



TETRALOGY OF FALLOT

What is it?

Tetralogy of Fallot is a common congenital heart defect. Unlike the normal heart, the defect includes a hole between the two pumping heart chambers and a narrowing of the path between the right-sided pumping chamber and the lung artery. (see The Normal Heart) Babies born with this defect are usually 'blue' at birth because their blood has low oxygen levels.

Most women have undergone surgery in childhood and no longer have low oxygen levels. These women have repaired tetralogy of Fallot. However many of these women remain with other cardiac issues after the surgery. The most common problem late after surgery relates to a leaking pulmonary heart valve.).

On rare occasions, women might not have had corrective surgery in childhood and they continue to have low blood oxygen levels. These women have unrepaired tetralogy of Fallot.

How safe is it for me to become pregnant?

Pregnancy is associated with increased demands on the heart (see Cardiovascular Changes During Pregnancy). The ability of a woman with repaired tetralogy of Fallot to tolerate these changes depends on the function of the heart valves and the strength of the heart muscle. Pregnancy in women with unrepaired tetralogy of Fallot is much more complicated and associated with high risk for the mother and the baby. When possible, surgical correction of tetralogy of Fallot should be performed prior to pregnancy.

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 repaired tetralogy of Fallot, the choice of birth control (medical term: contraceptives) is not limited by cardiac disease. However, in women with unrepaired tetralogy of Fallot, estrogen-containing contraceptives (standard birth control pills) should not be used because of the risk of developing blood clots. Contraceptive selection should be discussed with a physician who has an understanding of your underlying heart condition. (see Birth Control)

What are my risks if I become pregnant?

In order to determine your risk during pregnancy, you should see your heart specialist before getting pregnant. You may be required to have additional heart tests such as an echocardiogram or a magnetic resonance imaging scan (MRI scan) to better determine the risks of pregnancy.

Most women with repaired tetralogy of Fallot tolerate pregnancy well. There is a small risk of heart related complications, such as abnormal fast heart rates (medical term: arrhythmias) or weakening of the heart muscle (medical term: congestive heart failure). If complications occur, they can usually be treated with medications.

Women with unrepaired tetralogy of Fallot are at high risk for complications such as arrhythmias or heart failure. They are also at risk for miscarriages. Whenever possible, surgical correction should be performed prior to pregnancy.

If you had heart failure or a rhythm disturbance before pregnancy, your risk for complications during pregnancy is higher. Other cardiac characteristics can have an impact on pregnancy outcomes (see General Considerations). It is very important to see a congenital heart specialist before pregnancy to discuss your risk of pregnancy.

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

In women with repaired tetralogy of Fallot there is an increased risk of early (medical term: preterm) delivery and an increased risk of having a small baby (medical term: low birth weight). Babies born too early are at increased risk for various health problems after birth. In women with unrepaired tetralogy of Fallot, these risks are much higher.

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 between 5-50%, depending on the heart condition of the parent.

Women with tetralogy of Fallot and a genetic condition called 22q11 microdeletion syndrome (synonyms for this condition: Velo-cardio-facial syndrome, CATCH 22 syndrome, DiGeorge syndrome) have a 50% chance of having a baby with a heart condition. Genetic counseling prior to pregnancy is optimal.

Women will 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?

Once pregnant, you should be followed at 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 doctors will likely arrange ultrasounds of your heart (medical term: echocardiograms) to help determine how your heart is adapting to the pregnancy.

Most women with repaired tetralogy of Fallot tolerate pregnancy well. It is important that you pay attention to symptoms during your pregnancy. Notify your doctor if you develop symptoms such as shortness of breath, chest pain, significant swelling of your legs, or heart palpitations.

If your symptoms are worrying 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.

Labour and delivery should be planned carefully with a team including a specialist in congenital heart disease, an anesthetist, and a high-risk obstetrician. A vaginal delivery is usually recommended. Good pain management is important.