

## EL CAMINO MEDICAL CLINIC

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### High Blood Pressure

High blood pressure (HBP) is a serious condition that can lead to coronary heart disease, heart failure, stroke, kidney failure, and other health problems.

"Blood pressure" is the force of blood pushing against the walls of the arteries as the heart pumps out blood. If this pressure rises and stays high over time, it can damage the body in many ways.

### Overview

About 1 in 3 adults in the United States has HBP. HBP itself usually has no symptoms. You can have it for years without knowing it. During this time, though, it can damage the heart, blood vessels, kidneys, and other parts of your body.

The table below shows normal numbers for adults. It also shows which numbers put you at greater risk for health problems. Blood pressure tends to go up and down, even in people who have normal blood pressure. If your numbers stay above normal most of the time, you're at risk.

### Categories for Blood Pressure Levels in Adults (in mmHg, or millimeters of mercury)

Category	Systolic (top number)		Diastolic (bottom number)
Normal	Less than 120	<i>And</i>	Less than 80
Prehypertension	120–139	<i>Or</i>	80–89
High blood pressure			
Stage 1	140–159	<i>Or</i>	90–99
Stage 2	160 or higher	<i>Or</i>	100 or higher

The ranges in the table apply to most adults (aged 18 and older) who don't have short-term serious illnesses.

All levels above 120/80 mmHg raise your risk, and the risk grows as blood pressure levels rise. "Prehypertension" means you're likely to end up with HBP, unless you take steps to prevent it.

If you're being treated for HBP and have repeat readings in the normal range, your blood pressure is under control. However, you still have the condition. You should see your doctor and stay on treatment to keep your blood pressure under control.

Your systolic and diastolic numbers may not be in the same blood pressure category. In this case, the more severe category is the one you're in. For example, if your systolic number is 160 and your diastolic number is 80, you have stage 2 HBP. If your systolic number is 120 and your diastolic number is 95, you have stage 1 HBP.

If you have diabetes or chronic kidney disease, HBP is defined as 130/80 mmHg or higher. HBP numbers also differ for children and teens.

### **What Causes High Blood Pressure?**

Blood pressure tends to rise with age, unless you take steps to prevent or control it.

Certain medical problems, such as chronic kidney disease, thyroid disease, and [sleep apnea](#), may cause blood pressure to rise. Certain medicines, such as asthma medicines (for example, corticosteroids) and cold-relief products, also may raise blood pressure.

In some women, blood pressure can go up if they use birth control pills, become pregnant, or take hormone replacement therapy.

Women taking birth control pills usually have a small rise in both systolic and diastolic blood pressures. If you already have high blood pressure (HBP) and want to use birth control pills, make sure your doctor knows about your HBP. Talk to him or her about how often you should have your blood pressure checked and how to control it while taking the pill.

*Courtesy of El Camino Medical Clinic, Ste 706, Burlingame, CA 94010*

Taking hormones to reduce the symptoms of menopause can cause a small rise in systolic blood pressure. If you already have HBP and want to start using hormones, talk to your doctor about the risks and benefits. If you decide to take hormones, find out how to control your blood pressure and how often you should have it checked.

Children younger than 10 years who have HBP often have another condition that's causing it (such as kidney disease). Treating the underlying condition may resolve the HBP.

The older a child is when HBP is diagnosed, the more likely he or she is to have essential hypertension. This means that doctors don't know what's causing the HBP.

## **Who Is At Risk for High Blood Pressure?**

### **Older Age**

Blood pressure tends to rise with age. If you're a male older than 45 or a female older than 55, your risk for HBP is higher. Over half of all Americans aged 60 and older have HBP.

### **Race/Ethnicity**

HBP can affect anyone. However, it occurs more often in African American adults than in Caucasian or Hispanic American adults. In relation to these groups, African Americans:

- Tend to get HBP earlier in life
- Often have more severe HBP
- Are more likely to be aware that they have HBP and to get treatment
- Are less likely than Caucasians and about as likely as Hispanic Americans to achieve target control levels with HBP treatment
- Have higher rates than Caucasians of premature death from HBP-related complications, such as [coronary heart disease](#), [stroke](#), and [kidney failure](#)

## **Overweight or Obesity**

You're more likely to develop prehypertension or HBP if you're overweight or obese. Overweight is having extra body weight from muscle, bone, fat, and/or water. Obesity is having a high amount of extra body fat.

## **Unhealthy Lifestyle Habits**

A number of lifestyle habits can raise your risk for HBP, including:

- Eating too much sodium (salt)
- Drinking too much alcohol
- Not getting enough potassium in your diet
- Not doing enough physical activity
- Smoking

## **Other Risk Factors**

A family history of HBP raises your risk for the condition. Long-lasting stress also can put you at risk for HBP.

You're also more likely to develop HBP if you have prehypertension. Prehypertension means that your blood pressure is in the 120–139/80–89 mmHg range.

## **What Are the Signs and Symptoms of High Blood Pressure?**

High blood pressure (HBP) itself usually has no symptoms. Rarely, headaches may occur.

You can have HBP for years without knowing it. During this time, HBP can damage the heart, blood vessels, kidneys, and other parts of the body.

Some people only learn that they have HBP after the damage has caused problems, such as coronary heart disease, stroke, or kidney failure.

*Courtesy of El Camino Medical Clinic, Ste 706, Burlingame, CA 94010*

Knowing your blood pressure numbers is important, even when you're feeling fine. If your blood pressure is normal, you can work with your health care team to keep it that way. If your numbers are too high, you can take steps to lower them and control your blood pressure. This helps reduce your risk for complications.

