

Fetal Tachycardia

Patient Information Series – What you should know, what you should ask.

What is fetal tachycardia?

Fetal tachycardia is seen when a fetus has a fast heart rate. The normal fetal heart beats 110 to 180 times per minute, so fetal tachycardia is defined as a heart rate greater than 180 beats per minute.

What causes fetal tachycardia?

Often, a fast heart rate is caused by abnormal function of the electrical system of the heart due to a built-in anomaly of the system or due to anomalies of the heart muscle. This is often called an abnormal rhythm, or **arrhythmia**. Occasionally, the fast heart rate is a normal response to a problem not located in the fetal heart, including maternal or fetal stress, infection, or abnormal maternal thyroid hormone levels.

Does fetal tachycardia affect my baby?

In many cases, the abnormal rhythm comes and goes and only lasts a short period of time. This is usually well tolerated by the baby, and may only require close observation. In cases where the fast heart rate is very high and/or lasts for prolonged periods, it can cause fetal distress which can manifest as decreased heart function and fluid accumulation in the fetal body (also called hydrops). To prevent this from happening or to stop its progression, your doctor will recommend taking medicine which can reach the fetus through the placenta and slow the fetal heart rate, with the goal of changing the heart rhythm to a normal one. Treatment is successful in stopping the tachycardia for the majority of babies and when a regular, slower heart rate is restored, outcomes are very good.

Should I have more tests done?

Fetuses with fast heart rates should have a **fetal echocardiogram**, which is a specialized ultrasound focusing on evaluating the baby's heart. This can help determine the type of tachycardia your baby has, and whether treatment is indicated. It is also helpful in assessing whether the baby has any structural abnormalities of the heart, which occur in about 10% of babies with fetal tachycardia. If the fast heart rate appears to be secondary to another problem and not primarily due to the fetal heart, other obstetrical ultrasounds or blood tests may be recommended to assess your and the baby's health.

What are the things to watch for during the pregnancy?

Babies with persistently fast heart rates are at risk for decreased heart function and fluid accumulation in the body (hydrops). Frequent ultrasounds will be performed, to assess the baby's heart rate and rhythm, to confirm the heart is squeezing well and that hydrops is not developing. Frequent prolonged monitoring of the fetal heart rate is usually performed.

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If your baby is noted to have persistently high heart rates due to an abnormal rhythm, or there are signs of decreased heart function or hydrops, your doctor will recommend to start a medication to slow the baby's heart rate and return it to a normal rhythm. This is often started in the hospital. Sometimes, mothers need to be on multiple medications to help control the baby's heart rhythm. These medications are often continued for the rest of the pregnancy. If there are signs that the fetus is in distress due to the heart rhythm, and the baby is very close to delivery, your doctors may consider delivering the baby earlier. In general, however, control of the fast heart rate while the baby remains in the womb is preferable to premature delivery.

What does it mean for my baby after it is born?

Babies who had fast heart rates as a fetus will be evaluated by the medical team after birth. Some babies will have a normal heart rate once they are born, and will only need observation with a limited evaluation in the hospital including an electrocardiogram (ECG) (which records the electrical activity of the heart) and an echocardiogram (ultrasound which looks at the structure of the heart) to ensure that the heart's rhythm and structure are normal.

Other babies will continue to have a fast heart rate. These babies may need additional therapy to help control the abnormal rhythm. Some babies may require electrical cardioversion, a procedure that uses a quick, low-energy shock to restore normal heart rhythm. Other infants will need medication to control the heart rhythm. The type of treatment used will depend on what type of abnormal heart rhythm your baby has, and how well the baby is able to tolerate the fast heart rate. Once normal heart rate is restored, outcomes are very good. Even when babies are discharged home on heart rhythm medications, almost all infants are off those medications by the time they are one-year old.

What other questions should I ask?

- Is the fetal tachycardia sustained? Or intermittent (only lasting a short period of time)?
- Is the structure of my baby's heart normal?
- Is my baby's heart squeezing normally? Are there signs that the baby is not tolerating the fast heart rate?
- Do I need to take a medication during pregnancy to control the baby's heart rhythm? If so, what are the side effects of that medication for my baby and for me?
- How often does the baby's rhythm need to be evaluated?
- Is my baby at higher risk of having a fast heart rate after birth?
- Where should I deliver?
- Where will the baby receive the best care after it is born?
- Can I meet the team of doctors that will be assisting my baby when it is born in advance?

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