



Smarter. Stronger. Healthier.



## MANAGING High Blood Pressure

### KNOW YOUR **Rx** OPTIONS

Angiotensin-converting enzyme (ACE) inhibitors  
Angiotensin II receptor blockers (ARBs)  
Beta-blockers  
Calcium channel blockers  
Diuretics

This brochure gives you information about high blood pressure and some of the prescription medicines commonly used to manage it. You will learn how these medicines compare and get important information about side effects and safety. You'll also receive self-care tips to help you feel better.

# What is high blood pressure?

Blood pressure is a measure of how hard your blood pushes against the walls of your blood vessels as it moves through your body.

It's normal for blood pressure to go up and down throughout the day, but if it stays up consistently, you have high blood pressure. Another name for high blood pressure is hypertension.

When your blood pressure is high, it starts to damage your blood vessels, heart and kidneys. This can lead to heart attack, stroke and other problems. High blood pressure is called the “silent killer” because it usually doesn't cause any symptoms while it is causing this damage.

Your blood pressure measurement is made up of two numbers: systolic and diastolic. Systolic pressure measures how hard blood pushes against your arteries when your heart beats. It's the first, or top, number of a blood pressure reading. Diastolic pressure measures how hard the blood pushes between heartbeats, when it is filling with blood. It is the second, or bottom, number in a blood pressure reading.

For example, someone with a systolic pressure of 120 and a diastolic pressure of 80 has a blood pressure of 120/80 or 120 over 80.

## More information



For more on high blood pressure, including checking it at home, deciding to take medicine and using it correctly, and eating the right foods, go to [www.aarp.org/rxoptions](http://www.aarp.org/rxoptions) and enter code **N814** in the search box, or select the code from the drop-down menu next to the search box.

Healthy blood pressure is less than 120/80. High blood pressure is 140/90 or higher. Many people have blood pressure that falls between these two readings. This is called prehypertension. If you have prehypertension, your doctor may suggest lifestyle changes to bring down your blood pressure.

Have your blood pressure checked often, at least each time you see your doctor. Many pharmacies have free blood pressure stations where you can do this yourself.

## **What can I do to help myself?**

Here are some things you can do to lower your blood pressure or prevent it from becoming too high.

- If you are overweight, losing even a few pounds may reduce your blood pressure.
- Try to eat less than 2,300 mg of salt a day. That's about 1 teaspoon. To do this, avoid eating canned foods, fast foods, prepackaged foods and snack foods. Use half the salt that recipes call for.
- Exercise. Choose an exercise that raises your heart rate for at least 30 minutes a day on most, preferably all, days of the week. Fast walking is an easy way to do this. Talk with your doctor to find the best exercise program for you.





- Limit your alcohol intake. Men of average or above-average weight should have no more than 2 drinks a day. Women and lighter-weight men should limit alcohol to 1 drink a day.
- Eat foods that contain potassium every day. Good sources of potassium include meat, fish, and many fruits and vegetables, such as bananas, cantaloupe, spinach, broccoli and carrots.
- Follow the DASH (Dietary Approaches to Stop Hypertension) eating plan. This low-fat eating plan is rich in fruits, vegetables and low-fat dairy products.
- Stop smoking or using tobacco products. Tobacco use may raise your blood pressure and make many other health problems more likely.
- Manage stress by using relaxation techniques, such as deep breathing or meditation.
- Make it easy to take your high blood pressure medicine. Take your medicine at a regular time, like after you brush your teeth, eat a meal or get ready for bed.

# Which medicines treat high blood pressure?

Whether you need medicines for high blood pressure and which ones you use depend on two things:

- How high your blood pressure is.
- Whether you have any other medical problems, such as heart disease or diabetes.

Your doctor first may prescribe one medicine. If this does not lower your blood pressure, your doctor may increase the strength of the medicine, try a different medicine or add another medicine. African-Americans and people with other diseases, such as diabetes, heart failure, and chronic kidney disease, may need to take a combination of medicines when first diagnosed. Research shows that these groups of people may need more than one high blood pressure medicine to reach target goals.

