

High Blood Pressure in Pregnancy

What is blood pressure?

Blood moves through **blood vessels** in the body. **Arteries** are blood vessels that carry blood from the heart to the rest of the body. **Blood pressure** is the force of blood pushing against the walls of your arteries.

A blood pressure measurement compares two blood pressure readings:

- **Systolic blood pressure:** the pressure in the arteries when the heart beats.
- **Diastolic blood pressure:** the pressure in the arteries when the heart rests between beats

A blood pressure reading of 109/82 or “one hundred and nine over eighty-two” means that the systolic blood pressure is 109, and the diastolic blood pressure is 82.

When you are pregnant:

- Normal blood pressure is 120 / 80 or lower
- High blood pressure in pregnancy is typically 140 / 90 or higher

High blood pressure is also called **hypertension** (hi-per-TEN-shun).

What are the three different types of high blood pressure in pregnancy?

1. Pre-existing hypertension (also called chronic or essential hypertension)

If you have pre-existing hypertension, your blood pressure was higher than normal before 20 weeks of pregnancy. You may need medication to lower your blood pressure at some stage of your pregnancy.

2. Gestational hypertension

If your high blood pressure started after 20 weeks of pregnancy, you have gestational hypertension. This happens because your placenta, which is the organ that develops when you become pregnant, is not working as well as it should. When the placenta is not working well, it starts producing abnormal chemicals. You may not feel any symptoms, but blood flow to



your baby and to all the organs in your own body can be affected. Gestational Hypertension can lead to Pre-eclampsia.

Your blood pressure may be higher than normal for up to 3 months after the baby is born.

3. Pre-eclampsia

This is a serious complication of high blood pressure. Health experts do not know why some people get pre-eclampsia, but we know that there are some risk factors for pre-eclampsia.

You may have pre-eclampsia if you are pregnant and have:

- high blood pressure
- urine or blood test results that are out of range (such as protein in your urine)
- symptoms like:
 - severe or constant headaches
 - blurred vision or seeing spots in front of your eyes
 - rapid swelling of body and face
 - chest pain or difficulty breathing
 - pain over your liver (under your right ribs) or upper abdomen
 - decreased baby movement.

Pre-eclampsia can get worse very quickly. It can affect your kidneys, liver and brain. It can also harm your baby. You may need blood tests to check your kidney and liver health. In extreme cases, a pregnant person can have seizures. This is called **eclampsia**. Eclampsia is a medical emergency.

Pre-eclampsia usually goes away after birth, but your blood pressure can remain higher than normal for 3 months.

If you develop pre-eclampsia, you should talk to your care provider after birth about your future health and pregnancies.

What does high blood pressure mean for my baby?

High blood pressure can reduce blood flow to the placenta. This can cause your baby to grow more slowly. It can also reduce amniotic fluid. Your baby's movement patterns may change.

If high blood pressure affects your health or your baby's health, your baby may need to be born early. Birth is the only way to begin to cure pre-eclampsia. If your baby will be born early, you may need medication to help your baby's lungs develop.



What will my doctor, midwife, or nurse practitioner do?

If you have high blood pressure, your doctor, midwife or nurse practitioner (also called Primary Care Provider) will:

- Control your blood pressure to keep it from getting too high
- Monitor your baby's growth, heart rate patterns, and amount of amniotic fluid, and
- Watch for early signs of pre-eclampsia and start treatment in hospital if necessary

What can I do?

To help keep yourself and your baby safe:

Go to your appointments

- Get blood and urine tests at the lab when your primary care provider asks for them
- Go to all your ultrasound and NST appointments
- Go to all your doctor or midwife appointments

Do Baby Movement Counting every day

Read and follow the Baby Movement Counting handout

<http://www.bcwomens.ca/health-info/pregnancy-parenting/what-to-expect-in-pregnancy#The--last--few--weeks>

If you feel less than 6 movements in two hours, call your doctor or midwife and come to the hospital Urgent Care Centre.



Take your medication

Your primary care provider may prescribe medication to control your blood pressure or prevent complications. You may need more than one kind of medication. Your primary care provider will answer your questions about medication.

Stay active

Exercise can reduce the risk of high blood pressure and pre-eclampsia. Bedrest can be harmful. Always follow your primary care provider's instructions.

Eat nutritious meals

Enjoy whole grains, fruits and vegetables. A calcium supplement can lower your risk of pre-eclampsia. Ask your primary care provider to learn more.



