



# Brain Attack

Developed By:

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# The Reader Will Be Able To...

- Describe what a stroke is.
- List three risk factors of a stroke.
- Recall three symptoms of a stroke.
- Explain how to perform a FAST stroke exam.



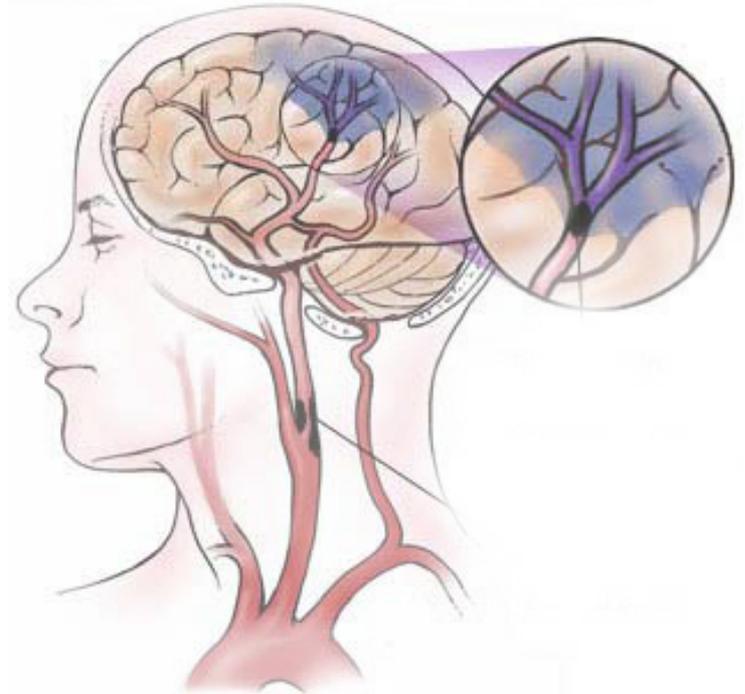
# Stroke Information...

- Stroke is the third leading cause of death in the United States. About 137,000 Americans die of stroke every year. (CDC)
- When a stroke happens, it is important to recognize the symptoms, call 9-1-1 right away, and get to a hospital quickly.



# What Is A Stroke?

- A stroke, sometimes called a brain attack, occurs when a clot blocks the blood supply to the brain or when a blood vessel in the brain bursts.



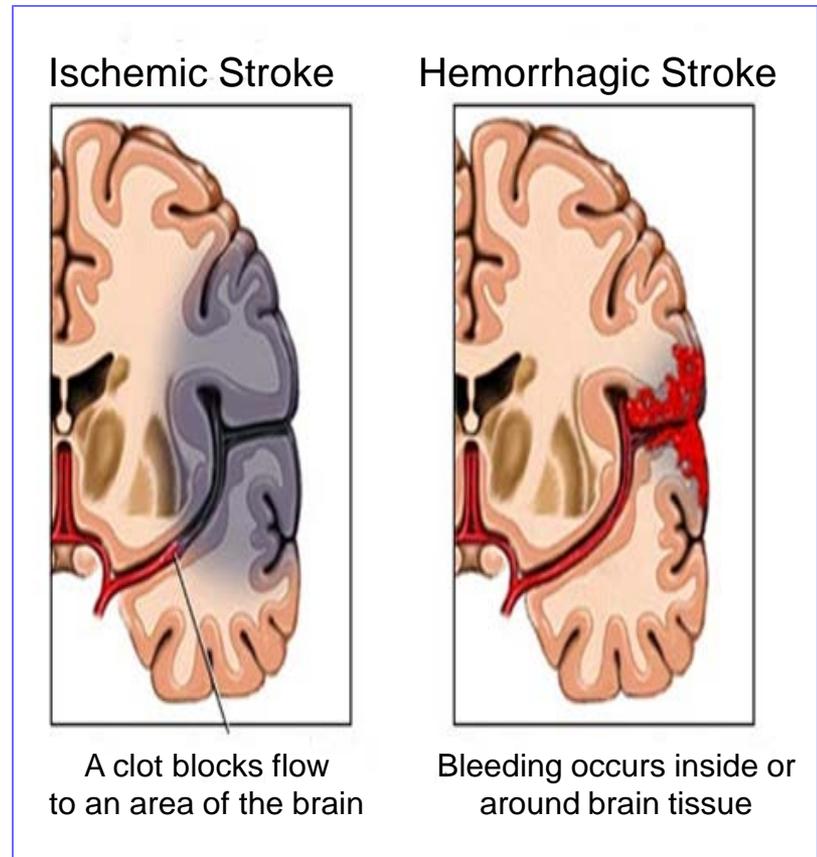
# Types Of Stroke...

