

# HYPERTENSIVE DISORDERS *of* PREGNANCY

## *What do I need to know?*

During your pregnancy, your midwife will talk to you about routine blood pressure monitoring and hypertensive disorders of pregnancy (HDP).

## What are hypertensive disorders of pregnancy?

Midwives regularly measure your blood pressure during pregnancy and after you give birth.

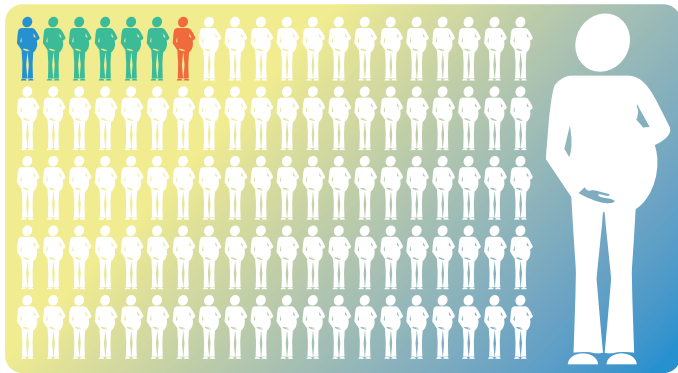
You will likely have normal blood pressure during your care. Only about 7 percent of pregnant people will experience high blood pressure during pregnancy. A small number of people with high blood pressure in pregnancy or after giving birth will develop

more serious problems. Although these issues are uncommon, it is important to be aware of the related signs and symptoms and when to contact your midwife if you have concerns.

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

Pre-existing hypertension	Gestational hypertension	Preeclampsia
<ul style="list-style-type: none"><li>High blood pressure that starts before pregnancy or in the first half of pregnancy (before the 20th week or 5th month)</li></ul>	<ul style="list-style-type: none"><li>High blood pressure that starts in the second half of pregnancy (after the 20th week or 5th month)</li><li>Most common form of HDP</li><li>Usually goes away soon after birth</li></ul>	<ul style="list-style-type: none"><li>High blood pressure that starts in the second half of pregnancy along with other problems with certain organs in the body (such as the liver or kidneys)</li><li>Pre-existing hypertension or gestational hypertension can sometimes progress to preeclampsia</li></ul>

Hypertensive disorders of pregnancy are among the most common complications during pregnancy. The severity of HDP can range from a mild increase in blood pressure, with no other symptoms, to more serious impacts for the pregnant person and the baby. Fortunately, the more serious conditions are rare.



## For every 100 pregnancies in Canada:

**ONE** will be affected by pre-existing hypertension

**FIVE** will be affected by gestational hypertension

**ONE** will be affected by preeclampsia

*This is said as "120 over 80."  
Blood pressure is measured in  
millimetres of mercury (mmHg).*

## How is hypertension measured?

Hypertension is the clinical term for high blood pressure. Blood pressure is the force applied by your 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 means that this force is greater than usual.

Midwives and other health-care providers measure blood pressure by tightening a cuff around your upper arm and using a stethoscope to listen to the blood flow. Automated blood pressure machines can also be used. Blood pressure is measured 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.



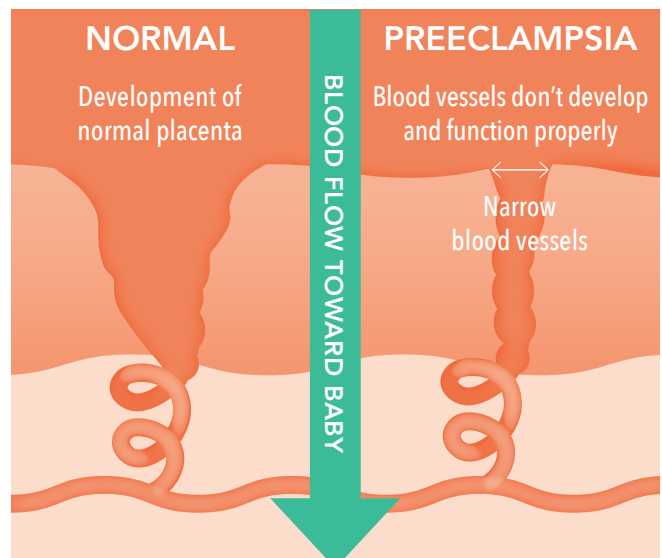
You would be considered to have **high blood pressure** when your systolic blood pressure measures **140 mmHg** or higher and/or your diastolic pressure measures **90 mmHg** or higher.

