

Hypertension



Open Door
HEALTH CENTER

Your Community Health Center



Defining high blood pressure

High Blood Pressure (or hypertension) is when your blood pressure, the force of the blood flowing through your blood vessels, is consistently too high and it may eventually cause health problems.

Blood pressure is determined both by the amount of blood your heart pumps and the amount of resistance to blood flow in your arteries. The more blood your heart pumps and the narrower your arteries, the higher your blood pressure.

If you have high blood pressure, you are not alone

- About 80 million Americans have high blood pressure and nearly 20 percent don't even know they have it!
- The best way to know if you have high blood pressure is to have your blood pressure checked.



Diagnosis

A diagnosis of high blood pressure is usually made only after several blood pressure readings. A one-time high reading, unless it's extremely high, doesn't mean you have high blood pressure.

You should have your blood pressure checked when you have your preventive care visits. If your blood pressure is normal, get it checked once every year. If you have high blood pressure, get it checked as often as your health care provider tells you to.

Measuring your blood pressure does not hurt. A blood pressure cuff is wrapped around your upper arm and inflated to stop the blood flow for a few seconds. Then the air is released from the cuff and your health care provider listens to the sounds of your blood rushing through an artery. Your provider may use a stethoscope or an electronic monitor. Your blood pressure generally should be measured in both arms to determine if there is a difference. It's important to use an appropriate-sized arm cuff.

If you are diagnosed with high blood pressure, your health care provider may order other tests to check whether high blood pressure has damaged your heart or kidneys, or to find out whether you have risk factors such as diabetes or high cholesterol. Together with high blood pressure, diabetes or high cholesterol increase the risk of a heart attack or stroke.

What the numbers mean

There are two numbers in a blood pressure reading that are expressed in millimeters of mercury (mm Hg). The numbers usually are shown as a fraction. An example of a blood pressure reading is 120/80 mm Hg.



Systolic pressure

- The first or top number (120) is the systolic pressure. This is the measure of your blood pressure as the heart contracts and pumps blood. During systole, the heart muscle squeezes blood out of your heart's pumping chambers called the ventricles.
- Both numbers are important, but recent studies show that high systolic pressure in older people often predicts complications such as heart attack and stroke. When high blood pressure is treated and the systolic pressure is lowered, the risk of complications lessens.

