

## Ebstein's Anomaly



PLAY PICMONIC

### Pathophysiology

#### Displacement of Tricuspid Valve Leaflets

[Dice-in-place with Tricycle-cupid and Valve Leaf](#)

Ebstein's anomaly is caused by a congenital abnormality in the tricuspid valve, which is located on the right side of the heart. In this abnormality, the tricuspid valve is positioned lower than usual. Two of the three leaflets are in the wrong position, and the third is longer than normal. This displacement leads to complications such as regurgitation and heart failure.

### Etiology

#### "Atrialization" of the Right Ventricle

[A-tree and Right Vent](#)

Atrialization is the process by which a portion of the right ventricle becomes a part of the right atrium. This happens because a congenital defect in the tricuspid valve causes it to be positioned lower than it would be in a normal heart.

#### Lithium Exposure In Utero

[Lithium-battery](#)

Administration of lithium during the first trimester of pregnancy increases the risk of the fetus developing Ebstein's anomaly.

### Signs and Symptoms

#### Tricuspid Regurgitation

[Tricycle-cupid Regurgitating](#)

The congenital defect in the tricuspid valve can lead to blood leaking back into the right atrium, resulting in tricuspid regurgitation during systole. If this regurgitation is severe enough, it can cause heart failure.

#### Right-Sided Heart Failure

[Right-Side Dead Heart](#)

Heart failure occurs because the tricuspid valve is malformed. This malformation causes a backflow of blood from the right ventricle to the right atrium. Because of the backflow, the heart is unable to function properly. The backflow of blood can lead to dilation of the heart and, if severe enough, heart failure.