

# Prenatal ultrasound

Your health care provider may request that you have one or more ultrasound scans during your pregnancy. These prenatal ultrasound scans provide important medical information that will help you and your health care provider create the best care plan for you and your baby.

## What is a prenatal ultrasound?

A prenatal ultrasound scan is a painless medical procedure ordered by your physician, midwife or nurse practitioner. It uses sound waves to produce a live image of your baby in the womb that can be seen on a monitor. Ultrasounds are conducted by a physician or a trained sonographer using a hand-held instrument called a transducer. The transducer creates sound waves that the human ear cannot hear. The ultrasound machine detects sound waves that bounce off of the baby and turns them into an image.

These images are used to assess the health and well-being of your baby. A doctor, with expertise in interpreting ultrasound, reviews the images and sends a written report to your prenatal care provider. Your care provider will then review the findings with you.

## How is the prenatal ultrasound done?

There are 2 ways to do a prenatal ultrasound:

1. A transabdominal ultrasound is done by moving a transducer over your belly. This is the typical method used during routine prenatal ultrasounds
2. An endovaginal (EV), or transvaginal, ultrasound is done by gently placing a narrow transducer in your vagina. This method is used to assess certain conditions that might arise in your pregnancy

The endovaginal scan provides a better view of the lower part of your uterus, including the length of your cervix, or to determine the position of your placenta. Your care provider will discuss with you the timing and reasons to use an endovaginal or transabdominal scan in pregnancy. With this information you can decide whether you consent, and if so, what type of ultrasound method you prefer.

Most often, medical ultrasounds are 2 dimensional (2D). This creates a flat image rather than a 3 dimensional (3D) image.

## Are fetal ultrasounds safe?

Medical 2D ultrasound has been used in pregnancy for over 50 years. Many studies have been done to determine if a medical ultrasound is safe. There have been millions of prenatal ultrasounds over the past few decades with no confirmed health risks for the baby or the mother. Ultrasound is not an X-ray and does not use ionizing radiation.

All ultrasound scans are ordered by a doctor, midwife or nurse practitioner. They must be done by properly trained practitioners who have special knowledge and skill in fetal ultrasound.

## What can I do to prepare for my appointment?

When you book your ultrasound, you will receive instructions on how to prepare for your appointment. For example, you may be asked to come to your ultrasound appointment with a full bladder.

## At what stage of my pregnancy should I have a prenatal ultrasound?

Your physician, midwife or nurse practitioner

can order an ultrasound at any time during your pregnancy, based on your medical needs. Most often it will be recommended that you have an ultrasound during your first and second trimesters.

### **What information will a prenatal ultrasound provide?**

The scan will show different information depending on when the ultrasound is performed during your pregnancy and the reason your health care provider has requested it.

In general, a prenatal ultrasound scan may:

- Determine the age of your baby (in days and weeks) and your estimated due date
- Look at the size and growth of your baby
- Look to see if your baby is developing normally or if there are any major physical concerns
- Check on the amount of amniotic fluid around your baby
- Show what position your baby is in
- Help investigate any concerns your health care provider might have about your uterus, ovaries, placenta or cervix

### **First trimester (up to 14 weeks)**

An ultrasound done during the first trimester is the best time to:

- Determine how far along you are in your pregnancy
- Estimate your due date
- Help determine if there is more than one baby and if they share a placenta and/or the amniotic sac (the bag of fluid inside the womb where a baby develops)

As part of a range of prenatal genetic screening options, some women are eligible for a special type of ultrasound called a nuchal translucency (NT) ultrasound. This NT ultrasound is done along with blood tests to determine your baby's chance of having Down

syndrome (DS), Trisomy 18 or an open neural tube defect. Please talk to your health care provider to learn more about your prenatal genetic screening options.

### **Second trimester (14 to 27 weeks)**

An ultrasound between 18 and 22 weeks into your pregnancy is often called the detailed, anatomical, or level 2 ultrasound. It is the best time to look at the anatomy of your baby and try to see if there are any growth concerns or birth defects. The shape and size of your baby's physical structures are examined, but the ultrasound cannot always tell how well those structures are developing.