Many people try several medicines before they find one that works well for them. And as you change your diet and lifestyle, your doctor may need to change your medicines.

Some medicines used for high blood pressure include:

- Diuretics (water pills)
- Angiotensin-converting enzyme (ACE) inhibitors
- Angiotensin II receptor blockers (ARBs)
- Beta-blockers
- Calcium channel blockers



## What are some common types of medicines for high blood pressure?

Most experts recommend that you take a diuretic as one of your medicines. Diuretics include:

- Chlorthalidone (Thalitone) and chlorthalidone combinations (such as Tenoretic and Clorpres).
- Chlorothiazide (Diuril) and chlorothiazide combinations.
- Hydrochlorothiazide (such as Microzide and Oretic) and hydrochlorothiazide combinations (such as Capozide, Dyazide, Lopressor HCT and Maxzide).

ACE inhibitors, ARBs, beta-blockers and calcium channel blockers also are often used.

- **ACE inhibitors.** These medicines may be good if you also have systolic heart failure or diabetes or are overweight.
- **ARBs.** ARBs are an option if you cannot deal with the cough an ACE inhibitor may cause. ARBs also may be good if you also have systolic heart failure or diabetes or are overweight.
- **Beta-blockers.** These medicines may be good for you if you also have coronary artery disease, chest pain (angina), or heart failure, or if you have had a heart attack.
- **Calcium channel blockers.** These medicines may be good for you if you are an older adult, are African-American, or have a problem where your blood vessels get smaller (vasospastic disease).

The tables below list some common ACE inhibitors, ARBs, beta-blockers, calcium channel blockers and diuretics. Not all of these medicines are listed. Your doctor may have prescribed a medicine not listed here based on your needs.

If you worry about the cost of medicine, tell your doctor. He or she may be able to suggest a less expensive medicine for you.

### ACE inhibitors

Brand name	Generic name	Generic available?
Lotensin	benazepril	Yes
Capoten	captopril	Yes
Vasotec	enalapril	Yes
Monopril	fosinopril	Yes
Prinivil, Zestril	lisinopril	Yes
Aceon	perindopril	No
Accupril	quinapril	Yes
Altace	ramipril	Yes
Mavik	trandolapril	No

### ARBs

Brand name	Generic name	Generic available?
Atacand	candesartan	No
Teveten	eprosartan	No
Avapro	irbesartan	No
Cozaar	losartan	No
Benicar	olmesartan	No
Micardis	telmisartan	No
Diovan	valsartan	No



## Beta-blockers

Brand name	Generic name	Generic available?
Sectral	acebutolol	Yes
Tenormin	atenolol	Yes
Kerlone	betaxolol	Yes
Coreg, Coreg CR	carvedilol	No
Normodyne, Trandate	labetalol	Yes
Lopressor, Toprol, Toprol-XL	metoprolol	Yes
Corgard	nadolol	Yes
Levatol	penbutolol	No
Visken	pindolol	Yes
Inderal LA	propranolol	Yes
*	timolol	Yes

\* No brand-name product available

## Calcium channel blockers

Brand name	Generic name	Generic available?
Norvasc	amlodipine	Yes
Cardizem, Dilacor XR, Tiazac	diltiazem	Yes
Plendil	felodipine	Yes
DynaCirc	isradipine	Yes
Cardene	nicardipine	Yes
Procardia XL	nifedipine	Yes
Sular	nisoldipine	No
Calan SR, Isoptin SR	verapamil	Yes