## ■ Ischemic Stroke:

- About 85% of all strokes are ischemic, in which blood flow to the brain is blocked by blood clots or fatty deposits called plaque in blood vessel linings.

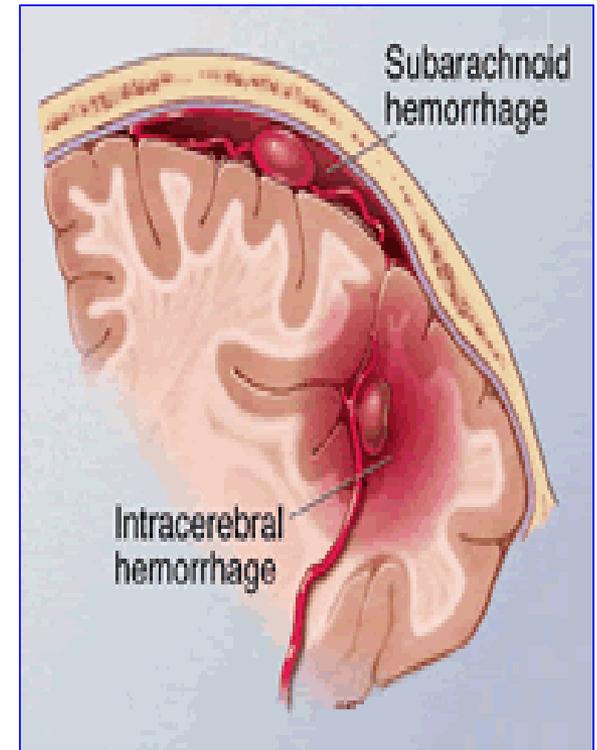
## ■ Hemorrhagic Stroke:

- The most common type of hemorrhagic stroke. It occurs when an artery in the brain bursts, flooding the surrounding tissue with blood.



# Types Of Stroke...

- **Subarachnoid hemorrhage:**
  - Bleeding in the area between the brain and the thin tissues that cover it.
- **Transient ischemic attack (TIA):**
  - Is a "warning stroke" or a "mini-stroke" that results in no lasting damage.
  - Recognizing and treating TIAs immediately can reduce your risk of a major stroke.



# Risk Factors For Stroke...

- **Family history:**

- Your stroke risk is greater if a parent, grandparent, sister or brother has had a stroke. .

- **Age:**

- The chance of having a stroke approximately doubles for each decade of life after age 55. While stroke is common among the elderly, a lot of people under 65 also have strokes.



