



ATRIAL SEPTAL DEFECT

What is it?

Atrial septal defects (also called ASD) are among the most common congenital heart defects. They can occur in isolation or together with other abnormalities. In this section, only isolated defects are discussed.

A simple ASD is a hole between the two upper filling chambers of the heart. Normally there is no flow between these chambers. (see The Normal Heart) The ASD allows blood to flow between the two upper chambers usually resulting in extra blood flow to the right side of the heart. Depending on their size, ASDs can lead to enlargement of the right-sided heart chambers.

ASDs are often not associated with symptoms, however they can be associated with symptoms such as shortness of breath or palpitations. In some cases, they go unrecognized until adulthood. Sometimes they are found when you are having a heart ultrasound (echocardiogram) for other reasons. An ASD can also be found during pregnancy when women are referred for a heart ultrasound because of symptoms. On rare occasions, an ASD can be associated with high blood pressures in the lungs and low oxygen levels. This is a much more serious condition called Eisenmenger syndrome (see Eisenmenger Syndrome).

How safe is it for me to become pregnant?

Pregnancy is associated with increased demands on the heart (see Cardiovascular Changes During Pregnancy). In women with a repaired or unrepaired ASD, these changes are usually well tolerated unless women have high blood pressure in their lungs (see Eisenmenger Syndrome). Other medical conditions can have an impact on pregnancy outcomes (see General Considerations).

Every pregnancy carries some risk for complications and this risk may be increased by your underlying heart disease. All women have to consider the safety of a pregnancy taking their underlying heart disease into account. Every person's heart condition is different and as a consequence the safety of pregnancy differs too. Therefore, before proceeding with trying to have a baby you should discuss your specific condition and the details of your situation with a heart specialist who knows about the care of women with heart disease in pregnancy.

Issues for the mother

Which forms of birth control are safe?

For women with a repaired ASD, all forms of birth control (medical term: contraceptives) are safe. Women with an unrepaired ASD are at a slightly increased risk for stroke (blood clots). Estrogen-containing contraceptives, usually in the form of pills, are associated with blood clots and therefore should be used with caution in women who have had a previous stroke or heart rhythm problems. If there is any doubt about the safety of a contraceptive, it should be discussed with a doctor who has an understanding of your underlying heart condition. (see Birth Control)

What are my risks if I become pregnant?

Most women with a repaired or unrepaired ASD tolerate pregnancy well. There is a small risk of heart-related complications, such as heart rhythm problems (medical term: arrhythmias), weakening of the heart muscle (medical term: heart failure) or stroke (see above). Other cardiac characteristics can have an impact on outcomes (see General Considerations).

If women with ASDs have high blood pressures in their lungs and low oxygen levels, the risk of pregnancy is very high and is discussed elsewhere. (see Eisenmenger Syndrome).

Some medications are not safe in pregnancy. Do not stop medications without first checking with your doctor, but do check your medications out before pregnancy so you will have a plan. If you did not do that, then do so as soon as you know you are pregnant. The MOTHERISK website is an excellent resource. (<http://www.motherisk.org>)

Issues for the baby

For women with a repaired or unrepaired ASD, the risk of early (medical term: preterm) delivery is not much higher than the general population.

In the general population, the risk of having a baby with congenital heart disease is about 1%. If a parent has congenital heart disease (such as an ASD), the risk increases to about 5-10%. On rare occasions, ASDs can occur in families or as part of an inherited genetic syndrome called Holt-Oram syndrome. Affected women have a much higher risk of having babies with atrial septal defects and therefore, counseling by a geneticist can be helpful.

Women will often be offered ultrasound screening of the baby's heart (fetal echocardiogram) at the end of the fifth month (20 weeks gestation) of pregnancy. The ultrasound can detect most major cardiac defects in the developing baby. Minor defects may not be detected until after birth.

Medical care during pregnancy and delivery

Where should I be followed?

Women with simple ASD should be seen by a heart specialist at least once during pregnancy. Many women will be followed and will deliver their babies at their local hospital. However, if you have weakened heart muscle, low oxygen levels, or heart problems before pregnancy, you should probably be followed in a center that specializes in high-risk pregnancy. Your specialists will determine the frequency of follow up through your pregnancy.

What can I do and expect during pregnancy?

Your heart specialist will arrange for check up visits during your pregnancy. In addition to your clinic visits, your doctor may arrange for one or more ultrasounds of your heart (medical term: echocardiogram) to help determine how your heart is adapting to the pregnancy.

Most women with ASD do well throughout pregnancy; however, you need to pay attention to symptoms related to your heart. Notify your doctor if you develop symptoms such as shortness of breath, swelling of your legs, or fast heart beats.

If your symptoms are worrisome and you cannot get in touch with your doctor, go to your nearest emergency department. It is helpful to keep a letter from your doctor explaining your condition so that other health care professionals can better help you in an emergency situation.

A vaginal delivery is usually recommended.