

Hypertension : the basic facts

Source : A global brief on HYPERTENSION, World Health Day 2013

1. Hypertension, also known as high or raised blood pressure, is a condition in which the blood vessels have persistently raised pressure. The higher the pressure in blood vessels the harder the heart has to work in order to pump blood. If left uncontrolled, hypertension can lead to a heart attack, an enlargement of the heart and eventually heart failure. Blood vessels may develop bulges (aneurysms) and weak spots due to high pressure, making them more likely to clog and burst. The pressure in the blood vessels can also cause blood to leak out into the brain. This can cause a stroke. Hypertension can also lead to kidney failure, blindness, rupture of blood vessels and cognitive impairment.

2. Blood pressure is measured in millimetres of mercury (mm Hg) and is recorded as two numbers usually written one above the other. The upper number is the systolic blood pressure - the highest pressure in blood vessels and happens when the heart contracts, or beats. The lower number is the diastolic blood pressure - the lowest pressure in blood vessels in between heartbeats when the heart muscle relaxes. Normal adult blood pressure is defined as a systolic blood pressure of 120 mm Hg and a diastolic blood pressure of 80 mm Hg.

3. However, the cardiovascular benefits of normal blood pressure extend to lower systolic (105 mm Hg) and lower diastolic blood pressure levels (60 mm Hg). Hypertension is defined as a systolic blood pressure equal to or above 140 mm Hg and/or diastolic blood pressure equal to or above 90 mm Hg. Normal levels of both systolic and diastolic blood pressure are particularly important for the efficient function of vital organs such as the heart, brain and kidneys and for overall health and wellbeing.

4. In addition, there are several metabolic factors that increase the risk of heart disease, stroke, kidney failure and other complications of hypertension, including diabetes, high cholesterol and being overweight or obese. Tobacco and hypertension interact to further raise the likelihood of cardiovascular disease.

5. Social determinants of health, e.g. income, education and housing, have an adverse impact on behavioural risk factors and in this way influence the development of hypertension. For example, unemployment or fear of unemployment may have an impact on stress levels that in turn influences high blood pressure. Living and working conditions can also delay timely detection and treatment due to lack of access to diagnostics and treatment and may also impede prevention of complications.

6. Rapid unplanned urbanization also tends to promote the development of hypertension as a result of unhealthy environments that encourage consumption of fast food, sedentary behaviour, tobacco use and the harmful use of alcohol. Finally, the risk of hypertension increases with age due to stiffening of blood vessels, although ageing of blood vessels can be slowed through healthy living, including healthy eating and reducing the salt intake in the diet.

7. In some cases there is no known specific cause for hypertension. Genetic factors may play a role, and when hypertension develops in people below the age of 40 years it is important to exclude a secondary cause such as kidney disease, endocrine disease and malformations of blood vessels. Preeclampsia is hypertension that occurs in some women during pregnancy. It usually resolves after the birth but it can sometimes linger, and women who experience preeclampsia are more likely to have hypertension in later life.

8. Occasionally, when blood pressure is measured it may be higher than it usually is. For some people, the anxiety of visiting a doctor may temporarily raise their blood pressure (“white coat syndrome”).

9. Hypertension is a serious warning sign that significant lifestyle changes are required. The condition can be a silent killer and it is important for everybody to know their blood pressure reading.