

JHS Stroke Program

2017 JHS Annual Mandatory Education



Learner Objectives

At the conclusion of this module learners will be able to:

- State the definition of stroke
- Discuss the pathophysiology of stroke (brain attack)
- Identify common effects of a stroke
- Discuss stroke recovery
- Understand how to activate the Stroke Alert System at JMH & JNMC

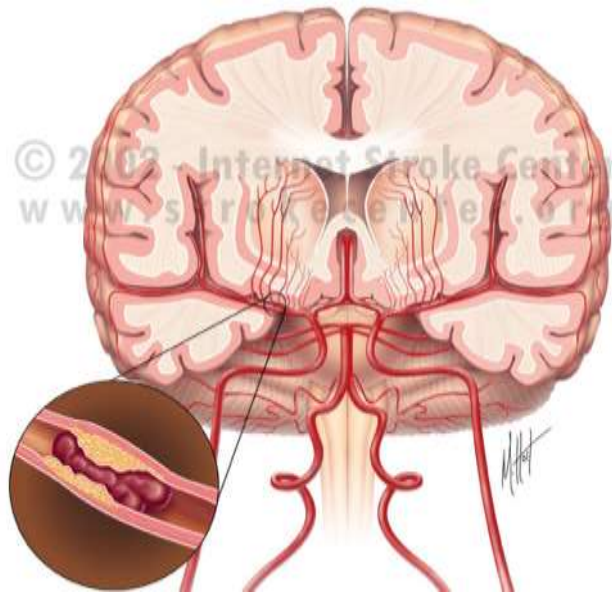
Stroke Center Designation

As a Stroke Center we are required to conform with:

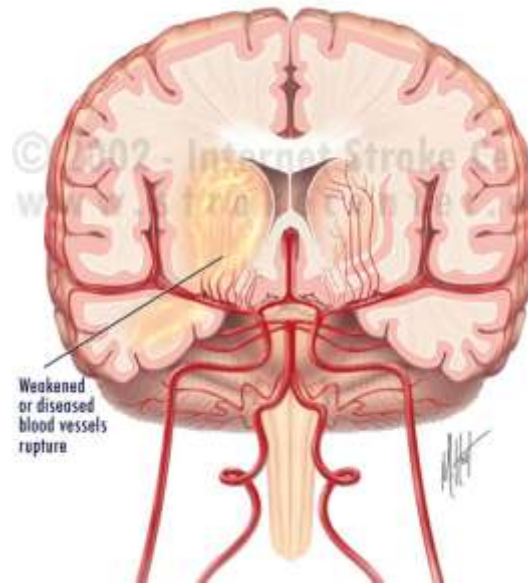
- Clinical practice guidelines developed by Brain Attack Coalition & AHA/ASA
- Joint Commission's Specifications Manual for National Inpatient Hospital Quality Measures for Primary Stroke Centers
- CMS Core Measure indicators for Primary (both hospitals) and Comprehensive Centers (for JMHS)
- AHCA (State of Florida) Comprehensive Stroke Center standards (for JMHS)

Stroke = Brain Attack

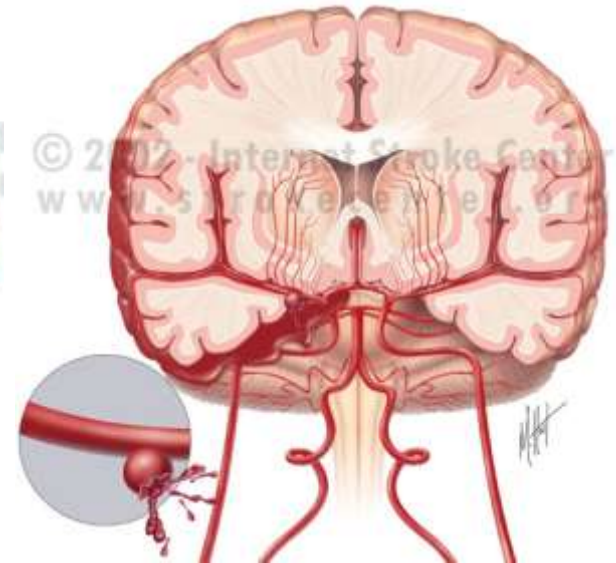
Occurs when there is a disruption of blood supply to the brain



ISCHEMIC



INTRACEREBRAL



**SUBARACHNOID
HEMORRHAGE**

Stroke = Brain Attack

- 1st cause of long term disability
- 5th leading cause of death in the US
- Affects 1 in 20 people
- Medical emergency
 - Community: 911
 - JMH: 85-6333
 - JNMC: 54-5555
- Time lost is brain lost!!



Ischemic Stroke

- Ischemic Stroke is the most common type (approx. 87%) of all Strokes; it occurs as a result of an obstruction within a blood vessel supplying blood to the brain
- There is a treatment for Ischemic strokes.
 - Treatment needs to be started within 3 hours from “last time seen well” (patient seen without symptoms) as per FDA
 - 3 - 4.5 hours under special inclusion criteria (AHA) and written consent
- Extended treatment window in select cases through endovascular procedures
 - Intra-arterial (IA) Activase (tPA)
 - IA stent retrievers “stentriever” (Solitaire, Trevo, etc.)



