

# Stroke Prevention

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# World Stroke Awareness Day

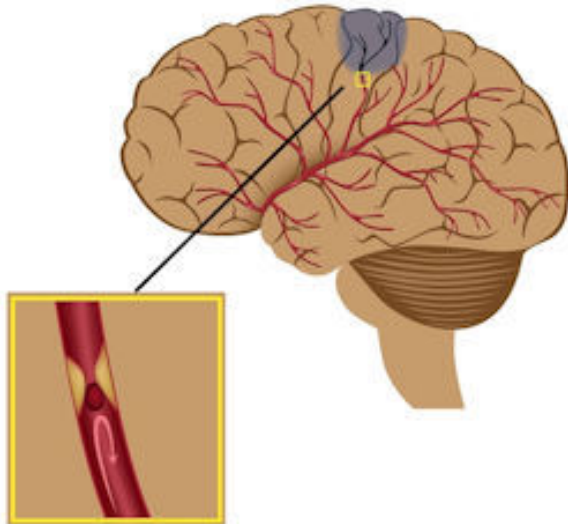


**1 in 6 people worldwide will have a stroke in their lifetime.**

## Stroke Statistics

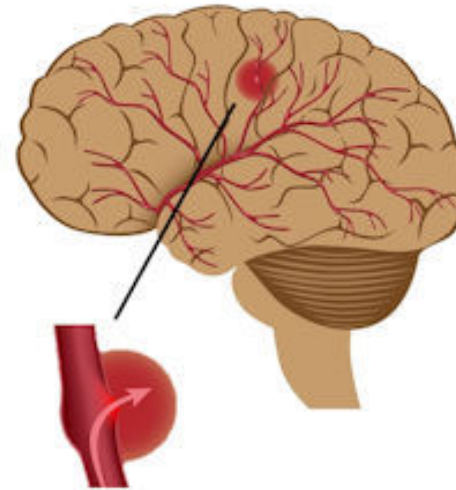
- Each year,  $\approx 795\,000$  people experience a new or recurrent stroke.
- On average, every 40 seconds, someone in the United States has a stroke.
- 87% of strokes are ischemic and 13% are hemorrhagic.
- Women have a higher lifetime risk of stroke than men.