## Diuretics

Brand name	Generic name	Generic available?
Bumex	bumetanide	Yes
Thalitone	chlorthalidone	Yes
Lasix	furosemide	Yes
Microzide, Oretic	hydrochlorothiazide	Yes
Lozol	indapamide	Yes
Aldactone	spironolactone	Yes
Demadex	torsemide	Yes
<b>Hydrochlorothiazide (HCTZ) combinations</b>		
Moduretic	amiloride and HCTZ	Yes
Lotensin HCT	benazepril and HCTZ	Yes
Ziac	bisoprolol and HCTZ	Yes
Atacand HCT	candesartan and HCTZ	No
Capozide	captopril and HCTZ	Yes
Vaseretic	enalapril and HCTZ	Yes
Teveten HCT	eprosartan and HCTZ	No
Monopril-HCT	fosinopril and HCTZ	Yes
Apresazide	hydralazine and HCTZ	Yes
Avalide	irbesartan and HCTZ	No
Prinzide, Zestoretic	lisinopril and HCTZ	Yes
Hyzaar	losartan and HCTZ	No
Aldoril	methyldopa and HCTZ	Yes
Lopressor HCT	metoprolol and HCTZ	Yes
Uniretic	moexipril and HCTZ	Yes
Benicar HCT	olmesartan and HCTZ	No
Inderide LA	propranolol and HCTZ	Yes
Quinaretic	quinapril and HCTZ	Yes
Aldactazide	spironolactone and HCTZ	Yes
Micardis HCT	telmisartan and HCTZ	No
Timolide	timolol and HCTZ	No
Dyazide, Maxzide	triamterene and HCTZ	Yes
Diovan HCT	valsartan and HCTZ	No

## **What are generic medicines?**

All medicines contain an active ingredient, which is the same as the generic name. The active ingredient is what makes the medicine “work.”

## **What is a brand name?**

When drug companies develop a new medicine, they patent it so no one else can make it or sell it for a certain amount of time. The brand name is the name the drug company gives to the medicine. It is the first name most people hear for a medicine because of advertising in magazines and on television.

## **But I’ve heard more than one brand name, haven’t I?**

After a medicine patent expires, other companies can make and sell the medicine. Sometimes these companies call it by the generic name, the name of the active ingredient. But companies also can give it their own brand names.

This means a medicine made with one active ingredient can have many names.

For example:

- Lisinopril is the active ingredient and generic name for one type of ACE inhibitor.
- Prinivil and Zestril are brand names for lisinopril.

## **Are brand-name medicines better than generic medicines?**

Generic medicines work the same way brand-name medicines work, but they usually cost less. Your doctor may be able to prescribe a generic medicine if it's available and right for you.

A generic medicine may be available for some forms of a medicine, but not for others.



# Is one high blood pressure medicine better than others?

Is one medicine really more effective than another? The Drug Effectiveness Review Project (DERP)\* tries to answer that question.

Research on the medicines listed in the tables on pages 7 and 8 has been reviewed. Some DERP findings are listed below.\*\*

## ACE inhibitors

- No ACE inhibitor works better than another in treating high blood pressure.
- ACE inhibitors are similar when it comes to side effects.

## ARBs

- ARBs have not been studied enough to be able to report on how they compare with each other in treating high blood pressure.

## Beta-blockers

- No beta-blocker works better than another in lowering high blood pressure.
- All beta-blockers are similar when it comes to side effects.

## Calcium channel blockers

- There is not enough evidence to know if one calcium channel blocker works better than another in lowering high blood pressure.
- There is not enough evidence to know if one calcium channel blocker is different than another in terms of side effects when treating high blood pressure.

## Diuretics were not reviewed by DERP.

\*DERP ([www.ohsu.edu/drugeffectiveness](http://www.ohsu.edu/drugeffectiveness)) began in 2001 when the state of Oregon started funding research on the effectiveness and safety of comparable drugs. Since then, other states and nonprofits have joined with Oregon to fund and use the research. DERP does not accept funding from drug companies.

\*\*All evidence-based DERP reports can be found at [www.ohsu.edu/drugeffectiveness/reports/final.cfm](http://www.ohsu.edu/drugeffectiveness/reports/final.cfm). DERP has not reviewed the content of this brochure.

# What do I need to know?

## Safety

- Check with your doctor before taking any nonsteroidal anti-inflammatory drugs (NSAIDs). NSAIDs may raise your blood pressure, making it harder for your blood pressure medicine to do its job. NSAIDs include ibuprofen, naproxen and aspirin. Brand names include Advil, Aleve and Motrin.
- Tell your doctor if you have kidney or liver disease, heart failure, asthma, chronic obstructive pulmonary disease (COPD), diabetes, or gout or have had a heart attack. Some high blood pressure medicines may make these problems worse.
- Keep all medicines out of the reach of children.

