

# High Blood Pressure During Pregnancy



Normal blood pressure levels are key to good health. When blood pressure becomes too high, it is known as hypertension. This can pose health risks at any time. During pregnancy, hypertension can cause added problems. In some cases, *preeclampsia*, a serious disorder that affects pregnancy, may develop. If you are pregnant and have any of the risk factors that may lead to high blood pressure, you may need special care.

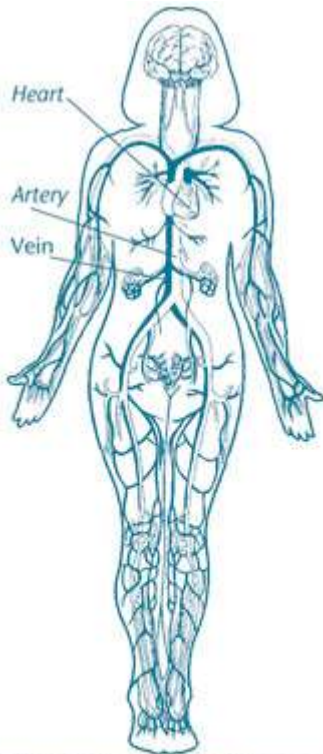
This pamphlet explains

- types of high blood pressure
- effects on pregnancy
- risk factors

## Blood Pressure

Blood pressure is vital for the body's circulatory system—the heart, arteries, and veins—to function. It is created in part by the steady beating of the heart. Each time the heart contracts, or squeezes, it pumps blood into the arteries. The arteries carry the blood to the body's organs. The veins return it to the heart.

Small arteries, called arterioles, also affect blood pressure. These blood vessels are lined with a layer of muscle. When the blood pressure is normal, this muscle is relaxed and the arterioles are dilated (open) so that blood can flow through them easily. However, if a signal is sent to increase the blood pressure, the muscle layer tightens and the arterioles narrow. This makes it harder for the blood to flow. The pressure then increases in the arteries.



*The heart pumps blood rich in oxygen through the arteries (light blood vessels) to the body. Veins (dark blood vessels) carry blood back from the body to the heart.*

A blood pressure reading has 2 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 in the arteries when the heart contracts. This is called the systolic pressure. The second number is the pressure in the arteries when the heart relaxes between contractions. This is the diastolic pressure.

Blood pressure changes from person to person. It changes often during the day. It can increase if you are excited or if you exercise. Most often, it decreases when you are resting. These short-term changes in blood pressure are normal. It is only when a person’s blood pressure stays high for some time that it may signal a problem.

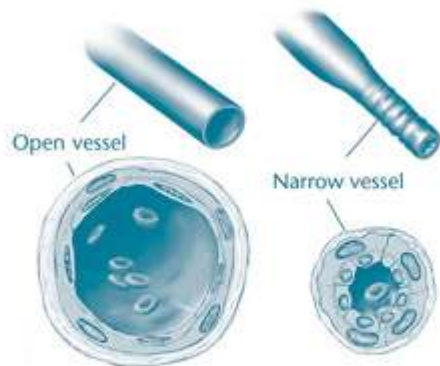
In most pregnant women, readings less than 120/80 are normal. If you are pregnant and your systolic pressure is 140 or the diastolic pressure is 90 on several readings, it is too high.

Because of the normal ups and downs in blood pressure, if you have one high reading, another reading may be taken again later to see if it is your normal level. Your normal blood pressure can be an average of a number of readings taken at rest.

## Effects of Pregnancy

In a healthy pregnancy, the fetus receives from the woman all of the nutrients and oxygen it needs for normal growth. This happens when the correct amount of the woman's blood flows through the *placenta* and the nutrients and oxygen pass through the umbilical cord to the baby.

High blood pressure can cause problems during pregnancy. For instance, when a woman has high blood pressure in pregnancy, it may cause less blood to flow to the placenta. This means that the fetus receives less of the oxygen and nutrients it needs. This can cause the growth of the fetus to slow down.



*When your blood pressure is normal, blood vessels are open so that blood can flow easily through them. When your pressure is high, the vessels are narrow. This makes it harder for the blood to flow.*

## Types of High Blood Pressure

### *Chronic Hypertension*

When high blood pressure has been present for some time before pregnancy, it is known as chronic, or essential, hypertension. This condition remains during pregnancy and after the birth of the baby. It is vital that chronic hypertension be controlled because it can lead to health problems such as heart failure or stroke.

During pregnancy, chronic hypertension also may affect the growth of the fetus. If you take medication to control your blood pressure, ask your doctor if it is safe to use during pregnancy. Many women with chronic hypertension can stop taking medication during pregnancy because their blood pressure returns to normal. Other women need to continue treatment during their pregnancies. Talk to your doctor about the best treatment for you. In some cases, a woman may need to switch to a different medication that still helps control her blood pressure, but is safe to use during pregnancy.

