Q&A: Successful conception and delivery with a heart issue

April 7 2023, by Sabrina Phillips

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I am 32 and have lived with a congenital heart issue since childhood. I am newly married and would like to have children, but I understand that a pregnancy might be high-risk for me. How does pregnancy affect the

heart? And is there anything I can do to reduce my risk for complications if I do conceive?

ANSWER: Pregnancy results in many changes that can increase the workload of the heart. During pregnancy, your blood volume increases by 30% to 50% to nourish your growing baby. Your heart pumps more blood each minute, and your heart rate increases. Rapid changes occur during labor and delivery that affect the heart, as well, and further increase the workload. After delivery, it will take several weeks for your body to return to the prepregnancy state.

The increased workload during pregnancy and delivery can cause some complications. However, many women who have heart conditions deliver healthy babies. If you have a heart condition, you'll need special care during pregnancy to reduce the risk of complications to you and your baby.

Maternal cardiac disease complications occur in about 1% to 3% of all pregnancies. The risks depend on the nature and severity of your heart condition.

Because you were born with a congenital heart defect, your baby has a greater risk of developing some type of heart defect, too. You also might be at risk for heart problems occurring during pregnancy and/or premature birth, depending on your specific heart defect.

Depending upon your specific cardiac anomaly, a pregnancy can complicate other issues you may have, including:

- Heart rhythm issues: Minor abnormalities in heart rhythm are common during pregnancy. They're not usually cause for concern. If you need treatment for an arrhythmia, you may be given medication. If you have a history of heart rhythm

abnormalities prior to pregnancy and are taking a medication for that, you will need to discuss with your cardiologist appropriate medications to use during pregnancy. If you already have a pacemaker or a defibrillator, you still can have a healthy pregnancy.

- Heart valve problems: Having a heart valve that does not function normally may complicate pregnancy, depending on the severity of the valve dysfunction. Severe narrowing of the opening of the valves, or stenosis, may not be well-tolerated during pregnancy. If you have had a heart valve replaced with a mechanical heart valve, this poses a particular problem during pregnancy because the oral medication typically required to keep the valve from clotting can affect the development of the baby. There are alternative, injectable blood thinners that can be used during part of the pregnancy, but patients require close monitoring with a specialist throughout pregnancy and delivery.
- Congestive heart failure: Congestive heart failure occurs when the heart cannot function efficiently. If the heart cannot function efficiently before pregnancy, it will be difficult for the heart to meet the increased demands of pregnancy, and heart failure can worsen. This can lead to increased swelling, shortness of breath or exercise intolerance. In severe cases, a baby may not grow appropriately, resulting in early delivery.
- Aortic aneurysm: Enlargement, or aneurysm, of the aorta in women of childbearing age usually is related to a genetic condition, such as Marfan syndrome or Loeys-Dietz syndrome. If you have one of these conditions, you may be at increased risk of further aortic dilatation or aortic complications, such as dissection, during pregnancy and in the weeks after delivery. Managing these conditions during pregnancy may require imaging of the aorta at intervals during pregnancy to see if the size is changing, and medication may be required to reduce stress on the aortic wall.

Before you try to conceive, you may want to schedule an appointment with a maternal cardiologist who is experienced in managing heart disease during pregnancy. This would be a specialist who would work in conjunction with the health care professional who will handle your pregnancy.

A maternal cardiologist will evaluate your current heart condition, discuss the risk of pregnancy specific to you and your condition, and make recommendations for treatment changes prior to pregnancy.

Certain heart conditions should be treated before pregnancy to make the pregnancy lower risk. This can include heart surgery, for example, to treat a heart valve condition such as aortic stenosis. Pregnancy is high risk for women with high lung artery pressures, or pulmonary hypertension, or severely reduced heart function. In these cases, it is advisable to avoid pregnancy.

Also, since some medications can affect a baby in the womb, certain medications used to treat heart conditions aren't used during pregnancy. If you need medication to control your heart condition, the specialist can review and make any adjustments. Depending on the circumstances, your dose may need to be modified, or you may require an alternative medicine. It is important that throughout your pregnancy you take the medication exactly as prescribed. Don't stop taking the medication or adjust the dose on your own.

During pregnancy, you may be referred to a maternal fetal medicine specialist, which is an obstetrician who specializes in high-risk pregnancies. Depending on the circumstances, you also may be referred to a medical geneticist, a neonatologist and an obstetric anesthesiologist to help manage your pregnancy and delivery. Most women with heart conditions can and should deliver their baby vaginally. Cesarean delivery is reserved for obstetrical reasons and rare cardiac complications.