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Hypertension: Salt and Syndrome X

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Hypertension is called the "silent killer" because people often don't even know they have the illness until they have a stroke. The best estimates are that one in four Americans suffers from "hypertension," but a third of these people don't know it. There is no way to detect high blood pressure without having your blood pressure checked.

Any discussion of blood pressure involves several vocabulary words which may or may not be familiar to everyone. They are:

- Diastolic pressure -- this is the blood pressure when the heart is "relaxed," after it squeezes the blood out of its chambers into the arteries which are connected to the heart.
- Systolic pressure -- this is the pressure when the heart is contracted as it squeezes the blood out of its chambers.

Typically, when a person has high blood pressure, it is the diastolic pressure which is being addressed. While systolic hypertension can be important, it is the sustained pressure of diastolic hypertension which contributes most commonly to strokes, kidney disease, congestive heart failure, hardening of the arteries and damage to the eyes.

Elevated blood pressure causes the heart to work harder than normal, which makes the heart and the arteries of the body more prone to injury. When high blood pressure coexists with obesity, smoking, high cholesterol or diabetes the risk of heart attack and/or stroke is greatly increased.

If high blood pressure isn't treated, the heart may have to work harder and harder to pump enough blood and oxygen to the body. This increased work, over an extended time, causes the heart to enlarge (hypertrophy). This is just like the muscles in the arms and legs. When they are exposed to increased work, they get larger. Unlike the muscles in the arms and legs, however, the heart may work well when it is slightly larger, but weakens as it gets larger and larger. This weakening results in the heart being unable to do the work of pushing the blood around the body, resulting in that blood backing up into the lungs or legs, a condition called "congestive heart failure."

Arteries also are affected by elevated blood pressure. Over time, arteries become scarred, hardened and less elastic, when constantly exposed to elevated blood pressure. This hardening of the arteries may also occur as we get older, but high blood pressure makes it worse. In fact, hardening of the arteries functions as both a cause and an effect of high blood pressure.

High blood pressure is defined as a systolic pressure of 140 mm Hg or higher and/or a diastolic pressure of 90 mm Hg or higher. Blood pressure is measured in millimeters of mercury (mm Hg). Optimal blood pressure is systolic pressure below 120 and diastolic pressure below 80.

High blood pressure can occur in children or adults, but it's particularly prevalent in African Americans, middle aged and elderly people, obese people, heavy drinkers and women taking oral contraceptives. People with diabetes mellitus, gout or kidney disease also have a higher frequency of hypertension.

In a previous Your Life -- Your Health article, we talked about the effect of salt. Salt causes fluid retention and fluid overload -- too much fluid in the arteries and veins -- is one of the most common findings associated with high blood pressure.

Healthy American adults should reduce their sodium chloride (salt) intake to no more than 2400 milligrams per day. This is about 1 1/4 teaspoons of salt. To reduce the sodium in your diet:

- Choose fresh, frozen or canned food items without added salts.
 - Select unsalted nuts or seeds, dried beans, pea and lentils.
 - Avoid adding salt and canned vegetables to homemade dishes.
 - Select unsalted, fat-free broths, bouillons or soups.
 - Select fat-free ("skim") milk or low-fat milk, low-sodium, low-fat cheeses, as well as low-fat yogurt.
 - When dining out, be specific about what you want and how you want it prepared. Request your dish to be prepared without salt.
 - Learn to use spices and herbs to enhance the taste of your food without salt.
- Increasingly, there is a condition in Americans which has been called "Syndrome X." Syndrome X has also been called "metabolic syndrome" and is associated with:
- Central obesity (excessive fat in the abdominal region)
 - Glucose intolerance (diabetes mellitus)
 - Hyperlipidemia (high triglycerides and low HDL (good) cholesterol)
 - High blood pressure
- People with Syndrome X are at increased risk of coronary artery disease. If you have the four conditions associated with Syndrome X, you should:
- Monitor blood glucose, lipoproteins and blood pressure
 - Achieve ideal body weight and increase physical activity both of which improve all of the conditions associated with Syndrome X
 - Treat diabetes and hyperlipidemia aggressively
 - Choose drug therapy for high blood pressure with care since different agents have different effects on insulin sensitivity.

Everyone should have their blood pressure taken at least once a year. This can often be done at no cost at health fairs and other public service events. Everyone who is at high risk for diabetes should have their blood sugar monitored once a year, also. If you are overweight, lose weight. If you are not exercising, begin. If you have high cholesterol or triglycerides, change

the way you are eating. If you add salt to your food, stop. Remember, medicine often cannot undo the damage which your wrong choices produce. You can do more to improve, maintain and recover your health than all of the medicines in the world. Don't forget, it's Your Life and it's Your Health.