

Normal Early Pregnancy Ultrasound

Patient Information Series – What you should know, what you should ask.

What is Early Pregnancy Ultrasound?

Some doctors will refer to early pregnancy as the period when the baby is still an embryo, which corresponds to the period from conception to 10 weeks after the first day of the last menstrual period, or 8 weeks after conception. Others may include the first three months of pregnancy (first trimester ultrasound).

What are the goals of the Early Pregnancy Ultrasound?

Early pregnancy ultrasound has several goals, including:

- Verify that the pregnancy is present
- Determine the gestational age
- Determine number of embryos / fetuses
- Check that the pregnancy is developing well
- Check for abnormalities including abnormal location of the pregnancy (i.e. to rule out ectopic pregnancy, a complication where the implantation site is outside the uterus) or abnormal appearance of the embryo / fetus (i.e. certain birth defects that can be identified very early)
- Screening for genetic issues such as Down syndrome
- Form part of early screening for other pregnancy complications, such as preeclampsia.

How is the early pregnancy ultrasound performed, and how do I prepare?

Early pregnancy ultrasound is typically done in your doctor's office. The doctor or sonographer may start the examination using an abdominal ultrasound probe applied to your lower belly. The examiner will apply a layer of ultrasound gel to your skin, which helps the sound waves travel from the probe into your body. In many cases a transvaginal probe may be needed to better see the embryo / fetus and the pregnancy, in which case the probe, covered by a sterile cover and with a bit of gel, will be inserted gently into the vagina. This brings the probe closer to the pregnancy and allows the sonographer to visualize the embryo / fetus and gestational sac, as well as your uterus (womb) and cervix, in optimal fashion. Be prepared for this to be done when you are scheduled for your early pregnancy ultrasound. No other special preparation is needed to have your early pregnancy ultrasound.

What are the things to watch for during my early pregnancy ultrasound?

Your doctor will examine the gestational sac, the appearance and size of the embryo / fetus, your ovaries and uterus (womb). The doctor will also look at a rounded structure called the yolk sac, which is an important part of the early development of the pregnancy. You will likely be offered screening for genetic issues such as Down syndrome,

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based on measuring the thickness of the back of the neck of the fetus, called nuchal translucency. You may also be offered other screening, such as Doppler ultrasound of the uterine arteries, which is part of early screening for pregnancy complications such as preeclampsia.

How accurate is the early pregnancy ultrasound or first trimester ultrasound in detecting fetal anomalies, and do I need to have the 18-20 weeks ultrasound after having a first trimester or early pregnancy ultrasound?

Your doctor will likely tell you about the limitations of early ultrasound. It is not possible to detect some anomalies this early in the pregnancy while the embryo / fetus is at this size and stage of development. Although some anomalies can be detected early, the early pregnancy/first trimester ultrasound does not substitute the 18-20 weeks “anatomy survey” ultrasound. It is recommended that you still have such ultrasound, even if you have had a first trimester or early pregnancy ultrasound.

Can early pregnancy ultrasound tell my baby’s sex?

The external appearance of the baby’s genitalia is not differentiated (i.e. visibly male or female) until 12 weeks of gestation and therefore even if the ultrasound was optimal we would not expect to be able to visualize the external appearance of the fetal sex/genitalia. It is possible to see the external appearance of the fetal genitalia after 12 weeks of gestation.

What questions should I ask?

- Is the pregnancy implanted normally inside my uterus (womb)?
- Are there one or more fetuses?
- Are there any apparent fetal anomalies?
- Is the growth of the embryo / fetus in agreement with the size expected according to the date of my last menstrual period?
- What is my estimated due date?
- Aside from nuchal translucency, what are the other options for testing or screening for genetic abnormalities or pregnancy complications, early in pregnancy?

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