

What are Hypertensive Disorders of Pregnancy?

Midwives regularly measure the blood pressure of women who are pregnant or have recently given birth. Most women will have normal blood pressure during pregnancy. About 10% of pregnant women will develop high blood pressure. Most women who have high blood pressure while pregnant or after giving birth will not experience any major problems, nor will their babies.

Midwives and other maternity care providers use the term “hypertensive disorders of pregnancy” (or HDP) to describe a range of conditions, including:

Pre-existing hypertension	High blood pressure that is present before pregnancy or begins before the 20th week of pregnancy.
Gestational hypertension	High blood pressure that occurs in the second half of pregnancy. Gestational hypertension is the most common form of HDP. Gestational hypertension doesn't cause problems for mother or baby and usually goes away soon after birth.

Pre-existing hypertension or gestational hypertension can sometimes progress to preeclampsia.

Preeclampsia	High blood pressure that occurs in the second half of pregnancy along with other problems, such as protein in the urine.
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Why is preeclampsia so serious?

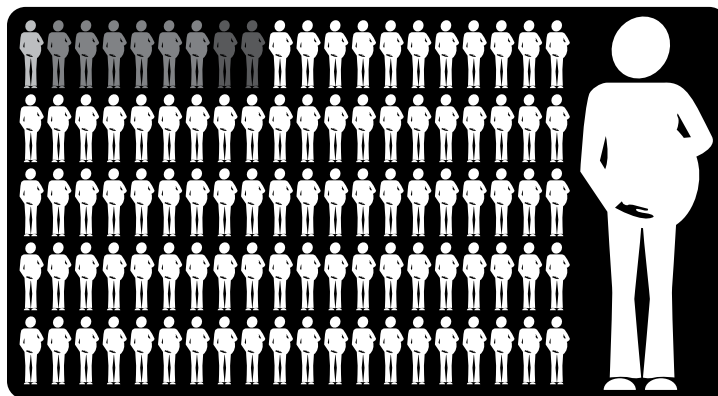
- Preeclampsia can decrease blood flow to the placenta, the organ inside the uterus (womb) that carries nourishment and oxygen to the baby. This reduces the oxygen and nutrients the baby receives, which may slow down the baby's growth.
- In some rare cases of preeclampsia, the baby may need to be born earlier than usual.
- Preeclampsia may cause the placenta to separate from the uterus too early (placental abruption). This is a rare emergency that can cause bleeding in the mother and prevent the baby from getting enough oxygen.

Fortunately, preeclampsia is usually detected early and treated effectively when pregnant women get regular care from midwives or other health care professionals. Most women who have preeclampsia have normal births and healthy babies.

Hypertensive disorders of pregnancy are among the most common complications that occur during pregnancy.

In 100 typical pregnancies in Canada

-  one will be affected by pre-existing hypertension
-  five or six will be affected by gestational hypertension
-  one or two will be affected by preeclampsia

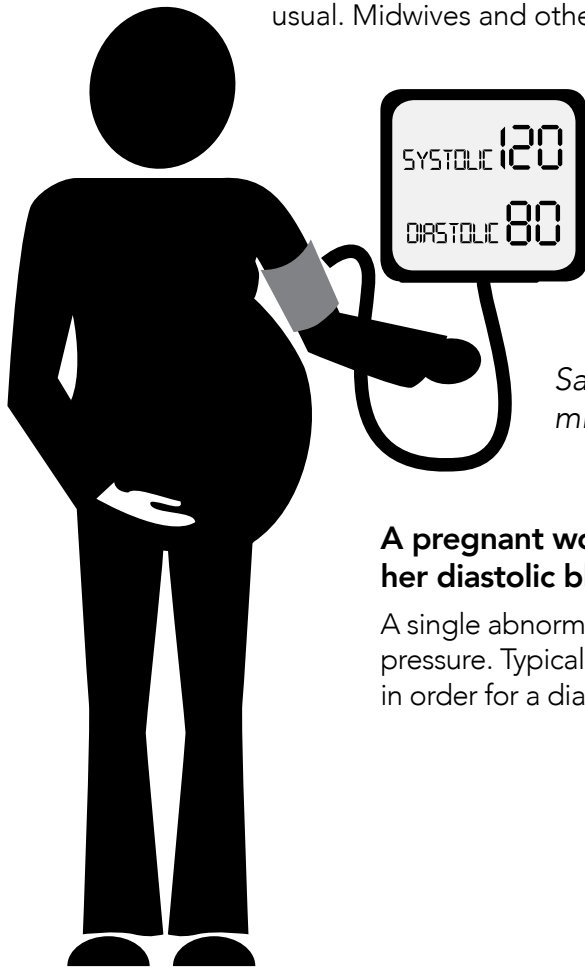


Very few of these women will experience serious problems with their pregnancy.

This document provides client-friendly information based on the Association of Ontario Midwives' Clinical Practice Guideline No. 15: Hypertensive Disorders of Pregnancy. It is designed to help you better understand some of the considerations and choices you may face while receiving care from your midwife. It is not intended to replace the informed choice discussions that you and your midwife will have. If you have any questions, concerns or ideas after reading over this document, please share them with your midwife.

What is hypertension?

Hypertension is the clinical term used to describe high blood pressure. Blood pressure is the force applied by the body's blood against the walls of the body's arteries, the vessels that carry blood away from the heart to the rest of the body. High blood pressure is when this force is greater than usual. Midwives and other health care providers measure blood pressure by tightening a cuff around the upper arm and using a stethoscope to listen to blood flow. They measure blood pressure using two numbers. The first number (systolic) describes the pressure in your arteries when your heart beats. The second number (diastolic) describes the pressure in your arteries when your heart rests between beats.