## **Complications of High Blood Pressure**

When blood pressure stays high over time, it can damage the body. HBP can cause:

- The heart to get larger or weaker, which may lead to [heart failure](#). Heart failure is a condition in which the heart can't pump enough blood throughout the body.
- [Aneurysms](#) (AN-u-risms) to form in blood vessels. An aneurysm is an abnormal bulge or "ballooning" in the wall of an artery. Common spots for aneurysms are the main artery that carries blood from the heart to the body; the arteries in the brain, legs, and intestines; and the artery leading to the spleen.
- Blood vessels in the kidney to narrow. This may cause kidney failure.
- Arteries throughout the body to narrow in some places, which limits blood flow (especially to the heart, brain, kidneys, and legs). This can cause a [heart attack](#), stroke, kidney failure, or amputation of part of the leg.
- Blood vessels in the eyes to burst or bleed. This may lead to vision changes or blindness.

## **How Is High Blood Pressure Treated?**

High blood pressure (HBP) is treated with lifestyle changes and medicines.

Most people who have HBP will need lifelong treatment. Sticking to your treatment plan is important. It can prevent or delay the problems linked to HBP and help you live and stay active longer.

## **Goals of Treatment**

The treatment goal for most adults is to get and keep blood pressure below 140/90 mmHg. For adults who have diabetes or chronic kidney disease, the goal is to get and keep blood pressure below 130/80 mmHg.

## **Lifestyle Changes**

Healthy habits can help you control HBP. Healthy habits include:

- Following a healthy eating plan
- Doing enough physical activity
- Maintaining a healthy weight
- Quitting smoking
- Managing your stress and learning to cope with stress

If you combine these measures, you can achieve even better results than taking single steps. Making lifestyle changes can be hard. Start by making one healthy lifestyle change and then adopt others.

Some people can control their blood pressures with lifestyle changes alone, but many people can't. Keep in mind that the main goal is blood pressure control. If your doctor prescribes medicines as a part of your treatment plan, keep up your healthy habits. This will help you better control your blood pressure.

## **Follow a Healthy Eating Plan**

Your doctor may recommend the [Dietary Approaches to Stop Hypertension \(DASH\) eating plan](#) if you have HBP. The DASH eating plan focuses on fruits, vegetables, whole grains, and other foods that are heart healthy and lower in sodium (salt).

This eating plan is low in fat and cholesterol. It also features fat-free or low-fat milk and dairy products, fish, poultry, and nuts. The DASH eating plan suggests less red meat (even lean red meat), sweets, added sugars, and sugar-containing beverages. The plan is rich in nutrients, protein, and fiber.

To help control HBP, you should limit the amount of salt that you eat. This means choosing low-salt and "no added salt" foods and seasonings at the table or when cooking. The Nutrition Facts label on food packaging shows the amount of sodium in the item. You should eat no more than about 1 teaspoon of salt a day.

You also should try to limit alcoholic drinks. Too much alcohol will raise your blood pressure. Men should have no more than two alcoholic drinks a day. Women should have no more than one alcoholic drink a day.

### **Do Enough Physical Activity**

Regular physical activity can lower HBP and also reduce your risk for other health problems.

Check with your doctor about how much and what kinds of activity are safe for you. Unless your doctor tells you otherwise, try to get at least 30 minutes of moderate-intensity activity on most or all days of the week. You can do it all at once or break it up into shorter periods of at least 10 minutes each.

Moderate-intensity activities include brisk walking, dancing, bowling, riding a bike, working in a garden, and cleaning the house.

If your doctor agrees, you also may want to do more intense activities, such as jogging, swimming, and playing sports. For more information, see the NHLBI's ["Your Guide to Physical Activity and Your Heart."](#)

### **Maintain a Healthy Weight**

Staying at a healthy weight can help control blood pressure and also reduce your risk for other health problems.

If you're overweight or obese, aim to reduce your weight by 7 to 10 percent during your first year of treatment. This amount of weight loss can lower your risk for health problems related to HBP.

After the first year, you may have to continue to lose weight so you can lower your body mass index (BMI) to less than 25.

BMI measures your weight in relation to your height and gives an estimate of your total body fat. A BMI between 25 and 29 is considered overweight. A BMI of 30 or more is considered obese. A BMI of less than 25 is the goal for keeping blood pressure under control.

## **Quit Smoking**

Smoking can damage your blood vessels and raise your risk for HBP. It also can worsen health problems related to HBP. Smoking is bad for everyone, especially those who have HBP.

## **Managing Stress**

Learning how to manage stress, relax, and cope with problems can improve your emotional and physical health.

Physical activity helps some people cope with stress. Other people listen to music or focus on something calm or peaceful to reduce stress. Some people learn yoga, tai chi, or how to meditate.

## **Medicines**

Today's blood pressure medicines can safely help most people control their blood pressures. These medicines are easy to take. The side effects, if any, tend to be minor.

If you have side effects from your medicines, talk to your doctor. He or she may be able to adjust the doses or prescribe other medicines. You shouldn't decide on your own to stop taking your medicines.

Blood pressure medicines work in different ways to lower blood pressure. Some remove extra fluid and salt from the body to lower blood pressure. Others slow down the heartbeat or relax and widen blood vessels. Often, two or more medicines work better than one.



## **Living With High Blood Pressure**

If you have high blood pressure (HBP), you will need to treat and control it for life. This means making lifestyle changes, taking prescribed medicines, and getting ongoing medical care.

Treatment can help control blood pressure, but it will not cure HBP. If you stop treatment, your blood pressure and risk for related health problems will rise. For a healthy future, follow your treatment plan closely. Work with your health care team for lifelong blood pressure control.

## **Ongoing Care**

Go for medical checkups or tests as your doctor advises. Your doctor may need to change or add medicines to your treatment plan over time. Regular checkups allow your doctor to change your treatment right away if your blood pressure goes up again.