What is Cerebrovascular Disease?

Cerebrovascular Disease includes a variety of medical conditions that affect the blood vessels of the brain and the cerebral circulation. Narrowed cerebral arteries can lead to ischemic stroke, but continually elevated blood pressure can also cause tearing of vessels, leading to a hemorrhagic stroke (Wikipedia, 2019).
Common Conditions of the Cerebrovascular System - Brain and **Vessels**

- Arteriovenous Malformation
- Atherosclerosis
- Cavernomas
- Cerebral Venous Thrombosis
- Intracranial Aneurysm
- Stroke - Brain attack
Major Risk Factors for Stroke

Non-Modifiable
❖ Age
❖ Gender
❖ Family History

It’s up to you!!!

Modifiable
❖ High Cholesterol
❖ High Blood Pressure
❖ Physical Inactivity
❖ Overweight/ Obesity
❖ Smoking
❖ Poor Diet
❖ DIABETES
Atherosclerosis (Vessel Damage)

- Often referred to as “hardening of the arteries”, atherosclerosis is the process in which deposits of fatty substances, cholesterol, cellular waste products, calcium and other substances build up in the inner lining of an artery forming plaque (AHA, 2019).

- Atherosclerosis is a slow, complex disease that typically starts in childhood and often progresses as people grow older. This can progress rapidly in some people in their 20’s and in others, doesn’t become a problem until their 50-60’s (AHA, 2019).
Risk Factors for Atherosclerosis

- High Cholesterol - sticks to the inner lining of the vessel
- Tobacco smoke - chemicals in smoke damage the vessel lining
- High blood pressure - shearing action
- Diabetes Mellitus - excess sugar breaks down the lining of the vessel
- Obesity/Poor diet
- Physical Inactivity
Complications of Atherosclerosis

- Stroke
- Heart Attack
- Hypertension
- Peripheral Artery Disease
- Aortic Aneurysm
Stroke- Signs and Symptoms

• Know the acronym FAST:
  * Facial Droop
  * Arm Drift
  * Slurred Speech
  * Time

• Should any of these symptoms occur along with a sense of urgency or fear...... call 911- never wait!
Symptoms of Diabetes - Know your numbers!

- Blurry Vision
- Increased Thirst
- Increased Urination
- Feeling tired
- Recurring infections (skin, gums)
- Dry, itchy skin
- Unexpected weight loss
- Slow-healing cuts or sores
Diabetes - Know Your A1C Level

- You should have an A1C check with your annual physical and lab work.
- The A1C level represents the amount of sugar that is glycosylated in the red blood cell.
- If you are not producing enough insulin or you have insulin resistance, your A1C levels will rise.

<table>
<thead>
<tr>
<th>A1c (%)</th>
<th>eAG (mg/dl)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>126</td>
</tr>
<tr>
<td>6.5</td>
<td>140</td>
</tr>
<tr>
<td>7</td>
<td>154</td>
</tr>
<tr>
<td>7.5</td>
<td>169</td>
</tr>
<tr>
<td>8</td>
<td>183</td>
</tr>
<tr>
<td>8.5</td>
<td>197</td>
</tr>
<tr>
<td>9</td>
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</tr>
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<td>9.5</td>
<td>226</td>
</tr>
<tr>
<td>10</td>
<td>240</td>
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</table>
Complications of Uncontrolled Diabetes

- Cerebrovascular Disease - Stroke
- Coronary Artery Disease - MI
- Retinopathy - Blindness
- Nephropathy - Kidney Failure
- Peripheral Neuropathy - Amputation
Taking Steps to Lower Your Risk!
Healthy Diet

- Eat a balanced and colorful diet
- Don’t add salt to your food at the table!
- Eat more whole grains
- Watch your portion sizes
- Limit saturated fats/ Avoid trans fats!
- Eat low-fat proteins
- Watch your CHO and sugar intake!
- Allow yourself an occasional treat
Do Not Smoke

• Smoking is a major cause of vessel disease.
• 1 out of 3 deaths from cerebrovascular disease are attributed to smoking.
• Smoking makes blood more likely to clot and causes blockages in arteries.
• Damage occurs in the lining of blood vessels due to smoking.
• Smoking increases plaque buildup in arteries.

Source: CDC, 2019
Monitor Your Blood Pressure

<table>
<thead>
<tr>
<th>BLOOD PRESSURE CATEGORY</th>
<th>SYSTOLIC mm Hg (upper number)</th>
<th>DIASTOLIC mm Hg (lower number)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NORMAL</td>
<td>LESS THAN 120</td>
<td>LESS THAN 80</td>
</tr>
<tr>
<td>ELEVATED</td>
<td>120 – 129</td>
<td>LESS THAN 80</td>
</tr>
<tr>
<td>HIGH BLOOD PRESSURE (HYPERTENSION) STAGE 1</td>
<td>130 – 139</td>
<td>80 – 89</td>
</tr>
<tr>
<td>HIGH BLOOD PRESSURE (HYPERTENSION) STAGE 2</td>
<td>140 OR HIGHER</td>
<td>90 OR HIGHER</td>
</tr>
<tr>
<td>HYPERTENSIVE CRISIS (consult your doctor immediately)</td>
<td>HIGHER THAN 180</td>
<td>HIGHER THAN 120</td>
</tr>
</tbody>
</table>

- High blood pressure (hypertension) is called the “silent killer” because of it’s lack of symptoms.
- Nearly half of American adults have high blood pressure (many don’t even know it).
- Make sure you have your blood pressure checked every year.
- If you have hypertension, follow your physician’s orders on home monitoring.
Know Your Lipid Levels and What They Mean

- **Triglycerides**: Should be under 150 mg/dL
- **Cholesterol**: Should be 200 mg/dL or below
- **High Density Lipoprotein (HDL)**: Should be >50 mg/dL in women and >40 in men
- **Low Density Lipoprotein (LDL)**: Should be less 100 mg/dL
- **Chol/HDL Ratio**: Less than 5%
Maintain a Healthy Body Weight

- Losing just 10% of your body weight can reduce your risk of diabetes and stroke.
- Improves quality of sleep
- Weight loss increases your vitality and energy.
- Reduces cholesterol
Stay Active

• Work in your garden
• Walk your dog
• Walk around the room while watching TV
• Take the stairs whenever possible
• Park far away from the entrance
• Wear a pedometer
Enjoy Life for What it Is!

• Don’t sweat the small stuff
• Use prayer or meditation to relax
• Smile often
• Seek emotional support in times of need
• Take one day at a time
• Seek new knowledge
• Be thankful for what you have
Thank You