# Types of Stroke



Blockage of blood vessels,  
lack of blood flow to affected area

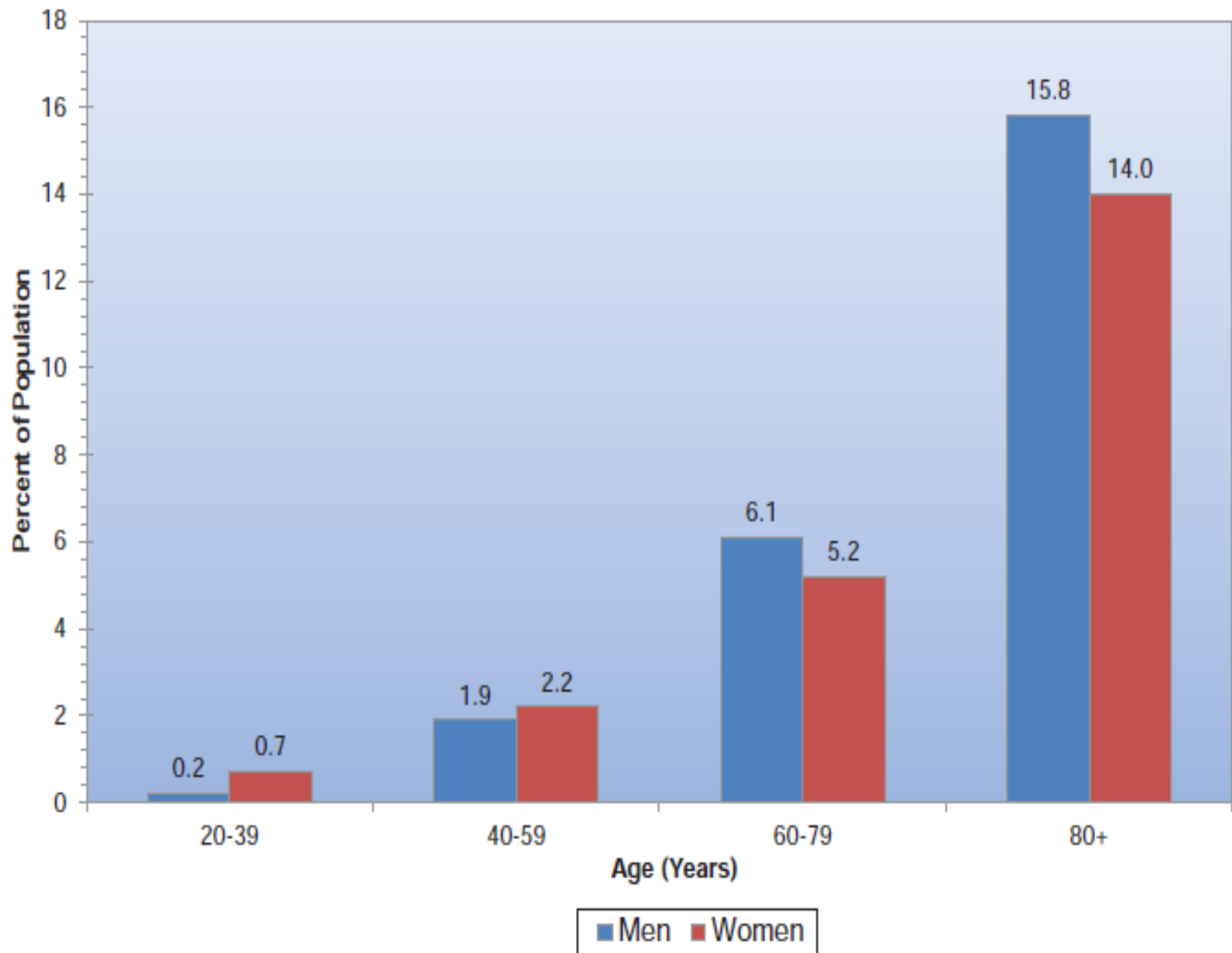
## Ischemic Stroke

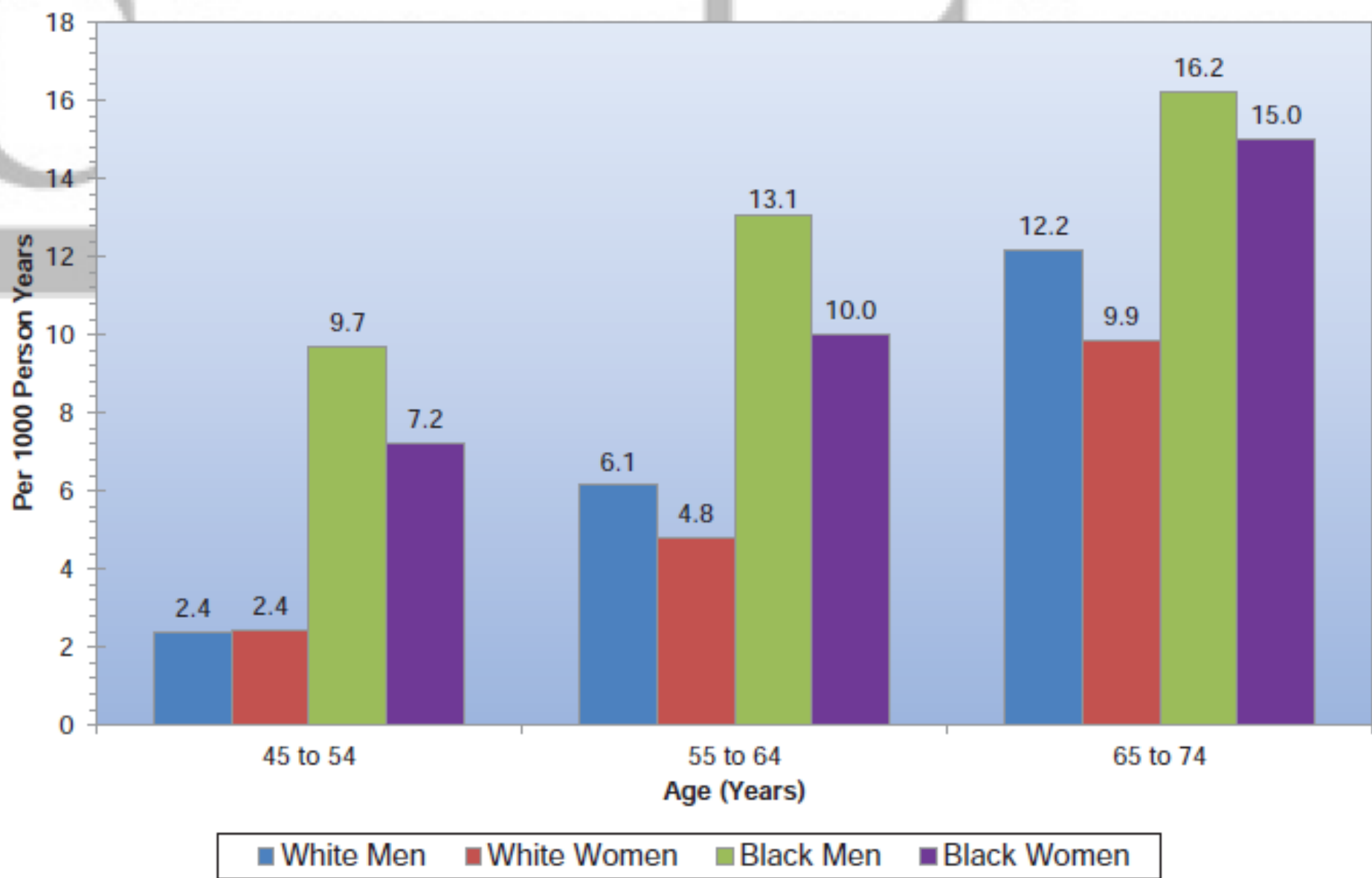


Rupture of blood vessels,  
leakage of blood in affected area

## Hemorrhagic Stroke

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## Stroke Mortality

