Stroke Awareness





Presented by:

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What is a stroke?



Stroke can happen to anyone.

Stroke is the fourth leading cause of death among Americans, and about 800,000 people in the U.S. have a stroke each year, according to the Centers for Disease Control and Prevention.



Posterior Brain Circulation

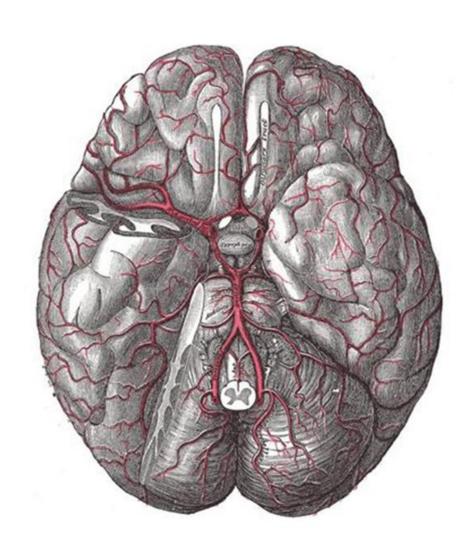


Vertebral

- Anterior Spinal
- Posterior Spinal
- Posterior Inferior Cerebellar

Basilar

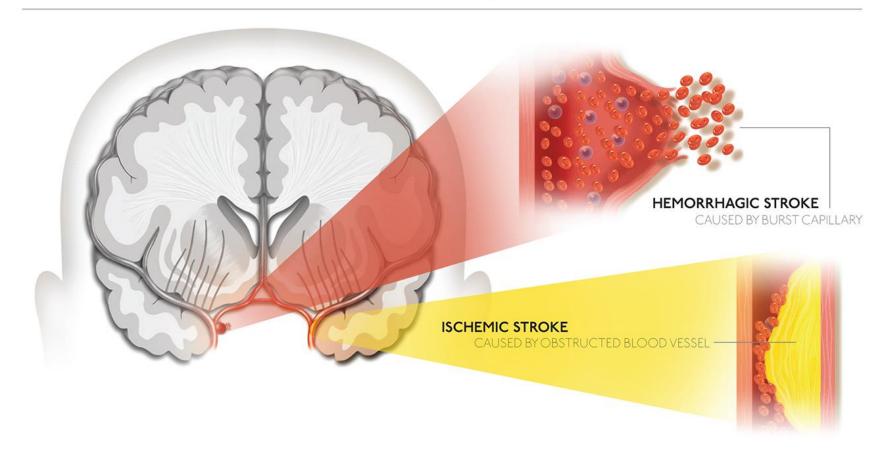
- Anterior Inferior Cerebellar
- Superior Cerebellar
- Posterior Cerebral



Hemorrhagic and Ischemic Stroke



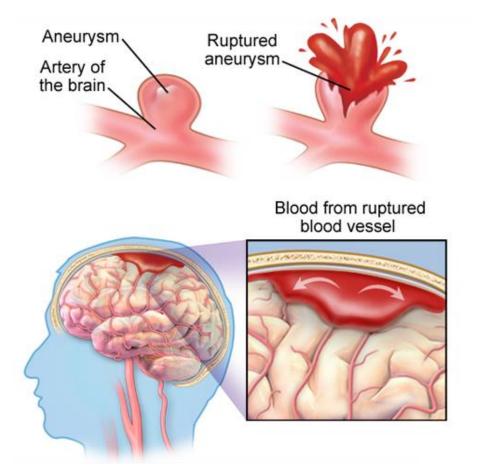
TWO TYPES OF STROKE



Hemorrhagic Stroke



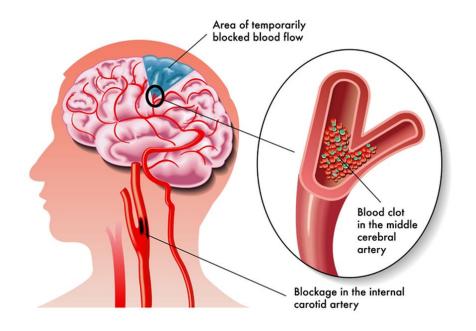
Some strokes are due to a rupture of a blood vessel in the brain's circulation, this is hemorrhagic.