## Why would I develop preeclampsia?

Scientists don't fully understand what causes preeclampsia. It may result from a difference in the development of the placenta, the organ inside the uterus (womb) that carries nourishment and oxygen to the baby. This may damage the placenta and cause it to release chemicals into your bloodstream that can:

- Cause high blood pressure
- Damage the blood vessels
- Affect the function of the kidneys and liver

Fortunately, preeclampsia is usually detected and treated effectively when you receive regular care. Most people with preeclampsia have normal births and healthy babies.



Some people are **more likely** to develop preeclampsia than others. Sometimes it happens without any risk factors, but you are more likely to develop preeclampsia if you have one or more of the following:

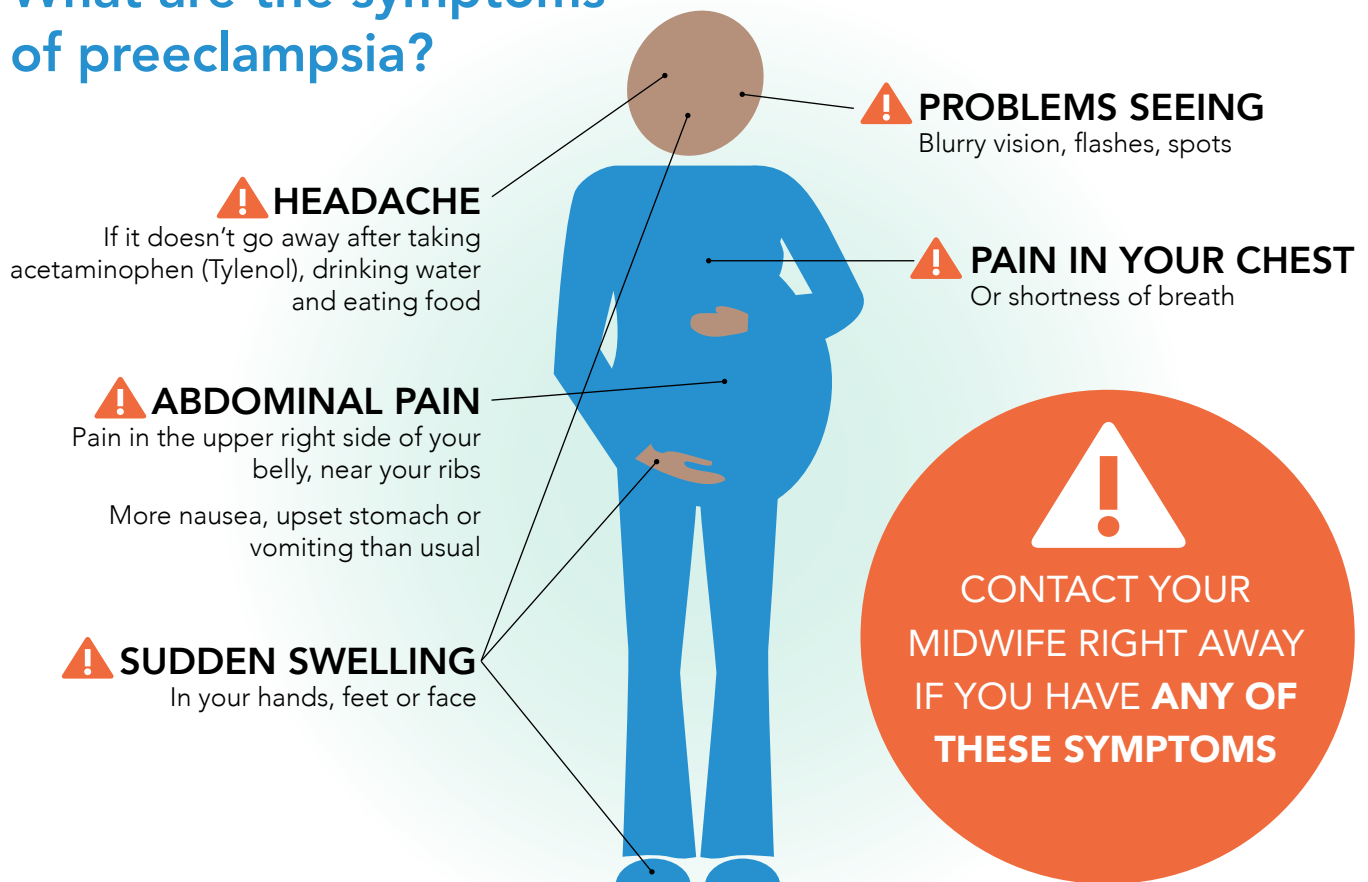
## Risk factors for preeclampsia

- You have had preeclampsia in the past
- You had high blood pressure before you became pregnant
- You have diabetes or an inflammatory disease (such as lupus) that affects the immune system
- You are pregnant with twins
- You have a family history of preeclampsia (your parent or sibling had preeclampsia)
- It is your first pregnancy, or it has been more than 10 years since your last pregnancy
- Your body mass index (BMI) was above 30 when you became pregnant
- You became pregnant with assisted reproductive technologies (such as IVF)

## ! Why is preeclampsia so serious?

- Preeclampsia can decrease blood flow to the placenta. This reduces the oxygen and nutrients the baby receives, which can slow down the baby's growth.
- In some 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 pregnant person and prevent the baby from getting enough oxygen.
