

The Know Your Medicine brochure series includes:

Cholesterol
Depression
Diabetes (Type 2)
Heart Failure
High Blood Pressure
Osteoporosis

The ElderCare Patient Education series includes:

Aging and Your Response to Medicines
Alcohol: Friend or Foe?
The Caregiver's Guide to Using Medicine
Choosing the Right Nonprescription Medicine
The Consumer's Quick Reference to Using Medicines
Eye Medicines: May Be More Than Meets the Eye
Home Safety Issues
How to Select Your Pharmacy and Pharmacist
Medicines and Travel
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Vitamins Are Not Enough



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Produced by the University of Maryland Publications Office, 2000

Know Your Medicines

High Blood Pressure

Blood
Pressure
testing
today



THE PETER LAMY CENTER
for Drug Therapy and Aging
THE UNIVERSITY OF MARYLAND

High Blood Pressure

High blood pressure, or hypertension, doesn't have noticeable symptoms, but it can lead to strokes, kidney problems, heart attacks, heart failure, and blindness. Understanding high blood pressure—and knowing how to manage it—is an important part of maintaining your health.

What Is High Blood Pressure?

The force of your heart pumping blood and the natural resistance in your arteries combine to create blood pressure. Several factors can cause this pressure to get too high:

- Blood pressure increases when there is more fluid in the body than normal. Extra fluid can be caused by several factors, such as a high-salt diet.
- Other substances (called angiotensin or vasopressors) in the body cause blood vessels to constrict. When the blood vessels are squeezed tighter, blood moves through them at higher pressure.

It Is Important to...

- Know your numbers and your blood pressure goal.
- Monitor your blood pressure regularly.
- Record your blood pressures for your doctor and pharmacist.
- Eat and exercise responsibly.
- Ask your doctor for a comprehensive plan (diet, exercise, and medicine if necessary).
- Take your medicines as directed. Ask questions about your medicines. The more you know about your medicines, the better they will work for you.
- Keep a list of the over-the-counter and prescription medicines you are taking.
- Always ask your pharmacist about over-the-counter medicines. Some medicines can increase your blood pressure. Your pharmacist will know which medicines are safe for you.

Monitoring Your Condition

Knowing your blood pressure and setting a goal with your doctor are an important part of maintaining your health.

- Take your blood pressure whenever you can. Many pharmacies have do-it-yourself machines, and local health fairs often offer free screenings. With the right equipment, you can take your blood pressure yourself at home.
- Keep a record of your blood pressures for your doctor and pharmacist to review.
- With these medicines, your doctor should do regular blood tests to monitor your health.

**TODAY: FREE
BLOOD PRESSURE
TESTING**



How Do I Know If I Have High Blood Pressure?

Most people with high blood pressure feel normal. Some may have headaches or dizziness, but high blood pressure doesn't have any unique symptoms. The only way to know if your blood pressure is too high is to have it checked regularly.

Risk Factors

In about 90% of high blood pressure cases, the exact cause is unknown. Doctors refer to this as "primary" or "essential" hypertension. However, there are several factors that increase your risk of having high blood pressure.

- age (as you get older, your risk increases)
- race (African-Americans are more at risk)
- heredity (people whose parents had high blood pressure are more at risk)
- stress
- weight
- too much salt in your diet
- alcohol consumption
- lack of physical activity

You can take control of some of these risks through proper nutrition, physical activity, and a healthy lifestyle.

Understanding Your Blood Pressure Numbers

Whatever your risk factors, every time you go to the doctor you should have your blood pressure checked. If you test high on three different visits, your doctor will diagnose you as having high blood pressure

Blood pressure is measured with two numbers. The first number (systolic) represents blood pressure while your heart is beating. The second number (diastolic) represents blood pressure while your heart rests between beats.

Blood pressure of 140 over 90 (systolic over diastolic) is considered normal. Readings greater than 140 over 90 are considered high. Readings of 130 to 139 (systolic) over 85 to 89 (diastolic) are borderline and need to be monitored.

Vasodilators

These medicines open the blood vessels, allowing blood to flow easier. They have been used for a long time and been found to be very effective.

Generic Name	Brand Name
minoxidil	Loniten
hydralazine	Apresoline

Side Effects

These medicines can cause your blood pressure to drop too low, causing dizziness and headache.

Why Did My Doctor Choose One Medicine Over Another?

Diuretics, which are effective and inexpensive, are often a doctor's first choice. For some people, one medicine is a better choice than another because of their other medical conditions. People with diabetes often get better results from ACE inhibitors or angiotensin II receptor blockers, and people with heart disease often do better on beta-blockers.

Beta-Blockers

These medicines are used to treat high blood pressure as well as many other medical problems—heart disease, migraine headaches, and heart palpitations.

Generic Name	Brand Name
acebutolol	Sectrel
atenolol	Tenormin
betaxolol	Kerlone
bisoprolol	Zebeta
carteolol	Cartrol
carvedilol	Coreg
labetalol	Normodyne and Trandate
metoprolol	Lopressor and Toprol XL
nadolol	Corgard
pindolol	Visken
propranolol	Inderal
timolol	Blocadren

Side Effects

These medicines can cause fatigue, sleep disturbances (insomnia), and sexual dysfunction. Patients with other health problems, such as asthma, should not use these medicines.

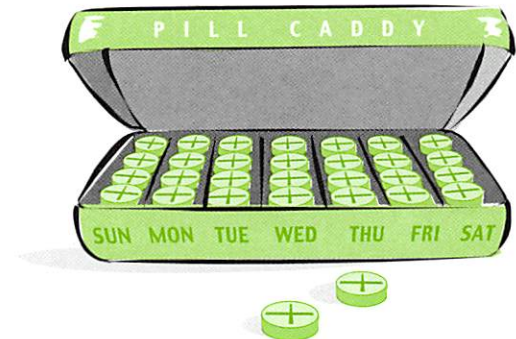
Calcium Channel Blockers

These medicines open up blood vessels, allowing your blood to flow easier.

Generic Name	Brand Name
amlodipine	Norvasc
bepridil	Vascor
diltiazem	Cardizem, Dilacor, and Tiazac
felodipine	Plendil
isradipine	DynaCirc
nicardipine	Cardene
nifedipine	Adalat and Procardia
nimodipine	Nimotop
nisoldipine	Sular
verapamil	Calan, Isoptin, and Verelan

Side Effects

These medicines can cause dizziness, headaches, swelling in the legs, and an increased heart rate.



ACE Inhibitors

These medicines relax your arteries, allowing your blood pressure to go down. They have also been shown to help control congestive heart failure, other heart problems, and diabetes.

Generic Name	Brand Name
benazepril	Lotensin
captopril	Capoten
enalapril	Vasotec
fosinopril	Monopril
lisinopril	Prinivil and Zestril
moexipril	Univasc
perindopril	Aceon
quinapril	Accupril
ramipril	Altace
trandolapril	Mavik

Side Effects

The side effects from these medicines include cough, swelling of the throat, and rash.

Diuretics

Diuretics have been used to treat high blood pressure for many years. They lower blood pressure by helping the body get rid of excess fluid. They are often used in combination with other medicines.

Generic Name	Brand Name
bumetanide	Bumex
furosemide	Lasix
torseamide	Demadex
hydrochlorothiazide	Hydrodiuril and Microzide
chlorthalidone	Hygroton
chlorothiazide	Diuril
indapamide	Lozol
triamterene/ hydrochlorothiazide	Dyazide and Maxzide
spironolactone	Aldactone
metolazone	Zaroxolyn

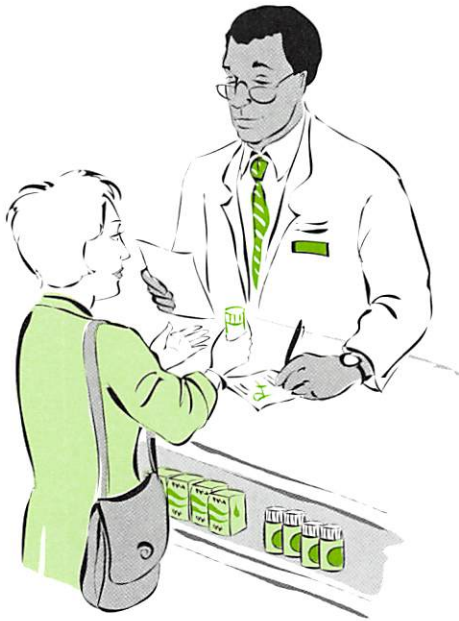
Side Effects

There are different types of diuretics, each with different side effects. Some diuretics cause you to lose potassium, but eating a banana every morning can help balance this. Other diuretics may cause your body to retain potassium, so you must limit your use of salt substitutes that contain potassium chloride. Most diuretics will cause you to go to the bathroom frequently. Ask your doctor if you can take them in the morning. If you are taking any diuretic, you should have your blood tested at least once a year to make sure your blood chemistry is normal.

Which Medicines Help?

Sometimes diet and exercise aren't enough to lower your blood pressure. If that is the case, your doctor may prescribe one or more types of medicines.

Taking your medicine exactly as directed by your doctor is critical for successful treatment. If you have problems with side effects, contact your doctor or pharmacist before you make any change in your regimen. Never stop taking a medicine without first talking to your doctor.



Angiotensin II Receptor Blockers

These newer medicines are similar to ACE inhibitors.

Generic Name	Brand Name
candesartan	Atacand
eprosartan	Teveten
irbesartan	Avapro
losartan	Cozaar
telmisartan	Micardis
valsartan	Diovan

Side Effects

Side effects can include dizziness or swelling of the throat.



Alpha-Blockers

These medicines can decrease blood pressure but are also used for other medical conditions, such as prostate problems.

Generic Name	Brand Name
doxazosin	Cardura
prazosin	Minipress
terazosin	Hytrin

Side Effects

The most common side effect is a sudden drop in blood pressure. These medicines must be taken exactly as your doctor or pharmacist directs. The first dose should be taken at night, and you should use caution when getting out of bed.

Alpha-Agonists

These medicines have been used for many years and, for some people, are effective in decreasing blood pressure.

Generic Name	Brand Name
clonidine	Catapres
guanabenz	Wytensin
guanfacine	Tenex
methyldopa	Aldomet

Side Effects

These medicines can cause fatigue, drowsiness, and dry-mouth.

Taking Responsibility for Your Health

- Decrease the amount of salt in your diet (fewer than 2400 mg, or 1-1/4 teaspoons a day)
- Eat more fruits and vegetables, and watch the amount of fat and cholesterol in your diet.
- Physical activity can decrease your blood pressure. Exercise, such as walking, biking, and swimming, also can improve your overall health.

Your doctor can help you with a nutrition and exercise plan.

