

Stroke, TIA Small Vessel disease (Ministrokes)

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IMPACT

- **Stroke** is a disease that affects the arteries leading to and within the brain.
- It is the No. 4 cause of death and a leading cause of disability in the United States.
- A leading cause of adult disability
- Up to 80 percent of all strokes are preventable through risk factor management
- On average, someone suffers a stroke every 40 seconds in the United States

- 10 percent of stroke survivors recover almost completely
- 25 percent recover with minor impairments
- 40 percent experience moderate to severe impairments requiring special care
- 10 percent require care within either a skilled-care or other long-term care facility
- 15 percent die shortly after the stroke

STROKE

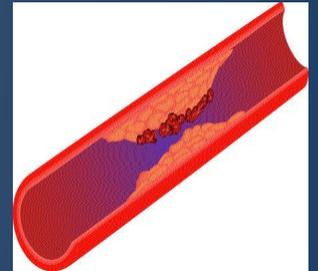
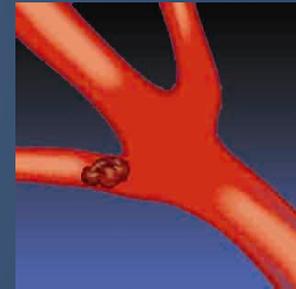
- Sudden brain damage
- Lack of blood flow to the brain caused by a clot or rupture of a blood vessel

Ischemic = Clot

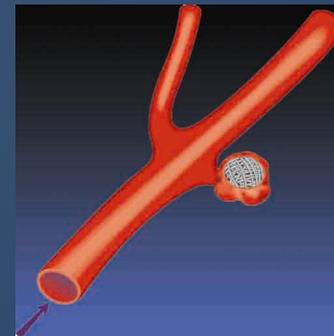
(makes up approximately
87 percent of all strokes)

Hemorrhagic = Bleed

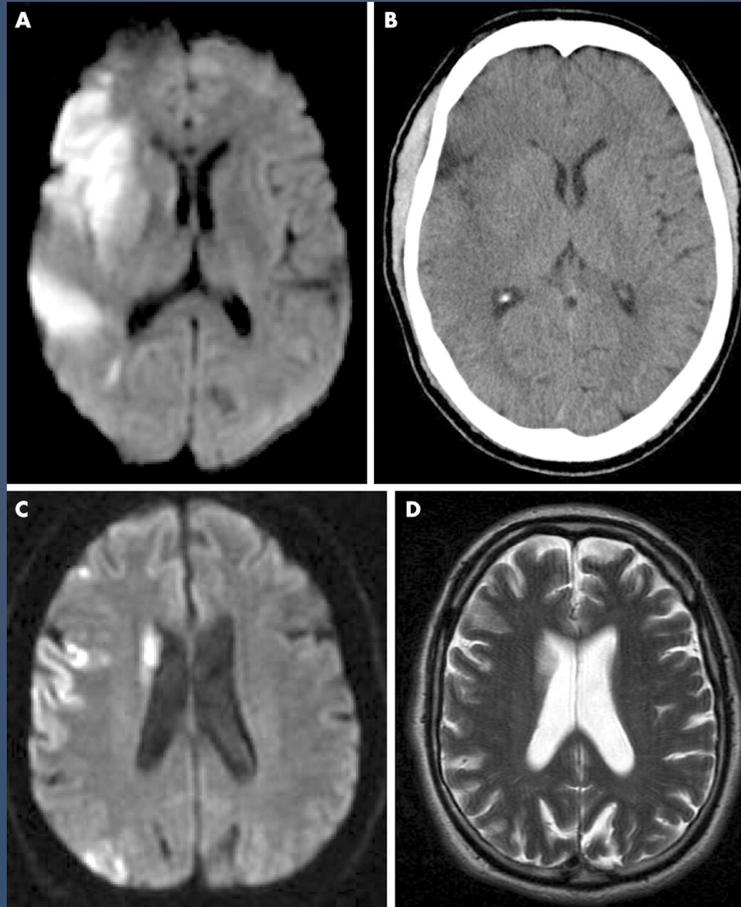
- Bleeding around brain
- Bleeding into brain