### *Gestational Hypertension*

When high blood pressure first occurs during the second half of pregnancy, it is known as gestational hypertension. This type of high blood pressure goes away soon after the baby is born. You may need to see your doctor more often to have your blood pressure checked. When gestational hypertension occurs with other findings it is called preeclampsia. Gestational hypertension may lead to preeclampsia.

### *Preeclampsia*

Although gestational hypertension is the most common sign of preeclampsia, preeclampsia is a serious medical condition affecting all organs of the body. For example, preeclampsia causes stress on the kidneys, which results in increased amounts of protein in the woman's urine. Other signs of preeclampsia may include:

- Headaches
- Visual problems
- Rapid weight gain
- Swelling (edema) of the hands and face



### Your Blood Pressure Reading

110/80 = systolic/diastolic = pressure in arteries when heart contracts/pressure in arteries when heart relaxes

Doctors do not know why some women get pre-eclampsia. They do know that some women are at a higher risk than others. The risk of developing preeclampsia is increased in women who:

- Are pregnant for the first time
- Have had preeclampsia in a previous pregnancy
- Have a history of chronic hypertension
- Are 35 years or older
- Are carrying more than 1 fetus
- Have certain medical conditions such as diabetes or kidney disease
- Are obese
- Are African American
- Have certain immune disorders, such as lupus, or blood diseases

A woman with preeclampsia may need to stay in the hospital so that she and her baby can be monitored. In some cases, her baby may be delivered early. When preeclampsia becomes severe, the woman's organs can be damaged, including the kidneys, liver, brain, heart, and eyes. In some cases, seizures will occur. This is called ***eclampsia***.

Preeclampsia is a very serious illness for both the woman and baby. Severe preeclampsia may require early delivery, even if the baby is not fully grown. If a baby is born prematurely, it may have complications. In severe cases, the woman, baby, or both may die.

## What You Can Do

If you have chronic high blood pressure, follow these steps to help make your pregnancy safer:

### *Before pregnancy*

- Work with your doctor to lower your blood pressure.
- Lose weight through diet and exercise, if needed.
- Take blood pressure medication as prescribed.
- Ask your doctor if your blood pressure medication is safe to use during pregnancy.

### *During pregnancy*

- See your doctor regularly, starting as soon as you can, so that changes in your blood pressure and weight can be found as soon as they occur.
- If you have kidney disease or any other risk factors, be sure to tell your doctor early in pregnancy.
- If you develop any of the warning signs of preeclampsia, tell your doctor right away.
- Check your blood pressure and weight at home, if your doctor suggests you do so.

## Prenatal Care

If a woman knows she has high blood pressure before pregnancy, there are steps she and her doctor can take to reduce the chance of severe effects to herself or her baby ([see box on reverse](#)). For this reason, the best thing a woman can do is to see her doctor before pregnancy and get regular ***prenatal care***.

At each prenatal visit, a woman's weight, blood pressure, and a urine sample (to check for protein) are taken. This helps detect any changes that might have occurred. Once the doctor is aware that a woman's blood pressure is high, she may be checked more often.

## Treatment

When blood pressure increases slightly and the woman is not near the end of her pregnancy, bed rest may help reduce the pressure. Bed rest at home or in the hospital may be prescribed. If the blood pressure does not increase to dangerous levels, pregnancy may be allowed to continue until labor begins naturally.

If preeclampsia develops, the only real cure is having the baby. The decision to deliver the baby depends on the risks to the woman and whether the risk to the baby is greater in the woman's uterus or in a special

nursery. The labor may occur naturally or labor may be induced (brought on). Sometimes a *cesarean birth* is needed depending on the health of the woman and baby.

Before deciding to deliver your baby early, your doctor may wait to see if your condition improves. During labor you may be given medication to help prevent seizures or decrease your blood pressure.



Finally...

High blood pressure during pregnancy can place the woman and baby at risk for severe problems. If you have chronic hypertension or are at risk for developing preeclampsia, take steps to reduce the risks to your baby. You will need special care and may have to see your doctor more often. Working with your doctor to control your blood pressure level will help improve your chances of having a healthy baby.

## Glossary

***Cesarean Birth:*** Delivery of a baby and the placenta through an incision made in a woman's abdomen and uterus.

***Eclampsia:*** Seizures occurring in pregnancy and linked to high blood pressure.

***Placenta:*** Tissue that provides nourishment to and takes away waste from the fetus.

***Preeclampsia:*** A condition of pregnancy in which there is high blood pressure, and protein is present in the urine.

***Prenatal Care:*** A program of care for a pregnant woman before the birth of her baby.

This Patient Education Pamphlet was developed by the American College of Obstetricians and Gynecologists. Designed as an aid to patients, it sets forth current information and opinions on subjects related to women's health. The average readability level of the series, based on the Fry formula, is grade 6-8. The Suitability Assessment of Materials (SAM) instrument rates the pamphlets as "superior." To ensure the information is current and accurate, the pamphlets are reviewed every 18 months. The information in this pamphlet does not dictate an exclusive course of treatment or procedure to be

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