



**KWAZULU-NATAL PROVINCE**

HEALTH  
REPUBLIC OF SOUTH AFRICA

# What is blood pressure



 KwaZulu-Natal Department of Health

 kznhealth

 KZN Department of Health

 @kznhealth

**GROWING  
KWAZULU-NATAL  
TOGETHER**


**High blood pressure** (hypertension) is termed the “silent killer” as there are rarely visible symptoms. More advanced cases however may cause headaches, especially pulsating headaches behind the eye; visual disturbances; nausea and vomiting; sleepiness and even seizures in severe cases. Two out of three people with high blood pressure are unaware of the condition.

It is estimated that 1 in 4 South Africans between the ages of 15 and 64 years suffer from high blood pressure. It is one of the leading causes of heart attack, stroke, kidney failure and premature death.

## What is blood pressure?

Your blood pressure is the force exerted by your heart, against the resistance created by the arteries, to keep blood flowing through your body. Your blood pressure is high (hypertension) when the force is excessive. A blood pressure measurement is made up of two parts: systolic and diastolic. Systolic pressure occurs in arteries during heart contraction and diastolic pressure during the period of heart relaxation, between beats. This is why a measurement is expressed as one figure `over` another, for example, 140/90mm Hg. Researchers now believe that blood pressure as high as 130/85mm Hg can be considered normal, with 140/90mmHg as the highest border for normality.

Normal	<130/85
High Normal	130/85 to 140/90
Hypertension - mild	140/90 to 160/100
- Moderate	160/100 to 180/110
- Severe	180/110 to 210/110
Very high	>210



*The only way to know  
if your blood pressure is high  
is to have it checked  
regularly.*

## What is hypertension?

Hypertension is the medical term used when blood pressure is consistently raised, even when the patient is at rest. Blood pressure is influenced by 2 factors: the amount of blood pumped by the heart and how easily the blood can flow through the narrower arteries, the harder it is for blood to flow through them and the higher the blood pressure.

There are, however, natural rises in the blood pressure of healthy people. Blood pressure is affected by body position, breathing, emotional state, exercise and sleep. Blood pressure is usually the lowest when asleep and highest when excited, stressed or exercising. Blood pressure tends to rise with age or during illness.

### Risk factors for high blood pressure:

- A **family history** of high blood pressure.
- An unhealthy diet, including excessive **salt intake**.
- Excessive **alcohol** consumption.
- Being **overweight** (especially around the stomach area) – increases the risk 2-6 times.
- **Physical inactivity** – lack of exercise.
- **Stress** – **stress** levels are hard to measure, and responses to stress vary from person to person.
- **Ethnic group** – Africans (including African Americans) have a genetic predisposition to hypertension.
- **Age** – in general, the older you get, the greater your chance of developing high blood pressure. It occurs most often in men over age 35. Weight gain during adult life has been found to be responsible for much of the rise in blood pressure seen with aging.
- Pregnancy.
- Certain **medications** such as birth control pills, steroids and anti-inflammatory drugs.
- Some other **diseases** such as kidney disease.
- **Smoking**

## What harm does high blood pressure do?

High blood pressure sufferers may feel perfectly well for years but are none the less at risk of damage to arteries and vital organs.

Atherosclerosis or hardening of arteries occurs gradually in all peoples, but speeds up when blood pressure is high. Blood flows with more difficulty and the heart's workload increases.

If high blood pressure is not treated, the heart becomes too weak for this increased workload, resulting in heart problems. Tiredness, shortness of breath and swollen ankles are often experienced. High blood pressure can lead to a heart attack or stroke (brain attack) and affect other parts of the body such as the eyes (glaucoma, blindness), kidneys ( kidney disease and failure) and peripheral vascular disease (circulation problems in which the arteries that carry blood to the legs or arms become narrowed or clogged).