Thrombotic



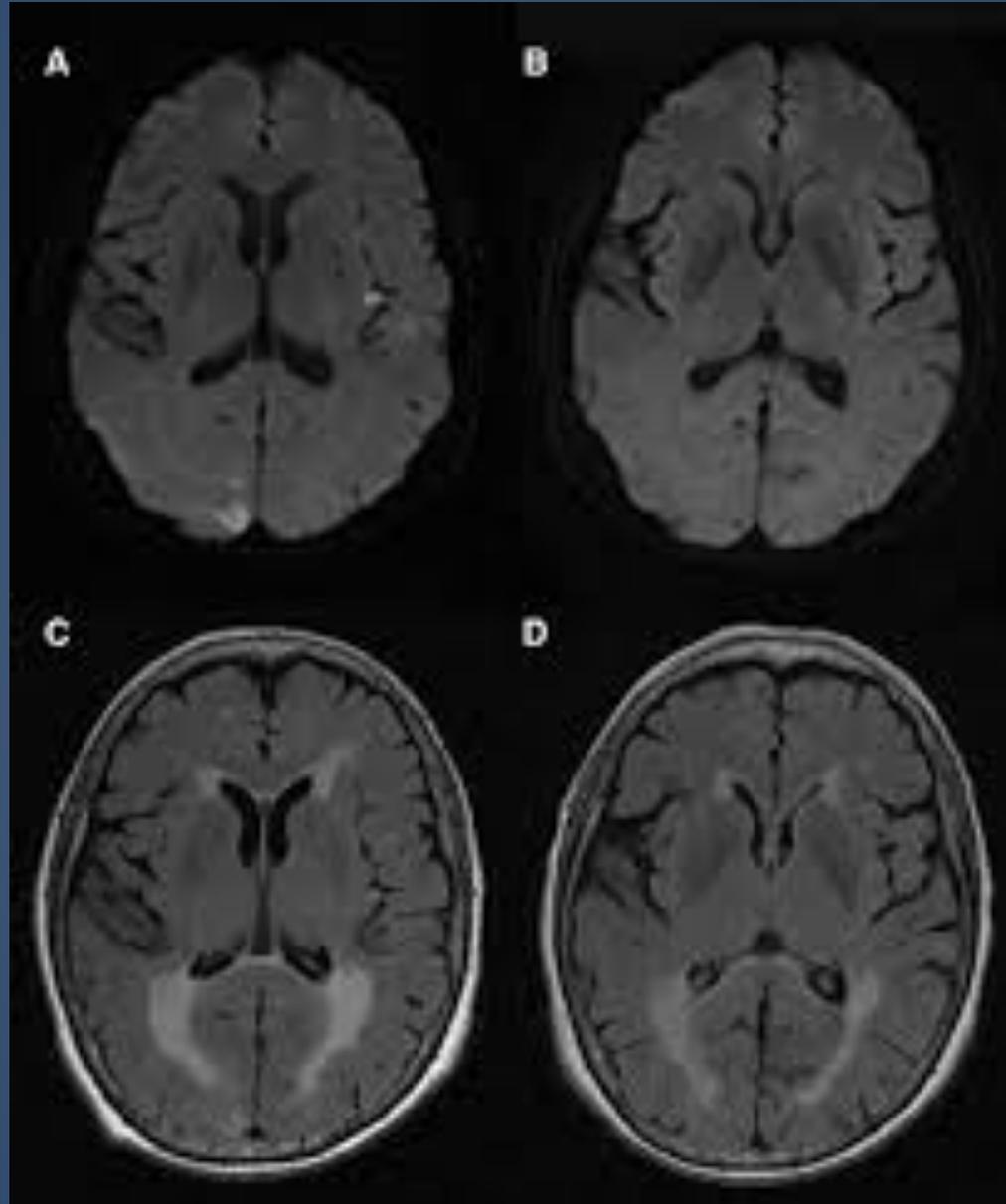
MRI of Acute Stroke



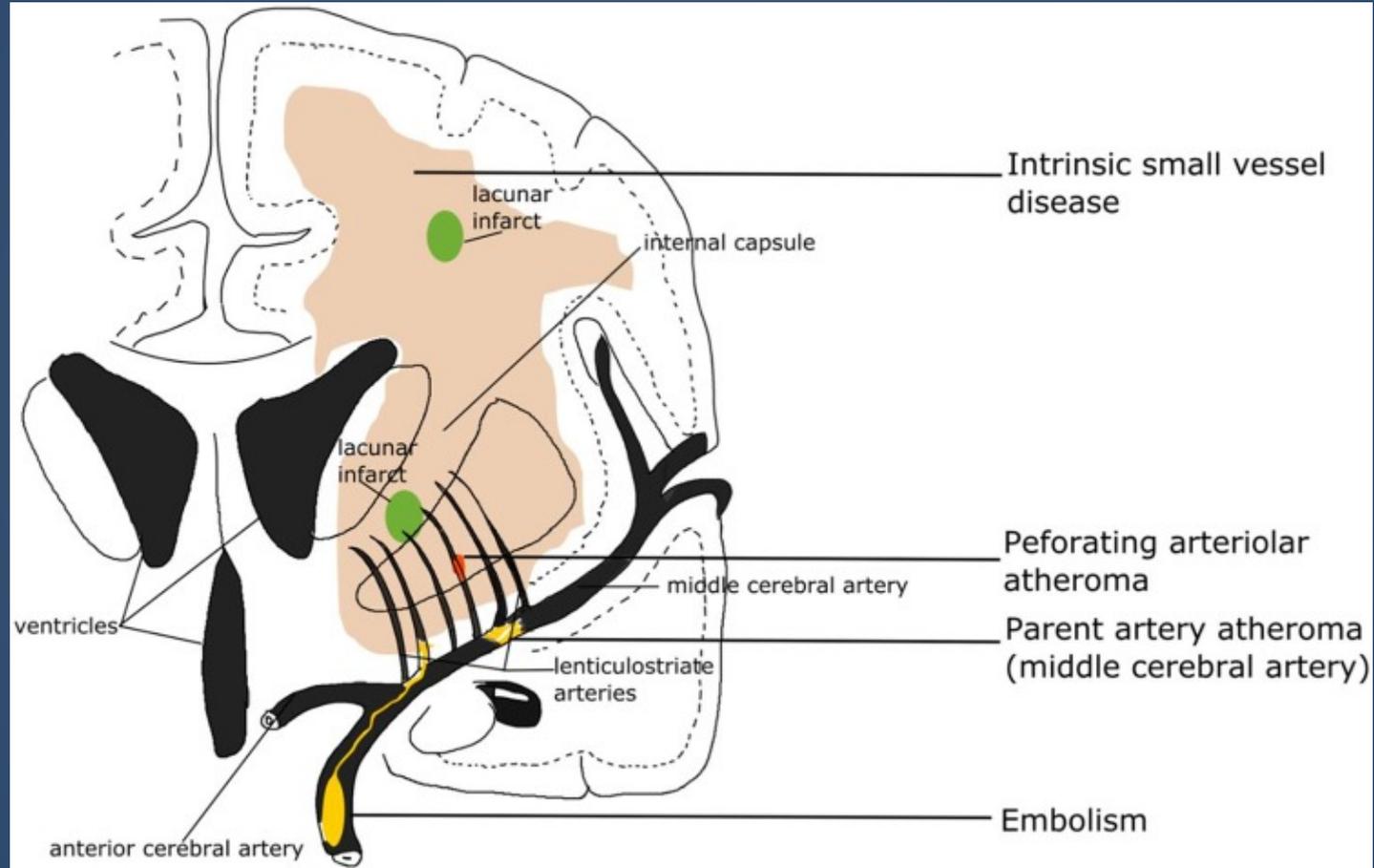
TIA

- **TIA** Transient ischemic attack (TIA) is a warning sign of a future stroke – up to 40 percent of TIA patients will have a future stroke
- TIA symptoms can resolve within minutes or hours
- Mechanism is similar to strokes caused by clots or atherosclerosis
- It is important to seek immediate medical attention if you suspect that you are having or have had a TIA

