

FEATURES OF THE ANATOMY OF THE HEART ITSELF

Tuychiyeva Fatima Gulamjonovna

Tashkent Medical Pediatric Institute Assistant of the

Department of Anatomy, Pathological Anatomy, Uzbekistan

Annotation: The heart is a muscular organ that pumps blood around the body by circulating it through the circulatory/vascular system. It is found in the middle mediastinum, wrapped in a two-layered serous sac called the pericardium. The heart is shaped as a quadrangular pyramid, and orientated as if the pyramid has fallen onto one of its sides so that its base faces the posterior thoracic wall, and its apex is pointed toward the anterior thoracic wall. The great vessels that originate from the heart, radiate their branches to the head and neck, the thorax and abdomen and the upper and lower limbs.

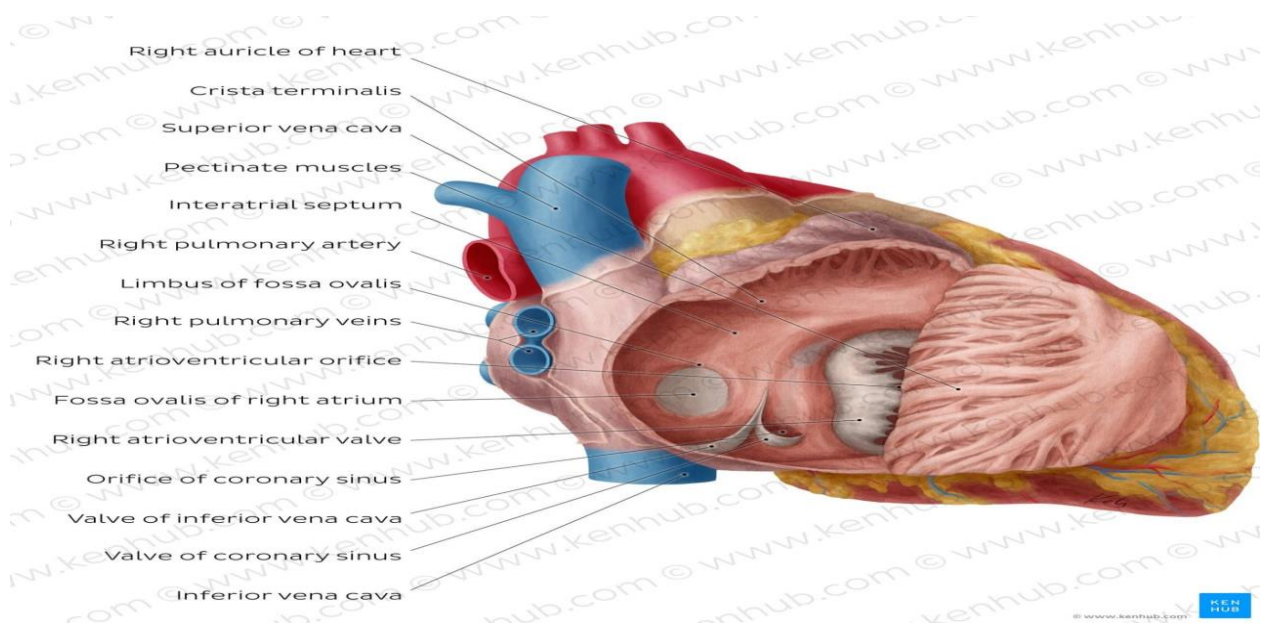
Key words: heart, muscul, neck, anatomy.

The heart holds a special position in anatomical sciences. For instance, you can live without your spleen or with only one kidney, you can even regrow your liver—but you cannot live without a heart. This page will introduce you to the anatomy of the heart.

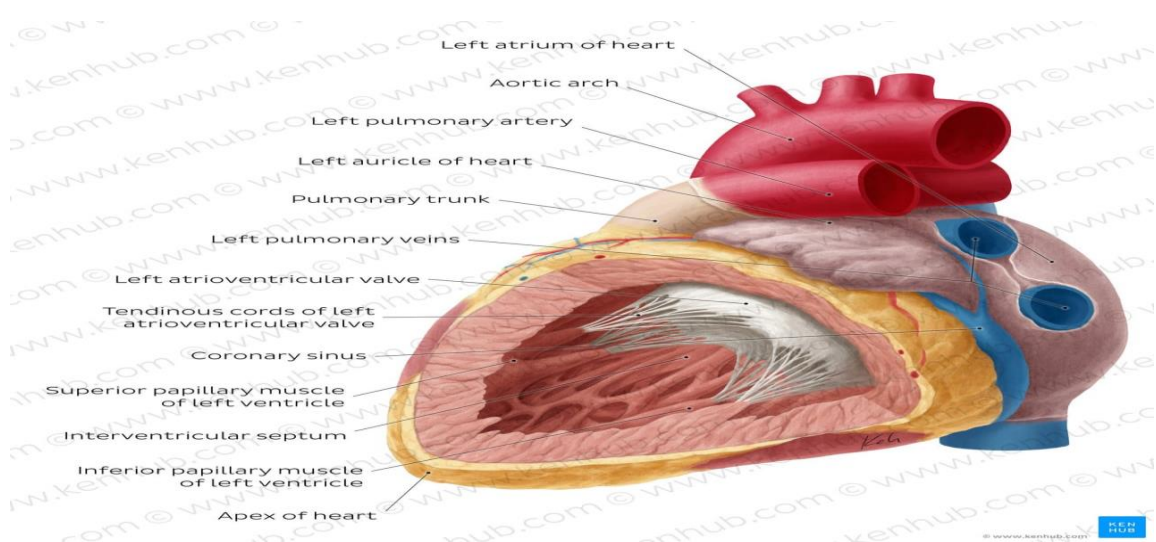
The heart has five surfaces: base (posterior), diaphragmatic (inferior), sternocostal (anterior), and left and right pulmonary surfaces. It also has several margins: right, left, superior, and inferior:

