



Hypertension

Hypertension, simply put, is high blood pressure. Blood pressure is the amount of force exerted on the walls of arteries by the blood. The greater the force, the higher the blood pressure. The amount of force on the arteries is determined by the amount of blood the heart pumps and the amount of resistance to blood flow in the arteries (the narrower the arteries the more resistance there is).

Approximately 116 million or 47% of adults in the United States have been diagnosed with hypertension. Often called “the silent killer,” hypertension generally has no symptoms and can take years to develop. Even though you do not feel symptoms, uncontrolled hypertension can seriously damage your heart, brain, eyes and kidneys.

How high blood pressure affects your body

The increased force caused by high blood pressure stretches your artery walls. This stretching damages the blood vessels and can lead to other problems, including:

- **Vessel weakness** — Stretching of the blood vessels can cause weak spots that can form a bulge (aneurysm) and then rupture.
- **Vessel scarring** — Tiny tears in the blood vessel walls, caused by stretching, can collect plaque made of cholesterol. This causes the vessels to become hardened and narrowed, limiting blood flow. Pieces of plaque can break off or a blood clot can form and get trapped in the narrowed vessels causing a stroke or heart attack.
- **Tissue and organ damage** — Narrow or blocked blood vessels cannot supply the right amount of nutrient-rich blood to organs and tissues. This can cause tissue and organ damage. The eyes and kidneys are especially at risk for this kind of damage.
- **Increased workload on the heart** — As blood vessels become weakened and scarred, the heart must work harder to push blood through them. This can damage the muscles and valves of the heart leading to possible heart failure.



What do the numbers mean?

Blood pressure is written as a fraction (120/80 mmHg).

The top number in a blood pressure reading is the systolic pressure. The **systolic pressure** is the pressure in your arteries when your heart beats or contracts. This is when the heart is pushing blood out into the body.

The bottom number in a blood pressure reading is the diastolic pressure. The **diastolic pressure** is the pressure in your arteries when your heart is between beats and is resting. This is when the heart is refilling with blood.

Talk with your health care provider about your blood pressure numbers.

Factors that increase your risk of hypertension

There are many risk factors for developing hypertension and its complications, including:

- **Age** — The risk of developing hypertension increases with age.
- **Family history** — Hypertension tends to run in families.
- **Being overweight** — Blood is circulated through the entire body, so the more you weigh the more blood you need to get oxygen and nutrients to your body tissues. The more blood you have circulating, the higher the pressure on the artery walls.
- **Little physical activity** — Lack of regular physical activity contributes to being overweight and increases the risk for heart disease.
- **Tobacco use** — Tobacco temporarily increases blood pressure each time it is used. Tobacco use can damage the lining of artery walls causing arteries to become narrow which increases your blood pressure.
- **High-salt diet** — A diet high in salt (sodium) can cause the body to hold onto extra fluid which increases your blood pressure.

Treating or preventing hypertension

Lifestyle changes that can help you control or prevent hypertension include:

- Eat a heart-healthy diet rich in fruits, vegetables, whole grains, high fiber foods, lean meats, fish and low-fat dairy.
- Be physically active. Regular physical activity reduces blood pressure, helps keep a healthy weight and helps heart health.
- Quit tobacco products if you use them. This includes cigarettes, electronic cigarettes, pipes, cigars and chewing tobacco.
- Reduce the salt (sodium) in your diet. Start by not adding salt to foods at the table and reducing the amount of processed foods you eat, such as canned soups, frozen dinners and fast food.
- Keep a healthy weight. If you are overweight, even a small amount of weight loss can lower blood pressure.
- Take blood pressure medications if they are prescribed by your health care provider.

