

Hypertension

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

About 70 million 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**- when blood vessels become narrowed or blocked, the tissues and organs they supply blood to do not get enough nutrient rich blood. 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?

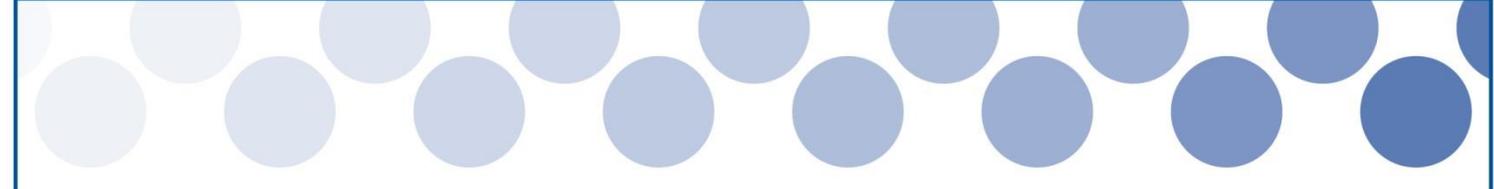
Blood pressure is written as a fraction (120/80 mmHg). The unit for a blood pressure reading is millimeters of mercury.

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

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

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

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Risk factors that increase your risk of hypertension

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

- **Age-** Your risk of developing hypertension increases with age.
- **Family history-** Hypertension tends to run in families.
- **Being overweight** - Your blood gets circulated through your 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 your artery walls.
- **Little physical activity-** Lack of regular physical activity contributes to being overweight and increases your risk for heart disease.
- **Tobacco use-** Tobacco temporarily increases your blood pressure each time it is used. Tobacco use can damage the lining of your artery walls causing your arteries to become narrow which increases your blood pressure.
- **High salt (sodium) diet-** A diet high in salt can cause your 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, low-fat dairy, and fish.
- 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 your blood pressure.
- Take blood pressure medications if they are prescribed by your health care provider.