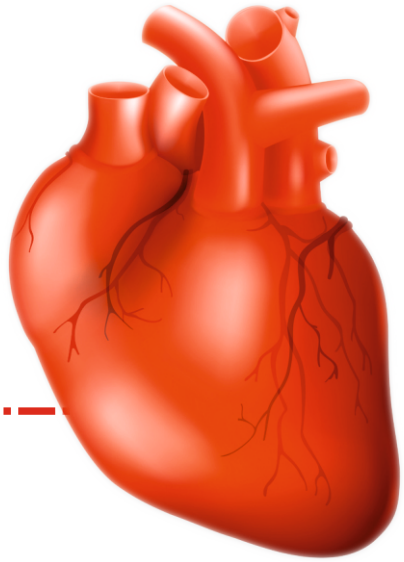
FETAL ECHOCARDIOGRAPHY



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FETAL ECHOCARDIOGRAPHY

Fetal echocardiography is a test that uses sound waves (ultrasound) to evaluate the baby's heart for problems before birth.

How the Test is Performed?

Fetal echocardiography is a test that is done while the baby is still in the womb. It is usually done during the second trimester of pregnancy, when the woman is about 16 – 22 weeks pregnant. The procedure is similar to that of a pregnancy ultrasound. You will lie down for the procedure. The test can be performed on your belly (abdominal ultrasound) or through your vagina (transvaginal ultrasound).

In an abdominal ultrasound, the person performing the test places a clear, water-based gel on your belly and then moves a hand-held probe over the area. The probe sends out sound waves, which bounce off the baby's heart and create a picture of the heart on a computer screen. In a transvaginal ultrasound, a much smaller probe is placed into the vagina. A transvaginal ultrasound can be done earlier in the pregnancy and produces a clearer image than an abdominal ultrasound.

When is it done?

A routine pregnancy ultrasound detected an abnormal heart rhythm or possible heart problem in the unborn baby.

- A sibling or other family member had a heart defect or heart disease
- The mother has type 1 diabetes, lupus, or any metabolic disease
- The mother has rubella (infection) during pregnancy
- The mother used drugs or alcohol during pregnancy
- The mother has used medicines that can damage the baby's developing heart
- An amniocentesis revealed a chromosome disorder

What is the best gestation period to do Fetal echo?

- Between 18 and 20 weeks of pregnancy in routine cases.
- In special situations with additional risks (abnormal first trimester scan, parent or sibling with heart defect etc) it can be done between 14 and 16 weeks of pregnancy

How to Prepare for the Test?

No special preparation is needed for this test.

How the Test Will Feel?

The conducting gel may feel slightly cold and wet. You will not feel the ultrasound waves.

Why the Test is Performed?

This test is done to detect a heart problem before the baby is born. It can provide a more detailed image of the baby's heart than a regular pregnancy ultrasound.

What it can show?

- Structures of the baby's heart
- Blood flow through the heart
- Heart beating rhythm

When do I get the report?

Usually the report will be ready by the next day. For certain conditions which need to be discussed in the team, the reporting may be delayed by 48-72 hours.

Normal Results

The echocardiogram finds no problems in the fetal heart relevant to that gestational period.

What Abnormal Results Mean?

Abnormal results may be due to:

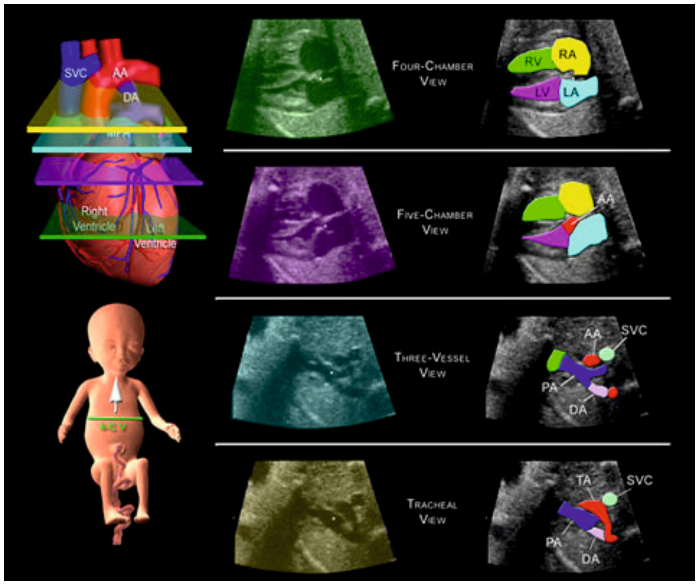
- A problem in the way the baby's heart has formed (congenital heart disease)
- A problem with the way the baby's heart works
- Heart rhythm disturbances (arrhythmias)

