Atrial Septal Defect (ASD)

Patient Information Series – What you should know, what you should ask.

What is an ASD?

An atrial septal defect (ASD) is an opening within the atrial septum, resulting in a communication between the upper chambers of the heart, the right and left atria. This allows some of the oxygenated (red) blood coming back from the lungs to get re-circulated back through the lungs.

How does an ASD happen?

The majority of ASDs are isolated defects and not associated with hereditary or genetic anomalies. In some cases, ASDs may occur in families with inheritable genetic anomalies.

Should I have more tests done?

Once an ASD is suspected, a detailed evaluation of the fetal heart should be done to look for associated cardiac anomalies. Tests that may be offered by your provider include:

- A **fetal echocardiography**, which is a specialized ultrasound to look at the baby's heart during the pregnancy.

- An **amniocentesis** to look for problems with the number of chromosomes and some of the problems within the chromosomes. This is done by removing a small amount of the amniotic fluid surrounding the fetus. You may be referred to genetic counseling as well as testing, which might include chromosomal microarray or whole exome sequencing, which can help determine if the ASD is part of a genetic syndrome.

What are the things to watch for during the pregnancy?

Isolated ASDs have no impact on fetal physiology or well-being due to the normal fetal circulation during pregnancy.

What does it mean for my baby after it is born?

A postnatal ultrasound of your baby's heart (echocardiogram) will be done to evaluate the atrial septal defect and make sure there are no other differences with the baby's heart.

Small ASDs may be followed over time with echocardiograms to monitor for spontaneous closure. However, moderate to large ASDs typically require closure by a device (cardiac catheterization) or surgical repair to avoid long-term volume problems that might overload the right side of the heart and/or lungs. Certain types of ASDs, (called Sinus venosus and coronary sinus ASDs) do not typically close spontaneously and require surgical closure.

Will it happen again?

This depends whether or not a genetic cause was found to explain the ASD, and what other problems were present, if any. All these factors affect the likelihood of having another baby with ASD. Your caregiver will likely order early targeted fetal scanning to rule out fetal heart defects in future pregnancies.

What other questions should I ask?

- What type of ASD does my baby have?
- Is this an isolated ASD?
- Does this look like a severe ASD?
- How often will I have ultrasound examinations done?
- Should I have genetic counseling?
- What genetic testing should we consider?
- Where should I deliver?
- Where will the baby receive the best care after it is born?
- Can I meet the team of doctors that will be assisting my baby when it is born, in advance of my delivery?

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