Do you know the CDC’s batting averages for hypertension in the U.S.?

- 31% have high blood pressure (HBP, hypertension)—that’s 1 in every 3 American adults.
- 69% of people who have a first heart attack, 77% of people who have a first stroke, and 74% of people with chronic heart failure have high blood pressure.¹ High blood pressure is also a major risk factor for kidney disease and cognitive decline.
- About 1 in 5 (20.4%) U.S. adults with high blood pressure don’t know that they have it.
- Approximately half (47%) of the people with high blood pressure have their condition under control.
- Almost 30% of American adults have pre-hypertension—blood pressure numbers that are higher than normal, but not yet in the high blood pressure range.

Hypertension is called the silent killer because often there is no sign or symptom until one develops a major complication from it—heart attack, stroke, or kidney failure. So how can we defeat this stealthy killer? Better yet, how can we prevent it?

Understand the numbers.

Blood pressure is the force of blood against the walls of the arteries. Blood pressure rises and falls during the day. Usually there are two numbers in a blood pressure reading. Systolic pressure (represented by the higher number) is the force of blood in the arteries as the heart beats. Diastolic pressure (represented by the lower number) is the force of blood in the arteries as the heart relaxes between beats.

Note in the chart below that what once was considered a good systolic pressure (top number)—120 to 124—is now listed as pre-hypertension. Scary isn’t it? And what is more serious yet, if you have only one of the two figures in the pre-hypertension range, you still have the condition. Pre-hypertension increases the risk of heart disease. According to a 2005 analysis by the Framingham Heart Study, men with pre-hypertension are 3.5 times more likely to suffer heart attacks than those with normal blood pressures.² Young adults who have pre-hypertension substantially increase their risk for coronary artery disease in middle age. HBP promotes atherosclerosis even when the cholesterol is within normal range.

Invest in a blood pressure cuff. The electronic models are easy to work, but to be accurate you need to get the appropriate size cuff. Take your blood pressure at least once a week. If you personally have risk factors for hypertension—obesity, smoking, a family history of heart disease, hypertension, or diabetes—take it daily. African Americans tend to get HBP earlier in life and develop more severe HBP. Children at risk for HBP should have their blood pressure checked a lot more than at the doctor’s office.
Don’t hurry but do DASH.

The Dash Diet has been as effective in reducing elevated blood pressure as medicine in many hypertensive individuals. It also effectively improves diabetes. It is a proven good first step for many individuals.

Daily Nutrient Goals Used in the DASH Studies (for a 2,000-Calorie Eating Plan) ³

<table>
<thead>
<tr>
<th>Nutrient</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total fat</td>
<td>27% of calories</td>
</tr>
<tr>
<td>Saturated fat</td>
<td>6% of calories</td>
</tr>
<tr>
<td>Protein</td>
<td>18% of calories</td>
</tr>
<tr>
<td>Carbohydrate</td>
<td>55% of calories</td>
</tr>
<tr>
<td>Cholesterol</td>
<td>150 mg</td>
</tr>
<tr>
<td>Sodium</td>
<td>2,300 mg*</td>
</tr>
<tr>
<td>Potassium</td>
<td>4,700 mg</td>
</tr>
<tr>
<td>Calcium</td>
<td>1,250 mg</td>
</tr>
<tr>
<td>Magnesium</td>
<td>500 mg</td>
</tr>
<tr>
<td>Fiber</td>
<td>30 g</td>
</tr>
</tbody>
</table>

Use more herbs and less salt.

Excess sodium consumption promotes fluid retention and causes the arteries to become more sensitive to norepinephrine, an artery-constricting hormone. Most of our sodium intake comes from salt consumption. Thirty percent of hypertensive individuals retain more salt than normal. Mild salt restriction generally works much better for lowering high blood pressure than severe salt restriction. One teaspoon of salt provides 2,300 mg of sodium. If you already have hypertension, or if you are middle-aged or elderly, or if you are an African American, daily recommendations are to lower your sodium intake to 1,500 mg per day. Processed foods and condiments usually have considerable sodium.

Caution Alert: Reduced-sodium products and salt substitutes often contain potassium chloride. Since this ingredient may harm people who have certain medical conditions such as diabetes and kidney disease, check with your doctor before trying reduced-sodium products and salt substitutes that contain potassium chloride.

Garlic⁴, onion⁵, rosemary⁶, and oregano possess phytochemicals that may help to lower elevated BP.
Enjoy fruits and veggies.

