

The University of Jordan  
Faculty Of Medicine



# 2nd Practical

## Heart

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Associate professor of anatomy & embryology

# **External morphology of the heart**

## **I. Surfaces of the heart**

- a. Apex
- b. Base
- c. Sternocostal
- d. Diaphragmatic
- e. Right
- f. Left

## **II. Heart borders**

- a. Right
- b. Left
- c. Superior
- d. Inferior

## **III. Groves**

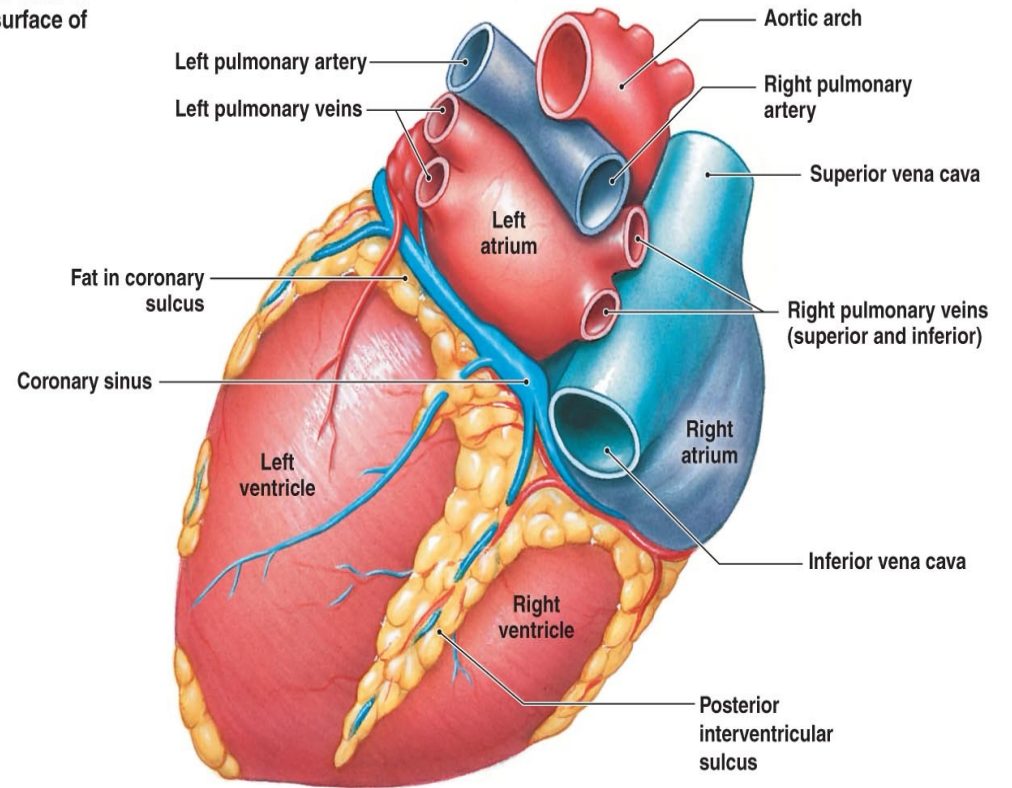
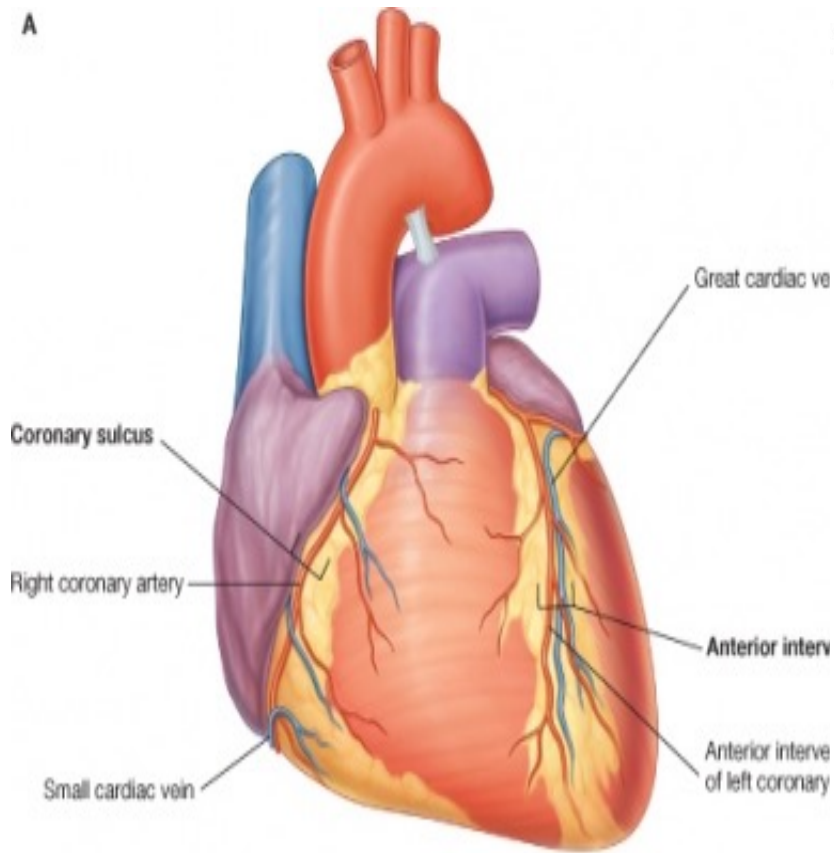
- a. atrioventricular (Coronary sulcus )
- b. Anterior interventricular
- c. Inferior (Posterior) interventricular

