

ACP

AMERICAN COLLEGE OF PHYSICIANS
INTERNAL MEDICINE | Doctors for Adults

ACP SPECIAL REPORT

Living With

Hypertension



What Is Hypertension?

Hypertension is blood pressure that is too high.



As a pump, your heart creates pressure to force blood to all parts of your body. But damaged, narrowed arteries cause blood to be pumped with excessive force against the walls of the arteries, overworking the heart and arteries. Two numbers are used to record blood pressure:

- **Systolic**—The top or larger number measures the pressure in your arteries while your heart beats.
- **Diastolic**—The bottom or smaller number measures the pressure while your heart rests between beats.

The numbers are used together to represent your blood pressure reading—such as 120/80 mm Hg (millimeters of mercury). Use the chart below to determine what type of blood pressure you have.

Type of Blood Pressure	Systolic (top) Pressure		Diastolic (bottom) Pressure
Normal	Less than 120	AND	Less than 80
Prehypertension	Between 120-139	OR	Between 80-89
Hypertension	140 or higher	OR	90 or higher
Hypertension (if you have diabetes or kidney disease)	130 or higher	OR	80 or higher

Talk to your doctor, use this guide, call **1-800-AHA-USA1** or go to www.americanheart.org, www.nhlbi.nih.gov or www.nlm.nih.gov/medlineplus/highbloodpressure.html to learn more about hypertension.

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Detecting It Early

The potential harmful effects of hypertension can be prevented or reduced if it is detected early enough. But there is only one way to know if your blood pressure is high—have it checked.

If your blood pressure reading is at the top of the normal range, or if you have a family history of hypertension, you're at higher risk. In that case, your doctor can tell you how often to have your blood pressure checked.

Knowing your risk factors will help prevent hypertension. Some risk factors are uncontrollable, and some are controllable. The controllable factors are conditions that you, with your doctor's help, can correct to help lower your blood pressure.

Uncontrollable Risk Factors

- **Race.** African Americans develop hypertension more often than Caucasians.
- **Heredity.** If your parents or other close blood relatives have hypertension, you are more likely to develop it. You also are at greater risk of cardiovascular disease (heart and blood vessel disease) if any of the men in your family under 55 years old, or the women under 65, have died of cardiovascular diseases.
- **Age.** The older you get—particularly over age 60—the greater your risk of developing hypertension.

Hypertension cannot be cured, but it usually can be controlled once you learn about the risk factors and follow your doctor's advice.

- **Cholesterol.** Some people have high cholesterol that can lead to a fatty buildup in the arteries. High cholesterol is an important cause of blood vessel disease that can lead to high blood pressure and heart problems.



Ways to Help Lower Blood Pressure

- **Avoid overweight and obesity.** People with a body mass index (BMI) of 25 or higher are more likely to develop hypertension. To calculate your BMI, go to www.nhlbisupport.com/bmi/bmicalc.htm.
- **Reduce salt intake.** Eating too much salt increases blood pressure in some people.
- **Physical activity.** An inactive lifestyle adds body weight and tends to make hypertension worse.

Ways to Control Cardiovascular Risk

People with hypertension can reduce their risk of heart attack and stroke by:

- Stopping smoking.
- Controlling their diabetes.
- Lowering high levels of cholesterol in the blood.
- Losing weight.



Silent and Deadly

A disease with few symptoms, left unchecked, can do serious damage.

Many people have hypertension for years without even knowing it. According to recent estimates, one in four adults in the United States has hypertension, but, because there are few symptoms, nearly one-third of these people don't know they have it. That is why it is called the "silent killer."

Even so, certain symptoms can point to hypertension, including headaches, nose-bleeds, breathing difficulties, sleepiness and even heart attack or stroke.

Regular Checks

Hypertension left uncontrolled can lead to stroke, heart attack, heart failure or kidney failure, and the only way to tell if you have the condition is to have your blood pressure checked.

If you have not been diagnosed with hypertension and you are at least 18 years old, your doctor or other qualified health professional should check your blood pressure at every office visit or at least once every two years.

