

# High blood pressure –

## What does treatment entail?

This condition is characterised by pressure in blood vessels that is too high. The technical term for this is *hypertension*. Persistently high blood pressure can damage blood vessels, the heart and other organs. By adopting an active lifestyle, you yourself can do something to lower your blood pressure yourself and, moreover, prevent other illnesses, too. Medication also helps.

Find out here how high blood pressure develops and how it is diagnosed. You can also read about the treatment options recommended by experts.

### What is high blood pressure?

When blood pressure is high, the pressure in the vessels that carry blood away from the heart is too elevated. People with this condition do not usually notice anything. Possible symptoms can include headaches or dizziness.

### What are the causes and risk factors?

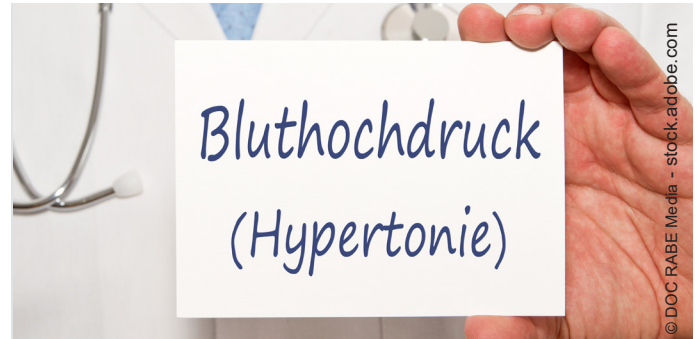
Many factors can lead to high blood pressure. You cannot change some of them, such as a genetic predisposition. The risk also increases with age. Lifestyle is another factor. This is something you can influence. The risk factors include, for example, *obesity*, eating a diet high in salt and drinking too much alcohol. Other risk factors are insufficient exercise and stress. You can read about the impact of lifestyle on treatment overleaf. Certain illnesses can also increase the risk of high blood pressure.

### How is high blood pressure diagnosed?

The most important examination is a blood pressure test. Monitors are available for this that measure blood pressure in the arm. The values are given in millimetres of mercury (mmHg for short). The monitors display two numbers:

- The upper value: This value is known as *systolic* blood pressure. It occurs when the heart contracts and pumps blood around the body. This is when the pressure in the blood vessels is the highest.
- The lower value: The lower value is called *diastolic* blood pressure. This is when the heart relaxes and blood flows into the heart again.

Blood pressure is routinely tested during some doctors' visits, for example during a general health *check-up*, a blood donation or a sports medical examination. Experts also recommend that people aged 18 and over have their blood pressure checked at least once. As high blood pressure rarely presents at a young age, it is often missed. The longer it remains undetected, the more likely it is to cause secondary health conditions. Blood pressure testing is particularly important for people who already display signs of high blood pressure.



If blood pressure is abnormal during these tests, experts recommend monitoring blood pressure over a *24-hour period*. For this, you will be given a monitor that records your blood pressure for 24 hours. You wear it on your body for one day and one night. If this is not possible, the other option is for you to monitor your blood pressure yourself at home four times a day over a seven-day period. If this prolonged monitoring period reveals overly high blood pressure values, your doctor will ask you extensive questions and then undertake a physical examination. An *ECG* and blood and urine tests can help to establish whether your high blood pressure has already caused secondary health conditions.

### How should blood pressure be adjusted?

If you have high blood pressure, the question arises: What value would you like to achieve through your treatment? There is no standard value that applies to everyone. The reason: both too high and too low values can have detrimental effects. Low blood pressure can lead to dizziness, tiredness or falls. For that reason, your target value should be oriented primarily towards your personal circumstances. A value of less than 140/90 mmHg serves as a guide. Depending on your personal situation, for example your physical condition, other values may also be possible.

#### At a glance



- High blood pressure is a common cardiovascular disorder.
- There are various risk factors, for example age, a genetic predisposition, an unhealthy lifestyle or certain illnesses.
- Blood pressure and other tests can identify high blood pressure and secondary health conditions.
- If left untreated, high blood pressure can damage vessels and organs.
- A change in lifestyle can help to lower your blood pressure. This means: more exercise, less stress, a balanced diet with little salt, no tobacco, little or no alcohol and, if necessary, weight loss.
- If behavioural changes are not sufficient, medication to lower your blood pressure will be recommended.