## Taking ACE inhibitors or ARBs

- ACE inhibitors or ARBs can raise potassium levels, which can lead to an arrhythmia, or abnormal heart rhythm. Tell your doctor if you are taking other medicines, especially water pills (diuretics), potassium tablets or vitamins that have potassium. Also tell your doctor if you use a salt substitute or are eating a lot of potassium-rich foods, such as bananas, prunes, oranges, tomatoes, potatoes and milk.
- A possible side effect of ACE inhibitors is a dry cough that doesn't go away. A dry cough does not produce any mucus. If you develop a dry cough, ask your doctor about taking an angiotensin II receptor blocker (ARB) instead. ARBs work like ACE inhibitors but you may have no cough or a less severe cough.

## **Taking beta-blockers**

- You may feel lightheaded or dizzy when you first start taking a beta-blocker or when the dose is increased. Get up slowly when you stand. If the dizziness continues or becomes worse, tell your doctor.
- Do not suddenly stop taking beta-blockers without first talking to your doctor. Stopping beta-blockers suddenly makes a big increase in blood pressure and heart rate more likely and makes a heart attack more likely.
- Beta-blockers may make you feel tired or make it hard for you to exercise. If this happens, try taking them in the evening, when you might be less likely to be affected by tiredness. If you continue to feel tired, talk to your doctor.
- Some experts suggest that older adults with high blood pressure should not take beta-blockers because this medicine may reduce cardiac output, or how much blood the heart pumps. Circulation in older adults is not as good as that of younger adults, so a reduced cardiac output may make falls or stroke more likely.
- If you use an inhaler for asthma or another lung problem, talk to your doctor. Some beta-blockers are more likely to interfere with fast-acting inhalers and make an asthma attack more likely.

## **Taking calcium channel blockers**

- If calcium channel blockers are causing your feet or ankles to swell (edema), ask your doctor what you can do to reduce the swelling.
- Calcium channel blockers may be more effective than other blood pressure medicines for African-Americans and older adults.
- You can continue to take calcium supplements when taking calcium channel blockers.

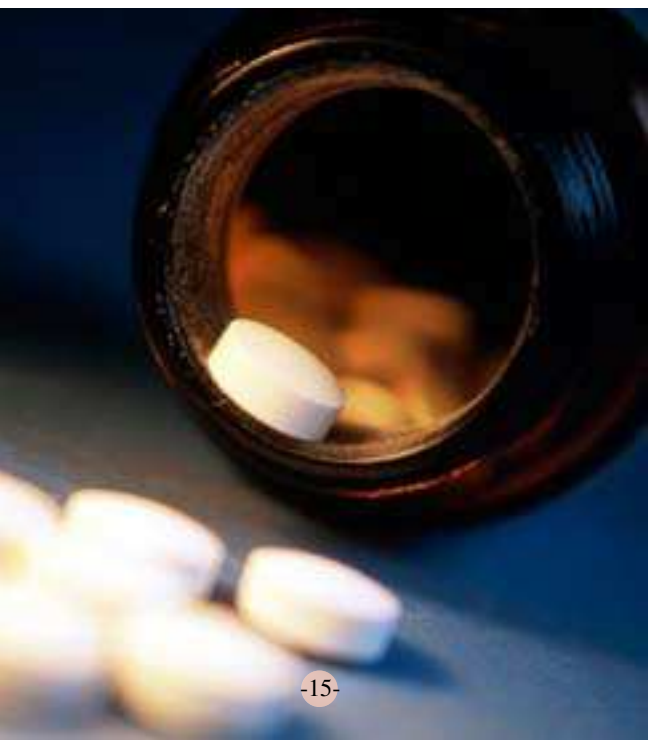
## Taking diuretics

- Diuretics may lower your potassium levels. Talk to your doctor about taking potassium pills or eating foods that contain potassium. These include raisins, tomatoes and prunes.
- Most diuretics contain sulfa and you should not take them if you have had a severe reaction to sulfa. Talk with your doctor if you have an allergy to sulfa.

