

ALL ABOUT STROKE



Franciscan HEALTH
STROKE CENTER



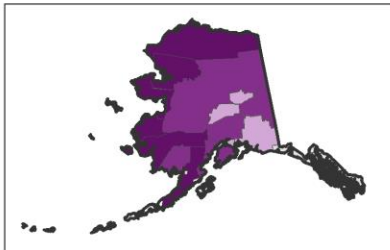
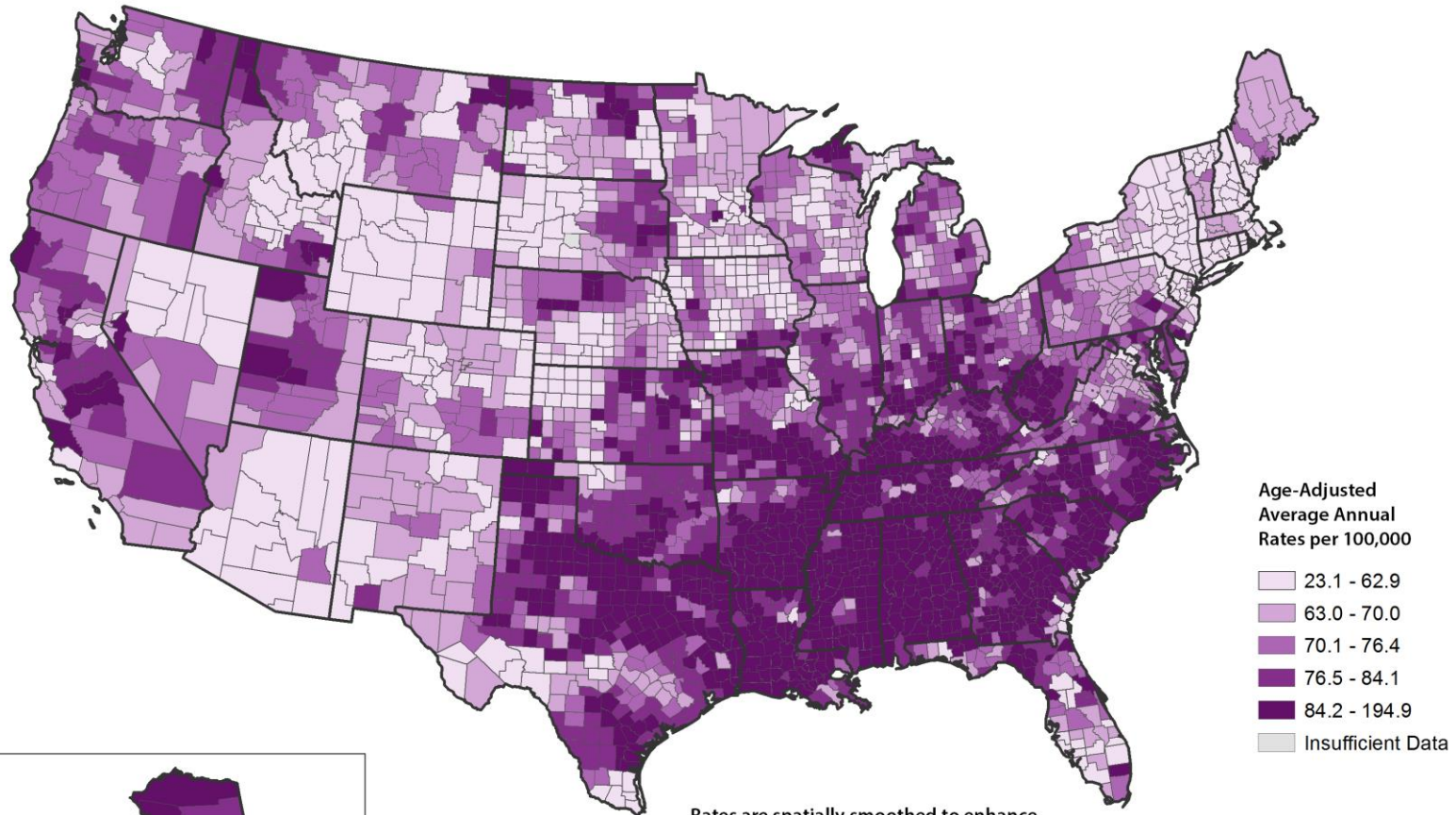
Objectives

- Statistics
- Stroke Defined
- Types of Strokes
- TIAs
- Risk Factors
- Signs and Symptoms
- Treatments
- What do I do?