## **VI- Blood vessels**

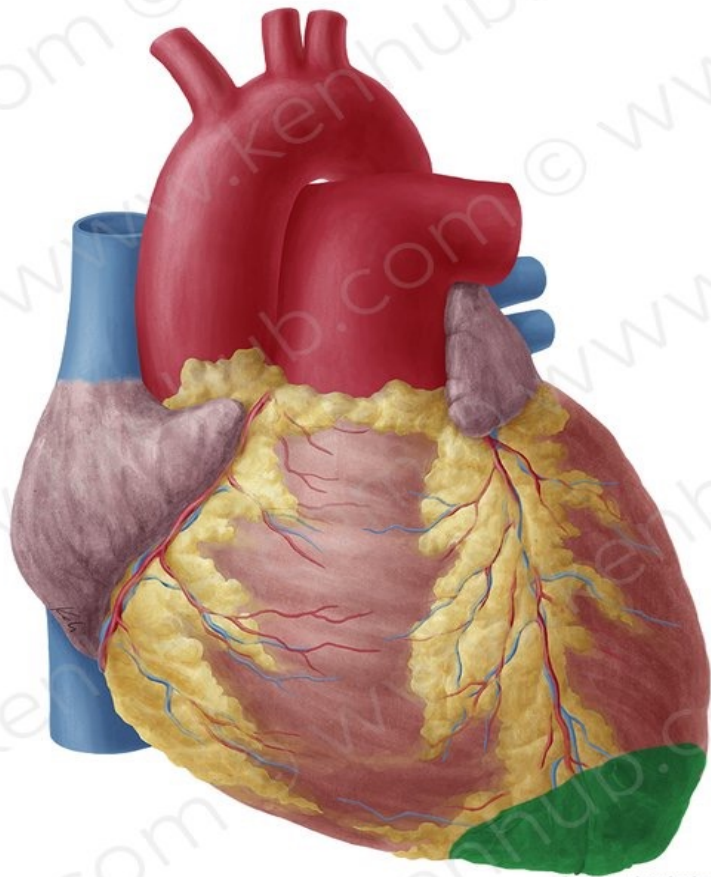
- a. Ascending aorta
- b. Arch of Aorta
- c. Pulmonary trunk
- d. Left subclavian
- e. Left Common Carotid
- f. Brachiocephalic artery
- g. Right subclavian
- h. Right Common Carotid
- i. Coronary arteries (right and left)
- j. Coronary sinus
- k. Anterior interventricular artery
- l. Posterior interventricular artery
- m. Great cardiac vein
- n. Middle cardiac vein