## What about side effects?

All medicines have side effects. Talk to your doctor or pharmacist about what side effects to expect when you take medicines for high blood pressure. Ask if there are any serious side effects you should report to your doctor.

Usually the benefits of the medicine are more important than minor side effects. But if side effects continue to bother you and you are wondering whether you should continue to take the medicine, call your doctor.



## Possible side effects

- **ACE inhibitors** can cause a dry cough that doesn't go away or low blood pressure that can cause dizziness or lightheadedness. Hives, facial swelling and rashes are less common side effects. Your doctor might prescribe an ARB if you cannot tolerate the cough an ACE inhibitor may cause.
- **ARBs** can cause low blood pressure that can cause dizziness or lightheadedness.
- **Beta-blockers** can cause dizziness, lightheadedness, or tiredness or can make it hard for you to sleep. Beta-blockers might also cause wheezing if you have asthma.
- **Calcium channel blockers** can cause headaches, dizziness, lightheadedness or a flushed feeling. Calcium channel blockers also can cause swollen feet or ankles and constipation.
- **Diuretics** can make you urinate a lot and make you thirsty and dehydrated. They also can make you feel weak and cause fainting at high doses.

## Serious side effects

**Call your doctor or 911 right away or go to the emergency room if you have any of the following rare side effects:**

- You have a hard time breathing, get hives, or have swelling of your face, lips, tongue or throat. These are signs of an allergic reaction. Tell the emergency workers that you are using medicine for high blood pressure.

**Call your doctor right away if you have any of the rare side effects listed below:**

- **Beta-blockers:** You have cold hands and feet or swollen legs or ankles, or you are wheezing or it's hard for you to breathe.
- **Calcium channel blockers:** Your ankles, feet or lower legs swell.



# How can I manage my medicines?

## Avoid side effects and interactions

Medicines are more likely to interact, cause side effects or harm you if:

- You are taking high doses.
- You have another health problem.
- Your health or a health problem you have is not stable (is changing).
- You are taking many medicines that your body processes in a similar way.

The best way to manage your medicines and help your doctor, pharmacist, or other health care professional is to keep a personal medication record (PMR).

The PMR gives you a place to list all the medicines you take, the doses and how they are taken. This includes over-the-counter medicines and dietary supplements. Sharing this list with your health care providers will help you avoid drug interactions.

You also can put all your medicines in a bag and take them with you when you see your doctor. Include all supplements, herbs, vitamins and minerals you are taking.

Using one pharmacy makes drug interactions less likely. The pharmacist will know which medicines you are taking and watch for interactions. Some pharmacies will keep your PMR up to date for you.



## Work with your doctor and pharmacist

Here are some questions you can ask:

- What is the name of this medicine? What does it do? What are the side effects? What should I do if I forget to take it?
- When do I start and stop taking this medicine? How do I take it? How should I store it?
- At what time do I take this medicine? Should I take this medicine before meals, after meals, with meals or on an empty stomach? Should I avoid certain foods or drinks with this medicine?
- Will this medicine work safely with other medicines I am taking?
- Can I do anything instead of or along with taking my medicine to help my symptoms?
- Is there another medicine I can take? Does it work well, and is it safe? Is there a generic or less expensive medicine I can take?



## More information

Go to [www.aarp.org/rxoptions](http://www.aarp.org/rxoptions) and enter code **E727** in the search box, or select the code from the drop-down menu next to the search box. You'll get more information on working with your doctor and forms to help you manage your medicine.



## **AARP and Walgreens: Knowledge You Can Trust**

AARP and Walgreens are working together to put adults 50 and over in charge of their medicine, health and lives. Through this alliance, AARP and Walgreens will work together to ensure that Americans 50+ have the tools that they need to take greater control of their health. A primary focus of the alliance will be to help educate the nation's 50+ population about the wise use of medicines.

### **Know Your Rx Options brochures**

- Acid Reflux (GERD)
- Allergic Rhinitis
- Chronic Pain
- Dementia and Alzheimer's disease
- High Blood Pressure
- High Cholesterol
- Insomnia
- Nausea and Vomiting
- Osteoarthritis
- Urinary Incontinence

Visit the AARP-Walgreens Alliance Web site at  
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