- In 2011 stroke accounted for  $\approx 1$  of every 20 deaths in the United States.
- From 2001 to 2011, the stroke death rate decreased 35.1%. *Why?*

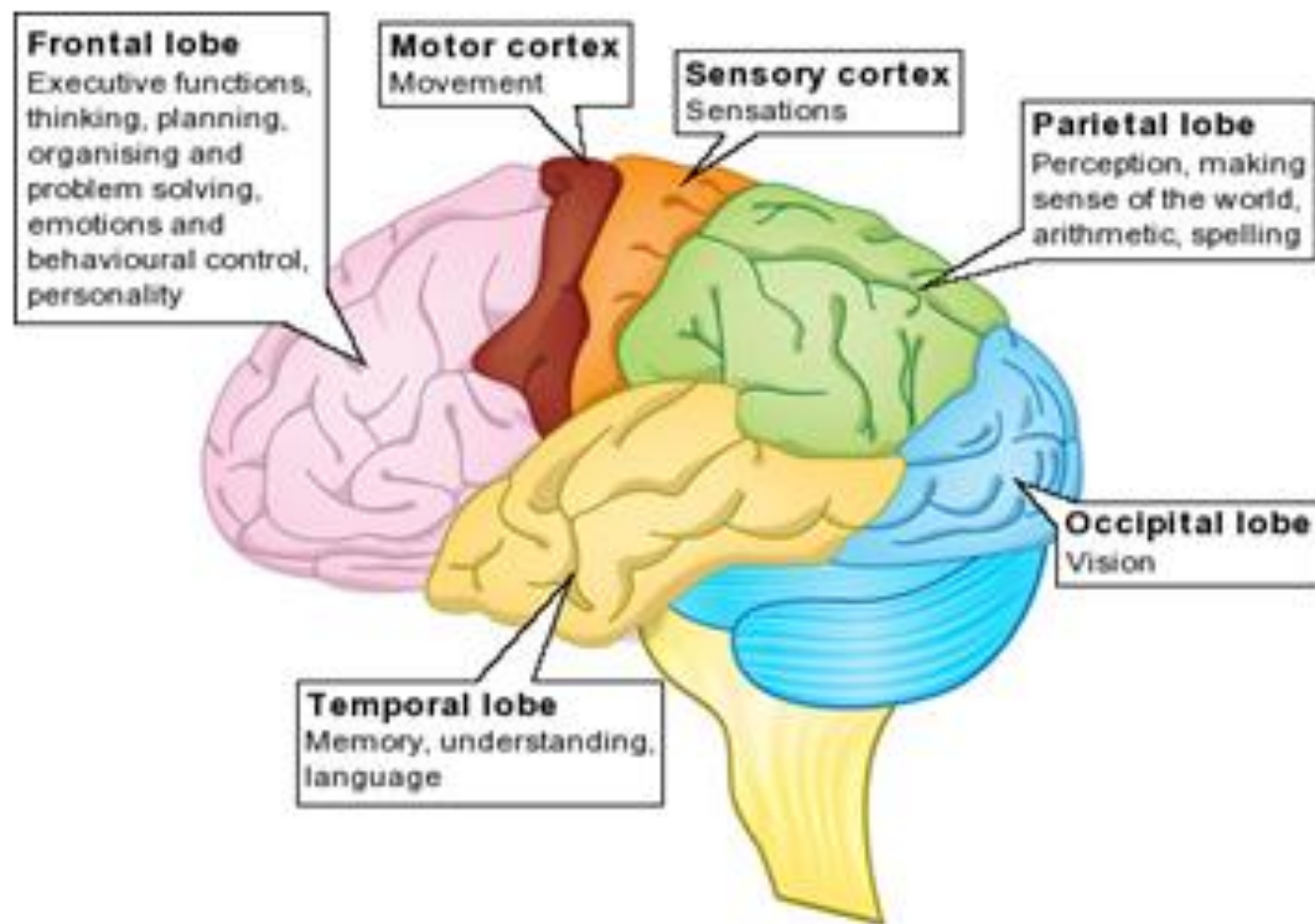
## ILLINOIS STROKE BILL SIGNED INTO LAW SPRINGFIELD, ILLINOIS, Monday, August 18, 2014-