A

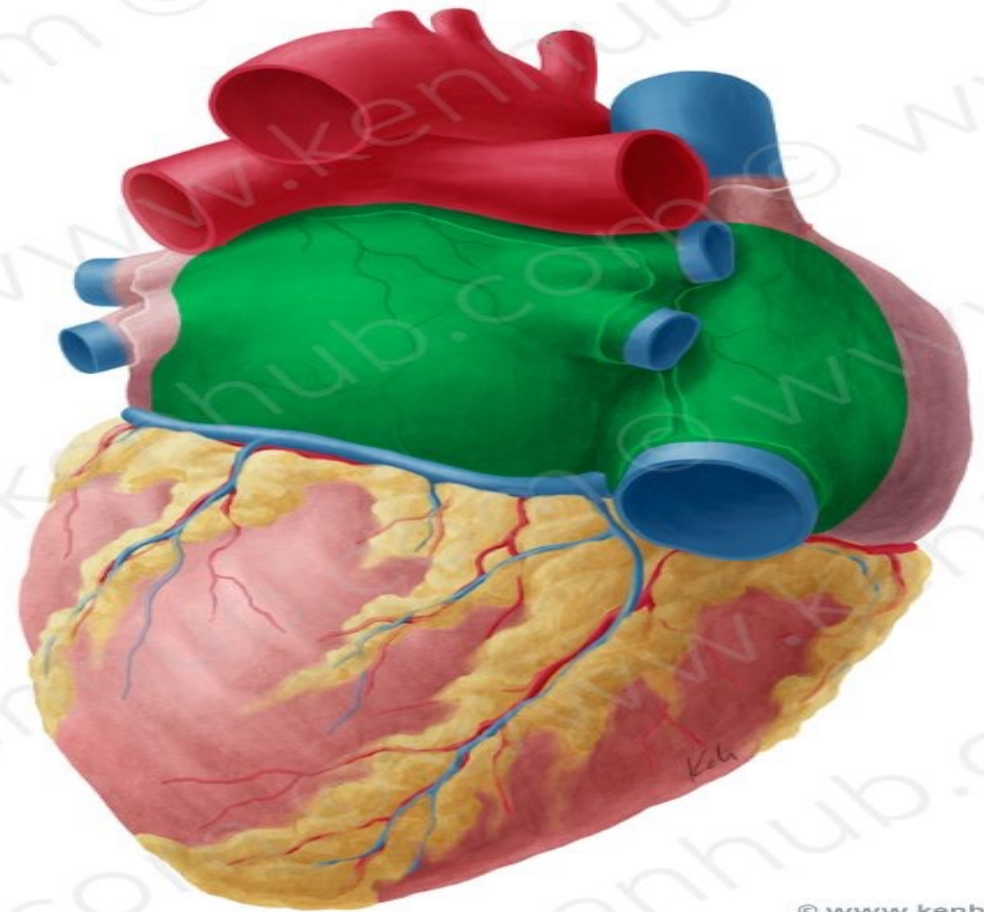
A diagrammatic view of the posterior surface of the heart



