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Fellowship in Fetal Medicine
(From ADI Advanced
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**IS ULTRASOUND SCAN
(SONOGRAPHY) HARMFUL TO BABY?**

- ▶ Not at all.
- ▶ No radiation involved the ultrasound scan.
- ▶ In an ultrasound scan, high-frequency sound waves which are not audible to us are used to obtain the internal organs of the body or to assess the baby.
- ▶ Worldwide, many studies have concluded that an ultrasound scan does not harm the baby, pregnant woman, adult or child.

WHO CAN DO **TIFFA SCAN**?

- ▶ Fatal medicine specialist or
- ▶ Radiologist or
- ▶ Obstetrician trained in sonography

WHAT IS THE **BEST TIME** TO GET TIFFA SCAN **AND WHY?**

- ▶ 18 to 23 weeks of conception
- ▶ By the 18th week, the baby develops anatomical structures quite similar to an adult, so most of the structural abnormalities can be best picked up at this stage.
- ▶ According to The MTP Act 1971, abortion can be performed for up to 20 weeks. Hence, if there is any serious structural abnormality detected in the baby during an anomaly scan, the parents, if they decide, can terminate the pregnancy



WHAT IS **MAIN PURPOSE** TO GET TIFFA SCAN?

The main purpose of the TIFFA scan is to detect severe congenital structural abnormalities. However, not all the deformities can be detected by TIFFA Scan.

Detection of the abnormalities depends on various factors including quality of the machine, sonographer's expertise, body habitus of the mother and baby's position etc.

Some of the conditions that can be detected include:

- ▶ Edwards' Syndrome (Trisomy 18), Patau's Syndrome (Trisomy 13) - 95% chance of detection
- ▶ Down syndrome - 50% chance of detection
- ▶ Anencephaly - 99.9% chance of detection
- ▶ Abdominal wall defects – 90 % chance of detection
- ▶ Cleft Lip - 75% chance of detection
- ▶ Open Spina Bifida - 90% chance of detection
- ▶ Congenital Heart Disease - 50% chance of detection

Apart from these, other abnormalities like missing kidneys, diaphragmatic abnormalities, major abnormalities of the hand and foot can be analysed in the TIFFA scans.

HOW MUCH TIME DOES IT TAKE FOR TIFFA SCAN?

- ▶ TIFFA scan usually takes - **30-40 minutes.**
- ▶ However, it can be delayed if the doctor cannot examine any part due to the baby's unfavourable position.
- ▶ The doctor may ask you to wait for some more time until the baby may arrive at the correct position or may even ask you to come back on some other day.

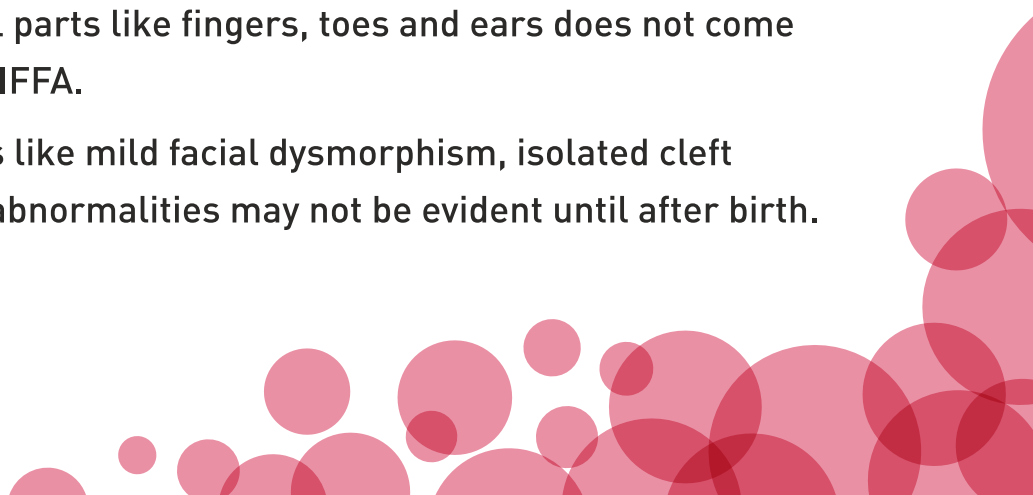
WHAT IS **3D/4D/5D** SONOGRAPHY? HOW DOES **IT HELP?**

- ▶ 3D/4D/5D scan provides HD images of the baby's body parts, and with those images, few structural defects particularly related to the baby's face and spine can be easily identified.
- ▶ For a mother, seeing a picture of the baby and taking it back home may be one of the most incredible and emotional moments of her life.

IS IT **NECESSARY** TO GET A TIFFA SCAN?

- ▶ TIFFA scan is one of the most crucial pregnancy scans, as the purpose is to detect major disabilities, if any.
- ▶ This scan helps to detect the abnormalities and, in some extreme conditions, enables you to decide to continue the pregnancy.

WHAT ABNORMALITIES **CANNOT BE DETECTED** IN TIFFA SCAN?

- ▶ Even though the TIFFA scan is performed as per current IRIA and ISUOG guidelines, certain abnormalities may go undetected due to several reasons like body habitus of the mother and the unfavourable position of the baby.
 - ▶ Up to 20 % of anomalies cannot be detected even with experienced hands anywhere in the world.
 - ▶ Assessment of small parts like fingers, toes and ears does not come within the scope of TIFFA.
 - ▶ Subtle abnormalities like mild facial dysmorphism, isolated cleft palate, minor heart abnormalities may not be evident until after birth.
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WHAT ARE “**EVOLVING ABNORMALITIES**” THAT CANNOT BE DETECTED IN TIFFA SCAN?

Some structural abnormalities of the baby are known to evolve as the pregnancy advances and, obviously, it is impossible to predict them in the TIFFA scan.

Some of such evolving abnormalities are - Hydrocephalus, microcephaly, coarctation of aorta and intestinal obstructive anomalies etc.