Stroke Statistics

- Approximately 795,000 people suffer a stroke every year
- 5th leading cause of death for men
- Every 40 seconds someone has a stroke
- Every 4 minutes someone dies from a stroke
- 75% of strokes occur in people >65 years
- Can occur at **ANY** age
- Costs the United States approximately \$34 Billion per year
- Leading cause of serious, long-term disability in the U.S.
 - >50% of stroke survivors suffer reduced mobility

Stroke Death Rates, 2014 - 2016 Adults, Ages 35+, by County



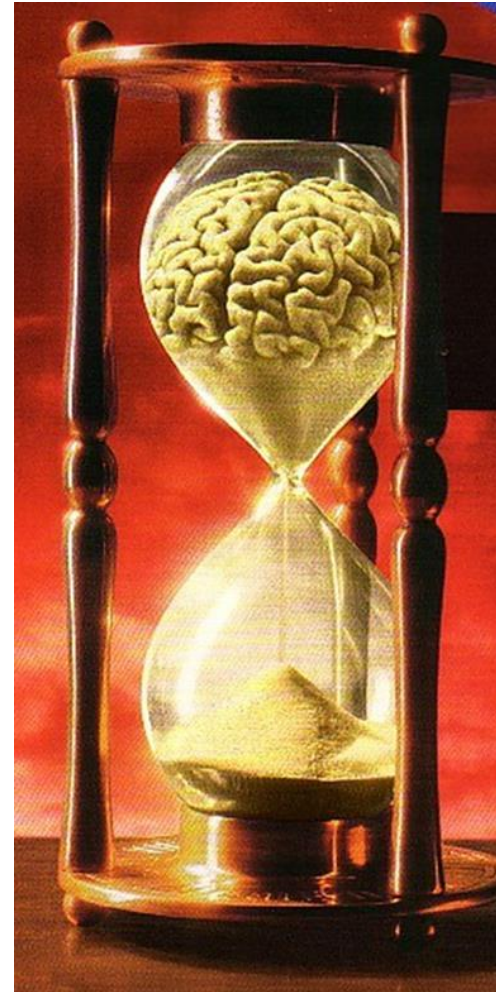
Rates are spatially smoothed to enhance the stability of rates in counties with small populations.

Data Source:
National Vital Statistics System
National Center for Health Statistics



Time is Brain

- 1.9 million neurons are lost every minute the brain goes without oxygen
- 120 million neurons are lost every hour the brain goes without oxygen ~3.6 years of life lost



