

Managing High Blood Pressure

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What is blood pressure?

Blood pressure is the force of blood pushing against the walls of the blood vessels called arteries. The arteries carry blood from your heart to your lungs, where the blood picks up **oxygen**, which is delivered to your organs and tissues. The organs and tissues use the oxygen to power their activities. Other blood vessels called veins bring the now oxygen-poor blood and waste products back to the heart and lungs.

How often should I have my blood pressure checked?

You should have your blood pressure measured at least every 2 years if your blood pressure is normal and more often if it is higher than normal.

How is my blood pressure checked?

A cuff with a balloon inside is wrapped around your upper arm. Air is pumped into the balloon. Your pressure reading is taken while the cuff is squeezing your arm.

What do the numbers in my blood pressure reading mean?

Your blood pressure reading has two numbers. Each number is separated by a slash: 110/80, for instance. You may hear this referred to as "110 over 80." The first number is the pressure against the artery walls when the heart contracts. This is called the **systolic blood pressure**. The second number is the pressure against the artery walls when the heart relaxes between contractions. This is called the **diastolic blood pressure**.

Does my blood pressure stay the same all of the time?

Blood pressure can go up and down. It goes down when you sleep and goes up when you are active or nervous. This is normal. Your blood pressure is the average of several readings taken on different occasions.

How is my blood pressure reading categorized?

Your blood pressure reading is classified into one of four categories: normal, prehypertension, stage 1 hypertension, or stage 2 hypertension. People who have prehypertension have twice the risk of developing hypertension compared with those who have normal blood pressure. Recognizing prehypertension is important. If you have prehypertension, you often can make lifestyle changes to prevent the development of high blood pressure.

How can high blood pressure harm my body?

Long before high blood pressure causes symptoms, it can damage vital organs in your body:

- Blood vessels—Long-term high blood pressure can damage the walls of the arteries. Damaged artery walls are more
 likely to attract a sticky substance called plaque. Plaque can build up inside blood vessel walls and, over time, cause
 the arteries to narrow and harden. This condition is called atherosclerosis. The combination of atherosclerosis and high
 blood pressure sets the stage for a stroke or heart attack.
- Heart—As blood pressure increases, the heart has to work harder to deliver oxygen to the tissues. Over time, the heart may enlarge. Its walls may thicken or thin. The heart may no longer pump efficiently enough to keep up with the body's demands. Tissues become starved of oxygen, causing fatigue, breathing problems, and weakness.
- Brain—High blood pressure can cause a blood vessel in the brain to become blocked, cutting off oxygen to that part of the brain. A blood vessel also can burst. This is called a stroke. During a stroke, cells in that part of the brain may die. A stroke can cause permanent brain damage or death.
- Kidneys—The kidneys filter the blood to remove wastes from your body. The blood vessels in the kidneys can be damaged easily by high blood pressure. When the kidneys are not working normally, their ability to control salt and water balance in the body is disrupted. This can lead to kidney failure.
- Eyes—High blood pressure can cause the blood vessels in your eyes to constrict. This can cause vision problems and may even lead to blindness.

What are risk factors for high blood pressure that cannot be changed?

The following factors that increase the risk of high blood pressure cannot be changed:

- Age—Blood pressure increases with increasing age.
- Race—High blood pressure is more common in African Americans than in any other racial group.
- Family history—High blood pressure tends to run in families.
- Medical conditions—Certain diseases, such as diabetes and kidney disease, increase the risk of high blood pressure.
- History of *preeclampsia*

What lifestyle habits can affect my blood pressure?

Lifestyle habits also can affect blood pressure. These are things you can change. You are at greater risk of high blood pressure if you

- · are overweight
- · are not physically active
- smoke cigarettes
- · drink more than two alcoholic drinks per day
- eat a poor diet (too much fat, not enough fruits and vegetables)
- eat too much salt

What can I do to help decrease my risk of high blood pressure?

Adopting certain lifestyle habits can decrease your risk of developing high blood pressure in the future:

- · Quit smokina.
- Lose weight if you are overweight.
- · Limit your intake of alcohol.
- Exercise regularly.
- · Cut back on salt.

- Change your diet—The DASH (Dietary Approaches to Stop Hypertension) eating plan focuses on heart-healthy foods.
- · Relieve stress.

What treatment is available if my blood pressure is not lowered by lifestyle changes?