Emergency care for stroke patients took a big step forward in Illinois after Governor Quinn signed new stroke legislation, House Bill 5742, into law. Now known as Public Act 098-1001, this landmark new stroke law makes Illinois the first state in the nation to formally recognize all three levels of stroke care hospital, including Acute Stroke Ready Centers, Primary Stroke Centers, and Comprehensive Stroke Centers. This three-tiered system of designated stroke care hospitals will help medical professionals from EMS to the ER to the OR build a better, more cohesive, more efficient network of stroke care.





# Areas of brain affected by stroke



# Stroke Risk Factors

- High blood pressure
- Diabetes
- Atrial fibrillation
- High blood cholesterol
- Smoking
- Physical inactivity
- Poor diet
- Family history of stroke
- Chronic kidney disease

# WOMEN FACE HIGHER RISK OF STROKE



Together to End Stroke™

## NEW GUIDELINE OFFERS WAYS TO LOWER YOUR RISK

**WOMEN HAVE MORE STROKES THAN MEN, AND STROKE KILLS MORE WOMEN THAN MEN.**

Talk to your healthcare provider about how to lower your risk, using the below information from the new American Heart Association/American Stroke Association prevention guidelines.



**1 in 5 WOMEN** has a **STROKE** at some point in her life

### Stroke RISK GOES UP due to ...



#### PREGNANCY

About 3 out of 10,000 pregnant women have a stroke during pregnancy compared to 2 out of 10,000 young women who are not pregnant.



#### PREECLAMPSIA

This is a term for high blood pressure that develops during pregnancy, and it doubles the risk of stroke later in life.



#### BIRTH CONTROL PILLS

May double the risk of stroke, especially in women with high blood pressure.



#### HORMONE REPLACEMENT THERAPY

Once thought to lower stroke risk, this in fact increases the risk.



#### MIGRAINES WITH AURA + SMOKING

Strokes are more common in women with migraines with aura who also smoke.



#### ATRIAL FIBRILLATION

Quadruples stroke risk and is more common in women than men after age 75.

### LOWER YOUR RISK for stroke by...

Pregnant women with very high blood pressure should be treated with safe blood pressure medications.

Talk to your healthcare provider about whether you should follow the guideline recommendation of low-dose aspirin starting in the second trimester (week 12) to lower preeclampsia risk.

Women should be screened for high blood pressure before taking birth control pills. Women should not smoke, and they should also be aware that smoking and the use of oral contraceptives increases the risk of stroke.

Hormone replacement therapy should not be used to prevent stroke in postmenopausal women.

Smokers who have migraines with aura should quit to avoid higher stroke risk.

All women over age 75 should be screened for atrial fibrillation.



## STROKE BY THE NUMBERS



About **55,000** more women than men have a stroke each year.

STROKE IS THE

**#3**

cause of **DEATH** in Women

**#4**

cause of **DEATH** in Men

Number of **STROKE DEATHS IN ONE YEAR**

Women **77,109**

Men **52,367**

(from 2010, the most recent year the statistics are available)



Do you know how to identify a stroke and when emergency help is needed?