The best time to look for ultrasound "markers" is 18 to 22 weeks into your pregnancy. Markers are not birth defects. They are most often normal variations in growth and development. When seen in combination, markers might suggest a congenital condition, such as Down syndrome or Trisomy 18. Your health care provider may offer further information and testing if markers are seen. Most babies that have an isolated ultrasound "marker" are completely healthy and well.

Ultrasound cannot detect all prenatal issues or conditions. Having a completely normal ultrasound does not guarantee a completely healthy pregnancy or baby. In addition to offering prenatal ultrasound, your health care provider will provide regular physical assessment and other screening tests to monitor you and your baby's health throughout your pregnancy.

### **Third trimester (after 27 weeks)**

Your health care provider may ask you to have one or more third trimester ultrasounds if they are concerned about:

- Your baby's size, growth or position
- The amount of amniotic fluid around your baby
- The location of your placenta
- The length of your cervix

## Can I find out the sex of my baby?

During the 18 to 22 week second trimester scan, the genitals (sex organs) of your baby are usually examined as part of the detailed assessment of your baby's anatomy. If the position of your baby allows for the genitalia to be clearly seen, the sex (male or female) will be listed on the final report if requested. If you want to know the sex, the health care provider who ordered the test can tell you.

The sonographer performing the ultrasound is not able to give you detailed information about what they see on the ultrasound, including the sex of your baby. Only your physician, midwife or nurse practitioner can provide the results of the scan. If you do not want to know the sex of your baby, let your health care provider and the sonographer know.

Be aware that the ultrasound is not always correct in determining the sex of your baby. Also, you cannot book a medical ultrasound exam or extend a routine exam for the sole purpose of identifying the sex of the baby.

## What factors might limit the information that I get from an ultrasound?

Some factors may limit what information can be reported from your ultrasound. They include:

- If the timing is too early in your first trimester and your baby is still very small
- If the size or position of your baby limits what the sonographer can see and measure
- The location of your placenta or the amount of amniotic fluid around your baby
- If you have twins or multiples
- If your bladder is too full or too empty
- If you are overweight or obese

## Can I get pictures from the ultrasound?

Some clinics that perform medically indicated 2D ultrasound scans do provide photos. When you check in for your ultrasound, ask about this possibility and the cost.

Some clinics offer and perform optional, private-pay, 3D ultrasounds for keepsake or entertainment purposes only. Providing medical information is not the main purpose of these ultrasounds.

Ultrasound scans, including fetal ultrasounds, are medical procedures and should only be used when there is a medical reason to do so. Health Canada, the Society of Obstetricians and Gynaecologists of Canada, the Canadian Association of Radiologists, the College of Physicians and Surgeons of BC, and the International Society of Ultrasound and Gynecology recommend ultrasounds for medical purposes only and not for non-medical (keepsake) purposes.

## For more information

For more information on fetal ultrasounds, visit:

- The Society of Obstetricians and Gynaecologists of Canada : Your pregnancy – Routine tests  
[www.pregnancyinfo.ca/your-pregnancy/routine-tests](http://www.pregnancyinfo.ca/your-pregnancy/routine-tests)
- Health Canada: Ultrasound – Fetal ultrasound  
[www.canada.ca/en/health-canada/services/health-risks-safety/radiation/medical/ultrasound.html](http://www.canada.ca/en/health-canada/services/health-risks-safety/radiation/medical/ultrasound.html)

For information on prenatal genetic screening, visit Perinatal Services BC: Prenatal Genetic Screening Program

[www.perinataleservicesbc.ca/our-services/screening-programs/prenatal-genetic-screening](http://www.perinataleservicesbc.ca/our-services/screening-programs/prenatal-genetic-screening).

---

For more HealthLinkBC File topics, visit [www.HealthLinkBC.ca/more/resources/healthlink-bc-files](http://www.HealthLinkBC.ca/more/resources/healthlink-bc-files) or your local public health unit. For non-emergency health information and advice in B.C. visit [www.HealthLinkBC.ca](http://www.HealthLinkBC.ca) or call **8-1-1** (toll-free). For the deaf and hard of hearing, call **7-1-1**. Translation services are available in more than 130 languages on request.