

# High Blood Pressure

What You Need To Know



## Permafold® Topics

1. What Is High Blood Pressure?
2. Causes & Risk Factors
3. Signs & Symptoms
4. Diagnosis
5. Health Problems Related to HBP
6. Prevention & Self-Care
7. Medical Treatment
8. Reasons to Call Doctor or Health Care Provider



## 1. What Is High Blood Pressure?

High blood pressure (HBP) is when blood moves through the arteries at a higher pressure than normal. The heart strains to pump blood through the arteries.

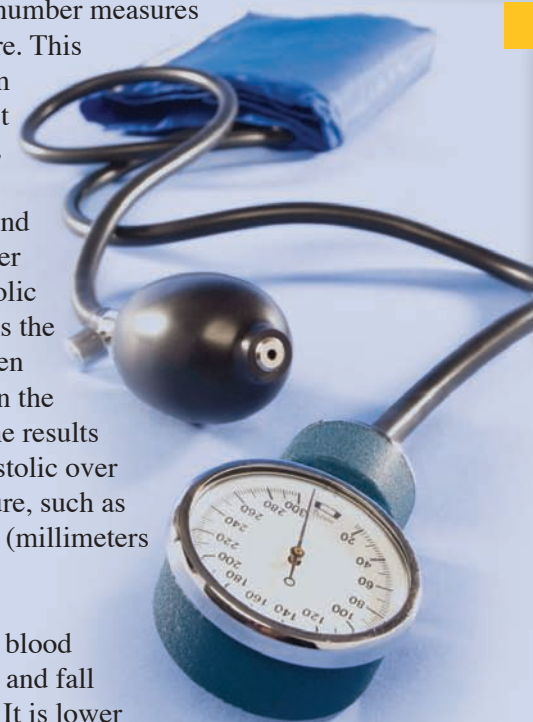
The first (top) number measures systolic pressure. This is the maximum pressure against the artery walls while the heart beats. The second (bottom) number measures diastolic pressure. This is the pressure between heartbeats when the heart refills. The results are given as systolic over diastolic pressure, such as 120/80 mm Hg (millimeters of mercury).

It is normal for blood pressure to rise and fall during the day. It is lower during sleep and higher with physical exertion.

Blood Pressure Level (ages 18+)*		
	Systolic (mm Hg)	Diastolic (mm Hg)
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
Stage 2	160 or higher or	100 or higher

\*(Source: National Heart, Lung, and Blood Institute, "Categories for Blood Pressure Levels in Adults")

- For persons with HBP, blood pressure goal is less than 140/90 mm Hg.
- For African Americans and persons with diabetes or kidney disease, the goal is less than 130/80 mm Hg.



### Tips When You Have Your BP Measured

- Don't drink coffee or smoke 30 minutes before having your BP read. (Don't smoke at all!)
- Go to the bathroom before you get it checked.
- Before the test, sit for 5 minutes.
- Wear short sleeves so your arm is exposed.
- When you get tested: Sit; keep your back and arm supported; and keep your arm at heart level.
- An average of 2 readings from BP tests taken at least 5 minutes apart should be done.

Write your blood pressure readings in the spaces below.

Blood Pressure Record		Blood Pressure Record	
Date	Blood Pressure	Date	Blood Pressure
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## 2. Causes & Risk Factors

The exact cause is not known.

### Risk factors include:

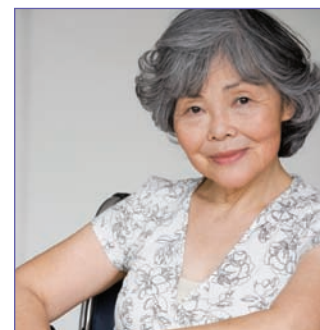
- Family history of HBP
- Aging. More than half of older adults have HBP.
- Smoking cigarettes
- Race. African Americans are more likely to have HBP than Caucasians.
- Gender. Men are more likely to have HBP than women (until women reach menopause).
- Being inactive. Obesity. Sleep apnea.
- Poor nutrition and diet
- Too much sodium intake in some persons
- Emotional distress

High blood pressure could be caused by another medical problem or be a side effect of some medicines. This is called secondary hypertension. This can usually be reversed when the problem is treated.