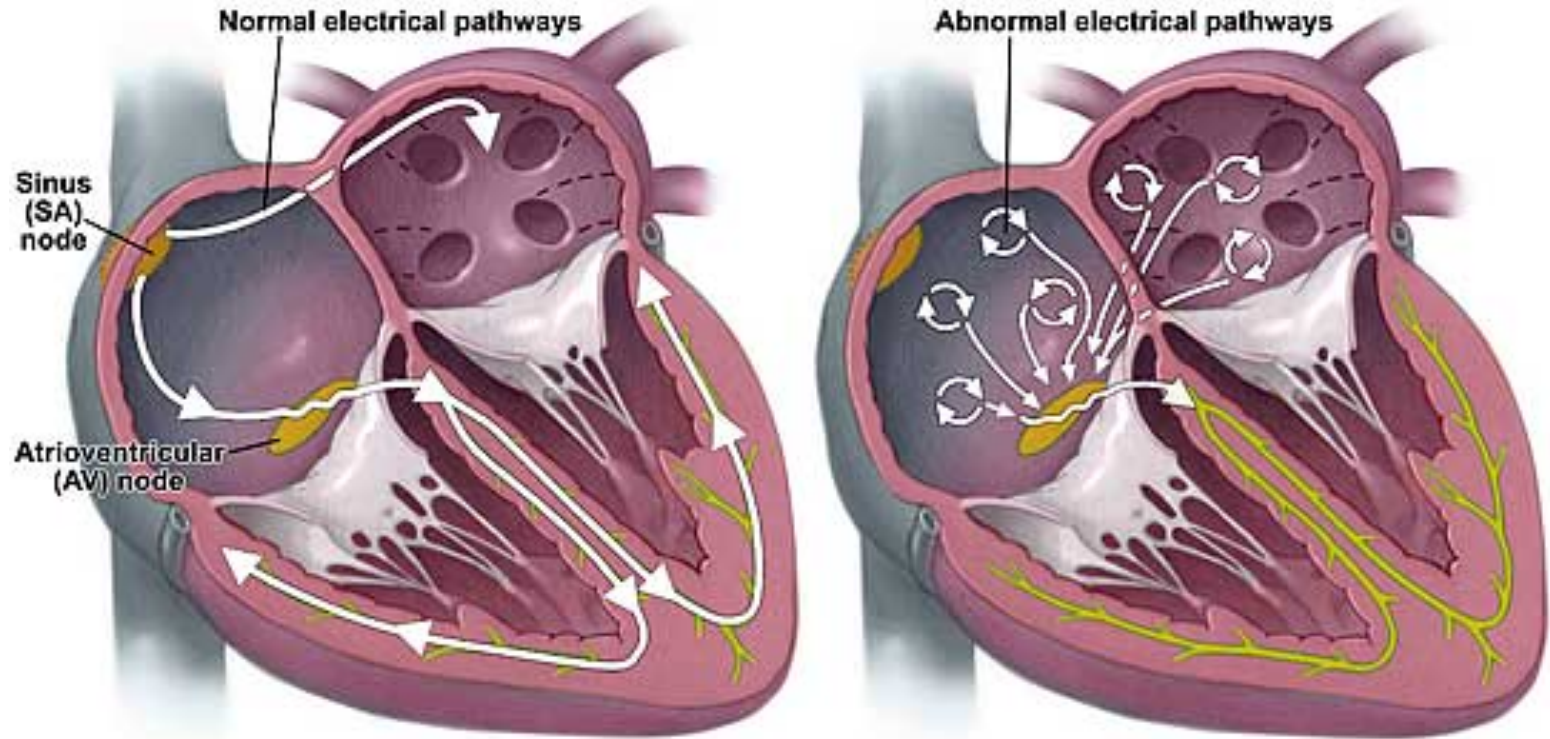
Learn how to spot a stroke F.A.S.T. at [StrokeAssociation.org/warningsigns](http://StrokeAssociation.org/warningsigns)

# STROKE RISK FACTORS

ESTIMATED INCREASE IN RISK

ATRIAL FIBRILLATION	17 times
HYPERTENSION	2 TO 4
CARDIAC DISEASE	2 TO 4
NO EXERCISE	1.8 TO 3.5
DIABETES	1.5 TO 2.5
SMOKING	1.5 TO 2.5
HEAVY ALCOHOL USE	1 TO 3

