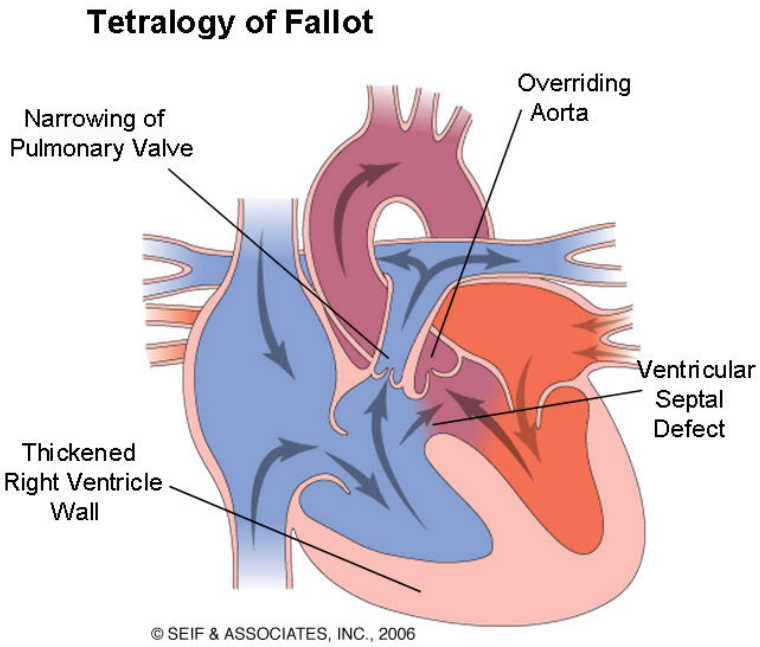
Tetralogy of Fallot

Tetralogy of Fallot is a serious and complex heart defect. A baby's heart begins to form shortly after conception. It is complete by the end of the second month of pregnancy. During this time, Tetralogy of Fallot can occur. Tetralogy of Fallot involves four specific defects in the development of different parts of the heart. Diagnosis can be made by echocardiogram before the baby is born or after birth. It is typically described as involving four specific cardiac defects These defects are:



- Pulmonary stenosis is a narrowing of the pulmonary valve and/or the area just below the pulmonary valve. This causes obstruction to blood flow from the right ventricle to the lungs. Significant obstruction may lead to decrease in the amount of pulmonary blood flow to the lungs.
- Ventricular septal defect (VSD) is a hole in the wall that separates the lower chambers of the heart. The lower chambers of the heart are called the ventricles. The wall between them is called the ventricular septum. In the normal heart, the septum prevents blood from flowing directly from one ventricle to the other. In a heart with a VSD, blood can flow directly between the two ventricles.
- Overriding aorta – A defect in which the aortic valve positions over both the right and left ventricles.
- Right ventricular hypertrophy. The right lower chamber of the heart harder is under high pressure in this condition so it gets more muscular (it *hypertrophies*).

THESE DEFECTS CAN CAUSE:

- Less blood flow to the lungs. This is caused by the pulmonary stenosis.
- Mixing of oxygen-rich and oxygen-poor blood inside the heart. This mixing happens when there is a large hole in the lower two chambers of the heart (a ventricular septal defect).
- Low levels of oxygen in the blood. When oxygen levels are low, the baby's skin, fingertips, or lips have a bluish tint. This condition is called cyanosis. An infant with cyanosis is sometimes called a "blue baby."

Every infant or child with Tetralogy of Fallot needs surgery, usually within the first year of life. Because of advances in surgery and treatment, many children born with Tetralogy of Fallot have successful surgery and live to adulthood.

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