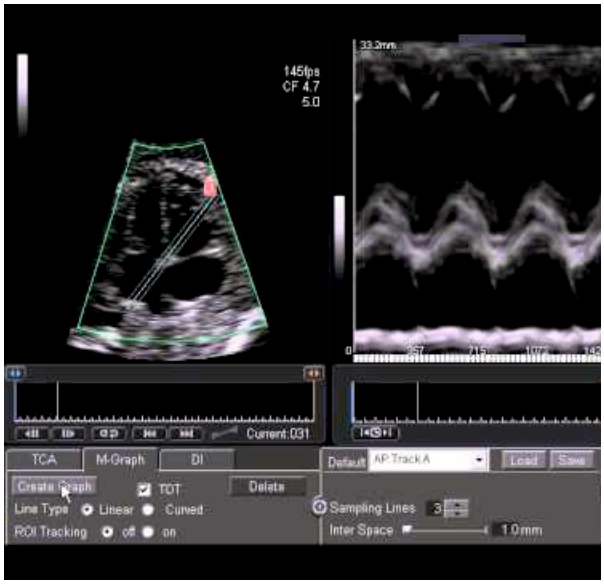
Risks

There are no known risks to the mother or fetus.

What defects cannot be detected?

Some heart defects cannot be seen before birth, even with fetal echocardiography. These include small holes in the heart or mild valve problems. Sometimes it may not be possible to see every part of the blood vessels leading out of the baby's heart. Certain diseases may evolve during pregnancy (eg: heart muscle disease, valve narrowing/leak) and may not be seen at the scanning time.





Note:

- *The test may need to be repeated at times*
- *Certain abnormal findings may be a variant from the routine and not a defect as such, but may need serial assessment in fetal life (and sometimes after birth) to make sure it does not evolve into a disease*
- *If the health care provider finds a problem in the structure of the heart, a detailed ultrasound may be done to look for other problems with the developing baby.*

FAQs

Can you see everything in the baby's heart?

All major heart problems (except the evolving / small defects) can be seen. At times certain defects can be missed if the sound wave penetration or the baby's position is unfavorable. But these defects are usually not complex ones and can be detected and treated after birth.

What do I do if my baby has a heart defect?

You can consult a pediatric cardiac specialist and get information about the defect, its nature, outcome and available treatment options.

Can a heart defect correct by itself before delivery?

Structural heart defects dont correct spontaneosly before birth. Few function abnormalities due to other reasons may improve. Certain small holes may close after birth by themselves.

What are the treatments available?

Before birth: (in our center):

- Medicines for heart rhythm problems
- Balloon procedures for critical valve narrowing

After birth: (will be referred to a tertiary cardiac center)

Depending on the type of problem the following can be done:

- Balloon dilatation of valve
- Closure of holes by Devices
- Stenting of blood vessels
- Closed and open heart surgeries
- Supportive medical treatment in non-surgical diseases

Does repeat scans harm my baby or my pregnancy?

No. No harm proven so far.

Can we prevent it in the next pregnancy?

As of now not possible. The chances of the next child getting the same disease can be tested by available genetic, chromosomal tests or by consulting our Genetic specialist. Necessary testing can be done by drawing the fluid surrounding the baby and sending for analysis (amniocentesis).

What if I do not want to continue pregnancy?

You need to discuss with your treating Obstertrician with our reports regarding the legal and medical implications of this action.

What should I do for future pregnancies if my current baby has a defect?

Attend pre-pregnancy counselling in the counselling department. Our geneticist can guide to accordingly. Get early first trimester scanning done (11-13 weeks) and Fetal echo done at 14-16 weeks of pregnancy..