- In rare cases, without treatment preeclampsia can become eclampsia, a very serious condition involving seizure(s) in the pregnant person, and it can lead to stroke, coma or death.

## What are the symptoms of preeclampsia?



## Can I prevent preeclampsia?

For some pregnant people with risk factors, taking low-dose aspirin every evening at bedtime can help reduce the chances of developing preeclampsia. Aspirin is safe to take throughout pregnancy and is most effective if started early in pregnancy, before 16 weeks. This is not recommended for everybody. Your midwife will review whether it would be beneficial for you during your pregnancy. Watching for signs and symptoms and talking to your midwife right away if you have concerns is important, even if you are already taking aspirin while pregnant.

## What tests will show if I have HDP?

Your midwife will check your blood pressure at your regular visits and monitor you for signs of preeclampsia throughout your pregnancy, especially if you have any risk factors. It's also important for you to pay attention to any symptoms that may indicate preeclampsia and report these to your midwife and other care providers.

### Tests for hypertensive disorders of pregnancy



#### Blood pressure measurement

One high blood pressure measurement does not mean you have hypertension. Typically, two or more high blood pressure measurements are needed to know if you have hypertension.

These measurements might be taken during the same visit with your midwife, or a plan could be made to assess your blood pressure in a different location.



#### Urine dipstick test

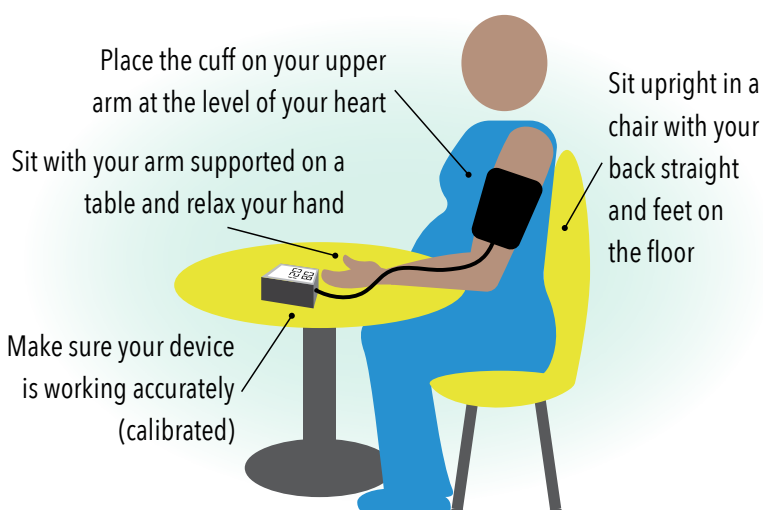
Urine dipsticks check for protein in your urine, which can be a sign of HDP when the kidneys are affected.

