

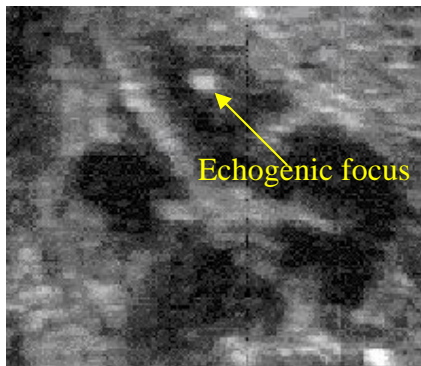
# PRENATAL ULTRASOUND FINDINGS

## What is an echogenic intracardiac focus?

### Echogenic Intracardiac Focus

During a second trimester prenatal ultrasound, the fetal heart is routinely examined to evaluate the four normal chambers of the heart; the right atrium, left atrium, right ventricle, and left ventricle. Sometimes, one or more small bright spots are seen in the heart, most frequently in the muscles of the ventricles, which are the pumping chambers of the heart. There are many different terms that have been used to describe a bright spot in the heart; intracardiac echogenic focus, echogenic focus, cardiac echogenic focus, and echogenic intracardiac focus. If there is more than one bright spot, they are called echogenic foci. This is a very common finding on ultrasound and is seen in about 1 out of every 20 or 30 pregnancies (~3-5%). An echogenic intracardiac focus (EIF) has no impact on the overall health of the baby or how the baby's heart works. This finding is generally considered a normal variation.

**Four chamber view  
of the fetal heart**



#### What causes EIF?

No one knows for sure why this is seen in some babies and not others. It is thought that the bright spot is due to an area of the heart muscle where there is a little more calcium than average. Calcium is a natural mineral found in the body. Because of the nature of minerals, areas with more calcium (like the bones), cause the sound waves from an ultrasound to respond with a brighter appearance on the screen.

#### Who is at risk for EIF?

EIF is more frequently found in babies whose mothers have Asian ancestry. However, EIF can be seen in any pregnancy, regardless of the ancestry of the parents.

#### Can EIF cause problems for the baby?

The EIF is considered a normal variation in fetal development and has not been found to have any long term health problems or heart problems for the baby.

Most of the time, EIF is seen during the routine prenatal ultrasound done around 18-20 weeks in pregnancy. If there are no other ultrasound findings, the EIF is considered an "isolated" finding. While it is impossible to be completely certain that no birth defects are present in the baby, most pregnancies with isolated EIF will result in a healthy baby.

Although the EIF doesn't cause problems for the baby, some studies have suggested there could be a small increased risk for Down syndrome when this ultrasound finding is present. However, not all studies agree that there is any connection to Down syndrome.

### Are additional tests needed?

There is no special testing recommended for pregnancies found to have an isolated EIF. However, in any pregnancy, women are offered optional prenatal tests that can help find specific kinds of birth defects, including Down syndrome.

There are two kinds of prenatal tests available, screening tests and diagnostic procedures. Prenatal screening tests can help find out if there is a higher or lower chance of having a baby with a certain problem. The California Prenatal Screening Program includes screening tests that look for Down syndrome. Prenatal diagnostic procedures can tell for sure if there are certain problems present in the baby, such as Down syndrome. Amniocentesis is a diagnostic procedure available until about 22 weeks of pregnancy for prenatal diagnosis of chromosome abnormalities.

It is important to remember that prenatal tests will not test for all birth defects. Choosing whether to have a screening test, a diagnostic procedure, or no testing for birth defects is a very personal decision. Detailed information about each of these tests is available on the Kaiser Genetics website.

### Will EIF go away?

Most EIF seen in the middle of the pregnancy will not go away before delivery. Since they do not cause problems for the baby, there is no special concern if they are still visible at a later time. For this reason, additional ultrasounds to follow-up on the EIF are not needed.

### Where can I get more information?

You can speak with your OB provider or a genetic counselor if you have additional questions about this ultrasound finding.

### Kaiser Genetics Departments

Website: [www.kp.org/genetics](http://www.kp.org/genetics)

Fresno	(559) 324-5330
Oakland	(510) 752-6298
Sacramento	(916) 614-4075
San Francisco	(415) 833-2998
San Jose	(408) 972-3300