



HEART DISEASES WITH PREGNANCY

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Abstract

Cardiovascular disease is a leading cause of pregnancy complications. Congenital heart disease is the most common heart disease affecting pregnancies in the U.S. But cardiomyopathy causes the most serious complications.

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1. BACKGROUND

Cardiovascular disease is a leading cause of pregnancy complications. Congenital heart disease is the most common heart disease affecting pregnancies in the U.S. But cardiomyopathy causes the most serious complications. Pregnancy may also cause conditions like high blood pressure. Talk with your provider about your risk factors.

Most people with a heart condition can safely become pregnant and have a healthy baby. But cardiovascular disease during pregnancy sometimes leads to serious complications. In fact, it's the leading cause of death among pregnant people in the U.S. Here are some other key stats:

About 1 in 3 pregnancy-related deaths in the U.S. are due to cardiovascular problems.

Cardiovascular disease complicates up to 4 in 100 pregnancies.

People who are Black have a much higher risk of dying during pregnancy or soon afterward. Their risk is tripled compared with people who are Hispanic or white.

Risk factors for pregnancy-related death include having high blood pressure, obesity and being over age 40.

If you're pregnant or planning a pregnancy, it's important to learn how heart disease could affect you. But first, it's helpful to take a step back and learn how pregnancy affects your heart and blood vessels.

Changes to your heart and blood vessels during pregnancy

Your body experiences many changes during pregnancy. These changes put extra stress on your body and force your heart to work harder. The following changes are normal during pregnancy. They help your growing fetus receive enough oxygen and nutrients.

Increase in blood volume: Your blood volume goes up during the first few weeks of pregnancy and continues rising from there. Most people experience a 40% to 45% total increase in blood volume during pregnancy.

Increase in heart rate: It's normal for your heart rate to increase by 10 to 20 beats per minute during pregnancy. It goes up gradually during your pregnancy and is the highest by your third trimester.

Increase in cardiac output: Cardiac output is the amount of blood your heart pumps each minute. By 28 to 34 weeks, your cardiac output may increase by 30% to 50%. This is because of the higher blood volume and faster heart rate. If you're pregnant with twins, your cardiac output may increase up to 60%.

Current guidelines clearly recommend the avoidance of pregnancy in women with PAH and termination of pregnancy when pregnancy occur [1,2]. This recommendation is of particular significance given that PAH often affects women of childbearing age [3]. There are high rates of maternal and fetal death have been reported for pregnant women with PAH (30%-56% and 11%-28%, respectively) [4]. The causes of poor maternal outcomes are varied and include risk of death from

right heart failure and stroke from intracardiac shunting [5].

Furthermore, there is a high peri-post partum risk due to hemodynamic stress, bleeding complications and the use of general anesthesia, which can all lead to right heart failure [6,7]. The most common risk to the fetus is death, with premature birth and growth retardation being reported in successfully delivered children [7].

2. REFERENCES

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Despite the risks to both the mother and unborn child, some women decide to continue with their pregnancy and more women with PAH are considering having a family. As the PAH landscape changes and patients are living longer with better quality of life, there is an increasing amount of experience in managing PAH in pregnant women.