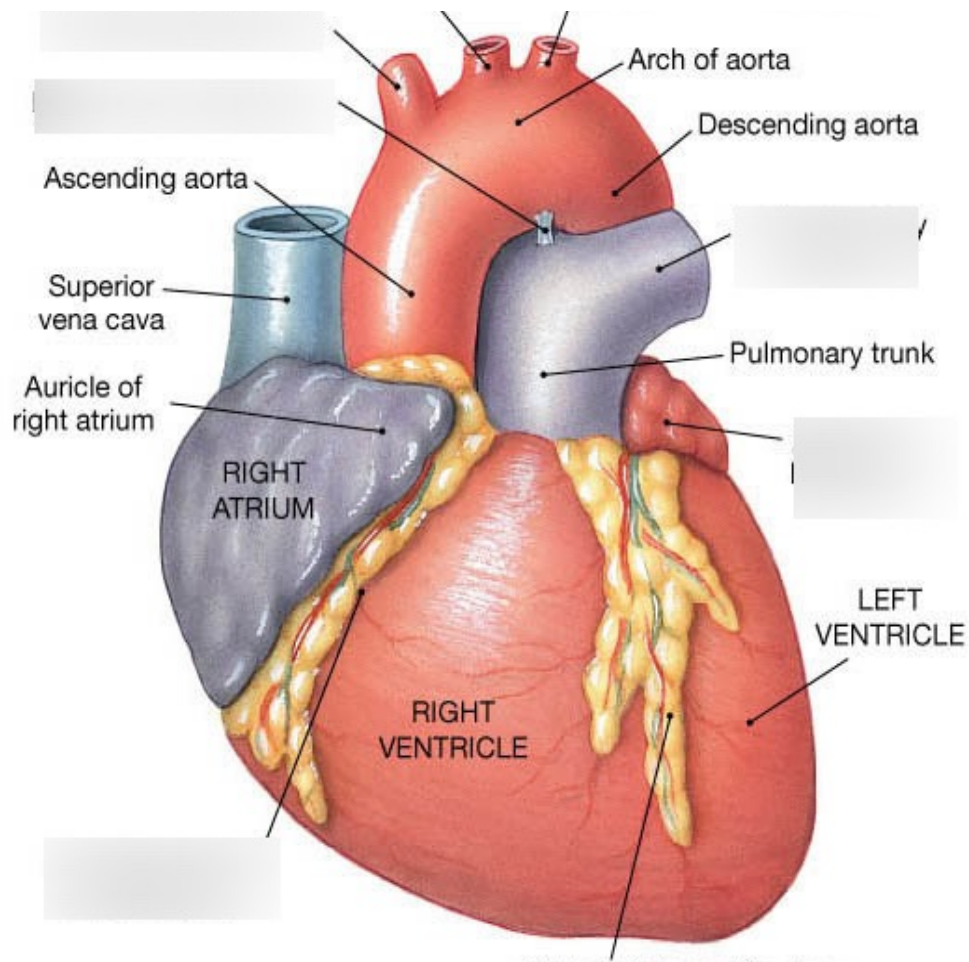
Posterior surface



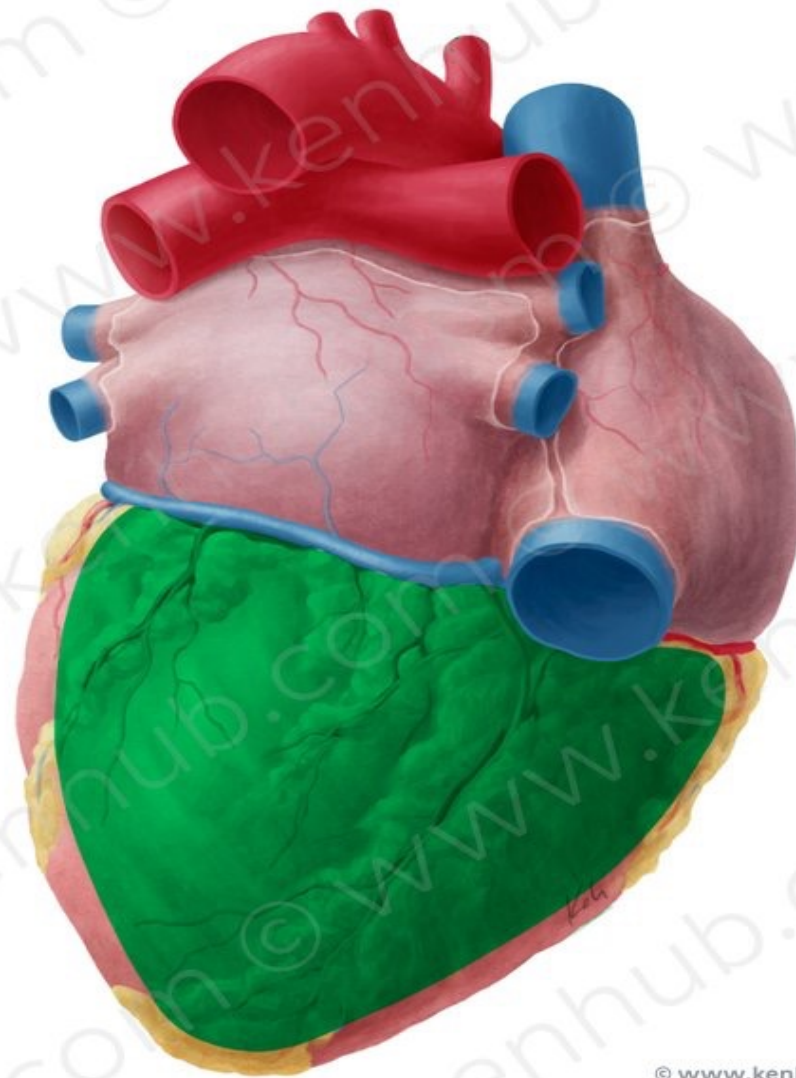
**The apex of the heart**



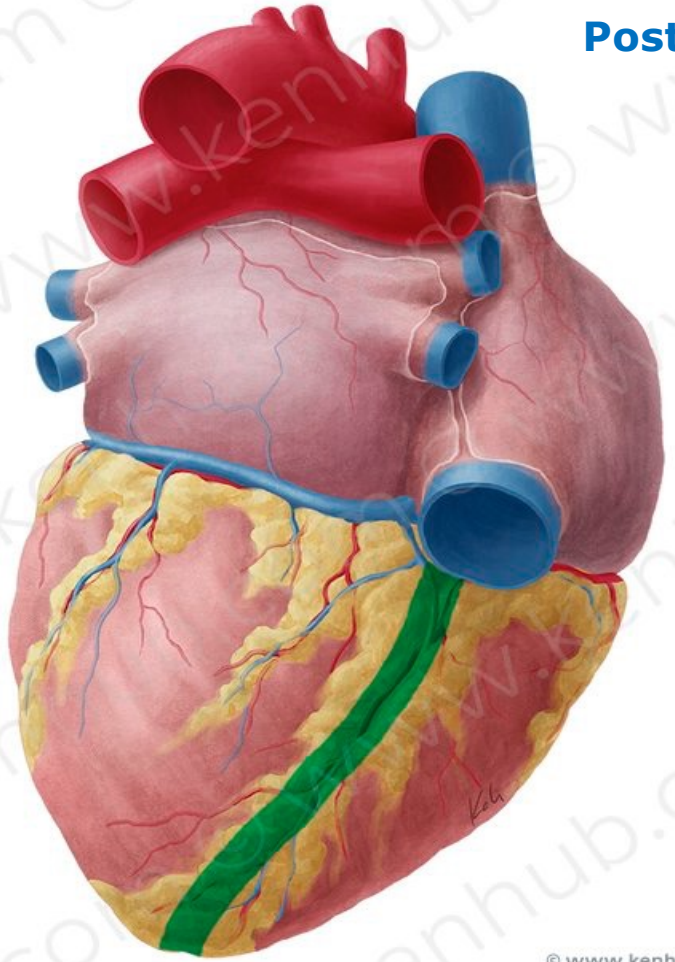