Stop smoking or vaping, or cut back

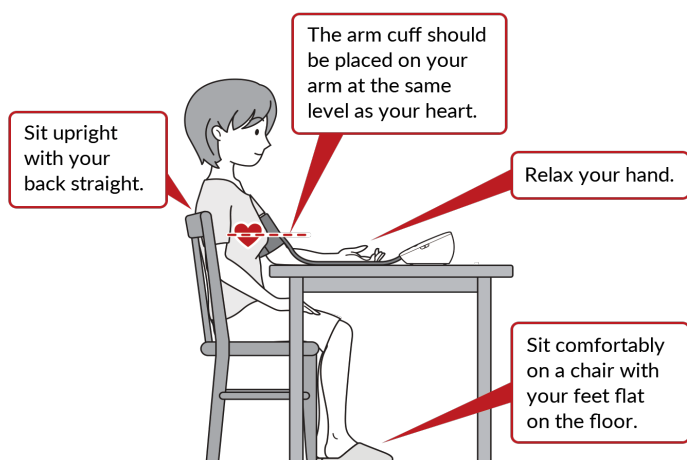
Nicotine can narrow the small blood vessels in your uterus. This reduces the oxygen and nutrients that go to your baby. Smoking or vaping can affect your baby's growth and development. Many other chemicals in cigarettes and e-cigarettes are harmful in pregnancy.

Check your blood pressure once or twice each day

Always follow your primary care provider's instructions for how often to check your blood pressure at home.

How do I check my blood pressure at home?

Buy or borrow a home blood pressure monitor. You can buy these machines online, or at most pharmacies.



To use the home blood pressure monitor:

- Rest for 5 minutes before checking your blood pressure.
- Sit with your feet flat on the floor, with your back and arm supported. Rest your arm at heart level.
- Remove any clothing on your upper arm.
- Wrap the cuff around your upper arm. Make sure it is in the correct place.
- Follow the instructions from the machine.
- Write down your blood pressure. This way, you can compare readings
- If your blood pressure is above 150/100, rest for 15 minutes, then check your blood pressure again. If it is still high, call your primary care provider.



How do I know my baby is okay?

Read and follow the Baby Movement Counting handout.

Most healthy babies are active. If your baby's movements slow down, it could be a sign that they are not well. When you know your baby's movement patterns, you can tell when something might be wrong. Count your baby's movements once each day, at around the same time. You can do this in the morning or evening.

Call your primary care provider if you feel less than 6 movements in two hours. If you cannot reach them, come to the hospital.

Non-Stress Test (NST)

Your baby's heart rate shows how your baby is doing. During an NST, a monitor at the hospital measures changes in your baby's heart rate.

During the NST, a nurse will secure the monitor onto your tummy with stretchy belts. The nurse will see your baby's heartbeat on a slow-moving graph on a computer screen. The NST will take from 20 minutes to 40 minutes.

Your primary care provider may ask you to get an NST once a week.



Ultrasound scan

- Shows how your baby is growing.
- Shows how your baby is moving inside the uterus.
- Checks the amount of amniotic fluid around your baby.
- Measures how much blood moves through the umbilical cord to the placenta. This is called the Doppler Flow. It is another way to check how your baby is doing

When do I get help?

Contact your primary care provider if you have any symptoms below. If you cannot reach them, come to the hospital.

- ☐ Blood pressure above 150/100 when you are sitting
- ☐ Headache that won't go away, especially between your eyes
- ☐ Blurred vision, sensitivity to light, or spots in front of your eyes
- ☐ Pain in your upper abdomen under your right rib (over your liver)
- ☐ Rapid swelling of your body and face
- ☐ Gush or trickle of fluid from the vagina
- ☐ Less than 6 baby movements in two hours
- ☐ Painful contractions in your uterus every 15 minutes or less



Call 911, and go to the hospital by ambulance, if you have:

- ☐ Vaginal bleeding with abdominal pain
- ☐ Severe nausea/vomiting
- ☐ Severe constant pain in your abdomen (uterus)
- ☐ Severe shortness of breath or chest pain

What happens after the birth?

- For the first week after birth, check your blood pressure every day. Your blood pressure may increase until 3-7 days after the birth. This can be because of pain, or because your body absorbs fluids from pregnancy.
- By 6 weeks after your baby is born, your blood pressure, swelling and lab test results should return to normal. Sometimes, this can take 3 months. Visit your primary care provider for a checkup 6 weeks after the birth.
- If you had pre-eclampsia, you have a higher risk for mental health concerns like depression or anxiety. Please tell your primary care provider how you are doing. Please go to the BC Women's hospital website (bcwomens.ca) for more information on Postpartum mood and getting the help you need.

Who can I talk to if I have questions?

If you have questions about the information on this sheet, please reach out to your primary care provider.