

INFORMATION ABOUT THE THIRD TRIMESTER SCREENING SCAN

What is an ultrasound scan?

Ultrasound scanning is an imaging technique allowing the visualization of parts of the body by using high-frequency sound waves (ultrasound, not audible by human ear) able to go through the tissues. When the sound waves reach the fetus, echoes are produced and transformed into images on the ultrasound machine screen.

Why should a III trimester scan be performed?

The aim of this examination is to assess fetal growth, amniotic fluid and placental location. In the low-risk population, the third trimester ultrasound has a good performance - higher than that of symphysis-fundus height measurement - in identifying growth restricted or large for gestational age fetuses, and it might identify late onset structural anomalies. However, current evidence is lacking to assess whether ultrasound in low-risk women may lead to a clear improvement in terms of perinatal morbidity and mortality.

In high-risk population, third trimester ultrasound can identify anomalies of fetal growth and/or amniotic fluid. In this population, utero-placental and fetal Doppler assessment could be useful, according to gestational age and underlying condition. In women with suspected abnormal placental location, transvaginal ultrasound is indicated to diagnose placenta previa or low-lying placenta. In case of suspected placenta accreta spectrum disorders (abnormal placental invasion), a thorough assessment in a referral center with expertise for this condition is recommended.

What can be examined by a III trimester ultrasound scan?

In the third trimester of pregnancy, some fetal structures measurements are performed, and compared with growth reference charts to evaluate whether matching the expected ones for gestational age. Also placental location, amniotic fluid and few fetal organs anatomy could be assessed at this stage. Maternal obesity, abdominal surgical scars or uterine fibroids, unfavorable fetal position or multiple pregnancies are the most common limiting factors for this examination. It may happen that the examination cannot be completed at the first attempt, but this does not reflect an underlying problem. It is possible that the examination cannot be completed due to poor visualization of some organs (i.e. empty stomach or bladder). In such cases, either an extension of the exam time or planning a further attempt (during the same or following day) could be needed. In case of suspicion, the doctor will counsel the patient about the results, and a further evaluation in a referral center might be required.

Can fetal anomalies be detected by the third trimester ultrasound scan?

Detection of fetal anomalies is beyond the purpose of third trimester ultrasound.

In the low-risk population, ultrasound can detect congenital anomalies not previously identified or visible only during the III trimester, due to their evolving nature.

Ultrasound examination will focus on fetal brain distal ventricle (easier to visualize), four chambers of the heart, stomach, kidneys and bladder. It is not always possible to correctly evaluate these organs, due to the limitations of the third trimester ultrasound scan, and some related anomalies could remain undetected due to their evolving nature, becoming visible after birth.

Is it always possible to detect reduced or increased fetal growth velocity or amniotic fluid?

Fetal growth is a dynamic process. Therefore, some cases of reduced or increased fetal growth velocity or amniotic fluid cannot be detected with this examination, due to a later onset of the anomaly. For this reason, even if the III trimester scan shows normal fetal growth and amniotic fluid (as it is in most cases), growth or amniotic fluid anomalies throughout the rest of the pregnancy cannot be certainly excluded.

Is the ultrasound scan safe for the baby?

Ultrasound has been used in obstetric practice for over thirty years and no harmful effects on the fetus, including long term, have been reported. For this reason, with the current procedures, the diagnostic use of ultrasound is considered safe during pregnancy.

INFORMED CONSENT TO THIRD TRIMESTER SCREENING SCAN

I hereby (name, surname) _____ declare that:

- I have been correctly informed about the III trimester screening scan and understood the contents of this information.
- I had the opportunity of clarifying my doubts with a doctor and all my questions were satisfactorily answered.
- I am aware that this examination is suggested but not mandatory and I would like to undergo the examination aware that the III trimester screening scan might identify fetal conditions requiring further diagnostic examinations.

Date

Patient's signature