

# What is Hypertension?

Hypertension (high blood pressure) is when blood pushes against your blood vessel walls with too much force, and puts a strain on your heart and blood vessels.



When your heart beats, it pumps blood around your body to give it the energy and oxygen it needs. As the blood moves, it pushes against the sides of the blood vessels. The measure of strength of this pushing, is your blood pressure. If your blood pressure is too high, it puts extra strain on your heart and blood vessels. This is called high blood pressure, or hypertension. Over time it can lead to a number of health problems including heart attacks and stroke, and also forms part of the cluster of symptoms in metabolic syndrome (1).

Blood pressure is measured in millimetres of mercury (mmHg) and is recorded as 2 numbers usually written one above the other. The top number is the systolic blood pressure - the highest pressure in blood vessels when your heart beats and pushes blood out. The bottom number is the diastolic blood pressure - the lowest pressure in blood vessels when the heart muscle relaxes between beats (2).

## BP Parameters

NHS blood pressure parameters are as follows (3):

- Ideal blood pressure is considered to be between 90/60mmHg and 120/80mmHg
- High blood pressure is considered to be 140/90mmHg or higher
- Low blood pressure is considered to be 90/60mmHg or lower

## Diet & Nutrition

High blood pressure is often related to unhealthy diet and lifestyle habits including overweight/obesity, unhealthy diet, excessive dietary sodium, inadequate dietary potassium, insufficient physical activity, and high consumption of alcohol (4).

1. <http://www.bloodpressureuk.org/your-blood-pressure/understanding-your-blood-pressure/what-is-high-blood-pressure/>
2. <https://www.gov.uk/government/publications/health-matters-combating-high-blood-pressure/health-matters-combating-high-blood-pressure>
3. <https://www.nhs.uk/common-health-questions/lifestyle/what-is-blood-pressure/>
4. Carey, Robert M et al. "Prevention and Control of Hypertension: JACC Health Promotion Series." Journal of the American College of Cardiology vol. 72,11 (2018): 1278-1293. doi:10.1016/j.jacc.2018.07.008

