

Hypertension: Causes, Symptoms and Treatments

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Last updated: Mon 18 April 2016

The number of people living with hypertension (high blood pressure) is predicted to be 1.56 billion worldwide by the year 2025.¹

In the US, around 75 million people have hypertension, with more people dying of hypertension-related cardiovascular disease than from the next three deadliest diseases combined.¹⁰

In 2011-2012 in the US, about a third of all people over the age of 20 years had hypertension, based on [high blood pressure](#) assessments and the number of people taking antihypertensive medications.²

Control of hypertension has become a key national priority in the US as part of the [Million Hearts](#) initiative from the Department of Health and Human Services, which aims to prevent 1 million heart attacks and [strokes](#) in the US by 2017.³

The increasing prevalence of the condition is blamed on lifestyle and dietary factors, such as physical inactivity, alcohol and tobacco use, and a diet high in sodium (usually from processed and fatty foods).¹

This page offers detailed but easy-to-follow information about hypertension. Should you be interested in the latest scientific research on hypertension, please see our [hypertension news](#) section.

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- [What is hypertension \(high blood pressure\)?](#)
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You will also see introductions at the end of some sections to any recent developments that have been covered by *MNT's* news stories. Also look out for links to information about related conditions.

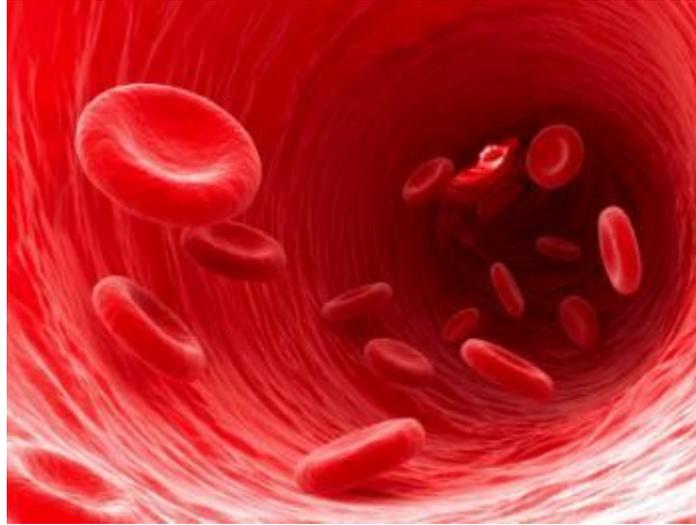
Fast facts on hypertension

Here are some key points about hypertension. More detail and supporting information is in the body of this article.

- Hypertension is defined as **blood pressure** higher than 140 over 90 mmHg (millimeters of mercury).
- A diagnosis of hypertension may be made when one or both readings are high: systolic (the pressure as the heart pumps blood around the body), given first; or diastolic (pressure as the heart relaxes and refills with blood), given second.
- Modern lifestyle factors are responsible for a growing burden of hypertension: physical inactivity, salt-rich diets with processed and fatty foods, and alcohol and tobacco use.
- High blood pressure can also be secondary to other conditions - kidney disease, for example - and can be associated with some medications.
- Hypertension itself does not cause symptoms but in the long-term leads to complications caused by narrowing of blood vessels.
- Doctors diagnose high blood pressure over a number of visits using a sphygmomanometer, which involves applying an inflatable cuff to the upper arm.
- Lifestyle measures are used first to treat high blood pressure, including salt restriction and other dietary changes, moderation of alcohol, and **stress** reduction.
- One or more drugs from a number of different classes may be used for treatment.

What is hypertension (high blood pressure)?

Blood pressure is the force exerted by the blood against the walls of blood vessels, and the magnitude of this force depends on the cardiac output and the resistance of the blood vessels.⁴



The blood flowing inside vessels exerts a force against the walls - this is blood pressure.

More information [on the biology and physics of normal blood pressure](#) is available, along with details of how blood pressure is measured, what normal measurements look like, and how they change with age and exercise.

Hypertension is defined as having a blood pressure higher than 140 over 90 mmHg, with a consensus across medical guidelines.^{1,5}

This means the systolic reading (the pressure as the heart pumps blood around the body) is over 140 mmHg (millimeters of mercury) and/or the diastolic reading (as the heart relaxes and refills with blood) is over 90 mmHg.

This threshold has been set to define hypertension for clinical convenience as patients experience benefits once they bring their blood pressure below this level.⁶

However, medical experts consider high blood pressure as having a continuous relationship to cardiovascular health.^{1,6} They believe that, to a point, the lower the blood pressure the better (down to levels of 115-110 mmHg systolic, and 75-70 mmHg diastolic).¹

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This view has led the American Heart Association (AHA), for example, to define the following ranges of blood pressure (in mmHg):

- Normal blood pressure is below **120** systolic and below **80** diastolic
- Prehypertension is **120-139** systolic or **80-89** diastolic
- Stage 1 high blood pressure (hypertension) is **140-159** systolic or **90-99** diastolic

- Stage 2 high blood pressure (hypertension) is **160** or higher systolic or **100** or higher diastolic
- Hypertensive crisis (a medical emergency) is when blood pressure is above **180** systolic or above **110** diastolic