



INFORMED CONSENT TO THE MID-TRIMESTER SCAN

What is an ultrasound scan?

Ultrasound scanning is a technique that allows to see the organs of our body with the use of high frequency sound waves (ultrasound not detectable by the human ear) that pass through the tissues: when they encounter the fetus they produce echoes that are transformed into images on the screen.

When and why carrying out the mid-trimester scan?

It is recommended to carry out this test between 19-21 weeks of gestation. The aims of such evaluation are to check fetal viability, anatomy and its development. The examination also allows the assessment of the amount of amniotic fluid and placental localization. We underline that this ultrasound examination is recommended but not compulsory, and the woman can decide whether to accept it or refuse it, after being fully informed by a health care professional.

What do we see the mid.trimester scan?

This test allows to obtain the measurements of some parts of the fetal body, and such measurements are compared with reference curves in order to evaluate if the dimensions correspond to those expected for the pregnancy period. During the same examination the placental insertion site, the amount of amniotic fluid and the structure of the main fetal organs and anatomical districts are also assessed.

How is the mid-trimester scan performed?

The doctor, after applying a small amount of gel, carries out the scan by placing a probe on the abdomen. Sometimes some pressure is needed to obtain clear images. Sometimes the examination cannot be carried out completely due to persistently unfavorable fetal position or to poor visualization of some organs (eg. empty stomach or bladder). In these cases you will be asked to repeat the scan after a few hours or days to complete the evaluation of the fetus. In cases where a suspect finding is highlighted, the doctor will discuss its clinical significance with the woman. It is possible that a further evaluation at a referral center for fetal anomalies may be needed (diagnostic ultrasound). However, in most cases, a suspicious finding on ultrasound screening may be not abnormal at the referral scan.

Can ultrasound detect fetal malformations?

Apart from a few exceptions, there are no fetal abnormalities that can be identified with certainty. Experience so far suggests that the ultrasound examination performed to screen for fetal anomalies from 19 to 21 weeks will help to identify 20-50% of the most important malformations. European data show an average capacity of detecting fetal abnormalities of 31%. Therefore, in view the limitations of the method, it is possible that some fetal abnormalities may not be detected prenatally, even severe ones. The ability to detect an abnormality does not necessarily depend on the severity of the defect, but by its size and by the more or less clear ultrasound image alteration that results; the accuracy of ultrasound examination in the detection of fetal abnormalities may be limited by: unfavorable position of the fetus in the uterus, reduced amount of amniotic fluid and the presence of other factors such as abdominal scars, twins, of myomas and poor ultrasound penetration through the maternal abdominal wall (common condition in obese pregnant women). In addition, a group of fetal malformations of each anatomical region (so-called evolutionary) can appear only in late pregnancy or even after delivery, and therefore cannot be detectable during the mid-

trimester scan. For all these reasons, even if the fetal-mid trimester scan has a normal outcome (which occurs in the majority of cases), you cannot be entirely sure that the baby does not carry any congenital malformation.

Can ultrasound suspect genetic abnormalities?

The detection of genetic abnormalities (chromosomal or not) is not the aim of the mid trimester scan. The so-called ultrasound soft markers of chromosomal defects are not the target of the ultrasound examination for fetal malformations in the mid-trimester. Moreover, not all genetic conditions have significant and detectable malformations at the ultrasound examination.

Is ultrasound safe for the fetus?

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