Said "120 over 80." Blood pressure is measured in millimetres of mercury (mmHG).

A pregnant woman is considered to have high blood pressure when her diastolic blood pressure measurement is 90 mmHg or higher.

A single abnormal measurement usually doesn't mean you have high blood pressure. Typically two or more high blood pressure measurements are required in order for a diagnosis to be made.

Why do some women develop preeclampsia?

Scientists don't fully understand what causes preeclampsia. It may result from a difference in the way the placenta develops. This different process of development may damage the placenta and cause it to release chemicals into the mother's blood stream that will:

- Cause high blood pressure.
- Affect the function of the kidneys, causing protein to be released in the urine.

Some women are more likely to develop preeclampsia than others. You are more likely to develop preeclampsia if you have one or more of the following risk factors listed below.

Risk factors for preeclampsia:

- You have had preeclampsia in the past
- You have diabetes or an inflammatory disease that affects the immune system (such as lupus)
- You are pregnant with twins
- You have a family history of preeclampsia (your mother or sister had preeclampsia)
- It is your first pregnancy
- Your body mass index (BMI) was above 30 when you became pregnant (you are overweight)

What tests will show if I have HDP?

Your midwife measures your blood pressure regularly. You or your midwife may have also used a dipstick to check your urine for protein. These are two ways that midwives watch for changes that could mean that you have HDP.

One high blood pressure measurement doesn't mean you have hypertension – typically two or more high blood pressure measurements are required in order for a diagnosis of hypertension to be made.

Similarly, a single positive dipstick test (+1 or higher) does not mean that you have harmful levels of protein in your urine.

Your midwife may want to monitor you more closely in case changes develop.

It's also important for women to pay attention to other symptoms that suggest that preeclampsia may be present.

Other symptoms of preeclampsia

CONTACT YOUR MIDWIFE IF YOU EXPERIENCE:

- A headache that doesn't go away even after you have taken two doses of 1000 mg of Tylenol (acetaminophen) four hours apart (and you have eaten recently and had enough water)
- Problems seeing: blurry vision, flashes, dark spots
- Stomach pain
- More nausea (stomach upset) or vomiting than usual
- Pain in your chest or shortness of breath

What happens if I have HDP?

Your midwife may arrange for you to see a doctor if HDP is suspected. A doctor will be able to order tests that provide more definitive information about your condition and prescribe medication if needed. Midwives in some communities are able to do these tests themselves through arrangements made with local doctors and hospitals.

Depending on your blood pressure measurements, your overall condition, how far you are in your pregnancy and your wishes and preferences, the following may be recommended:

Medication	A specialist may recommend that you take medicine to lower your blood pressure. Many different medications used to lower blood pressure are safe to take during pregnancy and breastfeeding.
Additional tests	<ul style="list-style-type: none">• Urine tests to look for increased protein levels, to check on the health of your kidneys.• Blood tests to look for other signs that your kidneys and liver aren't working properly and to check your blood's clotting abilities.• More frequent ultrasounds may be recommended to track your baby's growth and development.
Early birth of the baby	In some cases, the mother's health and well-being may require the baby to be born earlier than usual by inducing (artificially starting labour).

It may be necessary for a doctor to take over aspects of your care. If this is the case, your midwife will continue to provide support and will take over your care once your HDP has improved.

How will HDP affect my pregnancy and birth?

Most women who have HDP, including preeclampsia, give birth to healthy babies.

During pregnancy, your midwife may recommend more frequent monitoring to make sure you and your baby stay healthy. Monitoring could include:

- More frequent measurement of blood pressure
- Urine tests
- Blood tests
- Ultrasounds to measure the growth of your baby.

Otherwise, many aspects of your pregnancy and labour will be the same regardless of whether or not you have HDP. Your midwife will also discuss how HDP may affect your choice of birthplace.

What happens after I have my baby?

Your midwife may suggest that you avoid taking certain medications if you have pain following the birth of your baby. Acetaminophen (Tylenol) is recommended to relieve postpartum pain if your blood pressure has been high during your pregnancy. Ibuprofen (Advil) is typically NOT recommended.

Your midwife will monitor your blood pressure in the postpartum period to make sure it is not getting worse. Most women who have had high blood pressure while pregnant will find that their blood pressure returns to normal soon after their baby's birth.

Some women may still need medication for high blood pressure after having their baby. Your midwife and/or doctor will talk to you about medications that may be recommended. Many drugs prescribed for high blood pressure are safe to take while breastfeeding.

Sometimes women will develop symptoms of HDP only after their baby has been born. HDP that occurs in the postpartum period can be mild or it can be very serious. That's why it's important for women to pay attention to other symptoms that suggest that preeclampsia (see **Other symptoms of preeclampsia** table) may be present. If you experience these signs or symptoms in the postpartum period, page your midwife.

Your long-term health

Women who have had HDP are at increased risk of developing HDP in future pregnancies. They are also at higher risk of developing chronic high blood pressure in later life.

Your midwife can talk to you about what you can do to help to reduce your risk of blood pressure problems in the future.

Your midwife will also provide information about your blood pressure to the family physician, nurse practitioner or other provider who will be caring for you once you leave midwifery care.

Do you need more information?

Share your questions, concerns and ideas with your midwife. You can write them below or on another sheet of paper:
