



VENTRICULAR SEPTAL DEFECTS

What is it?

Ventricular septal defects (VSD) are among the most common congenital heart defects. Unlike the normal heart, this defect is characterized by a hole between the two pumping heart chambers, allowing blood to flow from the left pumping chamber (medical term: left ventricle) to the right pumping chamber (medical term: right ventricle). (see The Normal Heart) VSD can occur by themselves or together with other abnormalities. In this section only isolated VSDs are discussed.

If the VSD is small, women usually feel fine and have normal exercise capacity. They often have a loud heart murmur.

When the VSD is large, women commonly develop problems in childhood and need surgery. Sometimes VSDs become smaller and even disappear by themselves as the heart grows. Women with large VSDs, who did not have surgery in early life are at high risk of developing complications such as high blood pressure in the lungs and low oxygen levels (medical term: Eisenmenger syndrome). Pregnancy issues for this group of women is discussed elsewhere. (see Eisenmenger Syndrome).

Adults typically have a small VSD or they have had previous surgical closure of a large VSD. Most women have no symptoms and have a good exercise capacity.

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 small unrepaired VSD, these changes are usually well tolerated, unless women have high blood pressures in their lungs. (see Eisenmenger syndrome) Other cardiac characteristics can have an impact on pregnancy outcomes. (see General Considerations)

Every pregnancy carries some risk for complications and this risk may be increased by 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 therefore the safety of pregnancy differs too. 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 most women with a small VSD or repaired VSD, the choice of birth control (medical term: contraceptives) is not limited for cardiac reasons. If there is any doubt about the safety of a contraceptive measure, it should be discussed with a physician who has an understanding of your underlying heart condition. (see Birth Control)

Contraception choices are more limited in women with a larger VSD and women with VSD associated with Eisenmenger syndrome. (see Eisenmenger Syndrome)

What are my risks if I become pregnant?

Most women with a small VSD or repaired VSD tolerate pregnancy well. There is a small risk of heart-related complications, such as fast heart rates (medical term: arrhythmias) or heart failure. If complications occur, they can usually be treated with medications. Other cardiac characteristics can have an impact on pregnancy outcomes. (see General Considerations)

If women have high blood pressures in their lungs and low oxygen levels, the risks of pregnancy are much higher and this condition 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 small VSD or repaired VSD the risk of early (medical term: preterm) delivery is similar to that in 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, the risk increases to about 5-10%.

Women will often be offered ultrasound screening of the baby's heart (medical term: fetal echocardiogram) at the end of the fifth month (20 weeks gestation) of pregnancy. The ultrasound will 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 a repaired or unrepaired VSD planning to become pregnant should be assessed by a heart specialist (cardiologist) with expertise in congenital heart disease. Sometimes additional investigations or treatment may be recommended before you become pregnant. The cardiac specialist can provide recommendations regarding follow up care during pregnancy. This will differ depending upon your particular situation.

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 a repaired or unrepaired VSD tolerate pregnancy well. It is however important that you are attentive to symptoms during your pregnancy. Notify your physician if you develop any concerning symptoms such as shortness of breath, chest pain, significant swelling of the legs, or heart palpitations.

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

A vaginal delivery is usually recommended.