



## Preeclampsia and High Blood Pressure During Pregnancy

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### What is high blood pressure?

Blood pressure is the pressure of the blood against the blood vessel walls each time the heart contracts (squeezes) to pump the blood through your body (see [FAQ123 Managing High Blood Pressure](#)). High blood pressure also is called **hypertension**. Hypertension can lead to health problems. During pregnancy, severe or uncontrolled hypertension can cause complications for you and your **fetus**.

### What is chronic hypertension?

**Chronic hypertension** is high blood pressure that was present before you became pregnant or that occurs in the first half (before 20 weeks) of your pregnancy. The guidelines for blood pressure are the following:

- Normal: Less than 120/80 mm Hg
- Elevated: Systolic between 120–129 and diastolic less than 80 mm Hg
- Stage 1 hypertension: Systolic between 130–139 or diastolic between 80–89 mm Hg
- Stage 2 hypertension: Systolic at least 140 or diastolic at least 90 mm Hg

## What is gestational hypertension?

**Gestational hypertension** is high blood pressure that first occurs in the second half (after 20 weeks) of pregnancy. Although gestational hypertension usually goes away after childbirth, it may increase the risk of developing hypertension in the future.

## What kinds of problems can hypertension cause during pregnancy?

High blood pressure during pregnancy can place extra stress on your heart and kidneys and can increase your risk of heart disease, kidney disease, and stroke. Other possible complications include the following:

- **Fetal growth restriction**—High blood pressure can decrease the flow of **nutrients** to the baby through the **placenta**. The baby may have growth problems as a result.
- **Preeclampsia**—This condition is more likely to occur in women with chronic high blood pressure than in women with normal blood pressure.
- **Preterm** delivery—If the placenta is not providing enough nutrients and **oxygen** to your baby, it may be decided that early delivery is better for your baby than allowing the pregnancy to continue.
- **Placental abruption**—This condition, in which the placenta prematurely detaches from the wall of the uterus, is a medical emergency that requires immediate treatment.
- **Cesarean delivery**—Women with hypertension are more likely to have a cesarean delivery than women with normal blood pressure. A cesarean delivery carries risks of infection, injury to internal organs, and bleeding.

## How is chronic hypertension during pregnancy managed?

Your blood pressure will be monitored closely throughout pregnancy. You may need to monitor your blood pressure at home. **Ultrasound exams** may be done throughout pregnancy to track the growth of your fetus. If growth problems are suspected, you may have additional tests that monitor the fetus's health. This testing usually begins in the third **trimester** of pregnancy. If your hypertension is mild, your blood pressure may stay that way or even return to normal during pregnancy, and your medication may be stopped or your dosage decreased. If you have severe hypertension or have health problems related to your hypertension, you may need to start or continue taking blood pressure medication during pregnancy.

## What is preeclampsia?

Preeclampsia is a serious blood pressure disorder that can affect all of the organs in a woman's body. A woman has preeclampsia when she has high blood pressure and other signs that her organ systems are not working normally. One of these signs is **proteinuria** (an abnormal amount of protein in the urine). A woman with preeclampsia whose condition is worsening will develop other signs and symptoms known as "severe features." These include a low number of **platelets** in the blood, abnormal kidney or liver function, pain over the upper abdomen, changes in vision, fluid in the lungs, or a severe headache. A very high blood pressure reading also is considered a severe feature.

## When does preeclampsia occur?

It usually occurs after 20 weeks of pregnancy, typically in the third trimester. When it occurs before 32 weeks of pregnancy, it is called early-onset preeclampsia. It also can occur in the postpartum period.

## What causes preeclampsia?

It is not clear why some women develop preeclampsia, but the risk of developing preeclampsia is increased in women who

- are pregnant for the first time
- have had preeclampsia in a previous pregnancy or have a family history of preeclampsia
- have a history of chronic hypertension, kidney disease, or both
- are 40 years or older
- are carrying more than one fetus
- have certain medical conditions such as **diabetes mellitus**, **thrombophilia**, or **lupus**
- are obese
- had **in vitro fertilization**

## What are the risks for my baby if preeclampsia occurs?

If preeclampsia occurs during pregnancy, your baby may need to be delivered right away, even if he or she is not fully grown. Preterm babies have an increased risk of serious complications. Some preterm complications last a lifetime and require ongoing medical care. Babies born very early also may die.

## What are the risks for me if preeclampsia occurs?

Women who have had preeclampsia—especially those whose babies were born preterm—have an increased risk later in life of **cardiovascular disease** and kidney disease, including heart attack, stroke, and high blood pressure. Having preeclampsia once increases the risk of having it again in a future pregnancy. Preeclampsia also can lead to seizures, a condition called **eclampsia**. It also can lead to **HELLP syndrome**.