Hypertension may affect some people more than others. Those at greater risk of high blood pressure are: African ethnic groups, youth, men, persistent diastolic blood pressure of >115, smoking, diabetes mellitus, high blood cholesterol, obesity and excessive alcohol consumption.

A blood pressure reading should not be regarded in isolation. The pattern over 24-hours (especially in women) is important. There is a 3 times higher risk of death in people with less than a 10% reduction of blood pressure during the night.

Compared to people with controlled high blood pressure, people with uncontrolled high blood pressure are:

- Three times more likely to develop heart disease
- Six times more likely to develop heart failure
- Seven times more likely to have a stroke

**Take any blood pressure medication exactly as prescribed.  
Don't stop or change it unless advised to do so by your doctor.**

## How can I reduce my blood pressure level?

**The following are guidelines for lowering or normalizing high blood pressure:**

- Eat 3-6 small meals per day.
- Eat a healthy balanced diet, low in saturated fat (animal fats found in red meat, skin of chicken and full cream dairy products) that includes a variety of foods and provides sufficient amounts of potassium (found in fruit, vegetables, dairy products and fish), calcium, magnesium (in whole grains, nuts, and dry peas and beans) omega -3 fatty acids (fatty fish such as salmon, mackerel, sardines, snoek).
- Overweight people are advised to lose weight to attain their ideal body weight. Losing as little as 4.5kg can lead to a meaningful drop in blood pressure.

- Limit salt (sodium chloride) intake to one teaspoon per day. "Hidden salt" in processed foods represents 65-80% of our intake of sodium chloride with only 15% coming from the salt we add at the table. Limit your intake of processed foods, foods high in salt and those containing flavouring salts. Read labels of products for sodium content before purchase! The use of potassium salts should only be prescribed as a replacement for sodium chloride under medical supervision.

- If you drink alcohol, do so in moderation. Limit daily intake to 2/3 drinks. One drink is equal to 340ml beer, 120ml wine and 25ml spirits,

- Caffeine in coffee, tea, cola drinks and chocolate may cause blood pressure to increase temporarily. Excessive intake is therefore not recommended.

-Physical activity should be part of your daily routine. Try to exercise for at least 30-45 minutes most days of the week. Avoid strenuous exercise such as lifting heavy weights, which can raise blood pressure. Rather try walking, swimming, cycling or golf. Consult your doctor for advice on the type of exercise you should be doing.

-Stress management is important in keeping your blood pressure under control.

## Understanding "hidden" salt:

Some foods that you'd never guess contain salt. The best way to determine this out is by reading the labels of products before purchase. Avoid products containing salt – look for the word "sodium" in the ingredients list. Examples are sodium chloride (table salt), monosodium glutamate and sodium bicarbonate (baking soda). Choose "low salt" alternatives – if there are any available.

## How to limit salt intake at home:

If you add salt in preparation, do not add extra salt at the table. Learn to use herbs and spices and to enjoy the natural flavor of food. Alternatives for salt in cooking are pepper, salt-free spices, vinegar, lemon juice, fresh garlic, fresh ground horseradish, hot pepper sauce, garlic and onion powders, fruit and fruit juices, low-sodium commercial salad dressings and homemade salad dressings with added salt.

## Complication of uncontrolled High Blood Pressure

Uncontrolled high blood pressure (HBP) can injure or kill you. It's sometimes called "the silent killer" because HBP has no symptoms, so you may not be aware that it's damaging your arteries, heart and other organs. **Possible health consequences that can happen over time when high blood pressure is left untreated include:**

- Damage to the heart and coronary arteries, including heart attack, heart disease, congestive heart failure, aortic dissection and atherosclerosis (fatty build ups in the arteries that cause them to harden)
- Stroke
- Kidney damage
- Vision loss
- Erectile dysfunction
- Memory loss
- Fluid in the lungs
- Angina
- Peripheral artery disease



**KWAZULU-NATAL PROVINCE**

HEALTH  
REPUBLIC OF SOUTH AFRICA