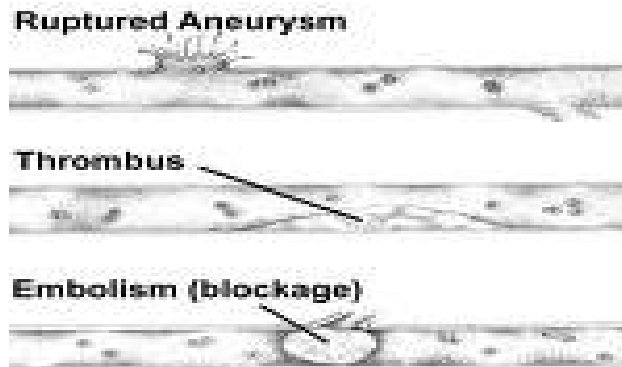
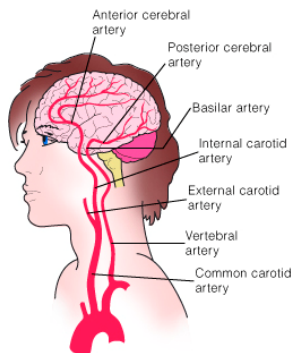


# CEREBROVASCULAR ACCIDENT (Stroke, Apoplexy)

**Definition:** A sudden diminution or loss of consciousness, sensation, and voluntary motion caused by rupture or obstruction (as a clot) of an artery of the brain.<sup>1,2,6</sup>

**Pathophysiology:** Stroke happens when there is a sudden interruption of blood flow to the brain. When blood flow is interrupted, nutrients and oxygen supply to the brain is arrested resulting in cell death. The death of brain cells trigger the release of other destructive substances that further causes destruction the brain cells.<sup>1,2,4</sup>



**BRAIN ARTERIES**

**TYPES OF STROKE**

**GAIT EXERCISE**

**Affected People/Population:** Stroke is the most common cause of disability among adults in the U.S.. The incidence of stroke increase dramatically with age. males and African-Americans have a higher risk. Major risk factors are hypertension, heart disease and diabetes.<sup>1,2,8</sup>

**Medications:** Medical management includes: 1) Maintenance of circulation and oxygenation 2) Maintain adequate blood pressure 3) Maintenance of sufficient cardiac output 4) Restoration of fluid and electrolyte balance 5) Maintain blood glucose level. Other medications are given depending on individual patient needs and prevailing disease conditions.<sup>1,2,3</sup>

**Surgery:** Surgery is not usually indicated but a variety of modern imaging techniques have vastly improved the accurate diagnosis of stroke. Examples of such are: Computerized tomography, Magnetic resonance imaging, Positron emission tomography, Ultrasound Cranial Doppler and cerebral angiography.<sup>1,2,4</sup>

**Physical Therapy:** Rehabilitation begun early in the acute stage optimizes the patient's potential for functional recovery. Mobilization exercises are aimed to prevent or minimize the harmful effects of deconditioning and secondary complications. Rehabilitation begins typically as soon as the patient is medically stable. Proper positioning is implemented to prevent misalignment of the limbs and trunk of the patient. Tone reduction techniques and postural control are next implemented to prepare the patient for more challenging and functional tasks. Standing/walking balance and tolerance are later given as soon as the patient develops adequate control and strength.<sup>2,4,7,8</sup>

## References:

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2. Physical Rehabilitation Assessment and Treatment by O'Sullivan and Schmitz 4<sup>th</sup> Ed.
3. Pharmacology by Jacob 2<sup>nd</sup> Ed.
4. Rehabilitation Medicine by De Lisa and Ganz 3<sup>rd</sup> Ed.
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6. Merriam-Webster's Medical Dictionary 1995
7. Therapeutic Exercises by Kissner and Colby 4<sup>th</sup> Ed.
8. Krusen's Handbook of Physical Medicine and Rehabilitation by Kottke and Lehman, 4<sup>th</sup> Ed.