TIA



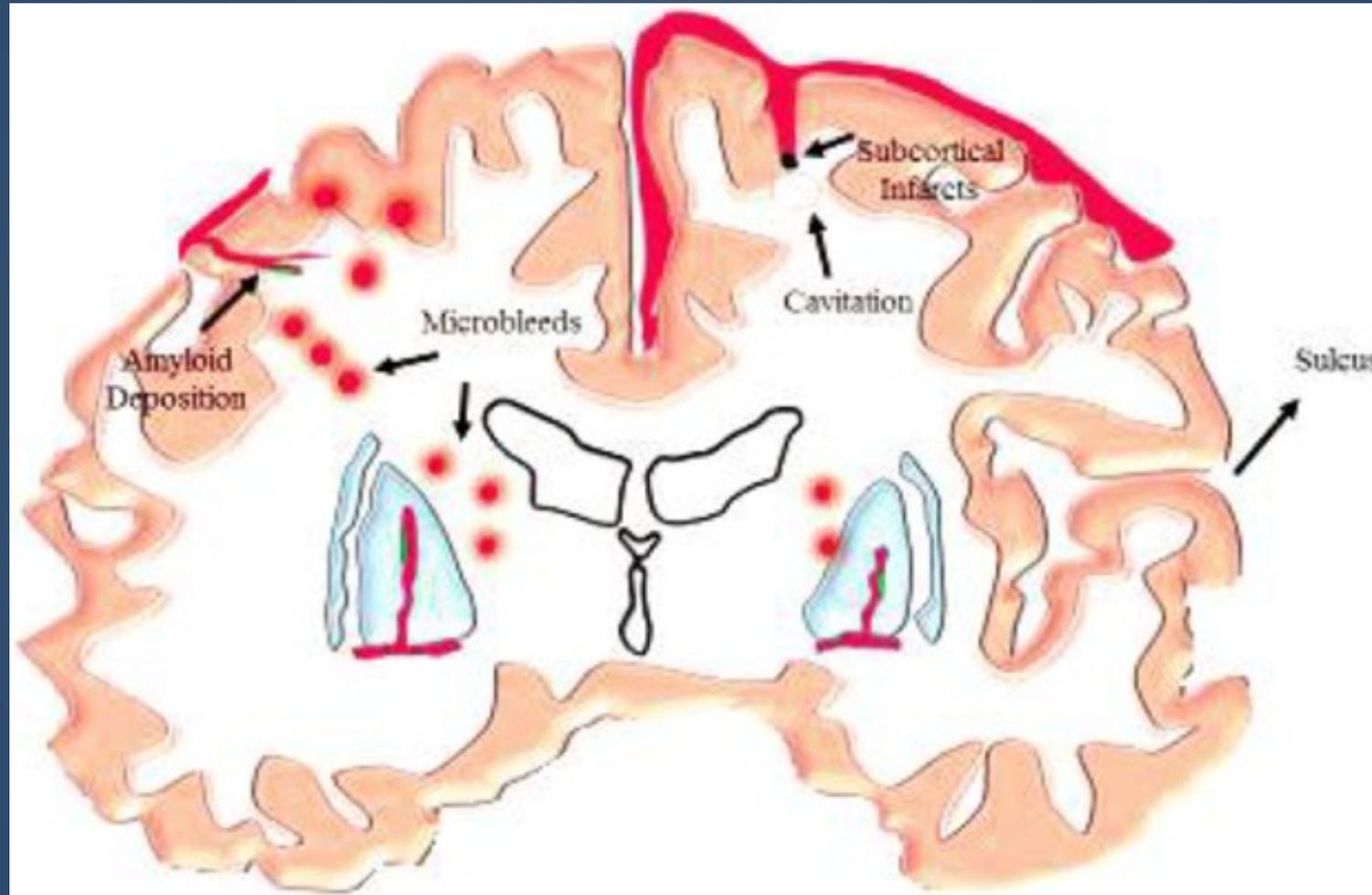
Mechanism



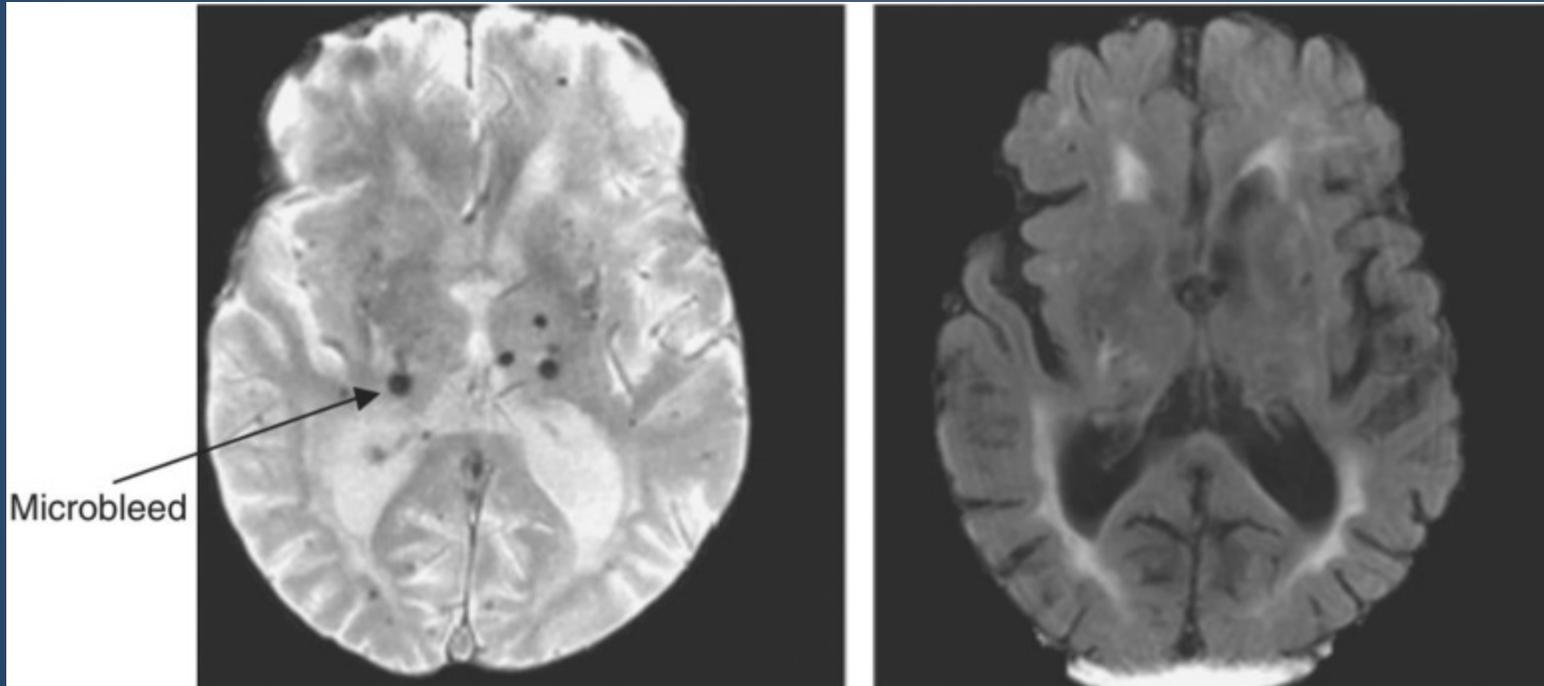
Small Vessel Disease of the Brain

- Involves small vessels deep in the brain,
 - Occlusion, leads to small “lacunae” <20 mm on MRI: ~20% of stroke
 - Cognitive dysfunction
- White matter hyperintensities, atrophy, microbleeds
- Symptoms:
 - Strokes
 - vascular dementia
 - balance disorders
 - cognitive dysfunction,
 - Psych issues
 - incontinence

Manifestations of Small Vessel Disease



MRI of Cerebral Microvascular Disease



Risk Factors for Stroke, TIA and SVD

- Hypertension-30-40% reduction
- Diabetes: Incidence 15-33%
- Smoking
- High Cholesterol
- Atrial Fibrillation
- Alcohol : J shaped curve
- CAD
- Homocysteine

- Age, female sex

Symptoms of STROKE and TIA

- It is a medical emergency: If you suspect a TIA or stroke, make a notation of time, when the symptoms started, and call 911
- Sudden weakness or numbness of face, arms or legs, especially one side of the body
- Sudden confusion, trouble speaking or understanding
- Sudden trouble seeing with one or both eyes
- Sudden dizziness, loss of balance or confusion
- Sudden severe headaches

SPOT A STROKE™



FACE

Drooping



ARM

Weakness



SPEECH

Difficulty



TIME

to Call 911

StrokeAssociation.org



Together
to End Stroke™

Delay in Care

- Don't recognize symptoms
- Denial
- Think nothing can be done
- Worry about cost
- Think symptoms will go away
- Fear or don't trust hospitals

STROKE SYMPTOMS: WOMEN VS. MEN

By American Heart Association News

Men and women share a common set of stroke symptoms. But women also can experience more subtle warning signs.



