



ISNS Case Study

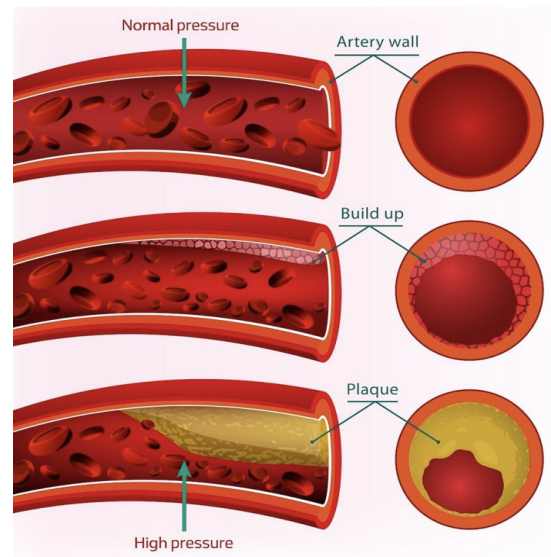
Hypertension

By Dr. Tina Bozicnik, M.D., Dr. Norbert Ketskés, M.D., Dr. Dori Naerbo, Ph.D., and Dr. Christina Rahm Ph.D.

High blood pressure is a common condition that affects the body's arteries. It's also called hypertension. If you have high blood pressure the force of blood pushing against the artery walls is consistently too high. The heart must work harder to pump blood. The American College of Cardiology and the American Heart Association divides blood pressure into four general categories. Ideal blood pressure is categorized as normal. Normal blood pressure is 120/80 mm Hg or lower. Elevated blood pressure is where the top number ranges from 120 to 129 mm Hg, and the bottom number is below, not above 80 mm Hg. Stage 1 hypertension is where the top number ranges from 130 to 139 mm Hg, or the bottom number is between 80 to 89 mm Hg. Stage 2 hypertension is where the bottom number is 140 mm Hg or higher, or the bottom number is 90 mm Hg or higher.

Most people with high blood pressure have no symptoms, even if blood pressure readings reach dangerously high levels. You can have high blood pressure for years without any symptoms. Individuals with high blood may experience headaches, shortness of breath, and nosebleeds. These symptoms are not specific. They usually do not occur until high blood pressure has reached a severe or life-threatening stage.

Blood pressure is determined by two things: the amount of blood the heart pumps and how hard it is for the blood to move through the arteries. The more blood the heart pumps



and the narrower the arteries, the higher the blood pressure. There are two types of high blood pressure; primary hypertension, also called essential hypertension, and secondary hypertension. Primary hypertension tends to develop gradually over many years. Plaque buildup in the arteries called atherosclerosis, increases the risk of high blood pressure. Secondary hypertension is caused by an underlying condition. It tends to appear suddenly and cause higher blood pressure than primary hypertension. Conditions and medications that can lead to secondary hypertension include adrenal tumors, blood vessel problems present at birth, also called congenital heart defects, cough and cold medicines, some pain relievers, birth control pills, kidney disease, obstructive sleep apnea, and thyroid problems. Sometimes getting a health checkup causes blood pressure to increase, this is called white-coat hypertension. High blood pressure has many risk factors including age, race, family history, obesity or being overweight, lack of exercise, too much salt, tobacco use or vaping, low potassium levels, drinking too much alcohol, stress, certain chronic conditions, and pregnancy.

The excessive pressure on the artery walls caused by high blood pressure can damage blood vessels and body organs. The higher the blood pressure and the longer it goes uncontrolled, the greater the damage. Uncontrolled high blood pressure can lead to complications including heart attacks, strokes and aneurysms. The hardening and thickening of the arteries due to high blood pressure or other factors can lead to heart attacks, strokes, or other complications. Increased blood pressure can cause a blood vessel to weaken and bulge, forming an aneurysm. If an aneurysm ruptures, it can be life-threatening. Having high blood pressure causes the heart to work harder to pump blood. The strain causes the walls of the heart's pumping chamber to thicken. This condition is called left ventricular hypertrophy. Eventually, the heart cannot pump enough blood to meet the body's needs, causing heart failure. High blood pressure can cause the blood vessels in the kidneys to become narrow or weak. This can lead to kidney damage. Increased blood pressure can cause thickened, narrow, or torn blood vessels in the eyes. This can result in vision loss. Metabolic syndrome is a group of disorders of the body's metabolism. It involves the irregular breakdown of sugar, also called glucose. The syndrome includes increased waist size, high triglycerides, decreased high-density lipoprotein (HDL "good") cholesterol, high blood pressure, and high blood sugar levels. These conditions make you more likely to develop diabetes, heart disease, and stroke. uncontrolled blood pressure may affect the ability to think, remember, and learn. Narrowed or blocked arteries can limit blood flow to the brain. This can cause a certain type of dementia called vascular dementia. A stroke that interrupts blood flow to the brain can also cause ventricular dementia.