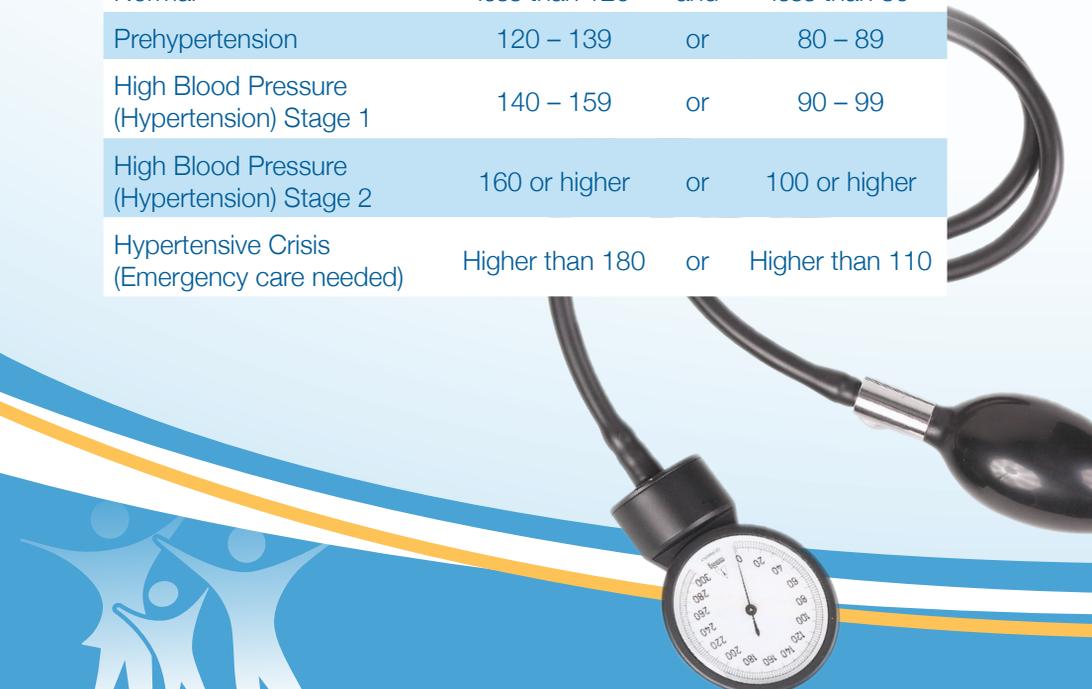
Diastolic pressure

- The second or bottom number (80) is the diastolic pressure. It is the measure taken when your heart is at rest. During diastole, your heart muscle relaxes and expands. This allows blood to flow into the ventricles from the heart chambers called atria.

What your blood pressure numbers should be

Your blood pressure is considered high when you consistently have either a systolic pressure of 140 mm Hg or higher or a diastolic pressure of 90 mm Hg or higher.

Blood Pressure Category	Systolic mm Hg (upper #)		Diastolic mm Hg (lower #)
Normal	less than 120	and	less than 80
Prehypertension	120 – 139	or	80 – 89
High Blood Pressure (Hypertension) Stage 1	140 – 159	or	90 – 99
High Blood Pressure (Hypertension) Stage 2	160 or higher	or	100 or higher
Hypertensive Crisis (Emergency care needed)	Higher than 180	or	Higher than 110



If you are 60 years old or older, your high blood pressure is treated when you consistently have either a systolic pressure of 150 mm Hg or higher or a diastolic pressure of 90 mm Hg or higher. If you are younger than 60 years old, your high blood pressure is treated when you consistently have either a systolic pressure of 140 mm Hg or higher or a diastolic pressure of 90 mm Hg or higher. The diagnosis and treatment of high blood pressure may also depend on other health conditions you have.

Age	Systolic pressure	Diastolic pressure
60 years old or older	150 or higher	90 or higher
Under 60 years old	140 or higher	90 or higher

Types of hypertension:

There are two types of hypertension.

1. Primary (essential) hypertension:

For most adults, there's no identifiable cause of high blood pressure. This type tends to develop gradually over many years.

2. Secondary hypertension:

High blood pressure caused by an underlying condition. This type tends to appear suddenly and cause higher blood pressure than primary hypertension. Various conditions and medications can lead to secondary hypertension, including:

- Obstructive sleep apnea
- Kidney problems
- Renal artery stenosis
- Adrenal gland tumors
- Primary aldosteronism
- Cushing syndrome
- Thyroid problems
- Preeclampsia during pregnancy
- Certain defects in blood vessels you're born with (congenital)
- Certain medications: Examples include birth control pills, attention deficit medications, cold remedies, prednisone, immunosuppressants, decongestants, over-the-counter pain relievers, some herbal supplements
- Illegal drugs such as cocaine and amphetamines
- Alcohol abuse or chronic alcohol use

High blood pressure is called the silent killer

Most people with high blood pressure have no signs or symptoms, even if blood pressure is dangerously high. Even without symptoms, damage to organs can occur. A few people with high blood pressure may have headaches, shortness of breath or nosebleeds, but these signs usually don't occur until high blood pressure has reached a severe or life-threatening stage.

Complications of high blood pressure

It is important to control high blood pressure because over time, the increased pressure in your blood vessels can affect many parts of your body and cause serious problems. Research shows a direct relationship between high blood pressure and increased risk for stroke, heart attack, and heart and kidney failure.

Arteries: Ongoing, increased pressure in your arteries can cause your arteries to become scarred, thickened, hardened and less elastic. This makes it harder for your heart to pump blood through your body. Hardening of the arteries and accumulation of fatty deposits occurs, called atherosclerosis, causing narrowing of the arteries. Aneurysms can also be caused from increased blood pressure as it weakens your blood vessels and can cause them to bulge. If an aneurysm ruptures, it can be life-threatening.

