



AORTIC COARCTATION

What is it?

Unlike the normal heart (see The Normal Heart), coarctation of the aorta is a birth defect where there is narrowing (medical term: coarctation) of the aorta, which is the largest artery (blood vessel carrying blood to the tissues from the heart) in the body. The narrowing makes it difficult for blood to flow to the lower parts of the body. It causes high blood pressure before the point of narrowing, which results in high blood pressure in the arms. Because of this, some people will develop high blood pressure (medical term: hypertension), pain in the feet or legs (medical term: claudication), difficulty exercising, or weakening of the heart muscle (medical term: heart failure).

Many times, coarctation is found when you are young and treated with surgery or by using a balloon to stretch the narrowed area (medical term: balloon angioplasty) and often scaffolding to keep the narrowing open (medical term: stent). Less commonly, coarctation is not identified until you are an adult. Most women with coarctation have had a repair of some type. After repair, some women will again develop narrowing at the site of the original repair (medical term: recoarctation).

Coarctation can be associated with bicuspid aortic valve disease (see Aortic Stenosis) or enlargement of other parts of the aorta.

How safe is it for me to become pregnant?

Pregnancy is associated with increased blood volume and blood flow. (see Cardiovascular Changes During Pregnancy) If the narrowing is severe, getting the increased blood past the site of the coarctation can lead to an increase in blood pressure. Pregnancy changes can rarely affect the aorta in such a way that it becomes larger (medical term: aneurysm).

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?

Some forms of birth control (medical term: contraception) are not safe if you have poorly controlled blood pressure (medical term: hypertension). Contraception 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?

Many women with repaired coarctation do well throughout pregnancy. When problems develop during pregnancy, the most common complication is high blood pressure (medical term: hypertension). Some women can also develop a particular pregnancy-related condition called preeclampsia, which raises the blood pressure. (see High Blood Pressure) Much more rarely, women can develop weakening of the heart muscle (medical term: heart failure), bleeding in the brain (medical term: ruptured aneurysm), or tearing of the aorta (medical term: aortic dissection) There are other cardiac issues that have an impact on pregnancy risks. (see General Considerations) It is 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

Generally, babies of mothers with repaired coarctation do well. However, there is an increased risk of early (medical term: preterm) delivery and small babies (medical term: small for gestational age).

In the general population, the risk of having a baby with congenital heart disease is about 1%. If a parent has coarctation, this risk increases to about 10%.

Women will be offered ultrasound screening of the baby's heart (medical term: fetal echocardiogram) at the end of the fifth month of pregnancy (20 weeks gestation). 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?

Once pregnant, you may benefit from being 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 to check your blood pressure, your doctors will arrange ultrasounds of your heart to help determine how your heart is adapting to the pregnancy.

Most women with repaired coarctation 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 chest pain, shortness of breath, or swelling in your legs.

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.

Women with high blood pressure before pregnancy may need to have their medications modified. Women who develop high blood pressure may need to have medications started during pregnancy. (see High Blood Pressure)

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