

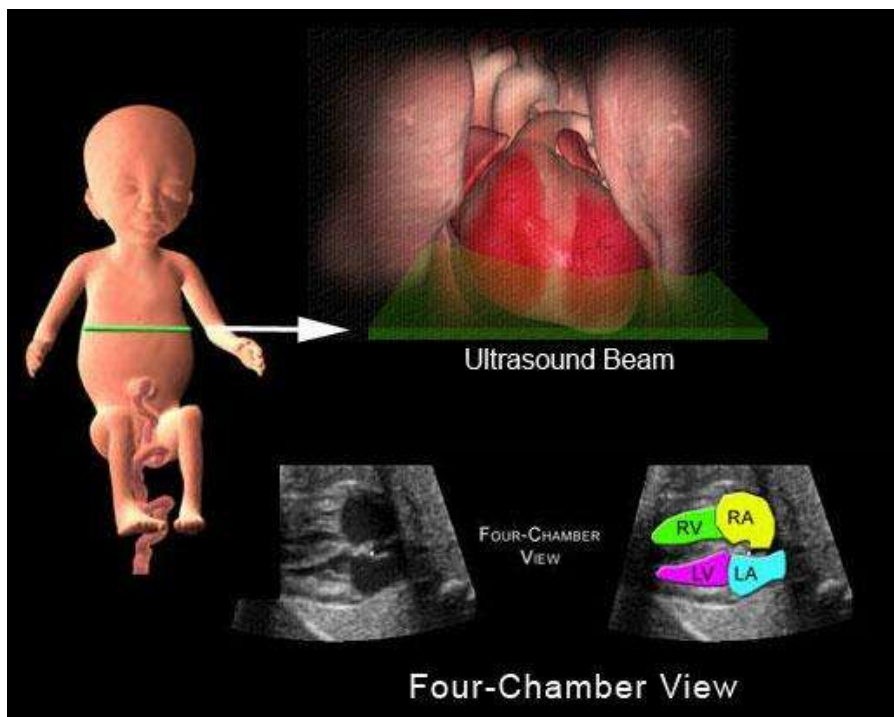
FETAL ECHOCARDIOGRAPHY

(An easy guide for parents)

Mr. and Mrs. X were a happily married couple, married for last two years and were delighted to learn of the pregnancy. They were healthy, young, had neither major diseases nor addictions. Everything went well till five and a half months of pregnancy when a routine ultrasound showed problem with the baby's heart and the gynecologist referred them for fetal echo. The baby was diagnosed to have TGA (Transposition of Great Arteries). This is the first time they heard of a disease like this.

What is fetal echo?

Ultrasound examination of the structure and function of a baby's heart done when it is still inside the mother is called medically as fetal echo.



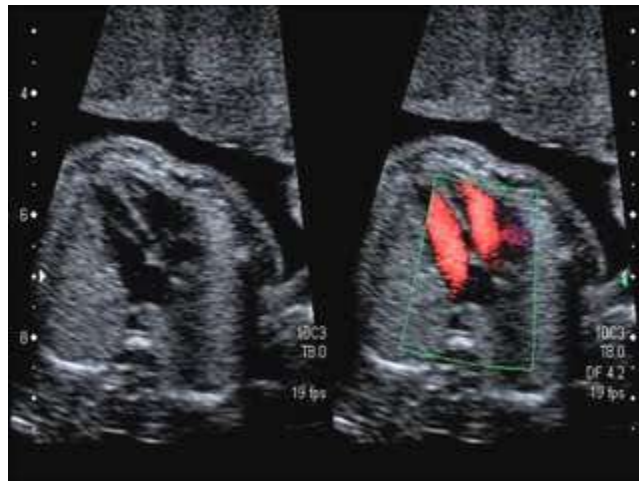
Why to do it?

About 8-10 per 1000 live births are complicated by heart disease in the babies.

50% of still births are caused by heart disease in babies.

50,000 babies die every year in our country before their first birthday due to untreated heart disease.

Many of these heart diseases are completely curable and parents get enough time to prepare for the problem.



When to do it?

Transabdominal or External fetal echo can be done anytime midtrimester onwards.

Ideally between 16-18 weeks i.e. 4-4½ months.

Fetal echo in 1st trimester i.e. between 9 -12 weeks can also be done but through Transvaginal/ Internal route.

Who should undergo fetal echo?

- Elderly mothers (age >35 years)
 - Having previous child with heart disease.
 - Mothers having major illness like Diabetes, Hypothyroidism, Epilepsy, Systemic lupus erythematosus, On Antidepressants and Anti Psychotic Drugs
 - Mothers getting viral fever, rash, joint pain in first three months of pregnancy
 - Routine Ultrasound showing other malformations of the fetus
- Routine Ultrasound showing very high or very slow heart rates in fetus
- Unexplained repeated abortions
 - Unexplained early child deaths
- Family having history of heart disease

Where to undergo fetal echo?

- Usually a pediatric cardiologist or a fetal medicine specialist
- A pediatric cardiologist not only does the echo but also explains you about the type of heart problem, is there a treatment for it, how to do the treatment and treats the child even after delivery.

Technique of fetal echo:

The mother is asked to lie down on the examination couch. Then like a routine ultrasound scan of the pregnancy, the ultrasound probe and ultrasound gel is applied over the abdominal wall and live 2D, colour and Doppler echo is performed.

It usually takes 15-20 minutes. However, if the baby is moving too much inside the mother, it can take longer.



Is there any disadvantage of doing fetal echo?

No. It is painless and repeated ultrasound has no side effect on the baby and mother.

Benefits of fetal echocardiography:

1. It allows the parents to understand the heart problems in unborn baby and prepares them psychologically at the time of delivery.
2. In serious cases, we can plan to deliver the child at a higher medical centre where good gynaecology, paediatric and cardiac facilities are already available.
3. In extremely complicated cases, medical termination of pregnancy is advised.
4. Some of the cardiac defects especially those with very high or very low heart rates can be treated inside uterus.
5. Very soon, fetal cardiac therapy including fetal cardiac surgery would be possible even in India.

Conclusions:

Mrs. X delivered the baby at a higher medical centre. Immediately after delivery, the baby was shifted to pediatric cardiology unit of the same hospital. IV Prostaglandin was started 2 hours later, cardiaccath and balloon septostomy done within 72 hours of life.

The baby had a open heart surgery, called Arterial Swicth Operation on day 10 of life and went home without any problems on 21st day of life. The baby is now 2 years old and doing fine and healthy.

TAKE HOME MESSAGE

- Timely fetal echo saves our newborns.
 - Heart diseases in babies can be cured completely if diagnosed at time.
 - Give a fair chance to your unborn child.
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If you have any queries, please post your case history or echo videos at

www.babyheart.in