# Risk Factors For Stroke...

## ■ Gender:

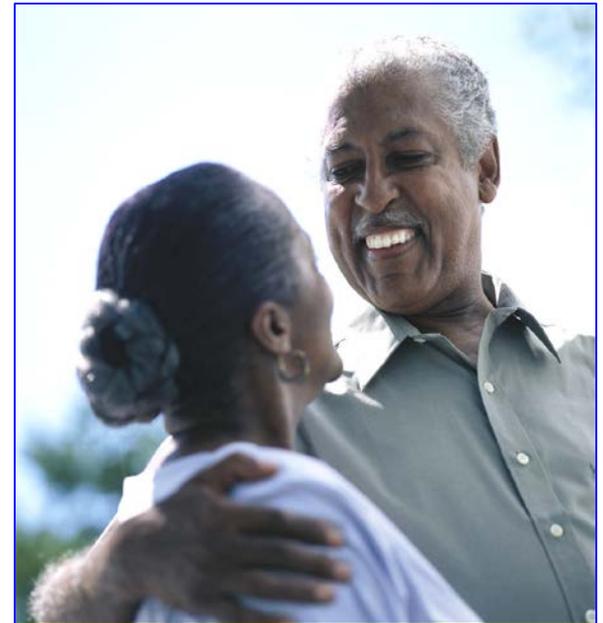
- Stroke is more common in men than in women. In most age groups, more men than women will have a stroke in a given year.
- However, more than half of total stroke deaths occur in women. At all ages, more women than men die of stroke.
- Use of birth control pills and pregnancy pose special stroke risks for women.



# Risk Factors For Stroke...

## ■ Race and ethnicity:

- African Americans have a much higher risk of death from a stroke than Caucasians do.
- This is due to African Americans having a higher incidence of high blood pressure, diabetes and obesity.



# Risk Factors For Stroke...

## ■ High blood pressure:

- Can greatly increase your risk for stroke.
- Smoking cigarettes, eating a diet high in salt, and drinking too much alcohol can all raise your blood pressure.

## ■ High blood cholesterol:

- Can build up fatty deposits (plaque) on blood vessel walls.
- The deposits can block blood flow to the brain, causing a stroke.
- Diet, exercise, and family history affect blood cholesterol levels.



# Blood Pressure Readings...

| Blood Pressure Category                                       | Systolic<br>mm Hg (upper #) |     | Diastolic<br>mm Hg (lower #) |
|---|-----------------------------|-----|------------------------------|
| <b>Normal</b>   | less than <b>120</b>        | and | less than <b>80</b>          |
| <b>Prehypertension</b>  | <b>120 – 139</b>            | or  | <b>80 – 89</b>               |
| <b>High Blood Pressure<br/>(Hypertension) Stage 1</b>         | <b>140 – 159</b>            | or  | <b>90 – 99</b>               |
| <b>High Blood Pressure<br/>(Hypertension) Stage 2</b>         | <b>160 or higher</b>        | or  | <b>100 or higher</b>         |
| <b><u>Hypertensive Crisis</u><br/>(Emergency care needed)</b> | Higher than <b>180</b>      | or  | Higher than <b>110</b>       |

Source: American Heart Association

# Total Cholesterol Levels...

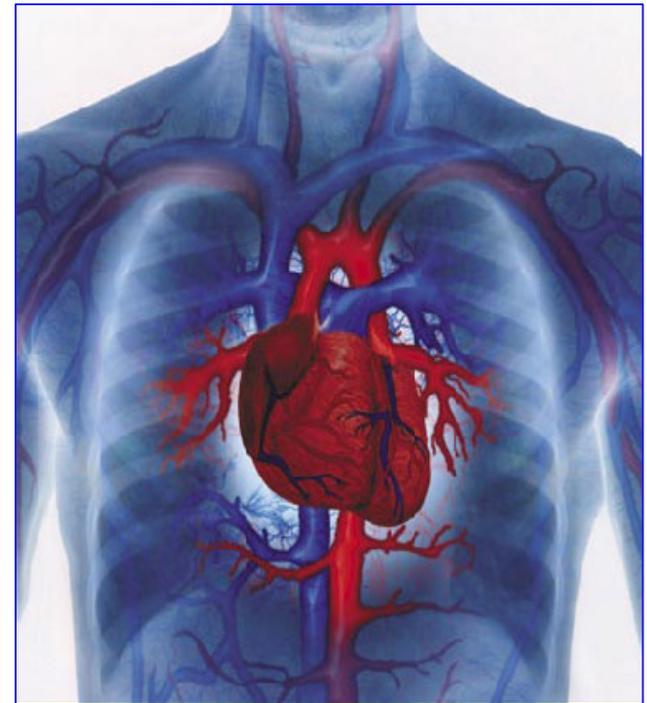
| Levels              | Risk       |
|---------------------|------------|
| Less than 200 mg/dL | Ideal      |
| 200 mg/dL-239 mg/dL | Borderline |
| 240 mg/dL-Higher    | High       |