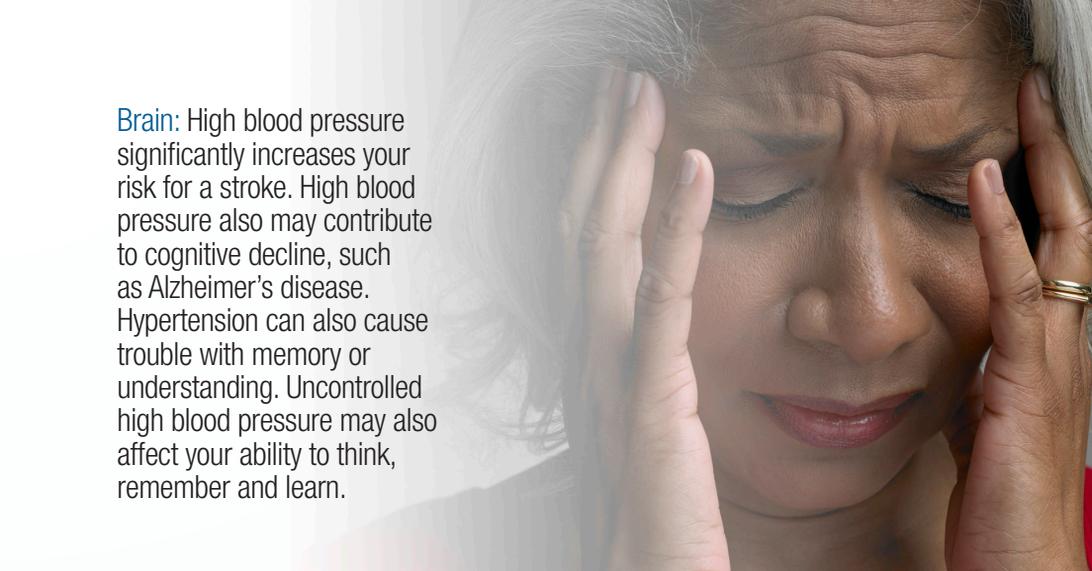
Heart: Damages that can occur in the heart include coronary artery disease, enlargement of the heart, and heart failure. All of these things can increase your risk of having a heart attack.

Signs and symptoms of a heart attack

- Intense, prolonged chest pain, often described as a feeling of heavy pressure.
- Pain that may extend beyond the chest to the left shoulder and arm, back, teeth, and jaw.
- Prolonged pain in the upper abdomen.
- Shortness of breath.
- Nausea, vomiting, fainting, intense sweating.

If you think you are having a heart attack, seek emergency help right away. Call 911 or your local emergency number.





Brain: High blood pressure significantly increases your risk for a stroke. High blood pressure also may contribute to cognitive decline, such as Alzheimer's disease. Hypertension can also cause trouble with memory or understanding. Uncontrolled high blood pressure may also affect your ability to think, remember and learn.

Signs and symptoms of a stroke

A stroke (brain attack) occurs when the blood supply to the brain is blocked or when a blood vessel in the brain ruptures. This may cause brain cell damage. You may have any of the following signs:

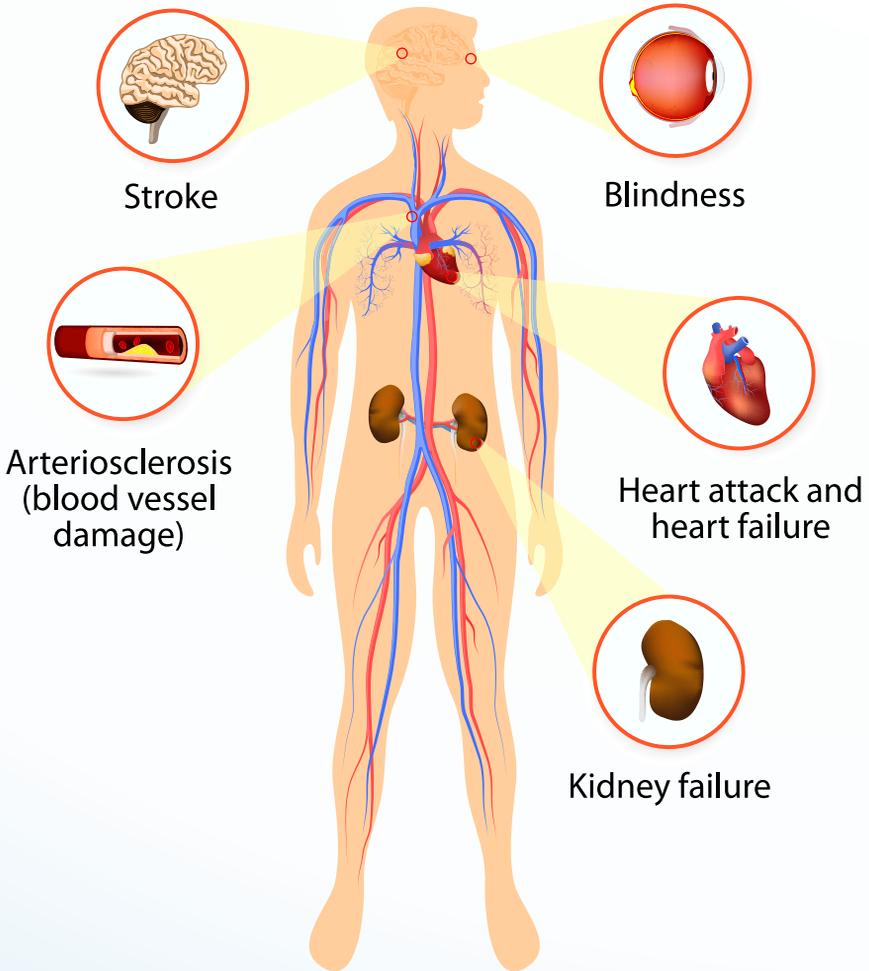
- Sudden numbness, weakness or paralysis (inability to move a body part) in the face, arm or leg, usually on one side of the body.
- Trouble speaking or understanding others.
- Sudden blurred, decreased or double vision.
- Dizziness, loss of balance or loss of coordination.
- Sudden, severe headache.

