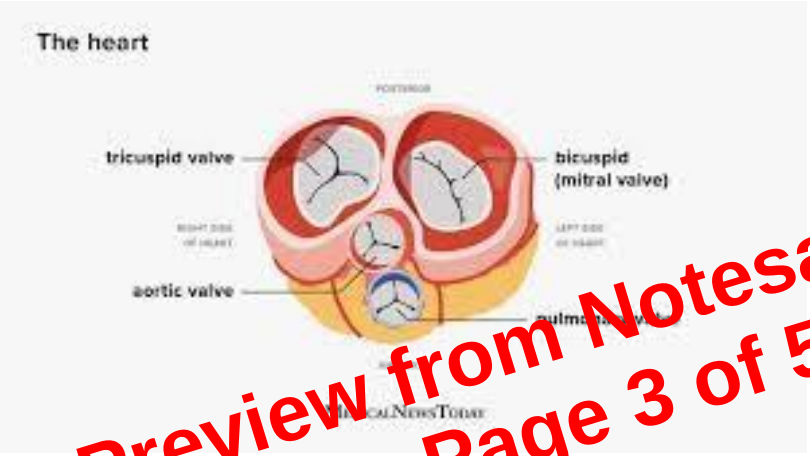
smaller, however has thicker walls than the right, forms the larger part of the hearts upper left boarder. It receives blood from the lungs through four pulmonary veins (two for each lung).

The ventricles are the lower chambers of the heart which are separated by the interventricular septum. They receive blood from the atria and are made from larger, thicker walls than the atria. The left ventricle is thicker due to the amount of pressure needed to pump blood around the body. The right ventricle pumps blood to the lungs through the pulmonary artery. The left ventricle pumps blood to the rest of the body through the aorta.

There are four valves in the heart. Two AV (atrioventricular) valves, (right - tricuspid, left -bicuspid) and two semilunar valves (left - aortic, right - pulmonary).
The valves allow for the heart to work efficiently without the backflow of blood back into the heart. The pressure caused by ventricular contraction causes the valves to open and close. The AV valves stop backflow from the ventricles into the atria. The tricuspid valve prevents backflow from the right ventricle into the right atrium. The bicuspid valve prevents backflow from the left ventricle into the left atrium. The pulmonary valve prevents backflow from the pulmonary artery into the right ventricle. The aortic valve prevents backflow from the aorta into the left ventricle.



The tricuspid valve has three cusps. The bicuspid valve has two cusps. The AV valves are connected to the papillary muscles in the ventricles by chordae tendineae (tendinous cords), which prevents the valve cusps from opening when the ventricles contract.

Conduction System

The cardiac conduction system is composed of specialised fibres which send impulses throughout the heart, causing it to contract.

Pacemaker cells:

- Automaticity - able to create electrical impulse automatically.
- Conductivity - able to pass impulse to the next cells.
- Contractility - able to shorten fibres when impulse is recieved.