Unknown Causes

Certain diseases—kidney disease, renovascular hypertension, and diseases of the endocrine glands—can be causes of hypertension. But in 90 percent to 95 percent of cases, the cause of hypertension is unknown.

A single elevated blood pressure reading doesn't mean you have hypertension, but your blood pressure is considered high if it reads 140/90 or above on more than one occasion.

Monitoring Your Blood Pressure at Home Between Visits to Your Doctor Can Help Prevent and Control Hypertension

Features of blood pressure monitors

- Upper arm type
- Wrist type
- Inflates manually
- Inflates automatically
- Takes three consecutive measurements
- Keeps track of measurements for next doctor's visit

Choosing your blood pressure monitor

- **Simplicity:** Choose a simple design that is easy for you to use.
- **Accuracy:** Choose a monitor with an A/A rating from the British Hypertension Society, the world's expert on blood pressure monitors. Review a list of recommended monitors at www.hyp.ac.uk/bhs/blood_pressure_list.htm.
- **Reliability:** Choose a monitor that will perform accurately each time.

Using your blood pressure monitor

- Before making the measurement, relax and rest for at least five minutes.
- Keep the blood pressure cuff at heart level when making the measurement.

The Damage It CAN DO

What Happens to Your Body



The strain that hypertension produces on the body can injure the heart.

The Heart

High blood pressure, created by a hard-pumping heart, can result in damage to the delicate tissues of the heart and arteries. As the damaged arteries thicken and lose their elasticity, the heart must pump harder to force blood through the arteries.

The Arteries

The damage caused by the constant pressure that untreated hypertension exerts on artery walls can lead to atherosclerosis—the severe narrowing and hardening of the arteries.

Arteries hardened and narrowed by atherosclerotic plaques (fatty buildup) may not be able to supply enough blood to your body's organs. If the organs don't get enough oxygen and nutrients, they can't work properly. Another risk is that atherosclerotic plaques may rupture, creating a snag where a blood clot forms and blocks the artery, shutting off normal blood supply to part of the body. If that happens in an artery that supplies the heart or the brain, a heart attack or stroke ("brain attack") occurs.

Effects of Hypertension

The effect hypertension has on the body's organs increases your risk of getting other diseases.

Untreated hypertension can lead to:

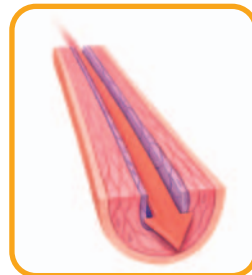
- Stroke
- Heart attack
- Heart failure
- Kidney failure
- Eye damage
- Peripheral artery disease (blood vessel damage)



Healthy artery walls allow blood to flow freely.



Artery walls become rough and collect plaque.



Artery walls thicken and blood flow is reduced.

Illustration
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A Better Lifestyle

Stopping smoking, a healthy diet and increased physical activity can lower your blood pressure significantly.

Stop Smoking

Smoking greatly increases the risk of heart attack or stroke, especially for those with hypertension. Stopping smoking is essential, so talk to your doctor if you need help to stop.

Healthy Diet

Your doctor can prescribe a diet for you if you also are overweight. Other qualified health professionals, such as registered dietitians, nurses and physician's assistants, can help you start or follow a diet.

Follow your diet closely, including advice about reducing how much alcohol you drink. Alcoholic drinks are high in calories, and too much alcohol also can raise blood pressure.

Eating less sodium can help lower blood pressure for some people, so your doctor may recommend a low-salt diet to see whether or not it helps you. That means you'll need to avoid salty foods by reducing the amount of salt you use in cooking and at the table and start reading package labels regularly to learn about the sodium content of prepared foods.

Most Americans eat much more salt than they need. Healthy adults should reduce their sodium intake to no more than 2,400 mg per day, or about one teaspoon of salt. By experimenting with herbs and spices as seasonings, you can still enjoy tasty meals with less salt.



Regular Physical Activity

Don't be afraid to be active. Daily physical activity will help reduce blood pressure and can help you lose weight or stay at your best weight. Often when people lose weight, their blood pressure drops automatically. Choose physical activities that you enjoy and can do regularly.

