

Pregnancy week by week

Pregnancy stresses your heart and circulatory system, but many women who have heart conditions deliver healthy babies. Know the risks — and how to help prevent complications.

By Mayo Clinic Staff

If you have a heart condition, you'll need special care during pregnancy. Here's what you need to know about heart conditions and pregnancy.

Pregnancy stresses your heart and circulatory system. During pregnancy, your blood volume increases by 30 to 50 percent to nourish your growing baby, your heart pumps more blood each minute and your heart rate increases.

Labor and delivery add to your heart's workload, too. During labor — particularly when you push — you'll have abrupt changes in blood flow and pressure. It takes several weeks after delivery for the stresses on the heart to return to the levels they were before you became pregnant.

The risks depend on the nature and severity of your heart condition. For example:

- **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'll likely be given medication, the same as you would if you weren't pregnant.
- **Heart valve issues.** Having an artificial heart valve or scarring or malformation of your heart or valves can increase your risk of complications during pregnancy. If your valves aren't working properly, you might have trouble tolerating the increased blood flow that occurs during pregnancy.

In addition, artificial or abnormal valves carry an increased risk of a potentially life-threatening infection of the lining of the heart (endocarditis) and heart valves. Mechanical artificial heart valves also pose serious risks during pregnancy due to the need to adjust use of blood thinners, the potential for life-threatening clotting (thrombosis) of heart valves. Taking blood thinners can also put your developing baby at risk.

- **Congestive heart failure.** As blood volume increases, congestive heart failure can worsen.
- **Congenital heart defect** If you were born with a heart problem, your baby has a greater risk of developing some type of heart defect, too. You might also be at risk for heart problems occurring during pregnancy and of premature birth.

Certain heart conditions, especially narrowing of the mitral valve or aortic valve, can pose life-threatening risks for mother or baby. Depending on the circumstances, some heart conditions require major treatments — such as heart surgery — before you try to conceive.

Pregnancy isn't recommended for women who have the rare congenital condition Eisenmenger's syndrome or high blood pressure that affects the arteries in the lungs and the right side of the heart (pulmonary hypertension).

Medication you take during pregnancy can affect your baby. Often the benefits outweigh the risks, however. If you need medication to control your heart condition, your health care provider will prescribe the safest medication at the most appropriate dose.

Take the medication exactly as prescribed. Don't stop taking the medication or adjust the dose on your own.

Before you try to conceive, schedule an appointment with your cardiologist and the health care provider who'll be handling your pregnancy. You'll likely be referred to an obstetrician who specializes in very high-risk pregnancies (maternal fetal medicine specialist). You might also want to check in with other members of your health care team, such as your family doctor.

Your medical team will evaluate how well you're managing your heart condition and consider treatment changes you might need before you become pregnant.

Certain medications used to treat heart conditions aren't used during pregnancy. Depending on the circumstances, your health care provider might adjust the dosage or make a substitution and explain the risks involved.

You'll see your health care provider often during pregnancy. Your weight and blood pressure will likely be checked at every visit, and you might need frequent blood and urine tests.

How often you see your cardiologist during your pregnancy will depend on the severity of your heart condition. Your health care provider might use certain tests to evaluate your heart function, including:

- **Echocardiogram.** This is a type of ultrasound that uses sound waves to produce images of your heart and the structures within your heart.
- **Electrocardiogram.** This test records your heart's electrical activity.

Your health care provider will monitor your baby's development throughout the pregnancy. Routine ultrasound exams can be used to track your baby's growth, and specialized ultrasounds can be used to detect fetal heart abnormalities. Your baby might need monitoring or treatment after delivery as well.

Taking good care of yourself is the best way to take care of your baby. For example:

- **Keep your prenatal appointments.** Visit your health care provider regularly throughout your pregnancy.
- **Take your medication as prescribed.** Your health care provider will prescribe the safest medication at the most appropriate dose.
- **Get plenty of rest.** Take a daily nap, if you can, and avoid strenuous physical activities.
- **Monitor your weight gain.** Gaining the right amount of weight supports your baby's growth and development. Gaining too much weight places additional stress on your heart.
- **Manage anxiety.** Ask questions about your progress. Find out what to expect during labor and delivery. Knowing what's happening can help you feel more at ease.
- **Know what's off-limits.** Avoid smoking, alcohol, caffeine and illegal drugs.

Contact your health care provider if you have any signs or symptoms that concern you, particularly:

- Difficulty breathing
- Shortness of breath with exertion or at rest
- Heart palpitations, rapid heart rate or irregular pulse
- Chest pain
- A bloody cough or coughing at night

Your health care provider might recommend delivering your baby at a medical center that specializes in high-risk pregnancies. If there are concerns about your heart or circulation or you need to have certain specialists present during labor, your labor might be induced.

Specialized equipment might be used to monitor you during labor. Your heart rate and rhythm might require monitoring throughout labor and delivery.

Your contractions and your baby's heart rate will be monitored continuously. Instead of lying flat on your back, you might be asked to lie on your side and draw one of your knees toward your chest.

To reduce stress from pain, your doctor might recommend that you receive medication through a catheter to your spine (epidural) or an injection into your spine (spinal block) to manage your pain. If you deliver vaginally, your health care provider might limit your pushing by using forceps or a vacuum extractor to help deliver your baby.

If you're at risk of endocarditis, you might receive antibiotic treatment just before and after delivery.

It's unusual to need a C-section because of a heart condition. If you develop an obstetrical problem that leads to a C-section, special precautions will be taken to monitor your heart function during the delivery. Your doctor might recommend scheduling a date to induce labor under controlled conditions if you have certain forms of a severe cardiac disease during pregnancy.

Breast-feeding is encouraged for most women who have heart conditions, even those who take medication. Discuss possible treatment adjustments with your health care provider ahead of time.

If you have a congenital heart problem that greatly increases your risk of endocarditis, your doctor will probably discuss the risk of mastitis while breast-feeding. This fairly common infection could pose a special risk in your situation. Pumping and feeding breast milk might be recommended in some circumstances.

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1. Waksmonski CA, et al. Acquired heart disease and pregnancy. <https://www.uptodate.com/home>. Accessed May 16, 2017.
2. Nanna M, et al. Pregnancy complicated by valvular heart disease. *Journal of the American Heart Association*. 2014;3:e0007.
3. Waksmonski CA, et al. Pregnancy in women with congenital heart disease: General principles. <https://www.uptodate.com/home>. Accessed May 16, 2017.
4. Prenatal care. Department of Health and Human Services. <http://womenshealth.gov/publications/our-publications/fact-sheet/prenatal-care.html>. Accessed May 18, 2017.
5. Heart disorders in pregnancy. Merck Manual Professional Version. <http://www.merckmanuals.com/professional/gynecology-and-obstetrics/pregnancy-complicated-by-disease/heart-disorders-in-pregnancy>. Accessed May 16, 2017.
6. Regitz-Zagrosek V, et al. Management of cardiovascular diseases during pregnancy. *Current Problems in Cardiology*. 2014;39:85.

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