# Atrial Fibrillation



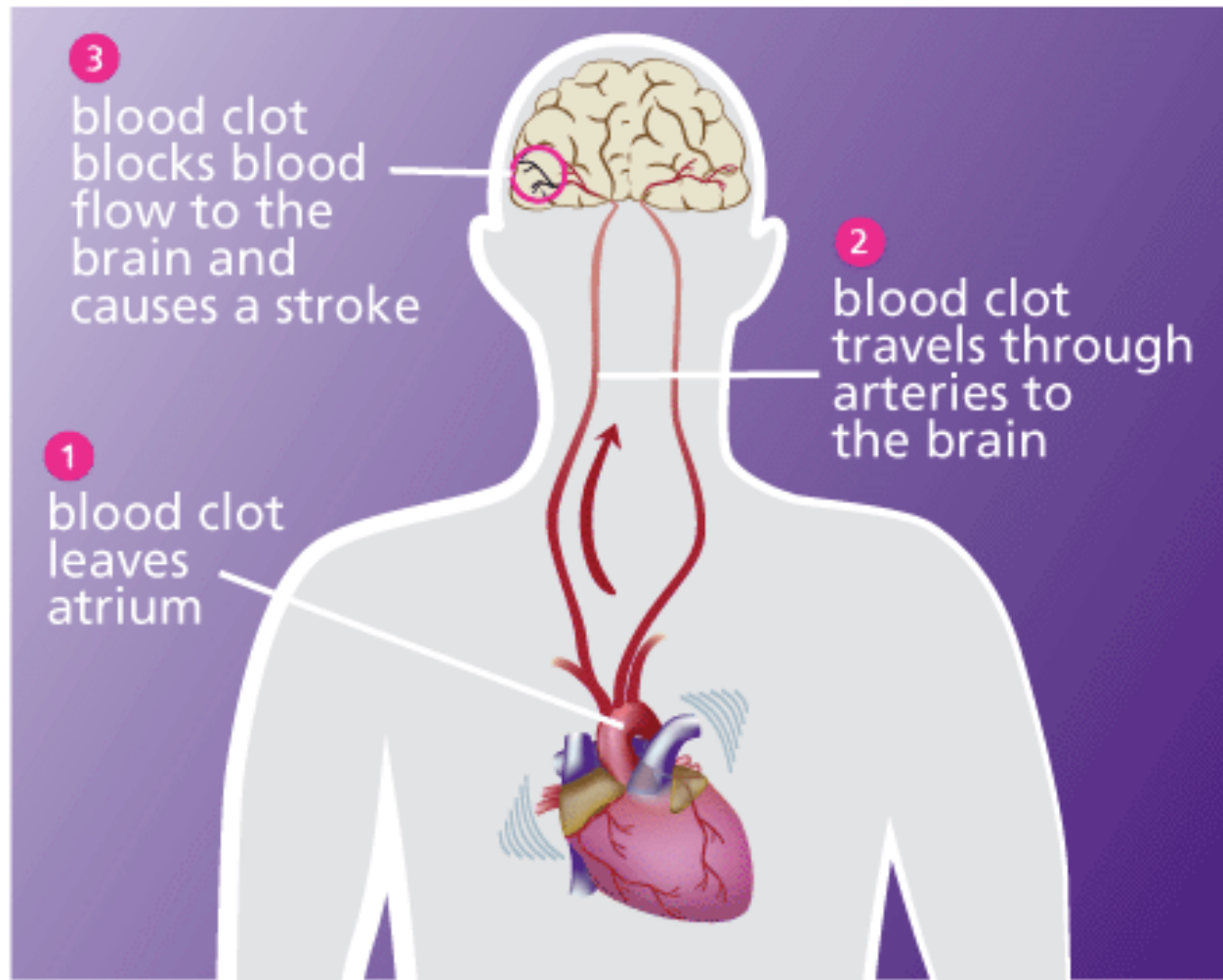
Normal sinus rhythm



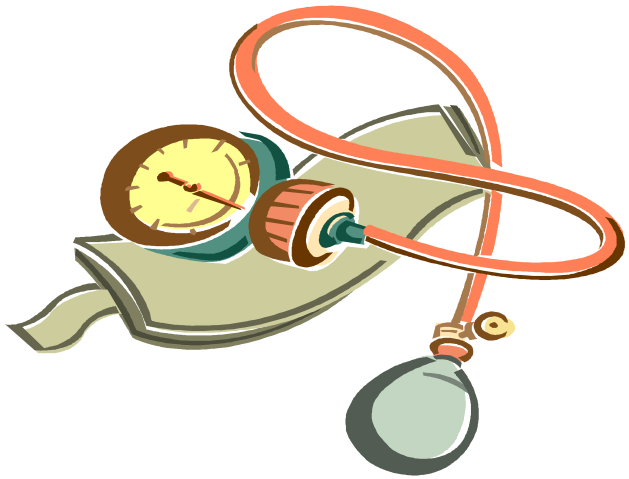
Atrial fibrillation



# AFIB CAN CAUSE A STROKE



# *Stroke Prevention: Know Your Risk Factors and Control Them*







# Stroke Prevention



# DASH Pyramid



Source: <http://www.nhlbi.nih.gov/>





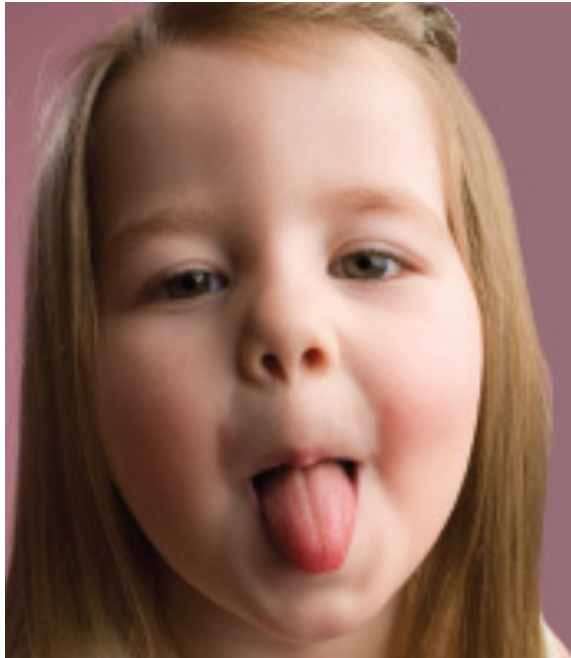
# Atrial Fibrillation Stroke Prophylaxis

Risk category	CHA <sub>2</sub> DS <sub>2</sub> -VASc score	Recommended antithrombotic therapy