## What is HELLP syndrome?

HELLP stands for **h**emolysis, **e**levated **l**iver **e**nzymes, and **l**ow **p**latelet count. In this condition, red blood cells are damaged or destroyed, blood clotting is impaired, and the liver can bleed internally, causing chest or abdominal pain. HELLP syndrome is a medical emergency. Women can die from HELLP syndrome or have lifelong health problems as a result.

## What are the signs and symptoms of preeclampsia?

- Swelling of face or hands
- A headache that will not go away
- Seeing spots or changes in eyesight
- Pain in the upper abdomen or shoulder
- Nausea and vomiting (in the second half of pregnancy)
- Sudden weight gain
- Difficulty breathing

## How is mild gestational hypertension or preeclampsia without severe features managed?

Management of mild gestational hypertension or preeclampsia without severe features may take place either in a hospital or on an outpatient basis (you can stay at home with close monitoring by your health care professional). You may be asked to keep track of your baby's movements by doing a daily **kick count** and to measure your blood pressure at home. You will need to see your health care professional at least weekly and sometimes twice weekly. Once you reach 37 weeks of pregnancy, it may be recommended that you have your baby. If test results show that the baby is not doing well, you may need to have the baby earlier.

## How is preeclampsia with severe features managed?

Preeclampsia with severe features usually is treated in the hospital. If you are at least 34 weeks pregnant, it often is recommended that you have your baby as soon as your condition is stable. If you are less than 34 weeks pregnant and your condition is stable, it may be possible to wait to deliver your baby. **Corticosteroids** may be given to help the baby's lungs mature, and you most likely will be given medications to help reduce your blood pressure and to help prevent seizures. If your condition or the baby's condition worsens, prompt delivery will be needed.

## What steps can I take to help prevent preeclampsia?

Prevention involves identifying whether you have risk factors for preeclampsia and taking steps to address these factors. If you have hypertension and are planning a pregnancy, see your health care professional for a prepregnancy check-up to find out whether your hypertension is under control and whether it has affected your health. If you are overweight, weight loss usually is advised before pregnancy. If you have a medical condition, such as diabetes, it usually is recommended that your condition be well controlled before you become pregnant.

## Glossary

**Cardiovascular Disease:** Disease of the heart and blood vessels.

**Cesarean Delivery:** Delivery of a baby through surgical incisions made in the mother's abdomen and uterus.

**Chronic Hypertension:** High blood pressure that was diagnosed before the current pregnancy.

**Corticosteroids:** Hormones given to help fetal lungs mature, for arthritis, or for other medical conditions.

**Diabetes Mellitus:** A condition in which the levels of sugar in the blood are too high.

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

**Fetal Growth Restriction:** A condition in which a fetus has an estimated weight that is less than that of 9 out of 10 other fetuses of the same gestational age.

**Fetus:** The stage of prenatal development that starts 8 weeks after fertilization and lasts until the end of pregnancy.

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

**HELLP Syndrome:** A severe type of preeclampsia; HELLP stands for **h**emolysis, **e**levated **l**iver **e**nzymes, and **l**ow **p**latelet count.

**Hemolysis:** Destruction of red blood cells.

**Hypertension:** High blood pressure.

**In Vitro Fertilization:** A procedure in which an egg is removed from a woman's ovary, fertilized in a laboratory with the man's sperm, and then transferred to the woman's uterus to achieve a pregnancy.

**Kick Count:** A record kept during late pregnancy of the number of times a fetus moves over a certain period.

**Liver Enzymes:** Chemicals made by liver cells; elevated levels may indicate liver damage.

**Lupus:** An autoimmune disorder that causes changes in the joints, skin, kidneys, lungs, heart, or brain.

**Nutrients:** Nourishing substances supplied through food, such as vitamins and minerals.

**Oxygen:** A gas that is necessary to sustain life.

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

**Placental Abruption:** A condition in which the placenta has begun to separate from the inner wall of the uterus before the baby is born.

**Platelets:** Small, disc-shaped structures found in the blood that help the blood to clot.

**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, a severe headache, or changes in vision.

**Preterm:** Born before 37 weeks of pregnancy.

**Proteinuria:** The presence of an abnormal amount of protein in the urine.

**Thrombophilia:** A condition in which the blood does not clot correctly.

**Trimester:** Any of the three 3-month periods into which pregnancy is divided.

**Ultrasound Exam:** A test in which sound waves are used to examine internal structures. During pregnancy, it can be used to examine the fetus.

### **If you have further questions, contact your obstetrician–gynecologist.**

**FAQ034:** This information was designed as an educational aid to patients and sets forth current information and opinions related to women's health. It is not intended as a statement of the standard of care, nor does it comprise all proper treatments or methods of care. It is not a substitute for a treating clinician's independent professional judgment. Please check for updates at [www.acog.org](http://www.acog.org) to ensure accuracy.

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