

Hypertension (high blood pressure) is the most common chronic adult illness in America today. Treating high blood pressure is a lifelong process requiring a team approach from patients, doctors, nurses, pharmacists, dietitians and other medical professionals. You are an important part of this team and **can help prevent future problems** by understanding your condition, making immediate lifestyle changes, taking medication – if needed – and having your blood pressure checked as recommended.

Hypertension can not be cured, but it can be controlled. While this may require serious effort, your improved quality of life will be very rewarding.

Blood pressure facts

Each time your heart beats, blood is pumped to all parts of your body. For blood to circulate, it needs a certain amount of force or pressure. Blood pressure is the force that the flow of blood places on your arteries.

As your blood pressure increases, so does the strain on your heart to push blood through your circulatory system. Hypertension does not mean you are overly tense, although anxiety can trigger an elevated blood pressure. High blood pressure usually has no immediate symptoms. Therefore, it needs to be measured at least every two years.

Measuring your blood pressure

Two numbers are used to measure your blood pressure. For example:

$$\frac{132 \text{ (systolic)}}{84 \text{ (diastolic)}}$$

The top number, systolic pressure, refers to the pressure inside your artery when your heart squeezes to pump blood through your body. The lower number, diastolic pressure, refers to the pressure inside your artery when your heart is relaxed and filling with blood.

Understanding your blood pressure reading

You have high blood pressure when your readings have a systolic (top number) of 140 and/or a diastolic (bottom number) of 90 or greater. “Isolated systolic hypertension” occurs when your systolic reading is **over** 140 and your diastolic reading is **under** 90. The prevalence of this type of hypertension increases in people older than age 60. Systolic blood pressure greater than 140 in people older than 50 years is a much more important cardiovascular disease risk factor than diastolic blood pressure.

If you have diabetes or chronic kidney disease, you have hypertension if your blood pressure is 130/80 or above.

How high blood pressure affects your health

If you have uncontrolled hypertension for a long time, you increase your risk for stroke and heart disease. When your blood pressure is controlled (see goals below), you reduce your risk for stroke, heart attack, eye problems and kidney disease. Risk relates to not only how high, but also how long your blood pressure has been elevated.

Blood pressure goals (non-diabetes or renal disease): Your blood pressure goal should be less than 140 over 90.

Blood pressure goals (for diabetes or renal disease): Your blood pressure goal should be less than 130 over 80 if you have diabetes or renal disease.

Health risks of untreated hypertension

- stroke
- coronary artery disease
- eye damage
- enlarged heart
- aneurysm
- kidney damage

Cardiovascular disease

If you have risk factors for cardiovascular (blood vessel, heart and arteries) disease in addition to hypertension, you are at an even greater risk. The three major controllable risk factors for cardiovascular disease are:

- high blood pressure
- high blood cholesterol
- smoking

The presence of any one of these factors increases your risk by about 30 percent. If you have two, your risk for cardiovascular disease is three times as great. If you have all three risk factors, you have seven times the risk. Other major risk factors for cardiovascular disease include age, diabetes, a family history of heart disease and your individual health history.

Preparing for blood pressure measurement

Blood pressure readings are necessary to diagnose and treat high blood pressure. The following steps will help you get an accurate reading:

- Do not eat, smoke, drink caffeine or exercise for at least 30 minutes before the reading.
- Wear short or loose sleeves that can be pushed up.
- Try to use the same arm for each reading.
- Sit quietly and rest with your legs uncrossed and feet flat on the floor before your blood pressure is measured.

