Aortic Coarctation

1.0 WHAT IS IT?

Coarctation of the aorta is a heart condition you are born with (a congenital heart defect). In this condition, the aorta—the body's main blood vessel that carries blood from the heart to the rest of the body—is narrowed.

This narrowing makes it harder for blood to flow to the lower half of the body. As a result, blood pressure is often higher in the arms than in the legs. Some people may develop:

- High blood pressure (hypertension)
- Leg pain or fatigue with walking or exercise (claudication)
- Difficulty exercising
- Weakening of the heart muscle (heart failure), in more severe cases

Coarctation is often diagnosed in childhood and treated with surgery or a procedure to stretch the narrowed area with a balloon (balloon angioplasty). Sometimes, however, it is not discovered until adulthood. Most women with coarctation have had some type of repair, but the narrowing can sometimes come back (called recoarctation).

Coarctation may also be linked with other heart conditions, such as having a bicuspid aortic valve (a valve with two leaflets instead of three) or enlargement of other parts of the aorta.

2.0 HOW SAFE IS IT FOR ME TO BECOME PREGNANT?

During pregnancy, the body produces more blood, and the heart has to pump harder to meet the needs of both mother and baby. If the narrowing in the aorta is severe, this extra demand can make it even harder for blood to flow past the narrowed area, which may lead to high blood pressure.

In rare cases, pregnancy can also affect the aorta itself, causing it to enlarge (this is called an aneurysm). Every pregnancy carries some risks, and these risks can be higher for women with heart disease. Because each person's heart condition is unique, the safety of pregnancy is different for everyone. Before planning a pregnancy, it is very important to talk with a heart specialist who has experience

caring for women with heart conditions during pregnancy. Together, you can understand your individual risks and make the safest plan for you and your baby.

3.0 ISSUES FOR THE MOTHER

If you have aortic coarctation, pregnancy can put extra stress on your heart. This may sometimes cause irregular heart rhythms (arrhythmias), especially if you already have high blood pressure or other heart conditions. Your care team will monitor you closely to watch for and manage these risks.

Many women with repaired coarctation do well during pregnancy. When complications do occur, the most common is high blood pressure. Some women may also develop preeclampsia, a pregnancy-related condition that raises blood pressure and can affect both mother and baby.

Much more rarely, women may experience: Weakening of the heart muscle (heart failure), Bleeding in the brain (aneurysm), A tear in the aorta (aortic dissection).

Other heart issues can also influence pregnancy risks. This is why it is so important to see a heart specialist before becoming pregnant, so you can understand your personal risks and make a safe plan. Some medications are not safe to use during pregnancy. Do not stop any medicines on your own. Instead, review your medications with your doctor before trying to get pregnant, or as soon as you find out you are pregnant.

4.0 ISSSUES FOR THE BABY

In most cases, babies of mothers with repaired coarctation do well. However, there is a higher chance of certain complications, such as being born early (preterm delivery) or being smaller than expected for their age (small for gestational age).

In the general population, the chance of having a baby with a heart defect is about 1%. If a parent has coarctation, that risk increases to about 5–10%.

To check the baby's heart, women are usually offered a special ultrasound called a fetal echocardiogram around 20 weeks of pregnancy (the end of the fifth month). This test can detect most major heart defects before birth, though some smaller problems may only be found after the baby is born.

5.0 MEDICAL CARE DURING PREGNANCY AND DELIVERY

Care During Pregnancy

If you have coarctation of the aorta, you should be followed by a team that includes a heart specialist and a high-risk obstetrician. These doctors will work together to look after both your heart and your baby during pregnancy and after delivery. They will decide how often you need follow-up visits based on your individual situation.

During pregnancy, you will have regular check-ups and heart scans to monitor your condition. Controlling blood pressure is very important, and your medications may be adjusted to keep you and your baby safe.

Most women with repaired coarctation do well in pregnancy. Still, it is important to watch for symptoms that may signal a heart problem, such as:

- Chest pain
- Shortness of breath
- Palpitations
- Swelling in your legs

If you notice any of these symptoms, let your doctor know right away. If the symptoms are severe and you cannot reach your doctor, go to the nearest emergency department. It can be helpful to keep a letter from your heart doctor explaining your condition, so other health professionals can provide the best care quickly in an emergency.

Women who already have high blood pressure before pregnancy may need changes to their medications, and women who develop high blood pressure during pregnancy may need to start treatment.

Labor and Delivery

Labor and delivery should be carefully planned with your care team, including a heart specialist, a heart anesthetist, and a high-risk obstetrician. A vaginal delivery is usually recommended and well tolerated, with good pain management. In some cases, a cesarean section may be needed if there are concerns about your aorta or your baby. Your team will help choose the safest delivery option for you.