

Blood Pressure

When blood pressure becomes too high, it is known as hypertension. This can pose health risks at any time. Women who have hypertension should preferably control the blood pressure and then become pregnant. In about 15% women, the high blood pressure develops during pregnancy. This can cause added problems. In some cases, **pre-eclampsia**, a serious disorder that affects pregnancy, may develop.

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. If these muscles contract, the arterioles become narrow. The heart has to push the blood at higher pressure to reach the blood to the body.

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 by 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.

The blood pressure can vary due to many reasons. During pregnancy, the blood pressure is measured every time you are examined. In pregnancy blood pressure should always remain below 130/90.

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.

Types of High Blood Pressure seen during pregnancy:

Chronic Hypertension

This is typically when a patient who has hypertension before becoming pregnant becomes pregnant and presents with high blood pressure to the doctor. It is vital that chronic hypertension be controlled because it can lead to health problems such as heart failure or stroke.

It is advisable to change over the medication to a drug which is safe in pregnancy before you plan the pregnancy .this should be at least done when you come to know that you are pregnant.

Pregnancy induced hypertension

When high blood pressure increases during pregnancy it is called as pregnancy induced hypertension. Usually this occurs during the second half of pregnancy. This type of high blood pressure usually goes away soon after the baby is born. Along with the blood pressure you may also have swelling. This is called as pre-eclampsia.

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 pre-eclampsia is increased in women who:

- Are pregnant for the first time
- Have had pre-eclampsia 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
- Have certain immune disorders, such as lupus, or blood diseases

A woman with pre-eclampsia 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 pre-eclampsia becomes severe, the woman's organs can be damaged, including the kidneys, liver, brain, heart, and eyes. In some cases, seizures may occur. This is called ***eclampsia***.

The pre-eclampsia can also affect the mechanism of clotting of blood in the body. This may lead to serious disorder called as disseminated intravascular coagulopathy(DIC).

The pre-eclampsia also affects the baby. The blood supply going to the baby may reduce leading to restricted growth of the baby and sometimes the amniotic fluid may get reduced.

Pre-eclampsia is a very serious illness for both the woman and baby. Severe pre-

eclampsia may require early delivery, even if the baby is not fully grown. If a baby is born prematurely, it may have complications. All over the world, this is one of the common causes because of which mother's die.

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 pre-eclampsia 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 neonatal intensive care unit.

Your doctor will tell you to keep close watch on the baby's movements which you feel. The doctor will ask you to do many tests assessing various organ systems and check whether any of the organs are affected by pre-eclampsia. The doctor will also advise you to do tests such as NST, sonography or Doppler. 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 the baby.

The patients with pre-eclampsia are at risk of having excessive bleeding after the delivery.

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.

In conclusion,

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 pre-eclampsia, 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.