**The base of the heart**



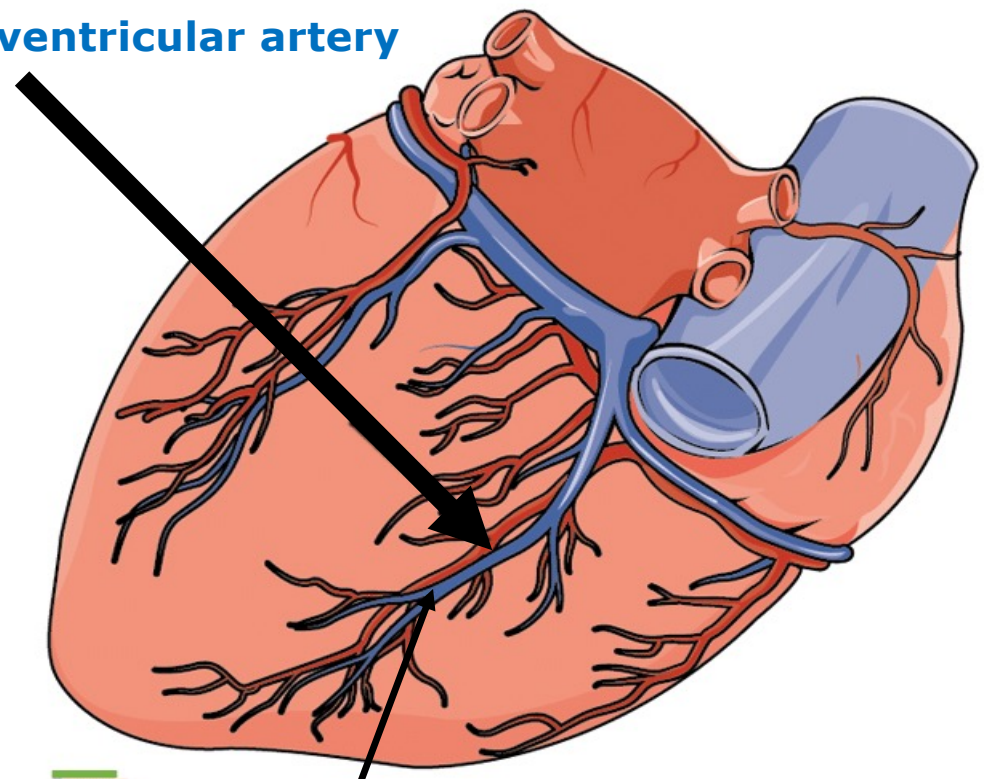
**Anterior (sternocostal) surface**



**Diaphragmatic surface of the heart**



**Posterior interventricular artery**

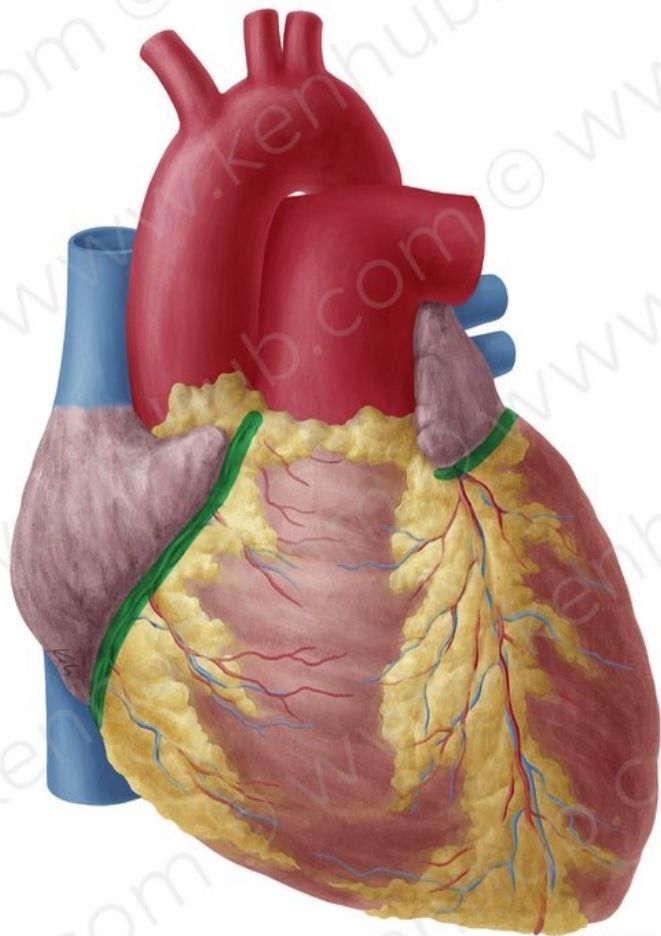