Source: American Heart Association  
National Heart, Lung, and Blood Institute

# Risk Factors For Stroke...

## ■ Heart disease:

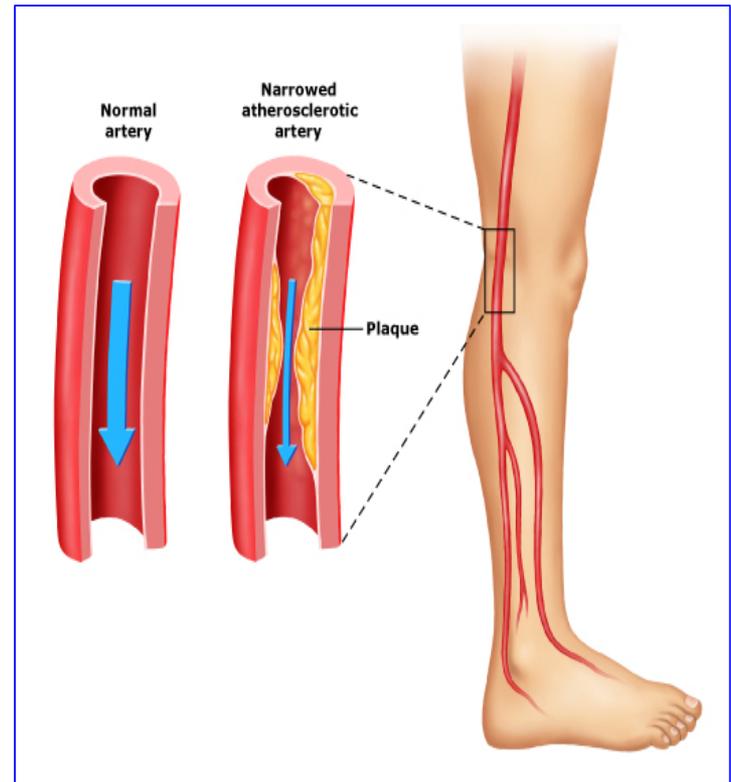
- Coronary artery disease (CAD) increases your risk because a fatty substance called plaque blocks the arteries that bring blood to the heart.
- Other heart conditions, such as heart valve defects, irregular heartbeat and enlarged heart chambers, can cause blood clots that may break loose and cause a stroke.



# Risk Factors For Stroke...

## ■ Peripheral artery disease:

- Is the narrowing of blood vessels carrying blood to leg and arm muscles.
- It's caused by fatty buildups of plaque in artery walls.
- People with peripheral artery disease have a higher risk of carotid artery disease, which raises their risk of stroke.



# Risk Factors For Stroke...

## ■ Diabetes:

- High blood sugar tends to occur with high blood pressure and high cholesterol.

## ■ Overweight and obesity:

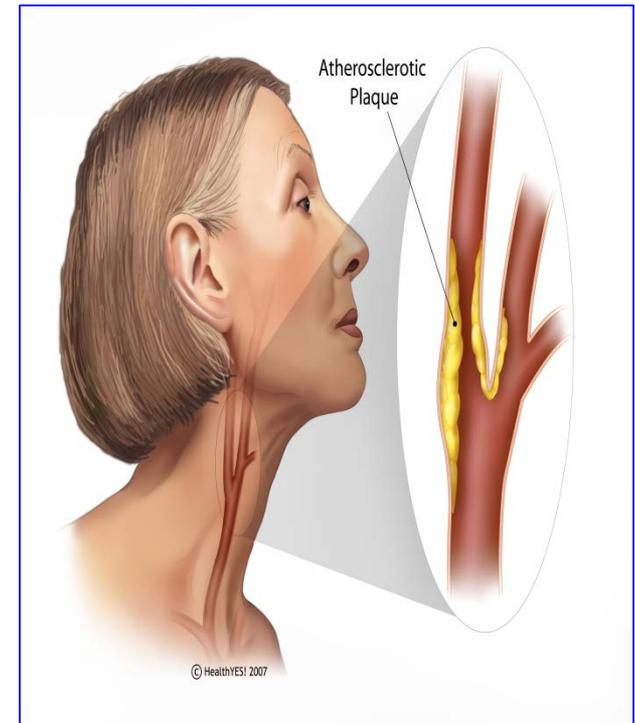
- Being overweight or obese can raise total cholesterol levels, increase blood pressure, and promote the development of diabetes.



# Risk Factors For Stroke...

## ■ Carotid or other artery disease:

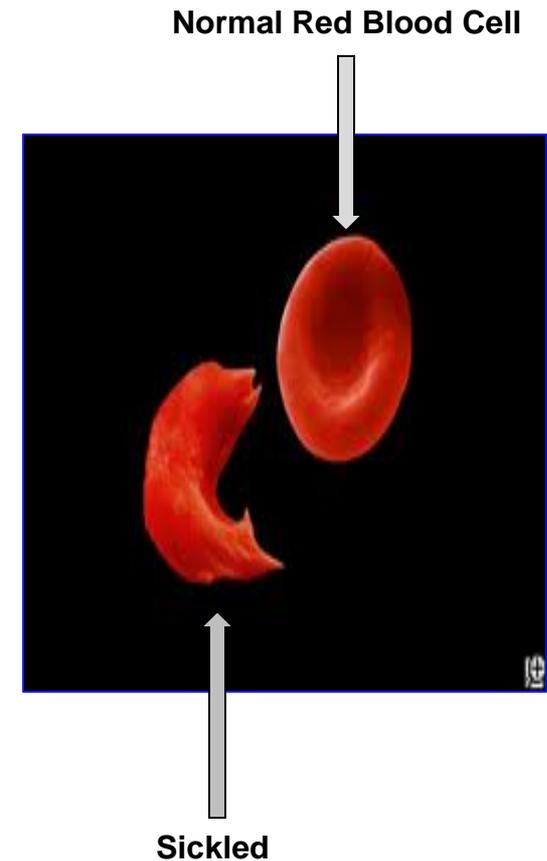
- The carotid arteries in your neck supply blood to your brain.
- A carotid artery narrowed by fatty deposits from atherosclerosis (plaque buildups in artery walls) may become blocked by a blood clot.
- Carotid artery disease is also called carotid artery stenosis.



# Risk Factors For Stroke...

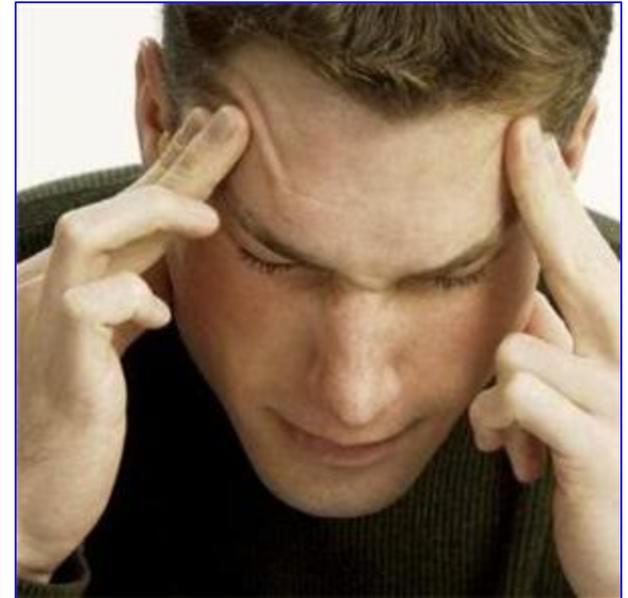
## ■ Sickle cell disease:

- This is a genetic disorder that mainly affects African-American and Hispanic children.
- "Sickled" red blood cells are less able to carry oxygen to the body's tissues and organs.
- These cells also tend to stick to blood vessel walls, which can block arteries to the brain and cause a stroke.



# Risk Factors For Stroke...

- **Previous stroke or transient ischemic attack (TIA):**
  - The risk of stroke for someone who has already had one is many times that of a person who has not.
  - Transient ischemic attacks (TIAs) are "warning strokes" that produce stroke-like symptoms but no lasting damage.
  - TIAs are strong predictors of stroke.



# Risk Factors For Stroke...

## ■ Tobacco Use:

- Smoking injures blood vessels and speeds up the hardening of the arteries. The carbon monoxide in cigarette smoke reduces the amount of oxygen that your blood can carry.
- Secondhand smoke can increase the risk of stroke for nonsmokers.

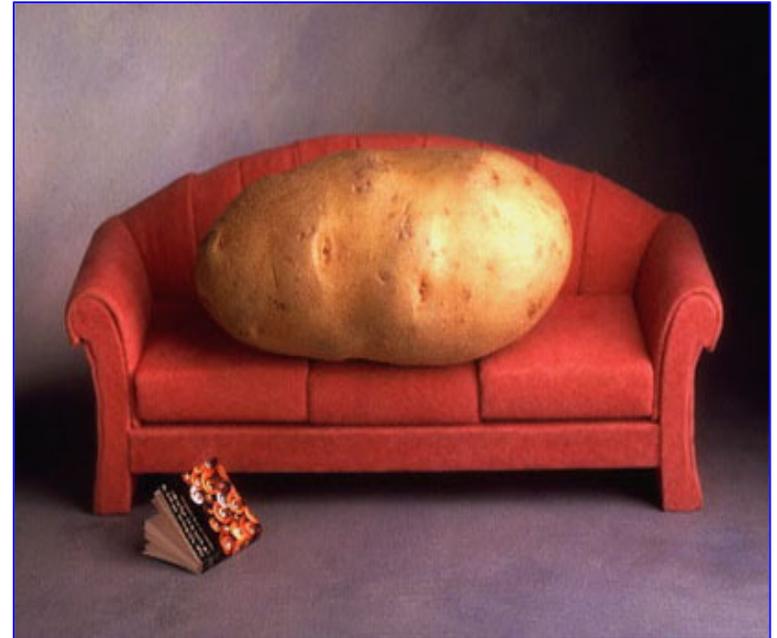
## ■ Alcohol Use:

- Drinking too much alcohol raises your blood pressure, which increases the risk for stroke. It also increases levels of triglycerides, a form of cholesterol, which can harden your arteries.



# Risk Factors For Stroke...

- **Physical Inactivity:**
  - Not getting enough exercise can make you gain weight, which can lead to increased blood pressure and cholesterol levels. Inactivity also is a risk factor for diabetes.



# Risk Factors For Stroke...

## ■ Drug abuse:

- Drug addiction is often a chronic relapsing disorder associated with a number of societal and health-related problems.
- Drugs that are abused, including cocaine, amphetamines and heroin, have been associated with an increased risk of stroke.
- Strokes caused by drug abuse are often seen in a younger population.



# How To Lower Your Risk...

## ■ Eat a healthy diet:

- Choosing healthful meal and snack options can help you avoid stroke and its complications.
- Be sure to eat plenty of fresh fruits and vegetables.
- Eating foods low in saturated fat and cholesterol and high in fiber can help prevent high blood cholesterol.
- Limiting salt or sodium in your diet can also lower your blood pressure.



