Brain Attack

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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 American 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

<table>
<thead>
<tr>
<th>Blood Pressure Category</th>
<th>Systolic mm Hg (upper #)</th>
<th>Diastolic mm Hg (lower #)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Normal</strong></td>
<td>less than 120 and</td>
<td>less than 80</td>
</tr>
<tr>
<td>Prehypertension</td>
<td>120 – 139 or</td>
<td>80 – 89</td>
</tr>
<tr>
<td>High Blood Pressure (Hypertension) Stage 1</td>
<td>140 – 159 or</td>
<td>90 – 99</td>
</tr>
<tr>
<td>High Blood Pressure (Hypertension) Stage 2</td>
<td>160 or higher or</td>
<td>100 or higher</td>
</tr>
<tr>
<td><strong>Hypertensive Crisis</strong> (Emergency care needed)</td>
<td>Higher than 180 or</td>
<td>Higher than 110</td>
</tr>
</tbody>
</table>

Source: American Heart Association
Total Cholesterol Levels...

<table>
<thead>
<tr>
<th>Levels</th>
<th>Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 200 mg/dL</td>
<td>Ideal</td>
</tr>
<tr>
<td>200 mg/dL-239 mg/dL</td>
<td>Borderline</td>
</tr>
<tr>
<td>240 mg/dL-Higher</td>
<td>High</td>
</tr>
</tbody>
</table>

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...

**FACE**
Ask the person to smile.

Does the face look uneven?

**ARM**
Ask the person To raise both arms.

Does one arm drift down?

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

Does their speech Sound strange?

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

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

Source: Nebraska Dept. Of Health
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