WOMEN		MEN
Face drooping		Face drooping
Arm weakness		Arm weakness
Speech difficulty		Speech difficulty
Vision problems		Vision problems
Trouble walking or lack of coordination		Trouble walking or lack of coordination
Severe headache without a known cause		Severe headache without a known cause
General weakness		
Disorientation & confusion or memory problems		
Fatigue		
Nausea or vomiting		

Strokes and Women

- Stroke kills more than twice as many American women every year as breast cancer
- More women than men die from stroke and risk is higher for women due to higher life expectancy
- Women suffer greater disability after stroke than men
- Women ages 45 to 54 are experiencing a stroke surge, mainly due to increased risk factors and lack of prevention knowledge

Myth – Stroke:

- Is not preventable
- Cannot be treated
- Only strikes the elderly
- Happens in the heart
- Recovery ends after 6 months

Reality :

- Up to 80 percent of strokes are preventable
- Stroke requires emergency treatment
- Anyone can have a stroke
- Stroke is a “Brain Attack”
- Stroke recovery can last a lifetime

Stroke Prevention Guidelines

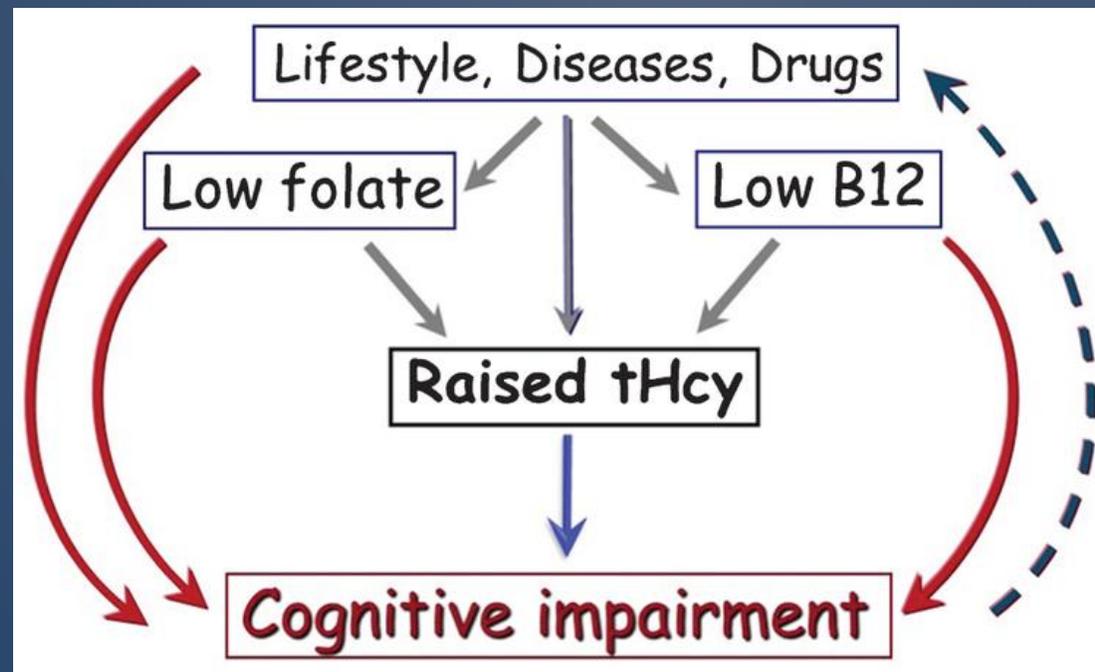
1. Know your blood pressure. Have it checked at least annually. If it is elevated, work with your healthcare professional to control it.
2. Find out if you have atrial fibrillation (Afib) – a type of irregular heartbeat. If you have it, work with your healthcare professional to manage it.
3. If you smoke, stop.

4. If you drink alcohol, do so in moderation.
5. Know your cholesterol number. If it is high, work with your doctor to control it.
6. If you are diabetic, follow your doctor's recommendations carefully to control your diabetes.

7. Include exercise in your daily routine
8. Enjoy a lower sodium (salt) and lower fat diet
9. If you have circulation problems, work with your healthcare professional to improve your circulation.
10. If you experience any stroke symptoms, call 9-1-1 immediately. **Every minute matters!**

Homocysteine and Stroke Risk

- Elevated blood homocysteine concentration increases the risk of stroke, especially among hypertensive individuals
- its impact on venous and arterial atherosclerotic modifications



Lowering Homocysteine Levels Naturally

 <p>spinach</p>	 <p>turnip greens</p>	 <p>free range eggs</p>	 <p>asparagus</p>
 <p>garlic</p>	 <p>raw nuts</p>	 <p>fruits</p>	 <p>black-eyed peas</p>
<p>LOWERING HOMOCYSTEINE LEVELS www.OAWHealth.com naturally!</p>			
 <p>turmeric</p>	 <p>broccoli</p>	 <p>exercise</p>	 <p>organic brown rice</p>



Questions??

Thank you