A single positive dipstick test does not mean that you have harmful protein levels in your urine.

**More follow-up may be recommended:** Your midwife may arrange for you to see a doctor if HDP is suspected. A doctor will order tests that provide more information and will prescribe medication if needed. Midwives in some communities can do these tests themselves. These may include blood and urine tests.

## Should I be checking my blood pressure at home?

Home blood pressure monitoring may be recommended by your midwife. It is not recommended or necessary for everyone to check their own blood pressure between appointments. If your midwife recommends that you check your own blood pressure at home, here are some tips to make sure you get an accurate measurement:



# What happens if I have HDP?

Most people who have managed or treated HDP, including preeclampsia, give birth to healthy babies. Your midwife will discuss how HDP may affect your choice of birthplace.

It may be necessary for a doctor to take over your care. If this is the case, your midwife will continue to provide support, offer information and advocate for your choices throughout your pregnancy, during birth and after you give birth. Your midwife can answer any questions you may have and address your concerns. In most cases, your midwife can provide care for you and your baby after birth.

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

## Medication



A doctor may recommend medicine to lower your blood pressure. Many different medications used to lower blood pressure are safe to take during pregnancy and while nursing.

## Early birth of baby



In some cases, your health and well-being may require that your baby be born earlier than usual by induction (artificially starting labour).

This can be a difficult decision, and mental health support may be helpful for you if this happens.

## Additional tests



Urine tests to look for increased protein levels, to check on the health of your kidneys



Blood tests to check whether your kidneys and liver are working properly and to check your blood's clotting abilities



More frequent ultrasounds to track your baby's growth and development



More frequent blood pressure checks, and in some cases home blood pressure monitoring

# What happens after I give birth?

## Blood pressure monitoring

Your midwife will monitor your blood pressure and ask about other symptoms after you give birth. If you had high blood pressure while pregnant, it will likely return to normal soon after your baby is born.

## Blood pressure medication

You may still need medication for high blood pressure after having your 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 nursing.

## Pain management

Your midwife may suggest that you take medication if you have pain following the birth of your baby. Acetaminophen (Tylenol) and ibuprofen (Advil) can be safely used to relieve postpartum pain if your blood pressure has been high during your pregnancy.

## New HDP after birth

Some people only develop symptoms of HDP after their baby is born. HDP that starts after birth can be mild, or it can be very serious. Most often, it occurs in the first few days, but it could happen weeks or months later. If you experience signs or symptoms after giving birth, page your midwife or other care provider if you are no longer with a midwife.

If you have HDP during pregnancy, you may experience increased stress and feelings of anxiety, depression or post-traumatic stress after giving birth.

An illustration of two stylized human figures from the waist up, facing each other and shaking hands. The figure on the left is wearing a blue long-sleeved shirt and has a light brown head. The figure on the right is wearing a green long-sleeved shirt and has a darker brown head. They are both smiling, and their hands are clasped in the center. The background is a solid light blue.

If you have had HDP, you have an increased risk of developing HDP in future pregnancies. You are also at a higher risk of developing high blood pressure or cardiovascular disease later in life.

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.

**Preeclampsia Foundation** – This charity aims to raise awareness and advance research for HDP. It provides health-care information and mental health support for HDP. Available at <https://www.preeclampsia.org/>

**High blood pressure: checking your blood pressure at home** – This resource was developed by HealthLink BC, with more details and images about how to take your blood pressure at home. Available at: <https://www.healthlinkbc.ca/illnesses-conditions/heart-health-and-stroke/high-blood-pressure-checking-your-blood-pressure-home>

**Postpartum Support International** – This organization promotes awareness, prevention and treatment of mental health issues related to childbearing. It offers a telephone HelpLine, online support groups and a directory of local support providers. Available at: <https://www.postpartum.net/get-help/>

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

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