- The right margin is the small section of the right atrium that extends between the superior and inferior vena cava.
- The left margin is formed by the left ventricle and left auricle.
- The superior margin in the anterior view is formed by both atria and their auricles.
- The Inferior margin is marked by the right ventricle.

Inside, the heart is divided into four heart chambers: two atria (right and left) and two ventricles (right and left).



The **right** atrium and ventricle receive deoxygenated blood from systemic veins and pump it to the lungs, while the **left** atrium and ventricle receive oxygenated blood from the lungs and pump it to the systemic vessels which distribute it throughout the body.



The left and right sides of the heart are separated by the interatrial and **interventricular septa** which are continuous with each other. Furthermore, the atria are separated from the ventricles by the **atrioventricular**

septa. Blood flows from the atria into the ventricles through the atrioventricular orifices (right and left)—openings in the atrioventricular septa. These openings are periodically shut and open by the heart valves, depending on the phase of the heart cycle.

Although there are a lot of structures in the heart diagrams, you shall not worry, we've got them all covered for you in these articles and video tutorials. Be sure to check out our specially designed heart anatomy quiz which will help you to master the heart anatomy.

Heart valves separate atria from ventricles, and ventricles from great vessels. The valves incorporate two or three leaflets (cusps) around the atrioventricular orifices and the roots of great vessels.

The cusps are pushed open to allow blood flow in one direction, and then closed to seal the orifices and prevent the backflow of blood. Backward prolapse of the cusps is prevented by the chordae tendineae—also known as the heart strings—fibrous cords that connect the papillary muscles of the ventricular wall to the atrioventricular valves.

There are two sets of valves: atrioventricular and semilunar. The atrioventricular valves prevent backflow from the ventricles to the atria:

- The right atrioventricular/tricuspid valve is between the right atrium and right ventricle. It has three cusps/leaflets: anterior/anterosuperior, septal, and posterior/inferior.
- The left atrioventricular/bicuspid valve is also called the mitral valve since it only has two cusps and resembles a miter in shape. It is between the left atrium and left ventricle and has two cusps/leaflets: anterior/aortic and posterior/mural.

LITERATURE:

1. Nozimjon O'g'li, S. S., & Kasimjanovna, D. O. (2022, November). ORIGIN, PREVENTION OF MENINGITIS DISEASE, WAYS OF TRANSMISSION AND THE USE OF DIFFERENT ROUTES IN TREATMENT. In *E Conference Zone* (pp. 37-40).
2. Nozimjon o'g'li, S. S., & Xasanboy o'g'li, A. A. (2021). Quantitative Indicators of Villi Cells in the Intraepithelial Part of the Small Intestine. *EUROPEAN JOURNAL OF INNOVATION IN NONFORMAL EDUCATION*, 1(2), 19-21.
3. Алиев, М. М., Алиев, Р. М., Андрианова, Л. П., Боев, А. А., Боташева, Л. С., Буланьков, Ю. И., ... & Шуклина, А. А. (2022). ФУНДАМЕНТАЛЬНАЯ И ПРИКЛАДНАЯ НАУКА: СОСТОЯНИЕ И ТЕНДЕНЦИИ РАЗВИТИЯ.
4. Maksimovna, M. M., Maksimovna, Y. R. N., Nozimjon o'g'li, S. S., Ma'rifjonovna, H. G. Z., & Murodxon O'g'li, B. M. (2021). COMPARATIVE CHARACTERISTICS OF UTERINE ECHO PARAMETERS IN NORMALITY AND IN PRIMARY AMENORRHOEAS IN GIRLS. *Galaxy International Interdisciplinary Research Journal*, 9(05), 341-343.
5. Nozimjon o'g'li, S. S., & Xasanboy o'g'li, A. A. (2021). Quantitative Indicators of Villi Cells in the Intraepithelial Part of the Small Intestine. *EUROPEAN JOURNAL OF INNOVATION IN NONFORMAL EDUCATION*, 1(2), 19-21.