If lifestyle changes alone do not lower your blood pressure, medications usually are recommended. Many types of medications are available that work in different ways. It is important to continue taking your medication even when you are feeling healthy. It also is important to continue your healthy lifestyle habits even if taking medication lowers your blood pressure readings into the healthy range.

Can high blood pressure affect pregnancy?

High blood pressure during pregnancy can cause serious problems, including growth problems with the baby, *preterm* birth, and worsening of any preexisting conditions that you have because of high blood pressure. If you have chronic (long-lasting) high blood pressure and are planning to become pregnant, see your health care provider for a prepregnancy check-up. This will give you a chance to stabilize your blood pressure and to become as healthy as possible. During pregnancy, your blood pressure will be measured often. You will be monitored for signs and symptoms of preeclampsia. You may have special tests to monitor the well-being and growth of the *fetus*.

What is gestational hypertension?

High blood pressure that first occurs in the second half (after 20 weeks) of pregnancy is called *gestational hypertension*. Management depends on how high your blood pressure is. Most women with gestational hypertension have only a mild increase in blood pressure. Some women, however, develop severe hypertension and are at risk of serious complications. All women with gestational hypertension are monitored closely to make sure their blood pressure does not go too high and to look for signs of preeclampsia.

What is preeclampsia?

Preeclampsia is a serious high blood pressure disorder that can occur during pregnancy and in the weeks after pregnancy. If it is not diagnosed and managed, it can cause severe complications in both the woman and her baby. Women who have had preeclampsia have an increased risk of developing high blood pressure and *cardiovascular disease* later in life.

Are certain types of birth control not recommended if I have high blood pressure?

Some birth control methods are not recommended for women with high blood pressure. These methods include the following:

- Combined hormonal birth control methods—These methods contain estrogen and progestin and include the combined hormonal pill, patch, and ring. If you are being treated for high blood pressure—even if your blood pressure is normal—discuss the use of these methods with your health care provider.
- Injection—This form of birth control should not be used if your systolic blood pressure is 160 or higher or if your diastolic pressure is 100 or higher.

Can hormone therapy for menopause symptoms affect my blood pressure?

Blood pressure usually does not change much with *hormone therapy*. In some women, hormone therapy actually decreases blood pressure. In others, some types of hormone therapy increase blood pressure. Because the effects of hormone therapy on blood pressure are not predictable, all women who are taking hormone therapy should have their blood pressure checked more often.

Glossary

Atherosclerosis: Narrowing and clogging of the arteries by a buildup of plaque deposited in vessel walls; also called hardening of the arteries.

Cardiovascular Disease: Disease of the heart and blood vessels.

Diastolic Blood Pressure: The force of the blood in the arteries when the heart is relaxed; the lower blood pressure reading.

Fetus: The developing organism in the uterus from the ninth week of pregnancy until the end of pregnancy.

Gestational Hypertension: New-onset high blood pressure that occurs after 20 weeks of pregnancy.

Heart Attack: Damage to an area of heart muscle that occurs when its blood supply is interrupted. It almost always is caused by narrowing or blockage of the arteries in the heart.

Hormone Therapy: Treatment in which estrogen, and often progestin, are taken to help relieve some of the symptoms caused by low levels of these hormones.

Oxygen: A gas that is necessary to sustain life.

Preeclampsia: A disorder that can occur during pregnancy or after childbirth in which there is high blood pressure and other signs of organ injury, such as an abnormal amount of protein in the urine, a low number of platelets, abnormal kidney or liver function, pain over the upper abdomen, fluid in the lungs, or a severe headache or changes in vision.

Preterm: Born before 37 weeks of pregnancy.

Stroke: A sudden interruption of blood flow to all or part of the brain, caused by blockage or bursting of a blood vessel in the brain and often resulting in loss of consciousness and temporary or permanent paralysis.

Systolic Blood Pressure: The force of the blood in the arteries when the heart is contracting; the higher blood pressure reading.

If you have further questions, contact your obstetrician-gynecologist.

FAQ123: Designed as an aid to patients, this document sets forth current information and opinions related to women's health. The information does not dictate an exclusive course of treatment or procedure to be followed and should not be construed as excluding other acceptable methods of practice. Variations, taking into account the needs of the individual patient, resources, and limitations unique to the institution or type of practice, may be appropriate.

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