

## Controlling Hypertension

**B**lood pressure is the force of blood pushing against the walls of your arteries. Your blood pressure doesn't stay the same all the time: It lowers as you sleep and rises when you wake up and when you are excited, nervous, or active. But when your blood pressure is too high, you are considered to have *hypertension* and are at risk for serious health complications.

Your blood pressure is measured in 2 ways: *systolic* (sis-TOL-ik) blood pressure (the first number) and *diastolic* (di-ah-STOL-ik) blood pressure (the second number). *Systolic* refers to your blood pressure when your heart is pumping. *Diastolic* refers to your blood pressure when your heart is at rest between beats. Normal blood pressure is considered 120/80 ("120 over 80"), and you are considered to have hypertension if your systolic number is 140 or above or your diastolic number is 90 or above (140/90, or above).

Sometimes called a *silent killer*, hypertension affects about 1 in 3 adults in the U.S. If left untreated, hypertension can cause life-threatening illnesses such as kidney problems, stroke, heart failure, blindness, and heart attacks.

### How do I know if I'm at risk?

You are more likely to have hypertension as you get older, because your blood vessels become stiffer as you age. Common risk factors for hypertension include:

- African American race
- Age 55 and older
- Family history of high blood pressure
- Being overweight
- Eating foods high in salt
- Not getting regular exercise
- Smoking
- Drinking alcohol heavily

### What are the warning signs?

Many people with hypertension don't feel sick at first. The only way to know for sure is to have your blood pressure checked by a doctor or other health care professional.

### How can I avoid the problem?

There are many lifestyle changes you can make to help control hypertension:

- **Limit the amount of sodium (salt) you eat.** Aim for less than 1,500 mg per day.
- **Limit how much alcohol you drink.** Limit to 1 drink a day for women and 2 drinks a day for men.
- **Eat a heart-healthy diet.** Include potassium and fiber in your meals.
- **Stay at a healthy body weight.** A weight loss program can help you get on track to a healthier body weight.
- **Exercise regularly.** Incorporate into your routine at least 30 minutes a day of moderate aerobic exercise.
- **Reduce stress.** If possible, try to avoid things that cause you stress. You can also try meditation or yoga.
- **If you smoke, quit.** Find a program to help you stop, if you need it.

### When do I need medical attention?

Hypertension usually has no symptoms. However, you should call your doctor if your blood pressure goes well above your normal range or if you experience any of the following:

- Severe headache
- Irregular heartbeat or pulse
- Chest pain
- Sweating, nausea, or vomiting
- Shortness of breath
- Dizziness or lightheadedness
- Pain or tingling in your neck, jaw, shoulder(s), or arm(s)

- Numbness or weakness in your body
- Fainting
- Trouble seeing
- Confusion
- Difficulty speaking
- Other harmful effects that you think might be from your medicine or blood pressure

**How is it treated?**

If you can't control your hypertension with lifestyle changes, your doctor may prescribe 1 or more medicines. There are a variety of classes of hypertension medications, and only your doctor can know which is right for you. Common drug classes that reduce blood pressure include:

- **Angiotensin (an-jee-oh-TEN-sin) II receptor blockers** help blood vessels stay open and constrict less.
- **Angiotensin-converting enzyme inhibitors** help the body produce less angiotensin, allowing the blood vessels to relax and open up.
- **Alpha-blockers** reduce nerve impulses to blood vessels, which allows blood to pass more easily.
- **Beta-blockers** reduce your heart rate, the heart's workload, and the heart's output of blood.
- **Alpha-beta-blockers** are generally administered intravenously (IV) when the patient is in hypertensive crisis or prescribed for outpatient use if the patient is at risk for heart failure.
- **Calcium channel blockers** keep calcium from entering the muscle cells of the heart and blood vessels, relaxing and opening up narrowed blood vessels.
- **Central agonists** follow a different nerve pathway than the alpha- and beta-blockers, but also help decrease the blood vessels' ability to constrict.
- **Diuretics**, which are sometimes called water pills, work in the kidney to help the body get rid of excess sodium and water. These drugs are often prescribed in combination with other prescription medications.

- **Nervous system inhibitors** reduce blood pressure by blocking neurotransmitters in the brain. This blocks the smooth muscles from getting the "message" to constrict. These drugs are rarely used unless other medications don't help.
- **Direct renin inhibitors** block the enzyme renin from triggering a process that helps regulate blood pressure, allowing the blood vessels to relax and widen.
- **Vasodilators (vaz-oh-DIE-lay-ters)** help the muscle in the blood vessel walls to relax, allowing the blood vessel to widen.

As part of your treatment plan, your doctor may instruct you to monitor your blood pressure at home. You will likely need to keep a written record and bring the results to your next clinic visit.

If you are being treated for hypertension and your blood pressure readings continue in the normal range, your blood pressure is under control. However, you still have the condition and must continue your treatment plan. The American Heart Association recommends home monitoring for all people with hypertension and offers a printable blood pressure tracker at [http://www.heart.org/idc/groups/heart-public/@wcm/@hcm/documents/downloadable/ucm\\_305157.pdf](http://www.heart.org/idc/groups/heart-public/@wcm/@hcm/documents/downloadable/ucm_305157.pdf).

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