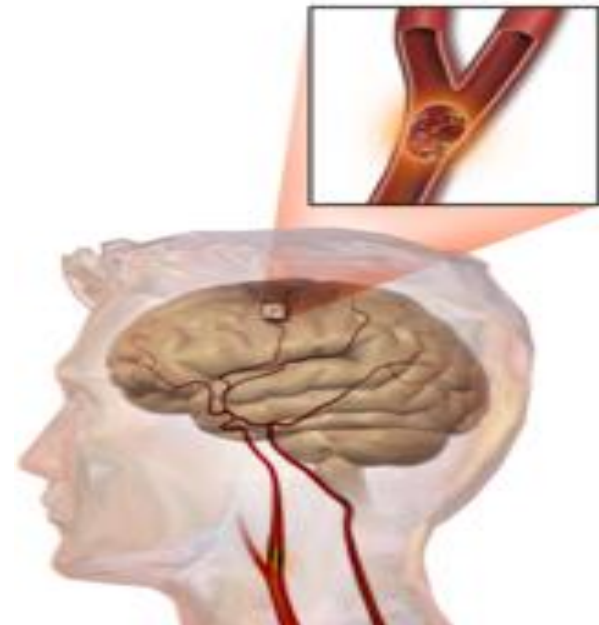
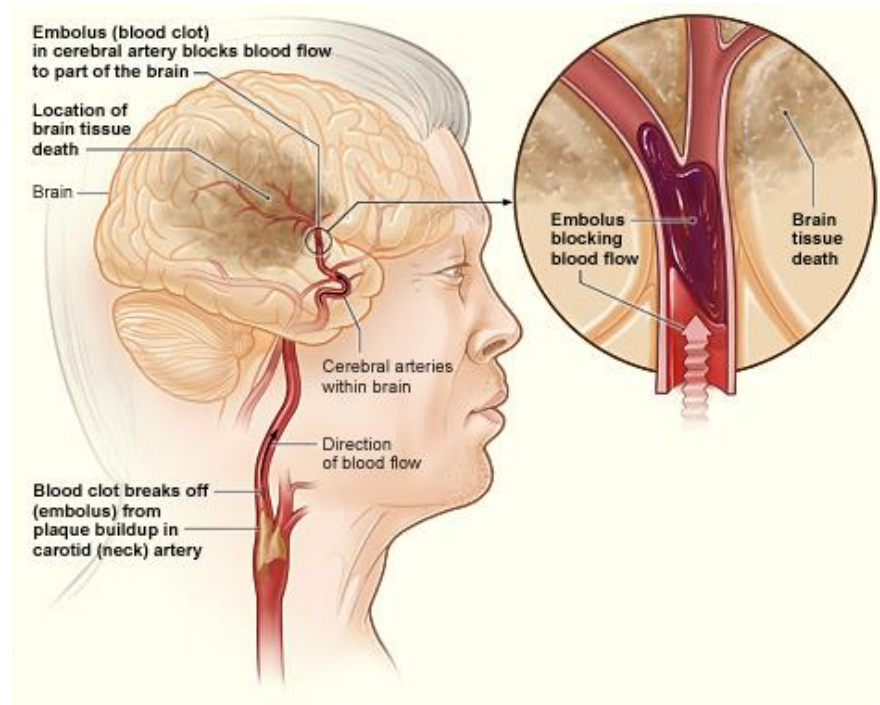
Stroke Defined

The National Stroke Association defines stroke as

“A brain attack. It can happen to anyone at any time. It occurs when blood flow to an area of the brain is cut off. When this happens, brain cells are deprived of oxygen and begin to die. When brain cells die during a stroke, abilities controlled by that areas of the brain . . . are lost.”

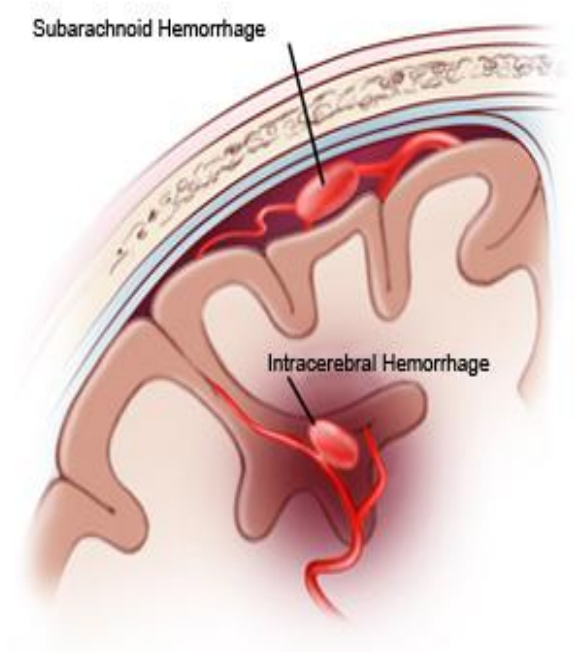
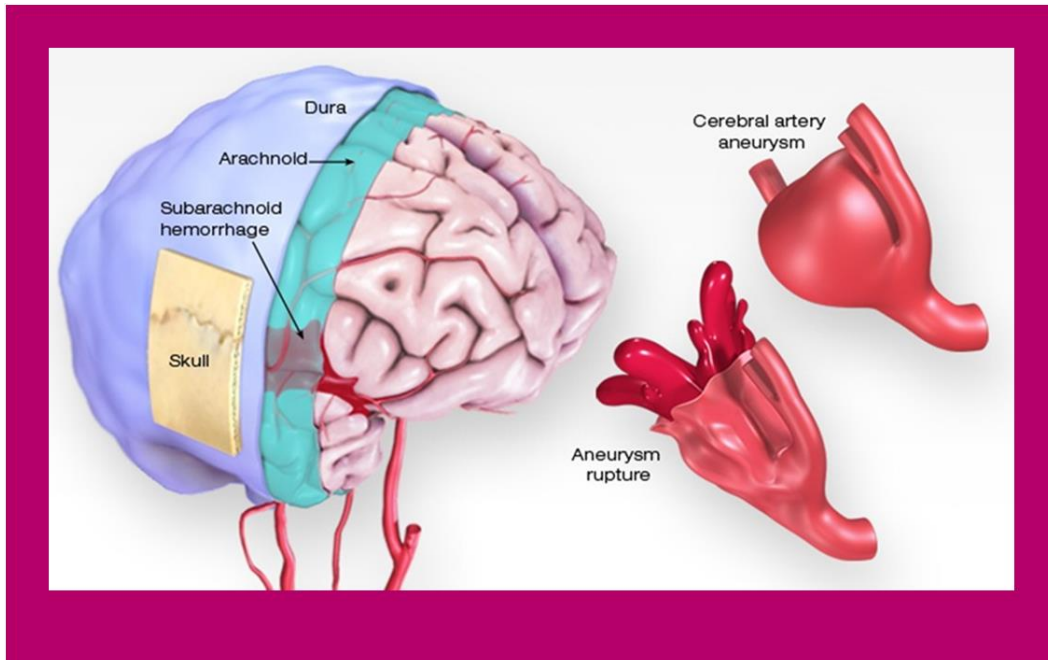
Ischemic Stroke

