

Departments -> Echocardiography

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Echocardiography (ultrasound examination of the heart) allows a cardiologist to examine the structure, function, and blood flow of the heart without the use of x-ray. Echocardiography is performed by using a soft plastic wand (an echo-transducer) to emit sound waves onto the chest or abdomen. Sound waves pass safely through the body and their "echos" are interpreted by an advanced computerized system. Echocardiography can be used to detect heart defects and to see how well the heart functions.

Fetal echocardiography is performed during pregnancy to evaluate the structure, function, and heart rhythm of the fetus. While your obstetrician may have already obtained limited heart images during a routine ultrasound, the fetal echocardiogram provides more detailed information about your baby's heart. The echo-transducer is placed on the mother's abdomen and passes sound waves **safely** through the fetus. The "echos" of these sound waves allow evaluation of the fetal heart.

Fetal echocardiography can be performed after 17 weeks of gestation. It is reserved for pregnancies at an increased risk of congenital cardiac disease. These may include:

- a family history of congenital heart disease (see congenital heart disease)
- an abnormal heart rhythm during a routine obstetrical examination
- heart abnormalities detected during a routine obstetrical ultrasound
- abnormalities of other major organ systems associated with heart disease
- insulin-dependent (type I) diabetes mellitus
- exposure to certain drugs during pregnancy (for example some anti-epileptic medications)
- abnormal amniocentesis (including trisomy 21)

What to Expect

The standard echocardiogram is a safe and painless procedure lasting approximately 20 minutes. For frightened or uncooperative children, a separate appointment can be scheduled to perform the ultrasound study under light sedation, but this is rarely required. Under special circumstances (usually in the operating room) a very small transducer can be passed via the esophagus into the stomach to allow closer examination of the heart. This procedure is called transesophageal echocardiography.



Disclaimer: The information provided here is intended to educate the reader about certain medical conditions and certain possible treatment. It is not a substitute for examination, diagnosis, and medical care provided by a licensed and qualified health professional. If you believe you, your child, or someone you know, suffer from the conditions described herein, please see your health care provider immediately. Do not attempt to treat yourself, your child or anyone else without proper medical supervision.

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