Hemorrhagic Stroke

- Hemorrhagic stroke accounts for about 13% of stroke cases
- It results from a weakened vessel that ruptures and bleeds into the surrounding brain
- The blood accumulates and compresses the surrounding brain tissue.
- The two types of hemorrhagic strokes are:
 - subarachnoid hemorrhage
 - intracerebral also known as intraparenchymal or “within the brain hemorrhage”

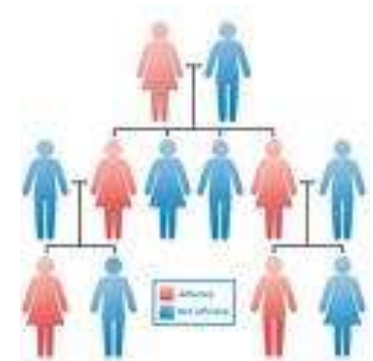


Impact of Stroke

- About 795,000 Americans suffer a new or recurrent stroke each year
- Strokes kills more than 137,000 people each year
- A stroke occurs every 40 seconds; and every 4 minutes someone dies from a stroke
- Of every 5 deaths from stroke, 2 occur in men, 3 in women
- Stroke rates are higher for African Americans & Hispanic Americans
- Stroke care costs this country nearly 80 billion dollars every year

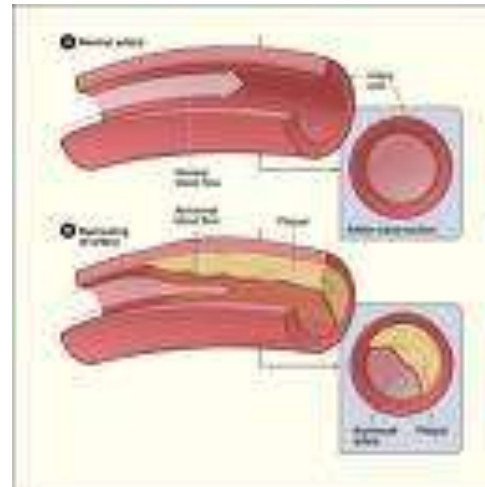
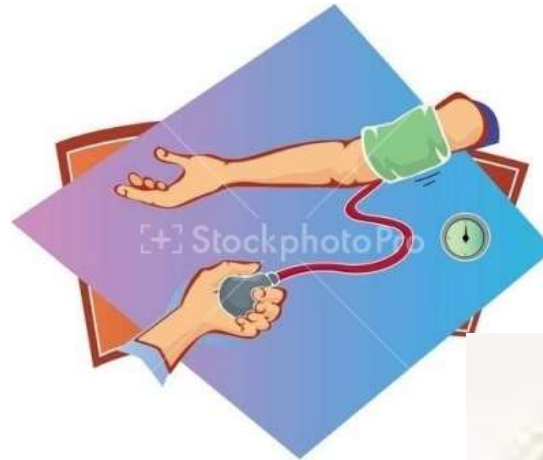
Stroke Risk Factors – We cannot Modify

- Age: The chance of having a stroke approximately doubles for each decade of life after age 55
- Gender (more men have strokes but more women **die** from stroke)
- Race: (more African- American and Hispanics have strokes)
- Personal or family history: such as stroke, transient ischemic attack or TIA, heart attack, disease, sickle cell anemia



Stroke Risk Factors – We can modify

- Hypertension (high blood pressure) is the single most important risk factor for both ischemic and hemorrhagic strokes
- Diabetes (high blood sugar)
- High cholesterol



Stroke Risk Factors - Modifiable

- Smoking
- Excessive alcohol consumption



Stroke Risk Factors - Modifiable

- Physical inactivity
- Illegal drug use
- Birth control pill use
- Heart disease – “Atrial Fibrillation”
- Obesity



ECG tracing of a normal heart rhythm.



In atrial fibrillation, the tracing shows tiny, irregular "fibrillation" waves between heartbeats. The rhythm is irregular and erratic.

Warning Signs

Requires **Immediate** Medical Attention



- Unrelenting headache or sudden **severe** headache with no known cause
- Sudden **dizziness** or sudden fall
- Sudden **trouble walking**, loss of balance/ coordination
- Sudden loss of **vision** in one or both eyes or double vision
- Sudden **confusion, trouble speaking or understanding**
- Sudden difficulty **swallowing**
- Sudden numbness or **weakness in arms, legs or face**, especially on one side of the body
- Transient Ischemic Attack (TIA) symptoms that may last 24 hours or less

STROKE ALERT

Acute focal neurological symptom?

CALL

- JMH: **85-6333**
- JNMC: **54-5555**



STROKE IS A MEDICAL EMERGENCY

Most Common effects of stroke

- Hemiparesis (weakness on one side of the body)
- Hemiplegia (paralysis on one side of the body)
- One-sided neglect
- Aphasia (difficulty with speech & language)
- Dysphagia (difficulty swallowing)
- Emotional and mood changes
- Decreased field of vision, trouble with visual perception
- Cognitive changes- (memory, judgment, problem solving, etc.)
- Behavior changes- (personality changes, improper language or actions)
- Decreased sensation in one side of the body

Common emotional responses to stroke

- Depression
- Apathy and lack of motivation
- Tiredness
- Reflex crying
- Frustration
- Denial

What can be done to prevent a stroke?

- Education on warning signs and risk reduction strategies



Stroke Recovery

- Stroke effects are greatest immediately afterward
- Some improvement is spontaneous
- Stroke rehab programs
 - Help improve abilities
 - Should start **as soon as possible**
 - Help develop new skill acquisition and coping techniques
- Depression should be treated

References

- American Stroke Association (ASA) web site:
<http://www.strokeassociation.org>
- JHS Patient information handout “Ischemic Strokes”
- The Brain Attack Coalition web site
<http://www.stroke-site.org/>
- The Joint Commission web site:
<http://www.jointcommission.org/>
- UM Gordon Center ASLS provider Manual 9th Edition



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