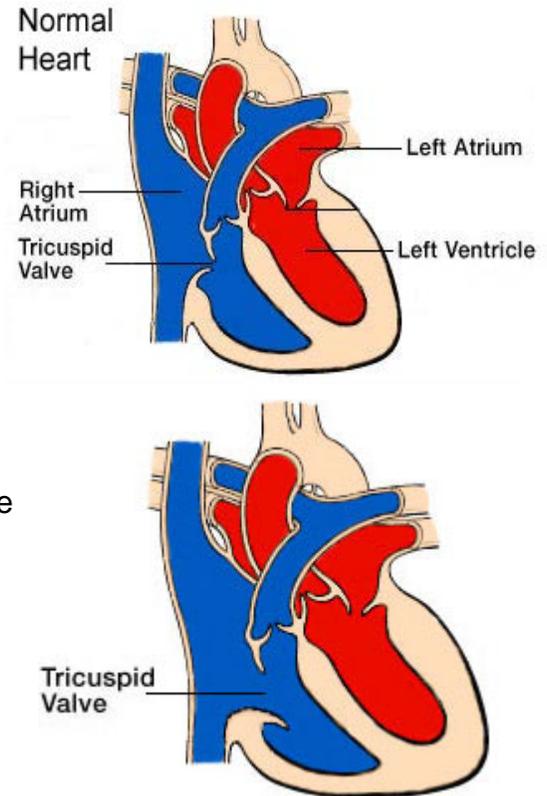


Ebstein Anomaly

The normal heart

- The heart is divided into four chambers. These chambers work as pumps to move blood. The two upper chambers are called atria. The two lower chambers are called ventricles. The heart has four valves. The valves open and close to keep blood flowing forward through the heart. There is a wall called the septum that divides the right side from the left side.
- In a normal heart, oxygen-poor blood returning from the body fills the right atrium. This blood flows into the right ventricle. The right ventricle pumps this blood through the pulmonary artery to the lungs to receive oxygen. Oxygen-rich blood returning from the lungs then fills the left atrium. This blood flows into the left ventricle. The left ventricle pumps this blood through the aorta to deliver oxygen to the body.



What is Ebstein anomaly?

The tricuspid valve is located between the right atrium and the right ventricle.

Ebstein anomaly occurs when this valve sits lower than normal in the right ventricle. The valve is not formed and positioned correctly. When this happens, the valve may let blood leak backwards. This can cause the right atrium to grow larger than normal.

Many people with Ebstein anomaly have:

- A hole (defect) in the wall (septum) between the heart's atria. This is called an atrial septal defect, or ASD.
- An irregular heart rhythm. This may include Wolf-Parkinson-White Syndrome or atrial fibrillation. The heart may beat faster than normal.

What causes it?

Ebstein anomaly is a congenital heart defect. This means your baby was born with it. The exact cause is unknown.

How does it affect my child?

Ebstein anomaly can affect children differently. Some children have no symptoms and are not diagnosed until they are teenagers. Others have serious problems as newborns. These symptoms normally happen when the right ventricle can't pump enough blood into the lungs.

Symptoms in infants may include:

- Blueness of the skin.
- Fast heart and breathing rates.
- Trouble breathing.
- Trouble feeding.
- Sweating with feeding.

Symptoms in older children may include:

- Shortness of breath.
- Fatigue.
- Blueness of the skin.
- A pounding feeling in the heart with exercise.

How is it diagnosed?

During a physical exam, the doctor checks for signs of a heart problem, such as a heart murmur. This is an extra noise caused when blood doesn't flow smoothly through the heart. If a heart problem is suspected, your child will be referred to a pediatric cardiologist. This is a doctor who diagnoses and treats heart problems in children. To check for Ebstein anomaly, these tests may be done:

- **Chest X-ray:** Shows inside the chest, including the lungs and the heart.
- **Electrocardiogram (EKG):** Records the heart's electrical activity.
- **Echocardiogram (echo):** Looks at a moving picture of the heart.

How is it treated?

- Children with mild Ebstein anomaly do not have symptoms and most often require no treatment. Regular visits with a heart doctor are needed to monitor your child's heart.
- Children with severe Ebstein anomaly who are having a lot of symptoms may need heart surgery. During surgery, the tricuspid valve is repaired and the ASD is closed.
- Children whose hearts beat too fast may need special medicine or a procedure called an ablation.

What are the long term concerns?

- Most children can be active. The amount of physical activity varies with each child. Check with a cardiologist about what activities are OK for your child.
- Regular follow-up visits with a cardiologist are needed for the rest of your child's life.
- Your child may need to take antibiotics before having any surgery or dental work. This is to prevent infection of the inside lining of the heart and valves. This infection is called infective endocarditis. Antibiotics should be taken as directed by the cardiologist.

ALERT: Call your child's doctor, nurse, or clinic if you have any questions or concerns or if your child has special health care needs that were not covered by this information.

This teaching sheet is meant to help you care for your child. It does not take the place of medical care. Talk with your healthcare provider for diagnosis, treatment, and follow-up.