus refers to a piece that breaks off and can block a blood vessel supplying the brain causing the occurrence of an embolic stroke which contributes 60% of ischemic strokes
- Unless the source is found and treated immediately, people with embolic strokes are at potential risk of another stroke/s
- Embolic strokes hit fast and sudden and are normally severe

<u>RISK FACTORS OF STROKE</u>

1.High blood pressure is the number one risk factor for strokes.

2.Atrial fibrillation

3. Diabetes mellitus
4. Family history of stroke
5. High cholesterol
6. Increasing age, especially after age 55
7. Race (black people are more likely to die of a stroke)
8. People who have heart disease or poor blood flow in their legs caused by narrowed arteries
9. Being overweight or obese
10. Drinking heavily
11. Eating too much fat or salt
12. Smoking
13. Taking cocaine and other illegal drugs
14. Birth control pills can increase the chances of having blood clots. The risk is highest in woman who smoke and are older than 35

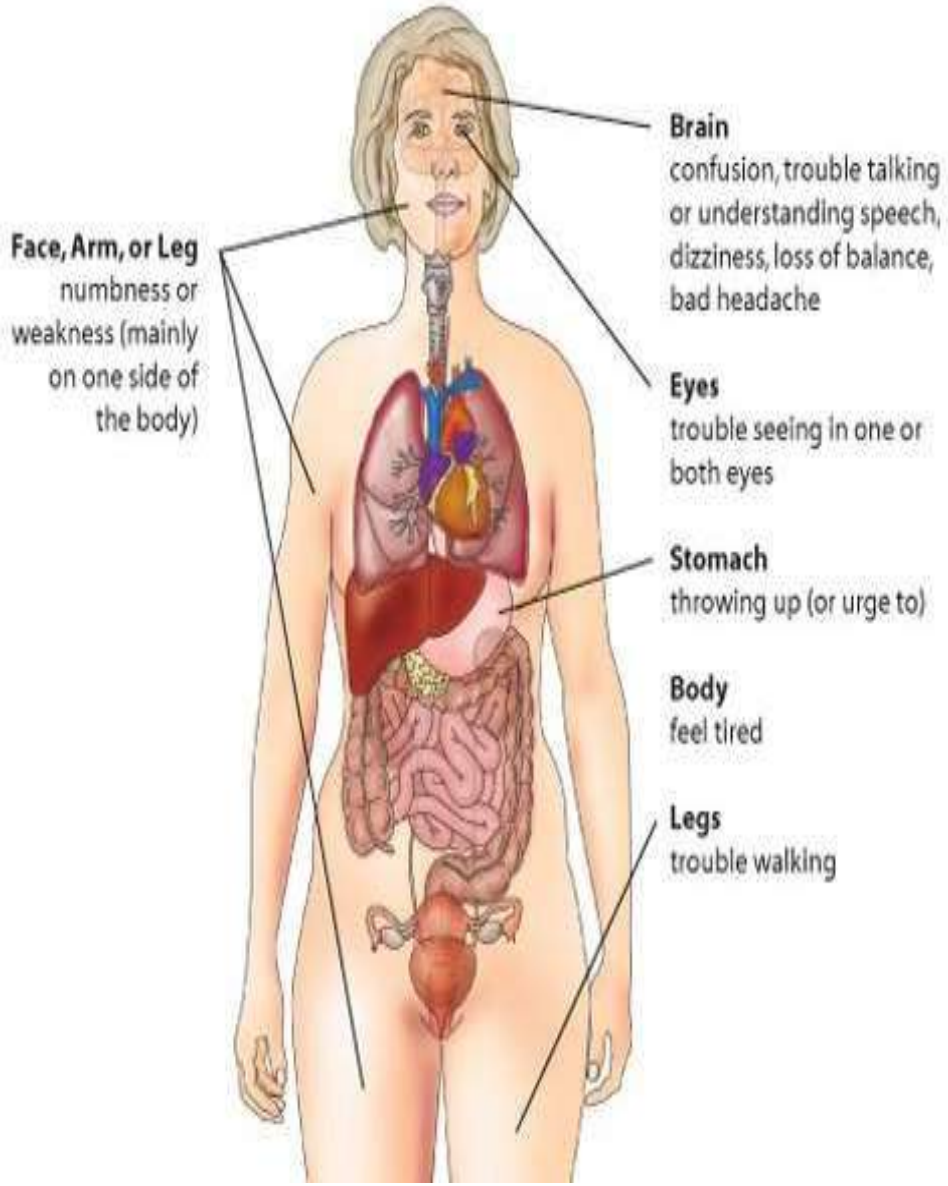
- **Signs & Symptoms**

- Sudden and severe headache Trouble

seeing in one or both eyes Sudden dizziness

- Trouble walking
- Sudden confusion Trouble speaking
- Sudden numbness or weakness of face, arm or

leg



- **RECOGNIZE THE SYMPTOMS OF A STROKE**
  - 3 Simple Questions
    - Ask the person to smile
    - Ask the person to raise both arms
    - Ask the person to say a simple sentence “The sky is blue ”
- **<u>Diagnosis</u>**
  - **Diagnostic Testing**
    - CT or MRI of the brain
    - EKG
    - Carotid Ultrasound
    - Echocardiogram