Ischemic Stroke



Most strokes are from a narrowing of arteries that give the brain less or no blood flow thus having brain cell damage or death. This is ischemic stroke.



Stroke Symptoms





numbness or weakness of face, arm or leg, especially on one side of the body



confusion, trouble speaking or understanding



sudden trouble seeing in one or both eyes



subpen trouble walking, dizziness, loss of balance or coordination



severe headache with no known cause

Act FAST and CALL 9-1-1 IMMEDIATELY

Spot a Stroke: Act FAST



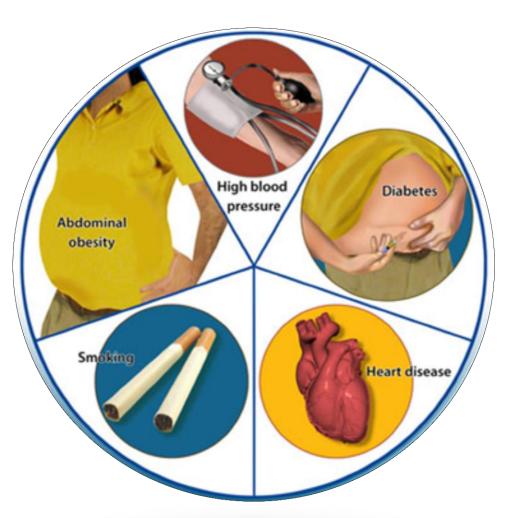
- ACE: Ask the person to smile. Is one side drooping? Do they have vision problems?
- RMS: Ask the person to raise both arms. Does one arm drift downward?
- S PEECH: As the person to repeat a phrase. Is speech slurred or garbled?
- IME: If the person shows any of these signs, call 911 immediately.



Stroke Risk Factors



- High Blood Pressure
- Heart Disease
- High Cholesterol
- Diabetes
- Obesity
- Smoking
- Current history of blood clots
- Over 40 years of age



Stroke is an emergency



What do you do if you or someone you are with is having symptoms?

- •Call 911
- •Go to the nearest Emergency Room

ER treatments



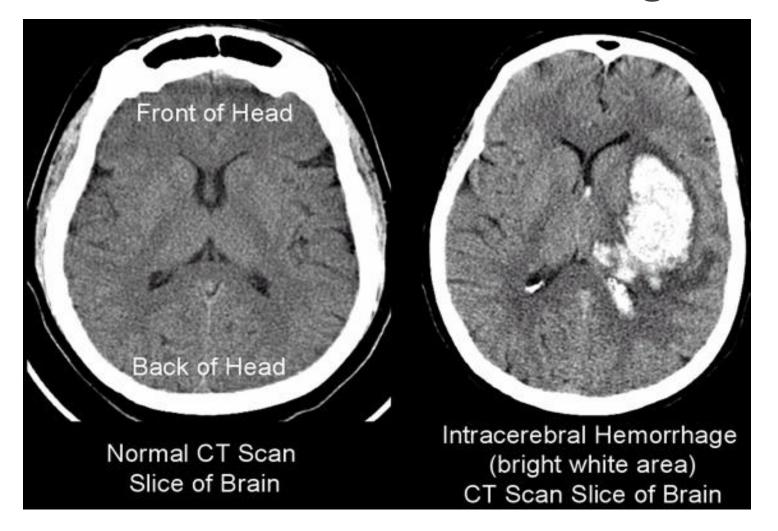
What can be done for patients having stroke symptoms?

- Emergency treatment of blood pressure to lower it
- Emergency assessment and stabilization
- Emergent diagnostic studies Head CT
- Emergent collaboration with a Neurologist
- Possibly a brain cell saving medication to dissolve the clot
- Possibly an intervention by a Neurologist to remove the clot

Imaging - CT Scan



What we see on a Head CT during stroke



Clot-busting drug



tPA / Alteplase

- Converts a clot to free flowing blood
- Can be used in approximately 30% of patients with stroke symptoms
- Can be used if the symptoms are less than 3 hours old.