- Caused by a blood clot blocking blood flow
 - Most common



Hemorrhagic Stroke

- Caused by blood vessel rupture
 - Less common
 - More catastrophic



Transient Ischemic Attack

TIA

- **WARNING SIGN** of an impending stroke
- Opportunity for stroke prevention
- Symptoms are the same as stroke
- Symptoms typically last minutes-hours
- Up to 40% of TIA patients go on to have a future stroke.
 - 30% in the first 90 days
- Chance increase with age

Stroke Facts

- ~800,000 strokes annually
- 87% are ischemic strokes
 - 9 out of 10
- 13% are hemorrhagic strokes
- 20% of strokes occur in those of vocational age
- 1/3 of economic burden of stroke will be due to lost wages
- 2/3 of stroke victims seek help outside of the “treatment window”
- Some people recover completely but 2/3 of stroke survivors will live with permanent disability
- Strokes can happen at ANY age

Stroke Risk Factors

Modifiable

- Smoking
- Obesity
- Oral contraceptives
- HTN
- Diabetes
- Hyperlipidemia
- Cancer
- Irregular heart beat
- Heart disease
- Migranes
- Medical compliance

Non-modifiable

- Age
- Race
- Gender
 - Stroke kills more women than breast, ovarian, uterine, and cervical cancer COMBINED!
- Previous stroke
- Family history