**Middle cardiac vein.**

**Posterior interventricular groove**

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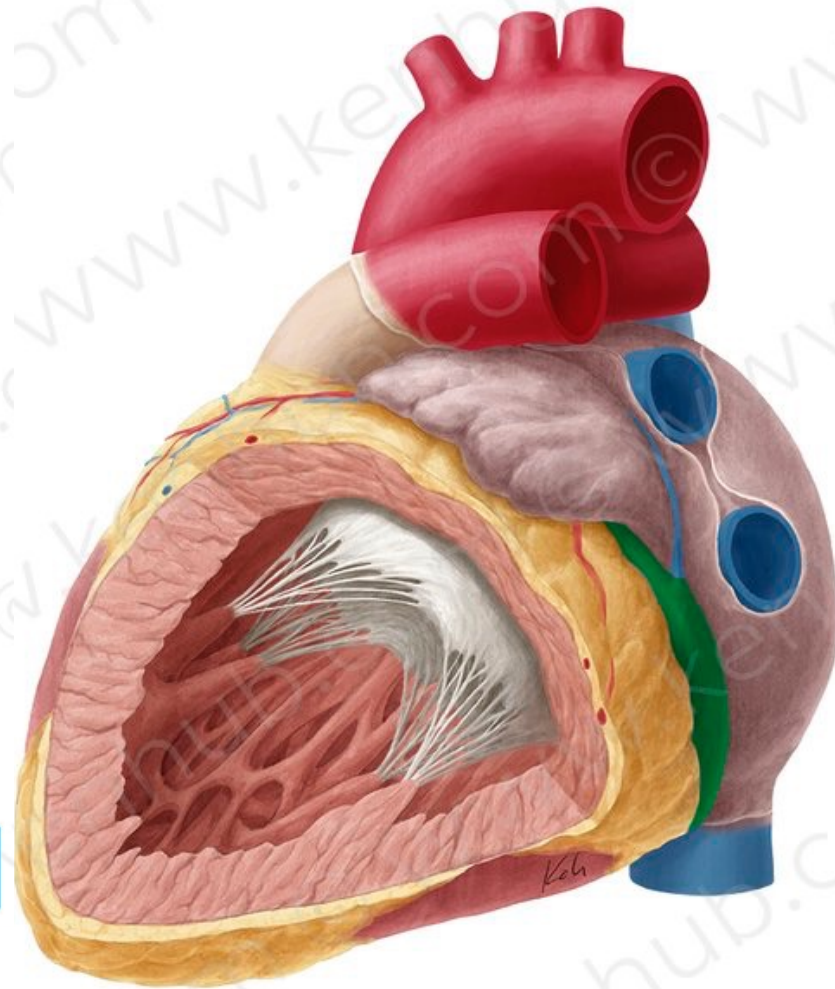