Symptoms After Stroke



What causes some people to have different symptoms than others after stroke?

These symptoms include:

- Paralysis or loss of muscle movement
- Difficulty talking or swallowing
- Emotional problems
- Pain
- Memory loss or thinking difficulties
- Changes in behavior and self-care ability



Functional areas of the brain

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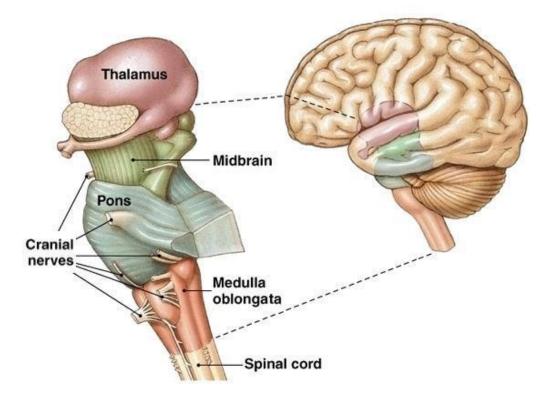
The motor and sensory cortexes and the association areas for each Central sulcus **Motor Cortex Sensory Cortex** Somatic motor association area Somatic sensory PARIETAL LOBE association area **Gustatory Cortex** OCCIPITAL **Olfactory Cortex** LOBE FRONTAL LOBE **Visual Cortex** Primary visual cortex Visual association area Lateral sulcus **Auditory Cortex** Primary auditory cortex **TEMPORAL LOBE** Auditory association area

This illustration shows the brain's functional areas. After a stroke, deficits in function depend on which cerebral artery is affected.

Motor and Auditory Cortex



- Movement loss
- Tremors
- Difficulty swallowing
- Difficulty smiling
- Attention deficit
- Memory loss
- Language problems

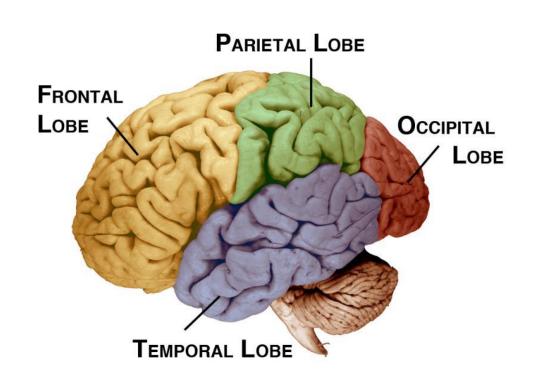


Sensory and Visual Cortex



Occipital-Parietal

- Vision loss
- Confusion
- Weak limbs
- Dizzy



Stroke Tests



What tests are done to determine a patient's cause of stroke?

- Carotid Artery blockage or stenosis: Doppler
- Lipid Blood test
- Echocardiogram: To look for clots or valve problems that might pre-dispose
- Cardiac monitor- no atrial fibrillation
- CT of abdomen and pelvis: for adenopathy or obvious source of malignancy.

Stroke Care Discharge Success



- There are now more patients going directly home from the hospital
- Fewer days spent in a Nursing Home
- Neurology maintains an optimistic outcome for the patient
- There are Experts in post stroke rehab such as SVH



SVH is a Level III Stroke Center of Care



- Washington State DOH Designation
- Established Protocols and meet performance requirements such as:
 - Emergent Head CT
 - tPA medication
 - Trained staff
- Collaboration with Overlake Hospital Medical Center Level II for immediate Neurology Consult and transfer

Stroke Prevention



- Blood Pressure Control
- Cholesterol and Lipid Control
- Keep Diabetes in Control
- Diet Control
- Take medications
 prescribed for Atrial

 Fibrillation control
- Exercise regularly



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If you are experiencing an emergency, call 9-1-1.



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