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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 most often done during the second trimester of pregnancy. This is when a woman is about 18 to 24 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. A hand-held probe is moved 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.

## 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.

The test can show:

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

The test may be done if:

- A parent, sibling or other close family member had a heart defect or heart disease.
- A routine pregnancy ultrasound detected an abnormal heart rhythm or possible heart problem in the unborn baby.
- The mother has diabetes (prior to pregnancy), lupus, or phenylketonuria.
- The mother has rubella during the first trimester of pregnancy.
- The mother has used medicines that can damage the baby's developing heart (such as some epilepsy drugs and prescription acne medicines).
- An amniocentesis revealed a chromosome disorder.
- There is some other reason to suspect that the baby is at higher risk for heart problems.

## Normal Results

The echocardiogram finds no problems in the unborn baby's heart.

## What Abnormal Results Mean

Abnormal results may be due to:

- A problem with 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)

The test may need to be repeated.

## Risks

There are no known risks to the mother or unborn baby.

## Considerations

Some heart defects cannot be seen before birth, even with fetal echocardiography. These include small holes in the heart or mild valve problems. Also, because it may not be possible to see every part of the large blood vessels leading out of the baby's heart, problems in this area may go undetected. It may still be necessary to repeat an ultrasound of the baby's heart following delivery to confirm findings seen on fetal echocardiography and evaluate areas not previously seen clearly.

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.

## References

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