If you think you are having a stroke, seek emergency help right away. Call 911 or your local emergency number.

Kidneys: The blood vessels in your kidneys may become weaker or narrowed because of high blood pressure. This can damage the kidneys causing them to have a harder time getting rid of your body's waste. Over time, your kidneys may stop working completely.

Eyes: High blood pressure may cause the blood vessels in your eyes to thicken, narrow, or tear. This can result in vision loss.

Hypertension



There is hope

There is no cure for high blood pressure, but with proper treatment such as diet, exercise, and medications you can live a long and healthy life.



Certain physical traits and lifestyle choices can put you at a higher risk for developing high blood pressure

- **Age:** The risk of high blood pressure increases as you age
- **Race:** High blood pressure is particularly common among blacks and often develops at an earlier age. Serious complications, such as stroke, heart attack and kidney failure, also are more common in Blacks.
- **Family history:** High blood pressure tends to run in families.
- **Obesity:** The more you weigh the more blood you need to supply oxygen and nutrients to your tissues. As the volume of blood circulated through your blood vessels increases, so does the pressure on your artery walls.
- **Not being physically active:** People who are inactive tend to have higher heart rates. The higher your heart rate, the harder your heart must work with each contraction and the stronger the force on your arteries.
- **Using tobacco:** Not only does smoking or chewing tobacco immediately raise your blood pressure temporarily, but the chemicals in tobacco can damage the lining of your artery walls. This can cause your arteries to narrow, increasing your blood pressure. Secondhand smoke also can increase your blood pressure.
- **Too much salt (sodium) in your diet:** Too much sodium in your diet can cause your body to retain fluid, which increases blood pressure.
- **Too little potassium in your diet:** Potassium helps balance the amount of sodium in your cells. If you don't get enough potassium in your diet or retain enough potassium, you may accumulate too much sodium in your blood.
- **Drinking too much alcohol:** Over time, heavy drinking can damage your heart. Having more than two drinks a day for men and more than one drink a day for women may affect your blood pressure.
- **Stress:** High levels of stress can lead to a temporary increase in blood pressure.
- **Certain chronic conditions:** Certain chronic conditions also may increase your risk of high blood pressure, such as kidney disease, diabetes and sleep apnea.



Lifestyle changes can help you control and prevent high blood pressure.