One 'major' risk factor or $\geq 2$ 'clinically relevant non-major' risk factors	$\geq 2$	OAC
One 'clinically relevant non-major' risk factor	1	Either OAC or aspirin 75-325 mg daily. Preferred: OAC rather than aspirin.
No risk factors	0	Either aspirin 75-325 mg daily or no antithrombotic therapy. Preferred: no antithrombotic therapy rather than aspirin.

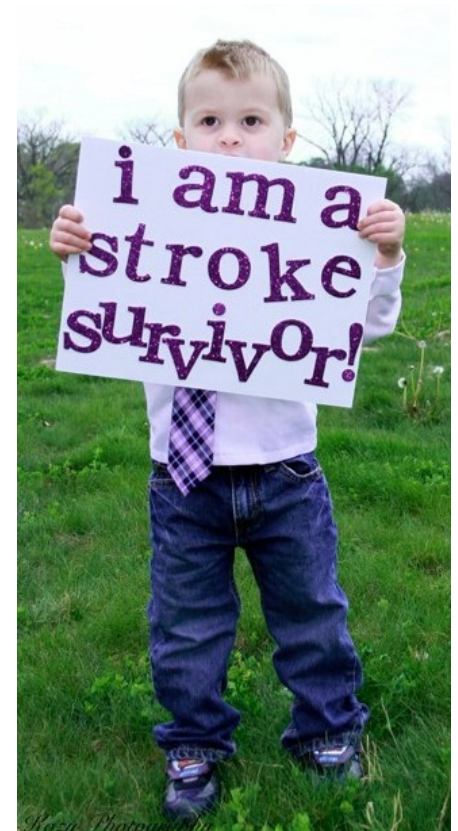
# SPOT A STROKE



Stroke Warning Signs and Symptoms



**Stick out your  
tongue to check  
for signs of stroke**







***Thank You!***

*Questions/Comments*  
*Discussion*