Stroke Signs and Symptoms

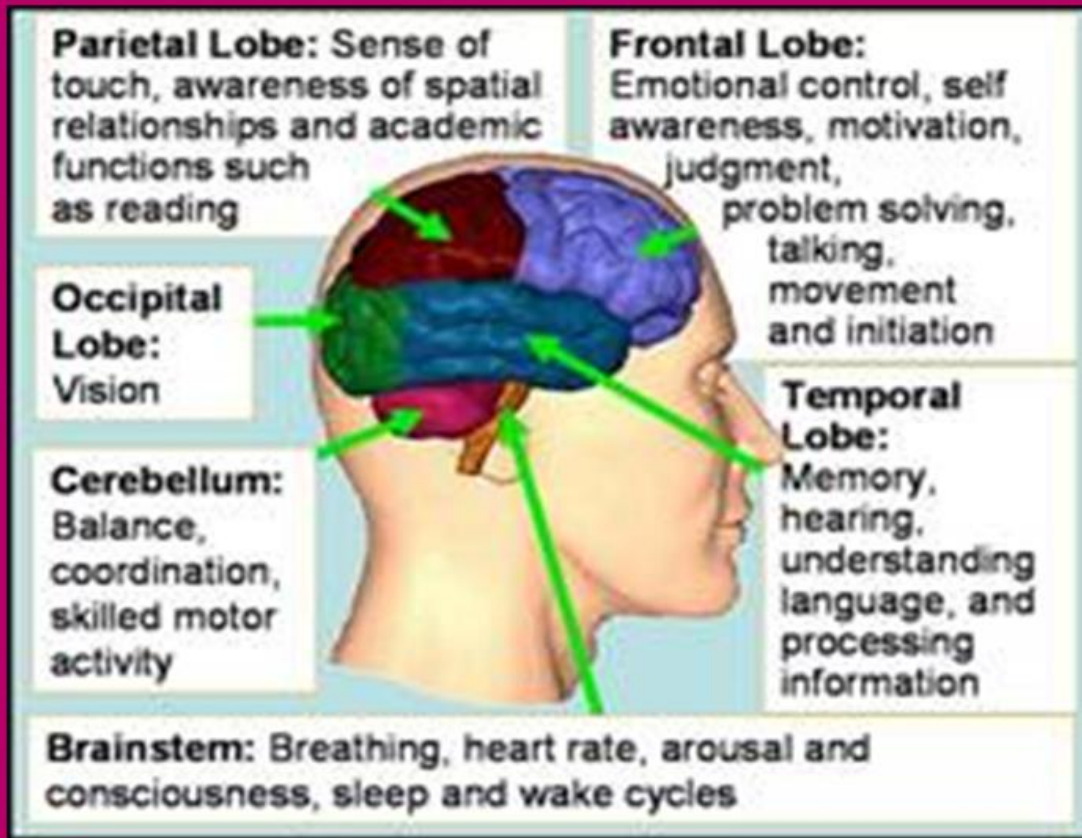
- Sudden, severe headache “worst headache of my life”
- Suddenly cannot see out of one or both eyes
- Sudden vision changes
- Sudden weakness in one hand, arm, leg
- Sudden numbness or tingling on one side of the body
- Suddenly having a hard time walking
- Sudden dizziness or loss of balance
- Sudden confusion
- Sudden difficulty speaking
- Sudden difficulty understanding
- Sudden nausea/vomiting