## 3. Signs & Symptoms

High blood pressure is a "silent disease." Why? There are usually no signs or symptoms. A lot of adults with HBP do not know they have it. So, get your blood pressure checked at each doctor's office visit, at least every 2 years, or as often as your doctor advises. When blood pressure is very, very high, these signs and symptoms may occur:

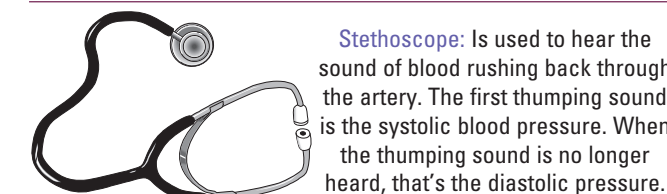
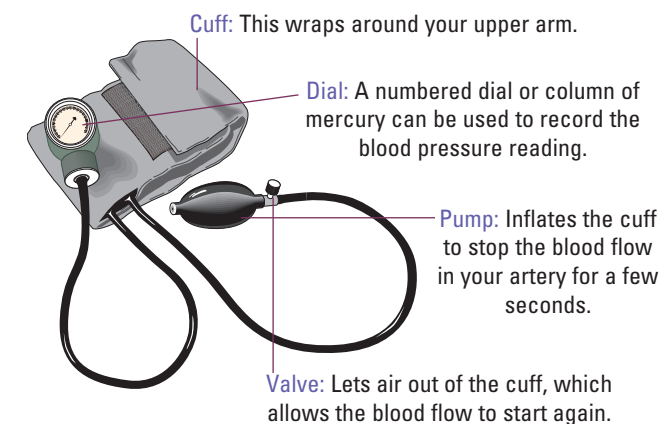
- Chest pain
- Confusion
- Ear noise or buzzing
- Irregular heartbeat
- Nosebleed
- Severe headache
- Vision changes



## 4. Diagnosis

Blood pressure readings tell if your blood pressure is high.

The most common way to measure blood pressure is with a device called a sphygmomanometer (sfig'-mo-ma-nom-e-ter). The numbers on the gauge measure your blood pressure in millimeters of mercury (mm Hg).



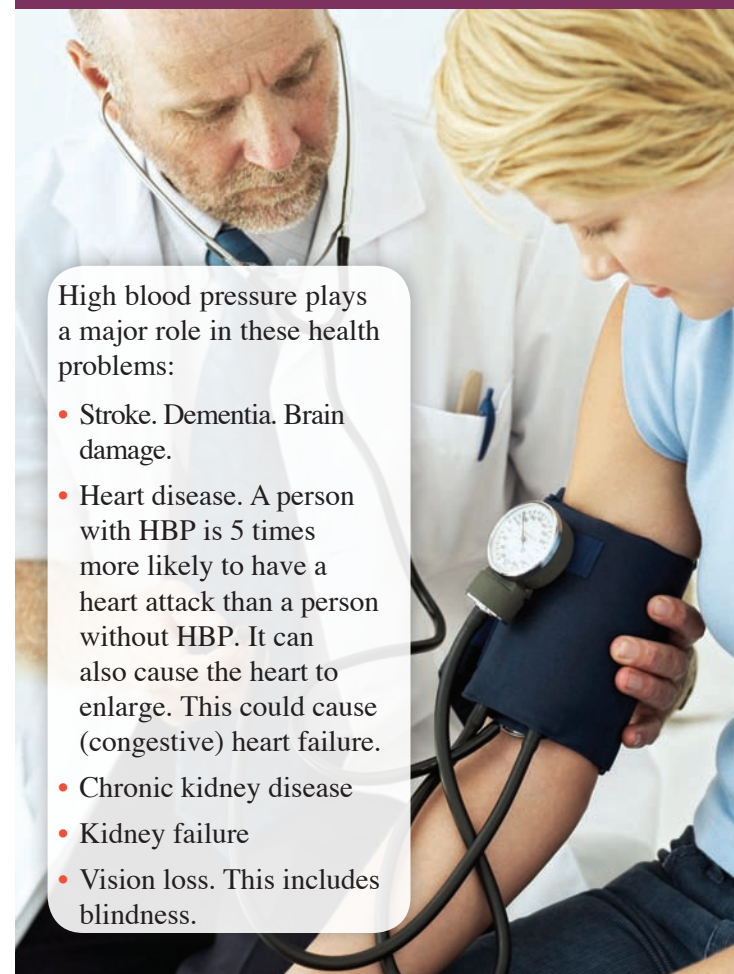
(Source: National Heart, Lung, and Blood Institute, "How Is Blood Pressure Tested?")