- **Eat healthy foods:** Eat a healthy diet. Try the Dietary Approaches to Stop Hypertension (DASH) diet, which emphasizes fruits, vegetables, whole grains, poultry, fish and low-fat dairy foods. Get plenty of potassium, which can help prevent and control high blood pressure. Eat less saturated fat and trans fat.
- **Decrease the salt in your diet:** A lower sodium level — 1,500 milligrams (mg) a day is appropriate for people over 50, and individuals of any age who are black or who have hypertension, diabetes or chronic kidney disease. Otherwise healthy people can aim for 2,300 mg a day or less. Sodium or salt does not just come from the saltshaker! You need to read nutrition labels and pay attention to the amount of salt in the processed foods you eat.
- **Maintain a healthy weight:** Keeping a healthy weight, or losing weight if you're overweight or obese, can help you control your high blood pressure and lower your risk of related health problems. If you're overweight, losing even just a few pounds can lower your blood pressure.
- **Increase physical activity:** Regular physical activity can help lower your blood pressure, manage stress, reduce your risk of several health problems and keep your weight under control. For most healthy adults, the Department of Health and Human Services recommends that you get at least 150 minutes a week of moderate aerobic activity or 75 minutes a week of vigorous aerobic activity, or a combination of moderate and vigorous activity. Aim to do muscle-strengthening exercises at least two days a week.
- **Limit alcohol:** Even if you're healthy, alcohol can raise your blood pressure. If you choose to drink alcohol, do so in moderation. For healthy adults, that means up to one drink a day for women of all ages and men older than age 65, and up to two drinks a day for men age 65 and younger. One drink equals 12 ounces of beer, 5 ounces of wine or 1.5 ounces of 80-proof liquor.
- **Don't smoke or use tobacco products:** Tobacco injures blood vessel walls and speeds up the process of hardening of the arteries.
- **Manage stress:** Reduce stress as much as possible. Practice healthy coping techniques such as muscle relaxation, deep breathing or meditation. Getting regular physical activity and plenty of sleep can help, too.
- **Monitor your blood pressure at home:** Home blood pressure monitoring can help you keep closer tabs on your blood pressure, show if medication is working, and even alert you and your doctor to potential complications. Even if you get normal readings, don't stop or change your medications or alter your diet without talking to your doctor first.



Sodium (salt) restriction

Sodium in salt and salty foods makes your body retain fluid. That may increase the volume of your blood and, in turn, raise your blood pressure. Studies show that limiting salt intake lowers blood pressure in some people.

Many processed and packaged foods have a lot of sodium. Learn to read labels. Avoid foods that have a large amount of sodium. Ways to limit sodium and salt in your diet include:

- Do not add salt at the table or in cooking. You may want to lower the amount of salt you use gradually, until you are not using any at all.
- Instead of using salt to season foods, try other seasonings such as pepper, garlic, onion, basil, thyme, parsley, oregano, tarragon or lemon.
- Limit your use of processed foods. These include canned soups, broth, bouillon, smoked or salt-cured meats, pickles, olives and sauerkraut.
- Use fresh, frozen and canned fruits.
- Use vegetables that are fresh, frozen with no sauce, or canned without salt.
- Check labels for the amount of sodium in foods. Look for products that say “sodium free,” “very low sodium,” “low sodium,” “reduced sodium,” or “unsalted.” In general, in processed food, look for less than 200 mg sodium per serving. Look for beverages with less than 100 mg sodium per serving.

Medications

If you can't control your blood pressure with lifestyle changes alone, you may need to take medication. Some people with high blood pressure can control their blood pressure with just one medication. Others may need a combination of two or three medications. Most people who take medications for high blood pressure have few or no side effects. However, finding the right medication or combination of medications may take time and patience.

Medications used to treat high blood pressure include the following:

- Diuretics
- ACE (angiotensin-converting-enzyme) inhibitors and ARBs (angiotensin receptor blockers)
- Calcium channel blockers
- Beta and alpha-beta adrenergic blockers

High Blood pressure is a serious medical condition. The qualified and caring providers at Open Door Health Center are trained in helping patients manage their health through diet and lifestyle changes as well as medication. We ask our patients to commit to keeping track of their blood pressure, taking their medications as prescribed, keeping their appointments with our medical team, and by attending support groups when available. Together we can help our patients live longer, healthier lives.

Other Services:

Behavioral Health

Mankato location only

- Outpatient therapy
- Child, couples and family therapy
- Trauma counseling/therapy
- Substance abuse assessments
- Anxiety & depression screening
- Support groups

Dental

- Cleanings and exams
- Digital x-rays
- Fillings
- Extractions
- Dentures, partials & crowns
- Gum treatment
- & more

Insurance Enrollment Services

Medical insurance navigation & enrollment services, and Medical Assistance & MinnesotaCare enrollment services are fee of charge and available to the public



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