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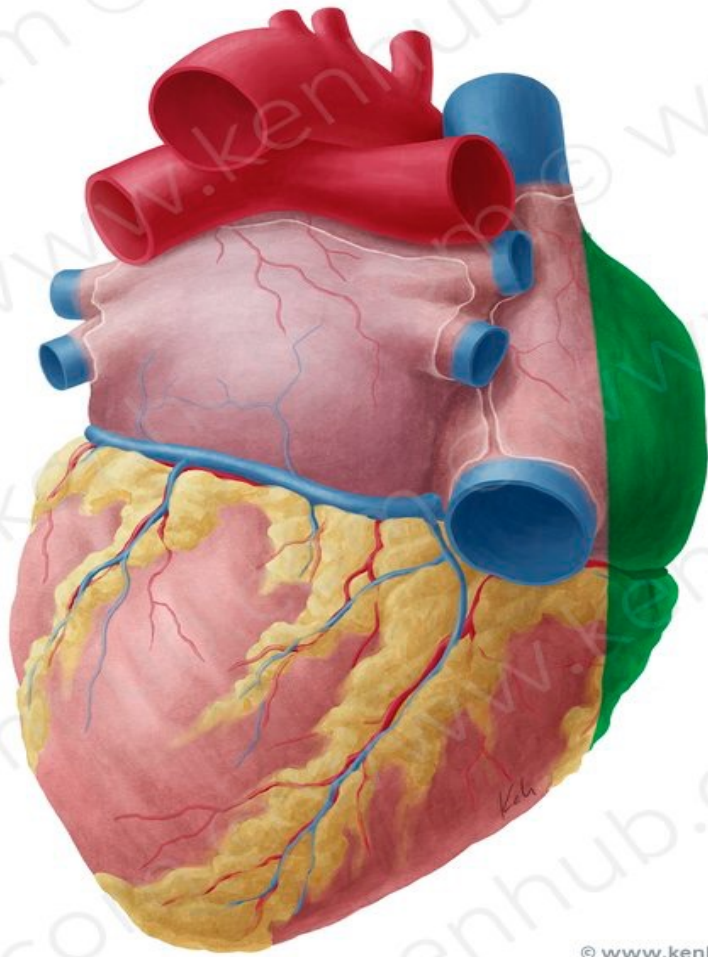
## Coronary sulcus



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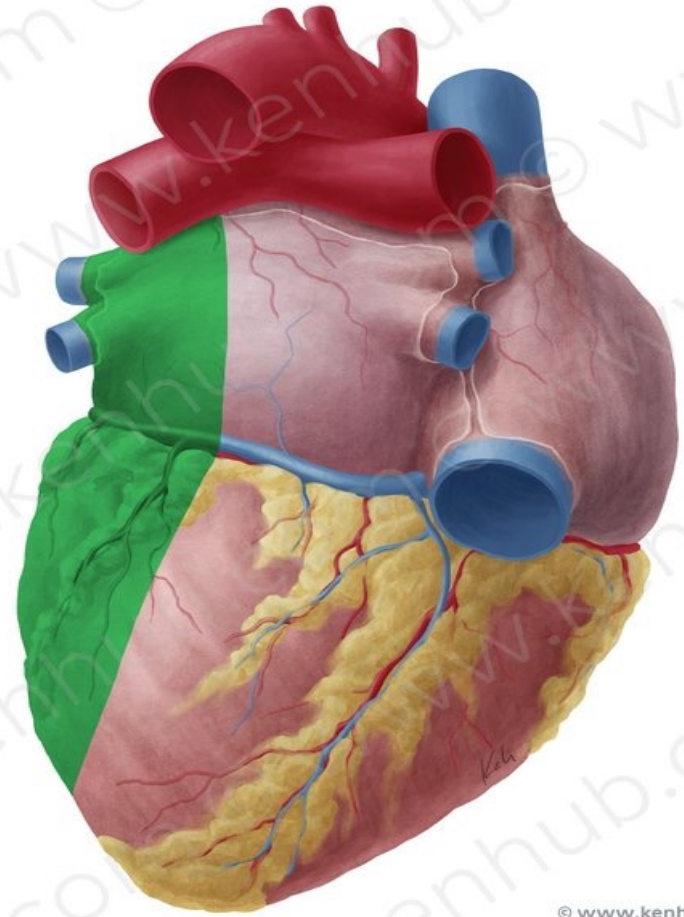