- To tell if your blood pressure is high, you should get 2 or more readings at different times.
- If your blood pressure is generally good and suddenly reads high, don't be alarmed. Many things can temporarily raise normal blood pressure with no lasting effects. These include: Anxiety and other strong emotions; physical exertion; or having a large amount of caffeine. If your readings stay high, you could have high blood pressure.

### Note:

Sometimes just being at the doctor's office is enough to raise some people's blood pressure. This is called "white-coat hypertension." If you think this affects you, tell your doctor. You may be advised to check your blood pressure with a home testing device. Your doctor may have you wear a device that records your blood pressure for 24 hours. This will give accurate readings of your blood pressure.

## 5. Health Problems Related to HBP



High blood pressure plays a major role in these health problems:

- Stroke. Dementia. Brain damage.
- Heart disease. A person with HBP is 5 times more likely to have a heart attack than a person without HBP. It can also cause the heart to enlarge. This could cause (congestive) heart failure.
- Chronic kidney disease
- Kidney failure
- Vision loss. This includes blindness.

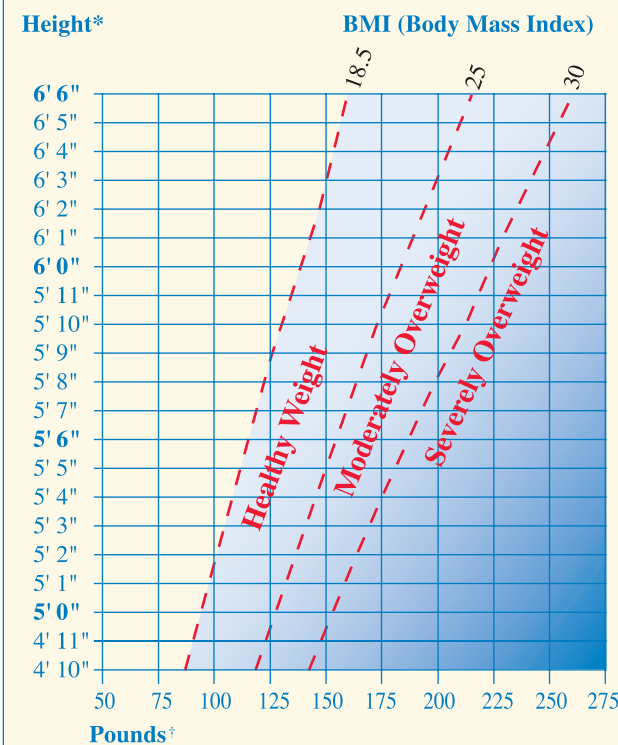
## 6. Prevention & Self-Care

For blood pressure control, follow a healthy lifestyle.

- Get your blood pressure checked at each office visit, at least every 2 years, or as often as your doctor advises.
- Get to and/or stay at a healthy weight. Find out your Body Mass Index (BMI) from [www.nhlbisupport.com/bmi/bmicalc.htm](http://www.nhlbisupport.com/bmi/bmicalc.htm) or use the table below. A healthy weight is a BMI between 18.5 and 24.9.



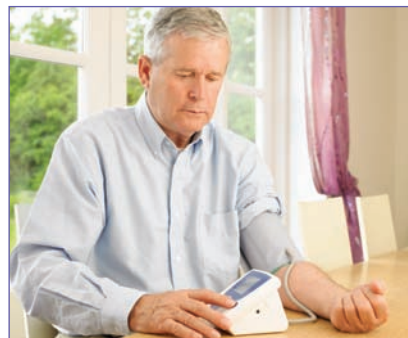
### Are You at a Healthy Weight?



\* Without shoes. † Without clothes.

Source: Report of the Dietary Guidelines Advisory Committee on the Dietary Guidelines for Americans, 2000.

- Don't smoke. If you smoke, quit.
- Limit alcohol to 2 drinks or less a day, if you are male and 1 drink or less a day if you are female or age 65 or older.
- Limit caffeine.
- Exercise. Try to do at least 60 minutes a day.
- Learn to handle stress. Take classes. Learn relaxation techniques, etc.
- Take medicine as prescribed. Tell your doctor if you have any side effects, such as dizziness, faintness, or a dry cough without having a cold. Don't stop taking your prescribed medicine or change the dose(s) unless your doctor tells you to.
- Talk to your doctor or pharmacist before you take antihistamines and decongestants. Discuss all prescribed and over-the-counter medicines with your doctor and pharmacist before you take them to avoid harmful drug interactions. Find out about drug and food interactions, too. Ask if grapefruit juice can cause harmful effects with the medicine(s) you take.
- Keep track of your blood pressure using a home testing device. Do this as advised by your doctor.



Follow the "DASH" (Dietary Approaches to Stop Hypertension) Eating Plan. (See the next 2 panels.) Lower the amount of salt you eat. Doing both of these has been shown in studies to lower blood pressure and may help prevent high blood pressure.

The DASH Eating Plan for 2,000 and 1,600 Calories/Day					
Food Group	Daily Servings		Serving Sizes	Examples and Notes	Benefits of Each Food Group
	2000	1600			
<b>Grains and grain products</b>	7-8	6	1 slice bread 1 ounce dry cereal ½ cup cooked rice, pasta, or cereal	Whole-grain breads and cereals. English muffins. Pita breads. Bagels. Grits. Crackers. Unsalted pretzels and popcorn.	Major source of energy and fiber
<b>Vegetables</b>	4-5	3-4	1 cup raw leafy vegetable ½ cup cooked vegetable 6 oz. vegetable juice	Tomatoes. Potatoes. Carrots. Green peas. Squash. Broccoli. Turnip greens. Collards. Kale. Spinach. Green beans. Lima beans.	Rich sources of potassium, magnesium, and fiber
<b>Fruits</b>	4-5	4	1 medium fruit ¼ cup dried fruit ½ cup fresh, frozen, or canned fruit 6 oz. fruit juice	Apricots. Bananas. Dates. Oranges & grapefruits (and their juices). Mangoes. Melons. Peaches. Pineapples. Prunes. Raisins. Strawberries. Tangerines.	Rich sources of potassium, magnesium, and fiber
<b>Low-fat or fat-free dairy foods</b>	2-3	2-3	8 ounces milk 1 cup yogurt 1½ oz. cheese	Fat-free (skim) and low-fat (1%) milks. Low-fat buttermilk. Fat-free or low-fat regular or frozen yogurt. Low-fat and fat-free cheeses.	Major sources of calcium and protein
<b>Meats, poultry, and fish</b>	2 or less	1-2	3 ounces cooked meat, poultry, or fish	Choose lean meats. Trim visible fats. Broil, roast, or boil, instead of frying. Remove skin from poultry.	Rich sources of protein and magnesium
<b>Nuts, seeds, and dry beans</b>	4-5 per week	3 per week	⅓ cup or 1½ oz. nuts 2 Tbsp. or ½ oz. seeds ½ cup cooked dry beans, peas	Almonds. Filberts. Mixed nuts. Peanuts. Walnuts. Sunflower seeds. Kidney beans. Lentils.	Rich sources of magnesium, fiber, potassium, protein
<b>Fats and oils</b>	2-3	2	1 tsp. vegetable oil 1 tsp. soft margarine 1 Tbsp. low-fat mayonnaise 2 Tbsp. light salad dressing	Soft margarine. Low-fat mayonnaise. Light salad dressing. Vegetable oil (e.g., olive, corn, canola, and safflower).	DASH has 27% of calories as fat. This includes fat in or added to foods.
<b>Sweets</b>	5 per week	0	1 Tbsp. sugar 1 Tbsp. jelly or jam ½ oz. jelly beans 8 oz. lemonade	Maple syrup. Sugar. Jelly. Jam. Fruit-flavored gelatin. Jelly beans. Hard candy. Fruit punch. Sorbet. Ices.	Sweets should be low in fat.

The DASH Eating Plan lowers blood pressure and the risk of heart disease and stroke.

Find out more about the DASH Eating Plan from [www.nhlbi.nih.gov](http://www.nhlbi.nih.gov). Search for "DASH Eating Plan." To order it by phone, call 301.592.8573.

## 7. Medical Treatment

High blood pressure usually lasts a lifetime, but can be treated and controlled. If you are diagnosed with high blood pressure, follow your doctor's advice.

### Medical treatment includes:

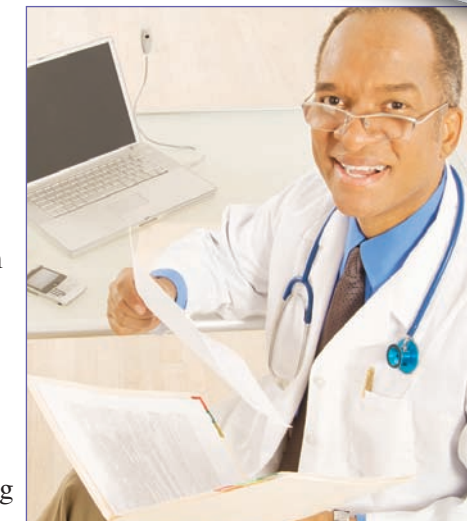
- A physical exam and lab tests. These check for damage to your heart, kidneys, and other organs. They also identify risk factors you have for heart, kidney, and other diseases. Your treatment plan is based on your needs.
- Follow-up blood pressure checks and other tests as needed.
- Healthy lifestyle changes. (See topic 6.)
- Medications. Most persons need more than 1 medicine to treat high blood pressure.

Your doctor will decide if and what medication(s) you need. This is based on your blood pressure level, age, other conditions you have, heart disease risk factors, etc. Common medicines used to treat HBP are:

- Diuretics (water pills)
- Beta-blockers
- ACE inhibitors
- Angiotensin II receptor blockers
- Calcium channel blockers
- Alpha blockers. Alpha-beta blockers.
- Nervous system inhibitors
- Vasodilators

## 8. Reasons to Call Doctor or Health Care Provider

- Signs or symptoms of very, very high blood pressure listed on the bottom of panel 4.
- Side effects, such as dizziness, from taking medicine for high blood pressure.
- Office visit appointments to get your blood pressure checked. Do this as often as your doctor advises.



### For More Information, Contact:

American Heart Association  
800.AHA.USA1 (242.8721)  
[www.americanheart.org](http://www.americanheart.org)

National Heart, Lung, and Blood Institute  
301.592.8573 • [www.nhlbi.nih.gov](http://www.nhlbi.nih.gov)

Get Free Health Information, from:  
[www.HealthyLearn.com](http://www.HealthyLearn.com)

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