



## GENERAL CONSIDERATIONS

Women with heart disease are more likely to have a problem during pregnancy than women with a normal heart. Assessing the risk of pregnancy is best done prior to pregnancy.

### Questions to Ask When Considering Pregnancy if you have Heart Disease

1. What are the risks of pregnancy for me?
2. Which forms of contraception are safe? (see Contraception)
3. Are all my medications safe to continue pregnancy?
4. What are the late effects of pregnancy on my heart?
5. What is my long-term outlook?
6. What are the risks for the baby?
7. For a parent with congenital heart disease, what is the chance my baby will have a heart condition?

### What are the risks of pregnancy for me?

The main heart complications that may arise during pregnancy in women with heart disease are:

1. Heart rhythm disturbances (medical term: arrhythmias)
2. Weakening of the heart muscle (medical term: heart failure)
3. Heart infections (medical term: endocarditis)
4. Strokes
5. Heart attacks (medical term: myocardial infarction)
6. Death

There are several issues that need to be considered when determining risk of heart problems during pregnancy:

#### 1. **Your underlying heart condition**

Some heart conditions are associated with more pregnancy complications than others.

#### 2. **Other heart changes**

Some heart changes make pregnancy more difficult to tolerate:

- heart muscle weakness (medical term: ventricular dysfunction)
- narrowed heart valves (medical term: stenosis)
- leaky heart valves (medical term: regurgitation)
- high blood pressure in the lungs (medical term: pulmonary hypertension)

#### 3. **Your overall fitness**

If you easily become winded with exercise, you may have more difficulty with the stress of pregnancy.

#### 4. **Your oxygen levels**

If your oxygen levels are low you may have more difficulty with the stress of pregnancy.

#### 5. **History of cardiac problems**

If you have had problems with abnormal heart rhythm (medical term: arrhythmias), heart failure (medical term: heart failure) and/or admission to hospital for heart-related issues, you have an increased risk for complications during pregnancy.

Every pregnancy carries some risk for complications and this risk may be increased by your 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.

Women with some heart conditions are at increased risk for other medical problems including high blood pressure (medical term: hypertension), bleeding after delivery (medical term: postpartum hemorrhage), or blood clots (medical term: deep vein thrombosis or pulmonary embolus).

#### **Are all my medications safe to continue pregnancy?**

Some medications are not safe to use during 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>)

#### **What are the late effects of pregnancy on my heart?**

We know that pregnancy puts a stress on the heart during the pregnancy, but in general, we do not fully understand the effects that pregnancy has on the heart long after the pregnancy (if any). However, there are a few heart conditions where pregnancy has been shown to sometimes permanently damage the heart. For instance, in women with peripartum cardiomyopathy with weakened heart muscle, the pregnancy in which that diagnosis was made or a later pregnancy can permanently weaken the heart muscle. Women with transposition of the great arteries who have had Mustard or Senning operations can develop weakened heart muscle during pregnancy and in some such women, the heart does not fully recover after the pregnancy, or they can develop persistently leaky tricuspid valves after pregnancy. Women with aortic valve narrowing (stenosis) may need valve surgery earlier in life if they have had a pregnancy.

#### **What is my long-term outlook?**

Your long term outlook is important when deciding to have children. It is also important for your partner to know your long-term outlook. Will you be well enough to care for your family throughout their growing-up years? The answer to this question differs for different women with heart disease, so you should discuss this with your cardiologist and make sure you understand the answer that applies specifically to you.

#### **What are the risks for the baby?**

Some cardiac conditions are associated with higher rates of miscarriage. The main problems that occur in babies of some mothers with heart conditions are early births (medical term: premature delivery) and low birth weight babies (medical term: small for gestational age birth weight). Prematurity is the leading cause of health complications in newborn babies. Death of the baby before or early after birth can occur, though this is quite rare. The risk for all problems varies according to the type and severity of your own heart condition. Your own good health is actually the most important factor in ensuring the well being of your baby.

**For mothers with congenital heart disease, what is the chance my baby will have a heart condition?**

Congenital heart diseases are heart defects that are present at birth. They can be passed down (inherited) from other family members. 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, but there is a wide range of risk, between 5-50%. The exact risk of having a child with an underlying heart condition depends on the specific type of congenital heart condition of the parent, and the way it is passed down.