

High Blood Pressure: Secondary Hypertension

What is secondary hypertension?

Blood pressure is the force of the blood on the artery walls as the heart pumps blood through the body. High blood pressure caused by a disease or another known medical problem is called secondary hypertension. Most cases of secondary hypertension are caused by kidney or hormonal problems.

Normal blood pressure ranges up to 120/80 ("120 over 80") but blood pressure can rise and fall with exercise, rest, or emotions. The pressures are measured in millimeters of mercury. The upper number (120) is the pressure when the heart pushes blood out to the rest of the body (systolic pressure). The bottom number (80) is the pressure when the heart rests between beats (diastolic pressure).

- Healthy blood pressure is less than 120/80.
- Pre-high blood pressure (prehypertension) is from 120/80 to 139/89.
- Stage I high blood pressure ranges from 140/90 to 159/99.
- Stage II high blood pressure is over 160/100.

If repeated checks of your blood pressure show that it is higher than 140/90, you have hypertension. If you have prehypertension and other health problems, such as diabetes, you need treatment.

How does it occur?

Many medical conditions, diseases, and medicines can cause secondary hypertension, including:

- narrowing of the arteries in the kidneys
- narrowing of the aorta, a large blood vessel that supplies blood to the lower body
- several types of kidney disease
- excess secretion of a hormone called aldosterone from the adrenal gland
- tumor of the adrenal gland
- Cushing's syndrome, a disorder in which there is too much corticosteroid hormone in the blood
- medicines such as estrogen and oral contraceptives
- abuse of drugs such as amphetamines, alcohol, or diet pills
- pregnancy.

What are the symptoms?

High blood pressure may not cause any symptoms. Even secondary hypertension may have few symptoms. Symptoms are usually general and may include:

- headaches
- dizziness
- fatigue
- restlessness and sleeplessness
- nosebleeds

- general feeling of ill health
- the need to urinate often
- round or "moon" face, excess body and facial hair, and weight gain if the high blood pressure is caused by Cushing's syndrome.

How is it diagnosed?

Your health care provider will ask about your symptoms and will do a physical exam. Blood tests, chest x-rays, and an electrocardiogram may be done. Your provider will want to measure your blood pressure on three different days when you are relaxed and not in a hurry and have not had alcohol for 72 hours.

Your medical history is an important part of diagnosis. Your health care provider will ask about your personal and family history of high blood pressure and heart or kidney disease.

How is it treated?

Secondary hypertension is treated by treating the condition causing the high blood pressure. For example, if you have high blood pressure caused by Cushing's syndrome, treatment for Cushing's will lower your blood pressure.

Your health care provider may recommend additional treatments to lower your blood pressure, such as diuretics or other medicines that reduce blood pressure.

How long will the effects last?

If the cause can be diagnosed and treated, your blood pressure should improve. If you are taking medicine to reduce your blood pressure and your underlying condition is treated, you may be able to cut down or stop taking the blood pressure medicine.

How can I take care of myself?

- Always follow your health care provider's instructions for taking medicines. Don't take less medicine or stop taking medicine without talking to your provider first. It can be dangerous to suddenly stop taking blood pressure medicine. Also, do not increase your dosage of any medicine without first talking with your provider.
- Check your blood pressure (or have it checked) as often as your health care provider advises. Keep a chart of the readings.
- Don't smoke.
- Follow the DASH diet. This diet is low in fat, cholesterol, red meat, and sweets. It emphasizes fruits, vegetables, and low-fat dairy foods. The DASH diet also includes whole-grain products, fish, poultry, and nuts.
- Use less salt. Check the levels of sodium listed on food labels. Avoid canned and prepared foods unless the label says no salt is added.
- With your provider's approval, start an exercise program that you can do regularly (such as biking or walking).
- Lose weight if you need to.
- Limit the amount of alcohol you drink.
- Limit the amount of caffeine you drink.
- Try to reduce the stress in your life or learn how to deal better with situations that make you feel anxious.
- Ask your health care provider or pharmacist for information about the drugs you are taking.
- See your health care provider as often as he or she recommends.

What can be done to help prevent secondary hypertension?

Most of the conditions that cause secondary hypertension cannot be prevented. However, regular checkups can help detect many conditions before they become serious, including those that can result in high blood pressure.

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