



# HYPERTENSION

## What is Hypertension?

Hypertension is the term used to describe high blood pressure. Blood pressure is a measurement of the force against the walls of your arteries as the heart pumps blood through the body.

Blood pressure readings are measured in millimeters of mercury (mmHg) and usually given as two numbers- for example, 120 over 80 (written as 120/80 mmHg). One or both of these numbers can be too high.

The top number is your systolic pressure.

- It is considered high if it is over 140 most of the time.
- It is considered normal if it is below 120 most of the time.

The bottom number is your diastolic pressure.

- It is considered high if it is over 90 most of the time.
- It is considered normal if it is below 80 most of the time.

## What causes it?

Many factors can affect blood pressure, including:

- Idiopathic, i.e. no established cause. Most hypertensive persons fall under this category and it is called Essential Hypertension.
- How much water and salt you have in your body
- The condition of your kidneys, nervous system, or blood vessels
- The levels of different body hormones like thyroxine, renin and adrenal gland hormones.
- Age- You are more likely to be told your blood pressure is too high as you get older. This is because your blood vessels become stiffer as you age. When that happens, your blood pressure goes up. High blood pressure increases your chance of having a stroke, heart attack, heart failure, kidney disease and early death.

### Associated risks:

You have a higher risk of high blood pressure if you:

- Are African
- Are obese
- Are often stressed or anxious
- Eat too much salt in your diet
- Have a family history of high blood pressure
- Have diabetes
- Smoke

High blood pressure that is caused by another medical condition or medication is called secondary hypertension. Secondary hypertension may be due to:

- Alcohol abuse
- Atherosclerosis
- Autoimmune disorders such as periarteritis nodosa
- Chronic kidney disease
- Coarctation of the aorta (condition where the big vessels of the heart are transpositioned)
- Cocaine use
- Diabetes (if it causes kidney damage)
- Endocrine disorders, such as adrenal tumors (pheochromocytoma, aldosteronism), thyroid disorders, and Cushing syndrome
- Medications
- Appetite suppressants
- Birth control pills
- Certain cold medications
- Corticosteroids
- Migraine medications
- Renal artery stenosis

## What are the symptoms?

This is a silent disease. Most of the time, there are no symptoms. Symptoms that may occur include:

- Confusion
- Ear noise or buzzing
- Fatigue
- Headache
- Irregular heartbeat
- Nosebleed
- Vision changes

**If you have a severe headache or any of the symptoms above, see your doctor right away. These may be signs of a complication or dangerously high blood pressure called malignant hypertension.**

## How is it diagnosed?

Your health care provider will perform a physical examination and check your blood pressure. If the measurement is high, your health care provider may think you have high blood pressure. The measurements need to be repeated over time so that the diagnosis can be confirmed.

If you monitor your blood pressure at home, you may be asked the following questions:

- What was your most recent blood pressure reading?
- What was the previous blood pressure reading?
- What is the average systolic (top number) and diastolic (bottom number) reading?
- Has your blood pressure increased recently?

Other tests may be done to look for blood in the urine or heart failure. Your doctor will look for signs of complications in your heart, kidneys, eyes, and other organs in your body.

These tests may include:

- Blood tests
- Echocardiogram
- Electrocardiogram
- Urinalysis
- Ultrasound of the kidneys

## Treatment

### Non-drug:

Your health care provider may also tell you to exercise, lose weight, and follow a healthier diet. If you have pre-hypertension, your health care provider will recommend the same lifestyle changes to bring your blood pressure down to a normal range.

In addition to taking medicine, you can do many things to help control your blood pressure, including:

- Eat a heart-healthy diet, including potassium and fibre and drink plenty of water.
- Exercise regularly, at least 30 minutes a day.
- If you smoke, quit, find a program that will help you stop.
- Limit how much alcohol you drink, 1 drink a day for women, 2 a day for men.
- Limit the amount of sodium (salt) you eat, aim for less than 1,500 mg per day.
- Reduce stress, try to avoid things that cause stress for you. You can also try meditation or yoga.
- Stay at a healthy body weight, find a weight-loss programme to help you, if you need it.

Your health care provider can help you find programmes for losing weight, stopping smoking, and exercising. You can also get a referral from your doctor to a dietician who can help you plan a diet that is healthy for you.

Your health care provider may ask you to keep track of your blood pressure at home. Make sure you get a good quality, well-fitting home device. It will probably have a cuff with a stethoscope or a digital readout. Practice with your health care provider or nurse to make sure you are taking your blood pressure correctly.

## Your role in managing this condition

### When to contact a Medical Professional

If you have high blood pressure you will have regularly scheduled appointments with your doctor. Even if you have not been diagnosed with high blood pressure, it is important to have your blood pressure checked during your yearly check-up, especially if someone in your family has or had high blood pressure. Call your health care provider right away if home monitoring shows that your blood pressure remains high or you have any of the following symptoms:

- Chest pain
- Confusion
- Excessive tiredness
- Headache
- Nausea and vomiting
- Shortness of breath
- Significant sweating
- Vision changes

## DISCLAIMER

The reader should always consult a doctor if they believe they may be suffering from this medical condition. The information contained herein is intended to assist understanding and should not take the place of your doctor's advice or instructions. Whilst every effort has been made to ensure the accuracy of the information contained herein, Universal Care does not accept responsibility for any errors or omissions or their consequences, and shall not be liable for any damages suffered arising out of the use of this information.

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## How can high blood pressure affect my health?

Most of the time, high blood pressure can be controlled with medicine and lifestyle changes.

Possible Complications

- Aortic dissection (rupture of the aorta)
- Blood vessel damage (arteriosclerosis)
- Brain damage
- Congestive heart failure
- Chronic kidney disease
- Heart attack
- Hypertensive heart disease
- Peripheral artery disease
- Pregnancy complications
- Stroke
- Vision loss

### Drug:

The goal of treatment is to reduce blood pressure so that you have a lower risk of complications. You and your health care provider should set a blood pressure goal for you.

There are many different medicines that can be used to treat high blood pressure, including:

- Alpha blockers
- Angiotensin-converting enzyme (ACE) inhibitors
- Angiotensin receptor blockers (ARBs)
- Beta blockers
  
- Calcium channel blockers
- Central alpha agonists
- Diuretics
- Renin inhibitors
- Vasodilators

Often, a single blood pressure drug may not be enough to control your blood pressure, and you may need to take two or more drugs. It is very important that you take the medications prescribed to you. If you have side effects, your health care provider can substitute a different medication.

### Lifestyle changes may help control your blood pressure:

- Avoid smoking.
- Do not consume more than 1 drink a day for women, 2 a day for men.
- Eat a diet rich in fruits, vegetables, and low-fat dairy products while reducing total and saturated fat intake (the DASH diet is one way of achieving this kind of dietary plan).
- Exercise regularly. If possible, exercise for 30 minutes on most days.
- If you have diabetes, keep your blood sugar under control.
- Lose weight if you are overweight. Excess weight adds to strain on the heart. In some cases, weight loss may be the only treatment needed.
- Try to manage your stress.

**Follow your health care provider's recommendations to modify, treat, or control possible causes of secondary hypertension.**