What is 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. This is called high blood pressure.

High blood pressure also is called hypertension.

How can high blood pressure affect pregnancy?

When a woman has high blood pressure in pregnancy, it may cause less blood to flow to the placenta. The fetus receives less of the oxygen and nutrients it needs. This can cause the growth of the fetus to slow down.

What is chronic high blood pressure?

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.

How is chronic high blood pressure managed during pregnancy?

During pregnancy, chronic hypertension also may affect the growth of the fetus. If you take medication to control your blood pressure, your health care provider will determine whether 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. 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.
I have chronic high blood pressure. Are there steps I can take before pregnancy to make pregnancy safer?

The following steps may help make pregnancy safer:

- Lose weight through diet and exercise.
- Take blood pressure medication as prescribed.
- Ask your health care provider if your medication is safe to use during pregnancy.

What is 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 health care provider more often to have your blood pressure checked. When gestational hypertension occurs with other findings, it is called preeclampsia.

What is 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

What causes preeclampsia?

It is not known why some women get preeclampsia. However, 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 one 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

What happens if a woman has preeclampsia?

A woman with preeclampsia may need to stay in the hospital so that she and her baby can be monitored. In some cases, the 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.

How is preeclampsia treated?

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 to the baby. 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 health care provider may wait to see if your condition improves. During labor you may be given medication to help prevent seizures or decrease your blood pressure.

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.

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

FAQ034: 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 institution or type of practice, may be appropriate.

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