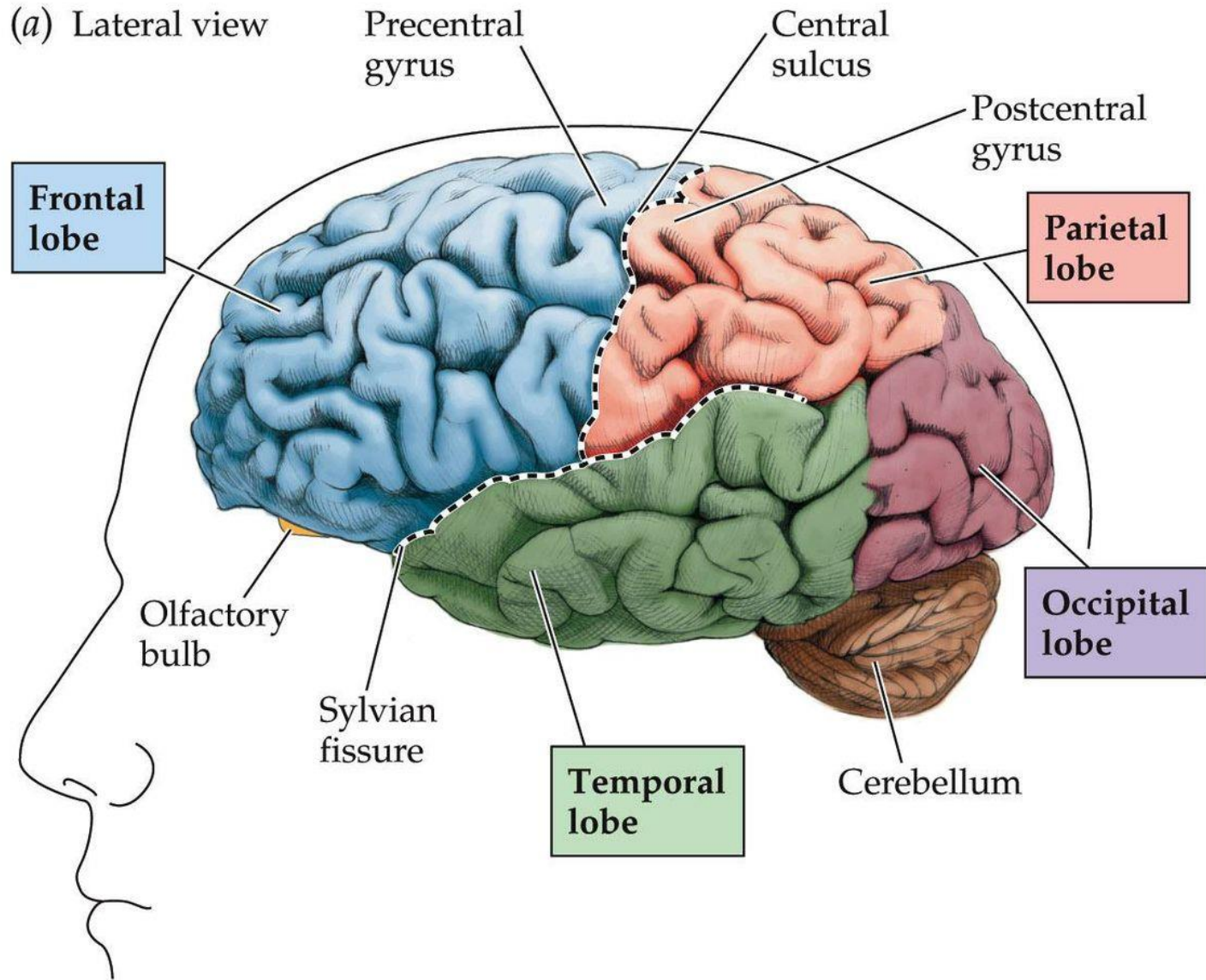
Common Theme

- Symptoms happen suddenly!



Symptoms depend on location





Biological Psychology 6e, Figure 2.12 (Part 1)

SPOT A STROKE



Stroke Warning Signs and Symptoms

SPOT A STROKE

LEARN THE WARNING SIGNS AND ACT FAST



B

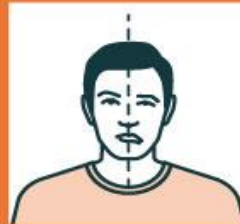
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A

S

T



BALANCE

LOSS OF BALANCE,
HEADACHE
OR DIZZINESS

EYES

BLURRED VISION

FACE

ONE SIDE OF THE
FACE IS DROOPING

ARMS

ARM OR LEG
WEAKNESS

SPEECH

SPEECH DIFFICULTY

TIME

TIME TO CALL
FOR AMBULANCE
IMMEDIATELY



CALL 911 IMMEDIATELY

Treatments

- Medication
 - Alteplase
 - Inclusion/Exclusion criteria
 - Time dependent
 - 4.5 hours from last known well/symptom onset
- Endovascular Care
 - Clot retrieval by specialist – neurointerventional radiologist
 - Inclusion/Exclusion criteria
 - Time dependent
 - Up to 24 hours from last known well/symptom onset
- Supportive Care
 - Symptom management
- Rehabilitation
 - PT/OT/SLP
- Prevention
 - 2nd stroke prevention

What do I do if I suspect someone is having a stroke?

SPOT A STROKE

F FACE DROOPING

A ARM WEAKNESS

S SPEECH DIFFICULTY

T TIME TO CALL 911

Stroke Warning Signs and Symptoms

How do I do a FAST screen?

- **Face**
 - Ask the person to smile
- **Arms**
 - Ask the person to hold up their arms
- **Speech**
 - Ask the person to say a simple sentence
- **Time**
 - TIME to call 911

What should I expect at the hospital?

- Stroke Alert
- Determine last known well/symptom onset
- Blood glucose check
- CT of the head
- Neurology consult
- Obtain your medical history/current medications
- Labs
- EKG
- IV

KEY points

- Anyone at ANY age can have a stroke
- Time is Brain
- Stroke is an emergency
- FAST



QUESTIONS?



Thank you!

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References

- American Stroke Association.
- Centers for Disease Control.
- National Stroke Association. (n.d.) What is a stroke. Retrieved from <https://www.stroke.org/understand-stroke/what-is-stroke/>