Managing high blood pressure

- It is important to manage your hypertension. Follow the instructions your health care provider gives you.
- If your doctor prescribes high blood pressure medication for you, take it as prescribed. Discuss any side effects or reactions you experience with your doctor. Do not stop taking your medication without talking to your health care provider first.
- To get an accurate measurement with a home blood pressure monitor, follow a standardized measurement technique and bring your monitor in yearly for inspection. If you have questions about home monitoring, ask your health care provider. Home blood pressure monitors can be purchased from drug stores, health care stores and online.
- Follow your doctor’s recommendation for follow-up visits; bring along your blood pressure records and a list of any medications you are currently taking.
- Certain over-the-counter (OTC) and prescription medications can raise blood pressure levels. Your doctor can advise you as to which products are best for you to use.

What the numbers mean

To confirm a hypertension diagnosis, your doctor will need blood pressure readings from two or more visits. The following table outlines blood pressure classifications and the different stages of hypertension.

Blood pressure classifications for adults age 18 years and older

BP classification	Systolic (top number)		Diastolic (bottom number)	What to do
Normal	Less than 120	and	Less than 80	Recheck in two years.
Prehypertension	120–139	or	80–89	Recheck in one year.
Hypertension				
Stage 1	140–159	or	90–99	Confirm within two months.
Stage 2	Greater than or equal to 160	or	Greater than or equal to 100	See doctor within one week.

Ways to reduce your risk

Lose and maintain weight

Being overweight can cause blood pressure to be increased. If you are overweight, losing just 10 pounds can make a difference. Weight loss can enhance the blood pressure-lowering effects of medications and decrease blood cholesterol, triglyceride and blood sugar levels.

Limit alcohol

Excessive alcohol intake can raise blood pressure, contribute to weight gain and make controlling high blood pressure more difficult. If you have high blood pressure, avoid alcohol or do not exceed a daily intake of two drinks if you are a man or one drink if you are a woman. (A drink is defined as 12 ounces of beer, 5 ounces of wine or 1.5 ounces of 80-proof liquor.)

Exercise regularly

Regular aerobic physical activity, such as walking at a mild to moderate pace for at least 30 minutes, most days of the week, may be beneficial for the prevention and treatment of high blood pressure. An increase in activity can also help reduce weight and stress.

Healthy eating

When selecting healthy foods to help prevent and control high blood pressure, consider the following:

Limit sodium. Reduce your sodium intake to 2400 mg per day. Too much dietary sodium can elevate blood pressure for about half of those with high blood pressure and may interfere with some blood pressure-lowering medications. Do not add salt to your food. Limit your use of convenience, fast and processed foods with added salt.

Adopt DASH eating plan. Daily Approaches to Stop Hypertension (DASH) is an eating plan that promotes fruits, vegetables and low-fat dairy products. Low-saturated fat foods are encouraged. Find out more about the DASH diet at www.nhlbi.nih.gov/health/public/heart/hbp/dash.

Quit smoking

Smoking cigarettes can raise blood pressure, and smoking is a major risk factor for cardiovascular disease. That's why everyone needs to quit smoking—or better yet, never start!

A roadmap to controlling hypertension

Accurately measure blood pressure.

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Classify blood pressure reading.

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Recheck elevated blood pressure on two or more visits.

↓
Confirm high blood pressure.

↓
Undergo medical evaluation to rule out uncommon causes.

↓
Start a treatment plan, which may include:

- Lifestyle modification
- Medication
- Ongoing follow-up

↓
Your goal is reached when you maintain blood pressure control.

High blood pressure prevention and risk modification steps:

- Control your weight.
- Limit alcohol intake.
- Exercise regularly.
- Limit sodium intake.
- Adopt DASH eating plan.

Do you or a family member have diabetes? For more information about International Diabetes Center's Assessment Service—one annual visit for essential tests and exams, including results and recommendations—call 952-993-3393.

This brochure is based on guidelines developed by a team of health care experts at the Institute for Clinical Systems Improvement (ICSI), of which Park Nicollet Health Services is an active member. It will be reviewed and updated on a regular basis as scientific evidence changes. This material is for informational purposes only and is not intended to be a substitute for professional medical advice, diagnosis or treatment.

Understanding Hypertension



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