Abundant consumption of fruits and vegetables, potassium, and vitamin C is associated with a significantly lower risk of hypertension. A high fiber intake is associated with better blood sugar control, lower blood pressure and cholesterol, and better kidney function in type 2 diabetic patients. Fruits and vegetables are rich in potassium, a mineral that protects the arteries and kidneys and reduces the risk for stroke. Green, leafy vegetables contain magnesium which helps to prevent the blood vessels from experiencing sustained contraction, called vasospasm. Vegetarians have less incidence of hypertension than omnivores and a vegetarian diet can reduce elevated blood pressure.

Choose your beverages wisely.

A diet high in sugar and high fructose corn syrup can lower the threshold for hypertension. These products also raise uric acid, a byproduct of protein metabolism. Elevated uric acid levels are associated with new cases of recent-onset-essential-hypertension in children, and predict non-alcoholic fatty liver disease in obese children. Hypertension is not only associated with consumption of sugar-sweetened sodas, but artificially sweetened soft drinks as well, even after controlling for potentially confounding factors.

Caffeine raises blood pressure in hypertensive-prone individuals. It magnifies the physiologic effects of stress inside our bodies throughout the day even when taken only in the morning. Avoid caffeine because it increases the consumption of oxygen in the brain and blood flow resistance in the cerebrum (upper 7/8 of the brain). In other words, caffeine increases the demand for oxygen in the brain while reducing the supply of blood flow within the brain.

On the positive side, Hibiscus tea lowers blood pressure in pre-hypertensive and mildly hypertensive adults and can be as effective at lowering blood pressure as the commonly used blood pressure medication.

Lose to win.

The arteries in an obese individual become more sensitive to molecules that constrict them and less sensitive to molecules that open them. Among other serious consequences, diabetes and obesity decrease the ability of the innermost lining of the blood vessels to manufacture molecules that enable the blood vessels to dilate and discourage undesirable clotting.

Just a weight loss of even 10% in obese individuals is helpful in reducing high blood pressure and lowering blood lipids (cholesterol and triglycerides). Exercise and weight loss even improve the ability of the blood vessels to dilate in type 2 diabetes.

Punch line

Largely unknown at the time of his presidential campaign, Woodrow Wilson had been plagued by hypertension and mild strokes. In 1896 Wilson possibly experienced his first stroke, which caused marked weakness of his right upper limb plus sensory disturbances in his fingers. His doctors at the time diagnosed him as having neuritis. In June of 1904 Wilson developed weakness in the right arm that lasted for several months.

Once President, Wilson’s problems persisted. In May of 1914 changes in the arteries of his eye were documented. Wilson then experienced severe headaches lasting for days during the years 1915-1919. Wilson desperately wanted the First World War to be the war that ended all wars. Unfortunately, Wilson suffered a catastrophic stroke while President on October 13, 1919 and was thus prevented from accomplishing anything significant. His wife and physician actually conspired to keep the extent of his disability a secret; indeed, Wilson’s condition was hidden from his own Cabinet, from the Vice President and, of course, from the public. So, who was running the government?
His experience leads us to ask the following questions: In what ways exactly does our cardiovascular health impact our community? In Wilson’s day the medical community did not know as much about how to prevent and treat hypertension. Are we taking advantage of the opportunities that we personally have to follow the lifestyle principles that modern medical authorities advocate—to lose weight if obese, watch the salt, and exercise? Will our usefulness, like President Wilson’s, be cut short by our negligent failure to do so? Will cardiovascular disease sabotage our plans to help our world or to guide a child we love? If that happens to you, who will be in your driver’s seat?

http://www.wildwoodhealth.org/blog/will-drivers-seat/

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We have covered the nutritional aspects in preventing and reversing hypertension. In future articles, we will explore natural strategies that help hypertension. The above article is general in nature. Please consult your physician for medical conditions. Although Wildwood Lifestyle Center endorses a vegetarian diet for a number of health reasons, the DASH Diet is a good first step for many individuals. For more information on the individual plans under the Dash Diet, go https://www.nhlbi.nih.gov/health/.../dash/

References:

2. Prehypertension: Does it really matter?—Harvard Health Publishers
3. National Heart, Lung, and Blood Institute, What is the DASH eating plan?

“And being in an agony he prayed more earnestly: and his sweat was as it were great drops of blood falling down to the ground.” Luke 22:44