Hypertension

Outline

- What is blood pressure?
- What is hypertension?
- Stages of hypertension
- Nutrition for hypertension
  - DASH Eating Plan
  - Sodium Intake
  - Alcohol Intake

What is blood pressure?
What is blood pressure?

- Blood pressure is the measure of the force of blood pushing against arterial walls as the heart pumps blood.
- Blood pressure naturally rises and falls during the day.

What is blood pressure?

- Health care providers measure blood pressure with a stethoscope or electronic device.
- The measurement is recorded with two numbers:
  - Both numbers are important.
  - Measured in millimeters of mercury (mmHg).

What is blood pressure?

- Systolic: The top number measures the blood pressure when the heart pumps.
- Diastolic: The bottom measures the blood pressure when the heart is at rest between pumps.
What is hypertension?

- Commonly called high blood pressure (HBP)
- About 80 millions Americans have been diagnosed with HBP
- HBP is a condition most people will experience at some time in their lives

- People with HBP usually do not experience any symptoms
  - Often called the silent killer
- Consequences of untreated HBP include:
  - Heart and arterial damage (e.g. heart attack and congestive heart failure)
  - First leading cause of death among Americans
  - Stroke
  - Third lead cause of death among Americans
  - Kidney damage
  - Blindness
What is hypertension?

Stages of Hypertension

- Blood pressure is divided into 5 stages
  - Normal
  - Prehypertension
  - Hypertension Stage 1
  - Hypertension Stage 2
  - Hypertensive Crisis
**Stages of Hypertension**

<table>
<thead>
<tr>
<th>Blood Pressure Category</th>
<th>Systolic (mm Hg upper limit)</th>
<th>Diastolic (mm Hg lower limit)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal</td>
<td>less than 120</td>
<td>less than 80</td>
</tr>
<tr>
<td>Prehypertension</td>
<td>120 – 139</td>
<td>80 – 89</td>
</tr>
<tr>
<td>High Blood Pressure (Hypertension Stage 1)</td>
<td>140 – 150</td>
<td>90 – 99</td>
</tr>
<tr>
<td>High Blood Pressure (Hypertension Stage 2)</td>
<td>160 or higher</td>
<td>100 or higher</td>
</tr>
<tr>
<td>Hypertension Stage (Emergency care needed)</td>
<td>Higher than 160</td>
<td>Higher than 100</td>
</tr>
</tbody>
</table>

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**Nutrition for Hypertension**

- Eating a heart-healthy diet is one of the main steps for managing HBP
- Other important management steps include:
  - Maintaining a healthy weight
  - Keeping active with exercise
  - Taking prescribed medicine
  - Measuring blood pressure at home
  - Regular appointments with your healthcare providers
Nutrition for Hypertension

- Strong research evidence suggests a DASH eating plan is effective in lowering blood pressure
  - DASH stands for Dietary Approaches to Stop Hypertension
  - A DASH eating plan is low in:
    - saturated fats, total fat, and cholesterol
  - A DASH eating plan is high in:
    - fruits, vegetables, and low fat dairy foods
  - A DASH diet also includes:
    - whole grains, fish, poultry, and nuts

Nutrition for Hypertension

- A DASH eating plan is high in fruits, vegetables, and low fat dairy because these foods provide high amounts of:
  - Potassium
  - Magnesium
  - Calcium
  - Fiber
- These nutrients can help lower your blood pressure
DASH Eating Plan

<table>
<thead>
<tr>
<th>Category</th>
<th>Servings per day</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Calories</td>
<td>2,000 calories</td>
</tr>
<tr>
<td>2. Protein</td>
<td>5 oz.</td>
</tr>
<tr>
<td>3. Vegetables</td>
<td>1 cup</td>
</tr>
<tr>
<td>4. Fruits</td>
<td>1 cup</td>
</tr>
<tr>
<td>5. Fat and Full Servings</td>
<td>2 cups</td>
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DASH Eating Plan Continued

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Nutrition for Hypertension

- The previous plan is based on a 2,000 calorie/day diet
- There are modified DASH eating plans for less or more calories per day
- Consult a Registered Dietitian to discuss a modified DASH diet
Nutrition for Hypertension

- Tips in adopting the DASH eating plan
  - Spread out your servings of fruits and vegetables over the whole day
  - Increase vegetable servings gradually
    - Vegetables contain high amounts of fibers which may cause bowel discomfort if increased too quickly
  - Cut your current butter use in half
  - Try lactose-free dairy products or using a lactase enzyme pill if you are lactose intolerant

Nutrition for Hypertension

- Eating less sodium is another important part of nutrition to manage your HBP
  - Sodium is found in foods as salt (sodium chloride)
  - Most Americans eat too much sodium
    - Recommendation: Less than 2400 mg of sodium/day (equals 1 tsp of table salt)
  - Your doctor may recommend less if you have HBP
  - African Americans and older adults (65+ years old) are usually more sensitive to sodium

Nutrition for Hypertension

- Bump up the flavor!
  - Use herbs, spices, and salt-free seasonings when cooking
  - Add citrus juice from lemons, limes, or oranges on fish, poultry, and vegetables
  - Use vinegar in marinades for fish, poultry, and even vegetables
Additional tips for reducing sodium intake:
- Buy fresh or frozen vegetables
- Choose canned goods with “no salt added” on the label
- Use fresh poultry, fish, and meat
- Cook pasta and rice without adding salt
- Cut back on “processed” or “convenience” foods
  - These are foods that are pre-packaged and usually are very high in sodium
Nutrition for Hypertension

- Drinking too much alcohol can raise blood pressure
- Recommendations:
  - Men: 2 drinks/day or less
  - Women: 1 drink/day or less
- A “drink” is considered:
  - 12 ounces beer
  - 5 ounces wine
  - 1.5 ounces liquor

Nutrition for Hypertension

Questions??

Thank you!!