An inactive lifestyle is a risk factor for heart disease and stroke. It also tends to add to obesity, which is a risk factor for hypertension. Besides helping to reduce blood pressure and control weight, regular physical activity helps to reduce stress, so talk to your doctor about a good plan for you.

Behavior Modification

Studies show that changing your behavior may temporarily lower your blood pressure. Techniques might include progressive relaxation techniques, relaxation response, meditation, stress management and biofeedback. Ask your doctor whether any of these could help you.



Managing the Condition

The right medications matched to the patient's characteristics can do wonders to control blood pressure levels.

If proper diet and regular physical activity are not enough to keep your blood pressure within safe limits, your doctor will prescribe a medication.

Diuretics

Diuretics, or “water pills,” are often the first medication chosen. These drugs help control blood pressure by ridding the body of excess salt and water. If diuretic therapy doesn't bring your blood pressure down to normal, your doctor may have you take other medications.

Beta Blockers

Beta blockers lower blood pressure by slowing the heart rate and reducing the force of the heartbeat, easing the heart's workload.

Calcium Channel Blockers

Calcium channel blockers can decrease the heart's pumping strength and relax blood vessels.

ACE Inhibitors

ACE (angiotensin converting enzyme) inhibitors lower the body's production of angiotensin II, a chemical that causes the arteries to narrow and raises blood pressure.

ARBs

The ARBs (angiotensin receptor blockers) block the effects of angiotensin II on the arteries.

Vasodilators

Vasodilators, another useful group of drugs, can cause the muscle in blood vessel walls to relax, allowing the vessel to widen. They're especially effective in the arterioles, very small arteries that connect larger arteries to the tiny capillaries.

In most cases, these drugs lower blood pressure. Quite often, however, people respond very differently to them. That's why most patients must go through a trial period to find out which medications work best with the fewest side effects. Patients frequently must take two to three medications to control their blood pressure.

Three Main Things

The American Heart Association recommends that people with high blood pressure should do three things:

- Follow their health care provider's instructions.
- Stay on their medication.
- Make and maintain lifestyle changes.

What is the American College of Physicians?

The American College of Physicians (ACP) is the largest medical specialty society and second-largest physician group in the United States. Its membership includes more than 115,000 internal medicine physicians, related subspecialists, and medical students. Internists treat the majority of adults in the United States. ACP's mission is to enhance the quality and effectiveness of health care by fostering excellence and professionalism in the practice of medicine.

What is a doctor of internal medicine?

Doctors of internal medicine, often called “internists,” focus on adult medicine. They care for their patients for life—from the teen years through old age. Internists have had special training that focuses on the prevention and treatment of adult diseases. At least three of their seven or more years of training are dedicated to learning how to prevent, diagnose, and treat diseases that affect adults. Some internists take additional training to “subspecialize” in one of 13 areas of internal medicine, such as cardiology or geriatrics. Internists are often called upon to act as consultants to other physicians to help solve puzzling diagnostic problems.

What's an “FACP”?

The letters “FACP” after a physician's name mean he or she is a Fellow of the American College of Physicians, a mark of distinction for an internist. ACP Fellowship is an honorary designation that recognizes service and contributions to the practice of medicine—it says that the doctor is committed to providing the best health care possible.

Why choose an internist for your health care?

An internist, just like a family practice or general practice doctor, can serve as your primary care doctor. But internists are unique because they focus on adult medicine. Internists don't deliver babies, they don't treat children, and they don't do surgery. They do, however, have wide-ranging knowledge of complex diseases that affect adults. With in-depth training in adult medicine, an internist is your best choice to help you navigate the increasingly complex world of medical care.

An internist can treat you for something as routine as the flu, or provide in-depth care for diseases such as diabetes, cancer, or heart disease. Internists often coordinate the many subspecialists a patient might see in the process of treating an illness. Internists' patients like knowing that they have a relationship with a physician who is equipped to deal with whatever problem the patient brings—no matter how common or rare, or how simple or complex.

For more information about internists and internal medicine, visit www.doctorsforadults.com.



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