



# Heart Health Starts in the Womb



## About Congenital Heart Defects

A congenital heart defect (CHD) is a problem that occurs as the baby's heart is developing during pregnancy. Congenital heart defects, as a group, are the most common birth defects, with more occurrences than spina bifida or Down syndrome—yet many are not aware of this condition.

## Detecting CHDs

Virtually all pregnant women who receive pre-natal care will have a fetal ultrasound during the course of their pregnancy. Although congenital heart defects (such as hypoplastic left heart syndrome (HLHS), tetralogy of Fallot (TOF) or transposition of the great arteries (TGA) can be detected by ultrasound, research studies show that in general, about half of all CHDs go undetected before birth.

Reviewed by Wayne Tworetzky, MD, Director, Children's Fetal Cardiology Program

## The importance of early diagnosis

When an ultrasound examination suspects or detects a heart defect while the baby is still in the womb, both the baby and the family benefit. With this advance information, caregivers can provide families with:

- counseling on treatment options
- for some conditions, fetal therapies to treat the heart while the baby is *in utero*
- a planned delivery with appropriate pediatric and obstetric staff present
- planned treatment of the newborn at a high-risk pediatric heart care center
- clinical and support services to help families with newborn care and special family needs

With planned and specially managed care before and after delivery, caregivers can also minimize the risks for future problems, such as learning disabilities and organ damage.



# Questions to ask at your ultrasound visit

To help detect if your baby may have a congenital heart defect

*(This is your baby. Don't be shy...ask!)*

Desired answers are yes

- Do you see four chambers in the baby's heart?  Yes  No
- Are there two upper chambers (left and right atria) with valves controlling blood flow into the heart?  Yes  No
- Are there two lower chambers (left and right ventricles) with valves controlling blood flow out to the body (aortic) and lungs (pulmonary)?  Yes  No
- Do the two valves and vessels (aorta and pulmonary arteries) exit the heart in a crossing fashion?  Yes  No
- Are the walls between the lower chambers of the heart intact?  Yes  No
- Is the baby's heart normal?  Yes  No

## What to do if your ultrasound shows the possibility of a heart defect

If your ultrasound shows a possible heart defect, you should be referred to a pediatric cardiologist as soon as possible. The pediatric cardiologist will perform a fetal echo (detailed fetal cardiac ultrasound) that will determine whether the fetal heart is normal or abnormal.

If there is a heart defect, the precise diagnosis and management plan will be explained to you by a team of experts. You will also be referred to a local high-risk birthing center, such as Brigham and Women's Hospital or Beth Israel Deaconess Medical Center in Massachusetts, for further perinatal care and delivery planning.

Upon completion of testing, your caregivers will help you plan appropriately for your baby's birth.

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