## What treatment do experts recommend?

If high blood pressure remains untreated over an extended period, it can eventually damage numerous organs and trigger other illnesses. It might provoke, for instance, a heart attack, a stroke or kidney damage.

### Lifestyle:

Experts agree that a balanced lifestyle has been shown to lower blood pressure. This includes:

- **Less salt:** Use salt sparingly. Salty foods bind more water in the body. This increases the volume of blood and raises blood pressure.
- **Healthy body weight:** If you are overweight, it can be beneficial to lose weight. This might enable you to cut back on medication.
- **Physical exercise:** If you exercise regularly, you can help to lower your blood pressure yourself. The important thing is that you take pleasure in exercising. Walking, cycling, swimming or yoga are suitable options.
- **Little alcohol:** Alcohol can promote high blood pressure. It also contains a lot of calories. It is best to drink only a small amount of alcohol. For example, women should not drink more than 100 ml of wine a day and men should not drink more than 200 ml of wine a day.
- **Stop smoking:** Giving up nicotine will not lower your blood pressure. Nonetheless, when you stop smoking, you eliminate another major risk factor for dangerous vascular damage. Experts therefore recommend giving up tobacco completely and for good. This also applies to passive smoking.

### Medications:

Medications are usually prescribed as supplementary treatment. Reliable clinical data and many years of experience are available for four groups of medication. They can lower blood pressure and thus effectively protect against secondary health conditions. They are therefore the first-line medications:

- **ACE inhibitors:** They influence the hormones in the body that control blood pressure. They cause the blood vessels to dilate slightly and lower blood pressure. Based on the available findings, it is not possible to say whether one active substance from the group of ACE inhibitors is better than any other.
- **Angiotensin receptor-2 antagonists:** Commonly known as angiotensin receptor blockers (in short: ARBs), their mode of action is similar to that of ACE inhibitors.
- **Calcium channel blockers:** They inhibit specific channels in the blood vessels, causing them to relax and dilate.
- **Thiazide-like diuretics/thiazides:** They ensure that you excrete more salts and, consequently, water.

The right medication for you will depend above all on how well you tolerate it. Depending on the severity of the high blood pressure, the medications will be administered individually or in a combination. If you have additional health disorders, other groups of medication may be considered, such as beta-blockers for heart disease.

Despite making lifestyle changes and taking several medications, your blood pressure may still be too high. In individual cases, a kidney-based catheter intervention (*renal denervation*) may be considered. However, it is still unclear how much this really helps.

Other antihypertensive medications may be considered for women with this condition who wish to have children or are pregnant. Your medical team will be happy to advise you. You can also find out more here: [www.embryotox.de](http://www.embryotox.de).

## What you yourself can do

- Decide together with your doctor what blood pressure value you are aiming for with the treatment.
- It is advisable to take daily measurements (twice in the morning and twice in the evening) approximately one week before your medical check-ups.
- Take your medications regularly and as directed by your doctor.
- Counselling sessions can help you lose weight or stop smoking, for example.
- It is advisable to take part in a training programme. It will provide you with important information about your condition and how to cope better with stress.
- Self-help organisations offer support.

## More information



### I. Sources, methodology and links

This information is based on the National Treatment Guidelines for Hypertension. The Programme for National Treatment Guidelines is funded by the German Medical Association (BÄK), the Association of Statutory Health Insurance Physicians (KBV) and Association of the Scientific Medical Societies (AWMF).

#### Methodology and sources

→ [www.patienten-information.de/kurzinformationen/bluthochdruck#methodik](http://www.patienten-information.de/kurzinformationen/bluthochdruck#methodik)

#### Further information on high blood pressure:

→ [www.patienten-information.de/uebersicht/bluthochdruck](http://www.patienten-information.de/uebersicht/bluthochdruck)

### II. Contact to self-help groups

You can find out from NAKOS (national contact and information office for the encouragement and support of self-help groups) where there is a self-help group in your area:

→ [www.nakos.de](http://www.nakos.de), Tel.: 030 3101 8960

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