



MITRAL STENOSIS

What is it?

The mitral valve is made up to two flaps (medical term: leaflets) that open and close. When the mitral valve opens it allow blood to flow from the top chamber of the left heart (medical term: atrium) to the bottom chamber of the left heart (medical term: ventricle). (see The Normal Heart) When the mitral valve becomes stiff it is unable to open fully (medical term: stenosis) and this narrowing makes it difficult for blood to flow freely into the left ventricle. Mitral stenosis is graded as mild, moderate, or severe depending on the degree of narrowing.

The most common cause of mitral stenosis is rheumatic heart disease. Rheumatic heart disease develops after a childhood illness known as rheumatic fever. Rarely, a person can be born with a condition causing mitral stenosis.

Potential heart problems that can occur in people with mitral stenosis include heart rhythm problems (medical term: arrhythmias), heart failure and blood clots to the brain (medical term: strokes).

How safe is it for me to become pregnant?

Pregnancy is associated with increased demands on the heart including an increase in the heart rate. (see Cardiovascular Changes in Pregnancy) When the mitral valve is narrow (medical term: mitral stenosis) women can develop heart problems during pregnancy. The ability of the body to pump blood through the narrowed valve depends upon the degree of narrowing (it is more difficult if the valve is more narrow). A fast heart rate makes the problem worse if you have mitral stenosis because there is not enough time for the top chamber of the heart (atrium) to empty of blood. Often the heart rate needs to be slowed with medications during pregnancy.

Pregnancy is also associated with increased risk of blood clots. Women with mitral stenosis and heart rhythm abnormalities (medical term: arrhythmias) are at more risk for developing blood clots including blood clots to the brain (medical term: strokes).

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 contraceptive methods are safe?

For some women with mitral stenosis, the choice of birth control (medical term: contraceptives) is not limited by their heart disease. (See Contraception) In women with abnormal heart rhythms (medical term: arrhythmias), prior strokes, or more severe mitral stenosis, estrogen-containing birth control pills and patches may be a problem because they may contribute to the formation of blood clots.

Contraceptive selection should be discussed with a doctor who has an understanding of your underlying heart condition.

What are my risks if I become pregnant?

In order to determine your risks during pregnancy, you should see your heart specialist before getting pregnant. You may need additional heart tests such as an ultrasound of the heart (medical term: echocardiogram) to better determine the risks of pregnancy.

All women with mitral stenosis are at risk of heart problems during pregnancy. In women with severe mitral stenosis, the risk of heart problems during pregnancy is highest. Women can develop heart rhythm problems (medical term: arrhythmias), heart failure or strokes. If you had heart failure, rhythm problems or a stroke before pregnancy, your risk for complications during pregnancy is higher. Other cardiac characteristics can have an impact on pregnancy outcomes (see General Considerations). It is very important to see a 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

Women with mitral stenosis have an increased chance of early delivery (medical term: prematurity) and an increased chance of having a small baby (medical term: low birth weight for gestational age).

Medical care during pregnancy and delivery

Where should I be followed?

Once pregnant, you should be followed by a heart specialist 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, your doctor will arrange ultrasounds of the heart (medical term: echocardiograms) to help determine how your heart is adapting to the pregnancy.

Some women will need to take medications to slow the heart rate during pregnancy. These medications are known as beta blockers.

It is important that you pay attention to symptoms during your pregnancy. Notify your doctor if you develop any worrying symptoms such as shortness of breath, swelling of your legs, heart palpitations, fainting spells, sudden numbness or tingling or loss of power, vision or speech.

If your symptoms are concerning 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.

Rarely, women need to have their valve fixed during pregnancy. Cardiac procedures during pregnancy are riskier for the mother and the unborn baby and are only considered after all other options have been explored.

Labour and delivery should be planned carefully with a team including a heart specialist, an anesthetist and an obstetrician. In general, a vaginal delivery is recommended.