Simple lifestyle changes can help reduce high blood pressure, although some people may need to take medicines as well. Your general physician can advise you about changes you can make to your lifestyle and discuss whether they think you would benefit from medicine. Everyone with high blood pressure is advised to make healthy lifestyle changes. Whether

medicine is also recommended depends on your blood pressure reading and your risk of developing problems such as heart disease and strokes. Several types of medicines can be used to help control high blood pressure. Many people take a combination of different medicines. If you are under 55, you will usually be offered an ACE inhibitor or angiotensin-2 receptor blocker (ARB). If you are over 55 or you are any age of African or Caribbean descent, you will usually be offered a calcium channel blocker.

Case Study

Patient: Male

Age: 59 -year-old

History: His father and both grandfathers also had hypertensive syndrome.

Does not exercise, smokes, overweight (BMI: 29 kg/m²), stressful job

Medical history:

He was diagnosed with hypertension 5 years ago

Antihypertensive therapy: combination 3 tablets, which includes 4 different active ingredients: ARB+ Calcium antagonist+Diuretics+Beta blocker (3rd generation)

Blood pressure values: values around 150/95 mmHg, occasionally, especially under stress up to 190/100 mmHg (blood pressure diary)

complaints: frequent headaches, malaise, fatigue

Clinical test:

Labor:

Cholesterol: 6.9 mmol/l * (2.5 - 5.2) Triglyceride: 3.3 mmol/l * (0.1 - 2.3)

HDL cholesterol: 1.30 mmol/l (0.90 - 2.29) LDL-D: 4.25 mmol/l * (1.60 - 3.30)

LEGEND:

Proprietary blend I: silica, vitamin c, and trace minerals.

Proprietary blend II: N-acetyl L-tyrosine, anhydrous caffeine, L-theanine, velvet bean seed, pine bark, curcumin, and vitamin d.

Proprietary blend III: black seed oil, resveratrol, turmeric, raspberry ketone, apple cider vinegar, aloe Vera, and d-ribose

Proprietary blend IV: Vitamin C, Zinc sulfate, and Vitamin D3.

Proprietary blend V: Inulin, Green Banana Flour, Apple Fiber, Bacillus Coagulans, Spirulina, Wheat Grass, Barley Grass, Alfalfa Leaf, Flaxseed, Psyllium Husk Powder, Chlorella, Broccoli, Kale, Spinach, Green Cabbage, Parsley, Aloe Vera, Cayenne Pepper, Blueberry Powder, Pomegranate Seed Powder, and MCT Coconut Oil Powder

Proprietary Blend VI: B-Nicotinamide Adenine Dinucleotide (NAD+), Magnesium, Trace Minerals, Quercetin, Vitamin D, Vitamin D, and Vitamin K2

Proprietary blend VII: hydrolyzed bovine collagen and whole bovine colostrum powder

Treatment/Method:

Proprietary blend I: 2x5 drops, morning and evening, for 3 days, then every 3 days then increased by 1-1 drops every 3 days to 2x10

Proprietary III: 1 sachet in the morning for 7 days then 1 sachet in the morning and 1 sachet in the evening

Proprietary blend IV: 1/2 teaspoon in the morning

Proprietary blend V: 1 teaspoon in the evening.

Proprietary blend VI: 1 in the morning and 1 in the evening for 7 days, then 2 in the morning and 1 in the evening

Proprietary blend VII- 1 teaspoon in the morning

Additional Treatment: Reducing salt (3-5 g/day, approximately 1-2 g Na), following a mediterranean diet, focusing on adequate fluid consumption, less or no smoking, increasing physical activity, and focusing on stress relief through meditation and yoga.

Results:

After 2 months:

Blood pressure values: values around 130/80 mmHg (blood pressure diary)

The spikes in blood pressure stopped!

Complaints: frequent headaches have stopped, malaise and tiredness are greatly reduced

Labor control (after 3 months):

Cholesterol: 6.9 mmol/l * -5,3 mmol/l (2.5 - 5.2) Triglyceride: 3.3 mmol/l *-2,5 mmol/l (0.1 - 2.3)

HDL cholesterol: 1.30 mmol/l -2.2 mmol/l (0.90 - 2.29) LDL-D: 4.25 mmol/l * -3,5 mmol/l(1.60 - 3.30)

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