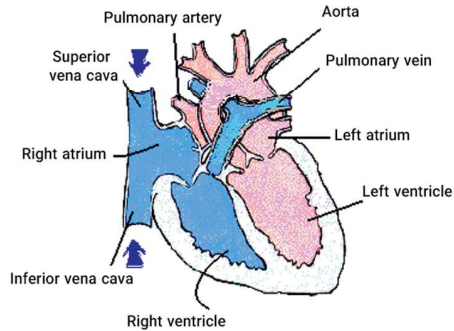
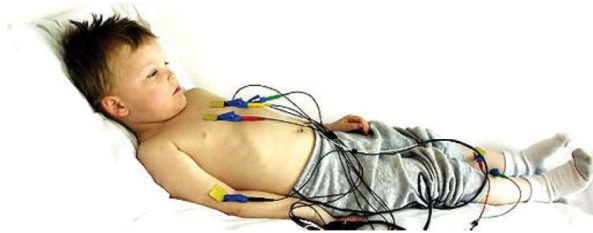


How is the structure of the heart?

The heart is a muscular pump located in the chest that is constantly working and pumping. The heart pumps blood throughout the body round the clock.

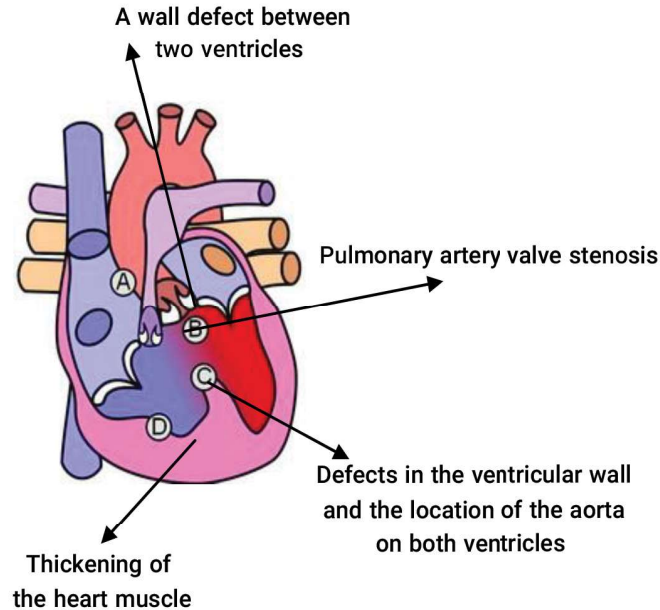


The heart is divided into right and left halves by a muscle wall. The right half is related to venous blood and the left half is related to arterial blood. Each of the right and left halves is again divided into two sub-cavities by a thinner muscle valve. The upper cavities, which are smaller and thinner, are called atria and receive blood. The lower chambers, which are larger and thicker, are the ventricles of the heart and pump blood to other parts of the body. So the heart consists of four chambers: two small chambers at the top (right and left atria) and two large chambers at the bottom (right and left ventricles).



What is Tetralogy of Fallot?

It is a congenital defect that occurs in the structure of the heart and causes changes in blood flow. This disorder will be observed from birth and can be diagnosed in most cases.



This disease includes 4 major heart defects:

- 1-Defect in the wall between the two ventricles (there is a hole between the right ventricle and the left ventricle).
- 2-The connection between the lungs and the right ventricle is almost blocked (due to narrowing of the pulmonary artery valve).
- 3-The aorta, as an important artery in the body, is located on the wall between the two ventricles.

4- The right ventricular muscle becomes thicker.

What effect does Fallot tetralogy have on the body?

In this disease, hypoxic blood on the right side of the heart and oxygenated blood on the left side are mixed together, and eventually less oxygenated blood reaches the organs. As a result, the child will have difficulty breathing, followed by bruising of the lips, skin, and limbs.

Factors that may play a role in the possible occurrence of this disease in the child before birth are as follows:

Symptoms that can help diagnose this disease include:

Weakness, lethargy, shortness of breath, bruising and tiredness, especially when crying.

How can this disease be diagnosed?

* **Cardiac echo:** A painless test that with its help pictures of the heart's movements can be taken.

* **Angiography**

When the symptoms are severe, the child is given oxygen and his blood sugar is monitored regularly. When the child becomes bruised, prostrate him in order to remove the bruise, or put him in the open arch situation, then squeeze both thighs toward the abdomen. Medications such as propranolol or morphine may be used to reduce seizures, but surgery is generally the best treatment. Complete cure of this disease is possible with the help of surgery, and many people who have had this operation have completely recovered.



Activities, sports and games:

The activities of children with tetralogy of Fallot are limited, especially when the child has an irregular heartbeat and decreased heart function.

This limitation varies from person to person, and your doctor or babysitter will provide the necessary information.



There are two types of surgery for this disease:

Palliative surgery is performed on children who are unable to endure a long, heavy operation and are weak so that only their heart can deliver more oxygen to the organs than before. In this case, the child must wait for complete recovery during another operation. But in corrective surgery, the stenosis in the pulmonary valve and ventricular foramen is repaired.

Prevention of infection:

Children with heart defects should use antibiotic therapy to prevent infection before surgery and dental treatment. Paying attention to oral hygiene and regular dental visits is one of the best ways to prevent endocarditis (heart infection). The child should be examined regularly by a doctor.

Pediatric Medical Research and Training Center:
Address: No. 62, Pediatric Medical Center, Next to Imam Khomeini's Hospital, Dr. Mohammad Karib St., at the end of Keshawarz Boulevard, Tehran.
Tel: 02161475
Hospital website: Patient education
<http://chmc.tums.ac.ir>



Tehran University of Medical Sciences

Pediatric Medical Center

The scientific center of the country's

children

**Parents' Guide to Children's
Heart Disease**

Tetralogy of Fallot

