

BLOOD PRESSURE



Your doctor or nurse measures and expresses your blood pressure as two numbers; the higher or upper **systolic** pressure and the lower **diastolic** pressure.

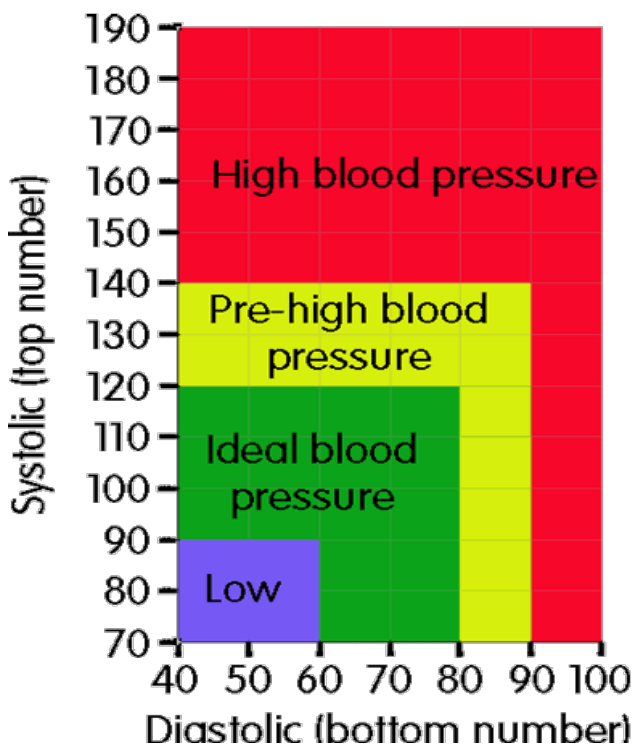
Blood Pressure Measurements

The **systolic** pressure is generated when the left ventricle of the heart contracts and squeezes blood rich in oxygen, via the aorta, to the rest of the body including the brain.

After each contraction, the heart relaxes and blood returns and refills the heart before the next contraction. The pressure of the refilling blood is the **diastolic** pressure.

Normal blood pressure

Normal blood pressure is ideal when it is below 120/80 and above 90/60



High blood pressure (Hypertension)

Hypertension occurs when the blood pressure is over 140/90. Either reading in excess of this target is considered high blood pressure eg if the systolic is 130 but the diastolic is 95 - this is called diastolic hypertension.

Some people may have pre-hypertension where the systolic is under 140 but above 120 and a diastolic under 90 but above 80. They too are at higher risks and should also see a doctor for assessment.

Low blood pressure (Hypotension)

Hypotension occurs when the blood pressure is below 90/60. Either reading below this target is considered low blood pressure.

Generally low blood pressure is not a problem especially if there are no symptoms. Some people experience giddiness or fainting spells especially when standing up too rapidly from a lying down or sitting position. If there are symptoms, you should consult a doctor for further assessment

Causes of hypertension

- Smoking
- Overweight or obese
- Lack of physical activity
- Too much salt in the diet
- Too much alcohol (more than 1 to 2 drinks per day)
- Stress e.g white-coat syndrome and work & family stress and cause higher blood pressures
- Older age
- Genetics eg Family history of high blood pressure
- Chronic kidney disease
- Adrenal and thyroid disorders
- Sleep apnea
- Secondary risks factors include high cholesterol and homocysteine levels.

Essential Hypertension refers to hypertension when no underlying cause can be found, and up to 95% of high blood pressure cases fall into this category.

Risks of untreated hypertension

Untreated hypertension increases risks of artery disease that can affect the heart, kidneys, brains and eyes etc. For example, someone with a blood pressure level of 135/85 is twice as likely to have a heart attack or stroke as someone with a reading of 115/75.

Hence it is critical to diagnose and treat hypertension early in order to decrease your overall health risks and reduce complications of untreated hypertension. Discuss this with your doctor if you have any questions.