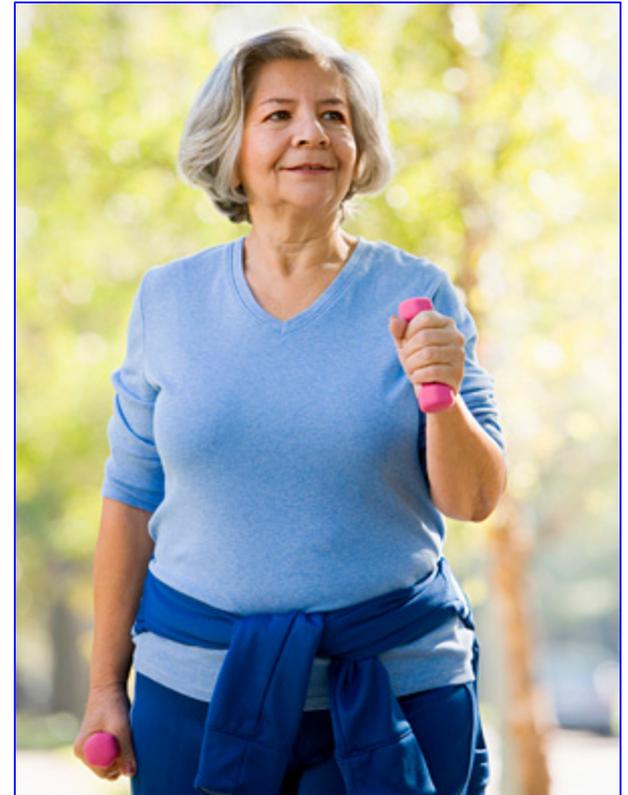
# How To Lower Your Risk...

- **Maintain a healthy weight:**

- Being overweight or obese can increase your risk for stroke.

- **Be active:**

- Physical activity can help you maintain a healthy weight and lower cholesterol and blood pressure.
- The Surgeon General recommends that adults should engage in moderate-intensity exercise for at least 30 minutes on most days of the week.



# How To Lower Your Risk...

- **Don't smoke:**

- Cigarette smoking greatly increases your risk for stroke.

- **Limit alcohol use:**

- Avoid drinking too much alcohol, which causes high blood pressure.



# How To Lower Your Risk...

- **Have your cholesterol checked:**
  - Your health care provider should test your cholesterol level every year.
- **Monitor your blood pressure:**
  - High blood pressure has no symptoms, so be sure to have it checked on a regular basis.
- **Manage your diabetes:**
  - If you have diabetes, closely monitor your blood sugar levels.



# How To Lower Your Risk...

- **Take your medicine:**
  - If you're taking medication to treat high cholesterol, high blood pressure, or diabetes, follow your doctor's instructions carefully.
  - Always ask questions if you don't understand something.



# How To Lower Your Risk...

- **Talk with your health care provider:**
  - You and your doctor can work together to prevent or treat the medical conditions that lead to heart disease.
  - Discuss your treatment plan regularly and bring a list of questions to your appointments.



# Symptoms Of A Stroke...

- **Sudden numbness or weakness of the face, arm or leg, especially on one side of the body**
- **Sudden confusion, trouble speaking or understanding**



# Symptoms Of A Stroke...

- **Sudden trouble seeing in one or both eyes**
- **Sudden trouble walking, dizziness, loss of balance or coordination**
- **Sudden, severe headache with no known cause**



# Act FAST...

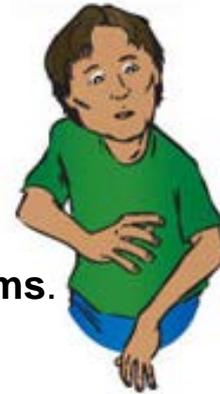
Does the face  
look uneven?



## FACE

Ask the person to  
smile.

Does one arm  
drift down?



## ARM

Ask the person  
To raise both arms.

Does their speech  
Sound strange?



## SPEECH

Ask the person to  
Repeat a simple phrase  
such as, " the grass is  
green."

If you notice any  
of these signs, it's  
time to call 9-1-1

## TIME

Call 9-1-1 if any  
of these signs are  
observed.



# What To Do...

- **Immediately call 9-1-1:**

- Do not drive the person to the hospital.

- **Check the time:**

- So you'll know when the first symptoms appeared. It's very important to take immediate action.
- If given within *3 hours* of the start of symptoms, a clot-busting drug called tissue plasminogen activator (tPA) may reduce long-term disability for the most common type of stroke.



# Source...

- American Heart Association
- Center For Disease Control
- National Stroke Foundation

