SPARROW
MATERNAL FETAL MEDICINE

Fetal Echocardiogram Indications

Per the 2019 AIUM Practice Parameter

Fetal Factors

Fetal echocardiography **is indicated** if there is:

- Suspected cardiac structural anomaly
- Suspected abnormality in cardiac function
- Hydrops fetalis
- Persistent fetal tachycardia (heart rate > 180 beats per minute)
- Persistent fetal bradycardia (heart rate < 120 beats per minute) or a suspected heart block
- Frequent episodes or a persistently irregular cardiac rhythm
- Major fetal extracardiac anomaly
- Nuchal translucency of 3.5 mm or greater or at or above the 99th percentile for gestational age
- Chromosomal abnormality by invasive genetic testing or with cell-free fetal DNA screening
- Monochorionic twinning

Fetal echocardiography **may be considered** if there is:

- Systemic venous anomaly (eg, a persistent right umbilical vein, left superior vena cava, or absent ductus venosus)
- Greater-than-normal nuchal translucency measurement between 3.0 and 3.4 mm

Maternal or Familial Disease or Maternal Environmental Exposure

Fetal echocardiography **is indicated** if there is:

- Pregestational diabetes regardless of the hemoglobin A1C level
- Gestational diabetes diagnosed in the first or early second trimester
- In vitro fertilization, including intracytoplasmic sperm injection
- Phenylketonuria (unknown status or a periconceptional phenylalanine level > 10 mg/dL)

Autoimmune disease with anti-Sjogren syndrome–related antigen A antibodies and with a prior affected fetus
First-degree relative of a fetus with CHD (parents, siblings, or prior pregnancy)
First- or second-degree relative with disease of Mendelian inheritance and a history of childhood cardiac manifestations
Retinoid exposure
First-trimester rubella infection

Fetal echocardiography **may be considered** if there is:

Selected teratogen exposure (eg, paroxetine, carbamazepine, or lithium)
Antihypertensive medication limited to angiotensin-converting enzyme inhibitors
Autoimmune disease with Sjogren syndrome–related antigen A positivity and without a prior affected fetus
Second-degree relative of a fetus with CHD

*Conditions for which **Fetal Echocardiogram is not Routinely Recommended***

A **detailed fetal anatomic ultrasound examination** which includes an evaluation of the fetal heart, **may be appropriate instead**, with fetal echocardiography performed only if an abnormality is suspected:

Obesity (body mass index ≥30 kg/m2)
Selective serotonin reuptake inhibitor antidepressant exposure other than paroxetine
Noncardiac “soft marker” for aneuploidy in the absence of karyotype information
Abnormal maternal serum analytes (eg, α-fetoprotein level)
Isolated single umbilical artery
Gestational diabetes diagnosed after the second trimester
Warfarin exposure
Alcohol exposure
Echogenic intracardiac focus
Maternal fever or viral infection with seroconversion only
Isolated CHD in a relative further removed from second degree to the fetus