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**Right surface**



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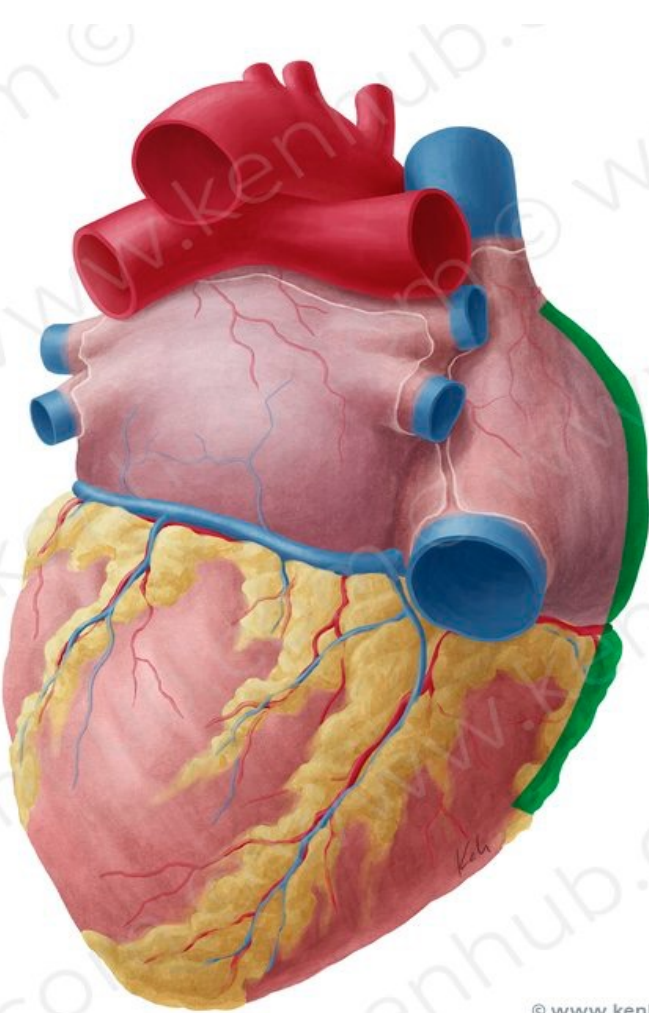


**Left surface**

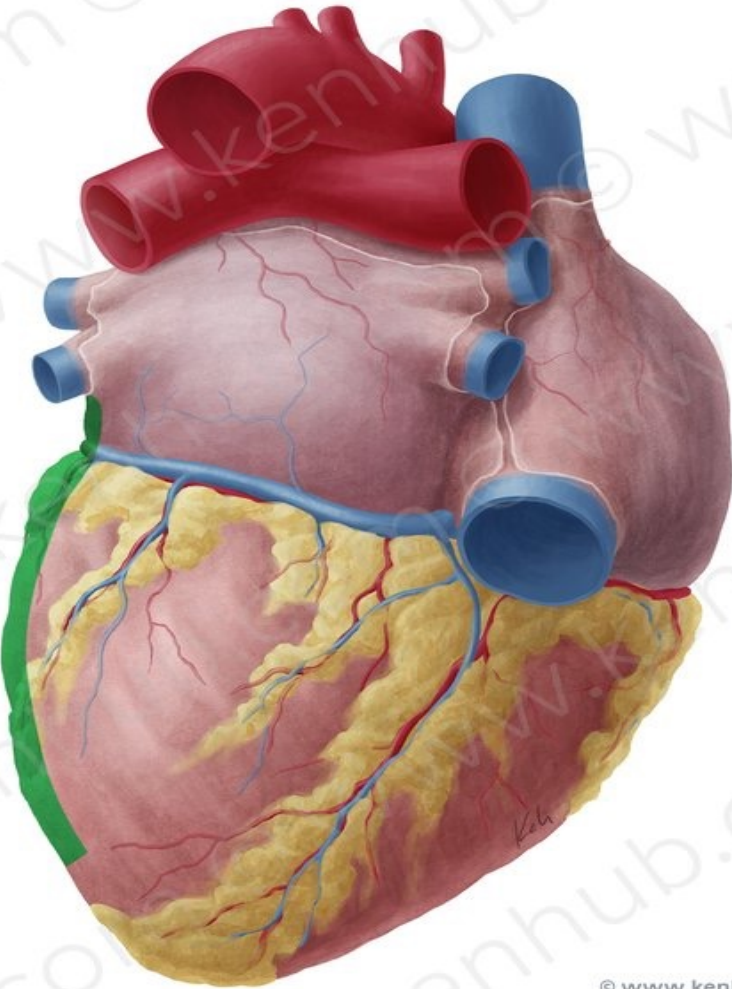
**Right border**

**Left border**

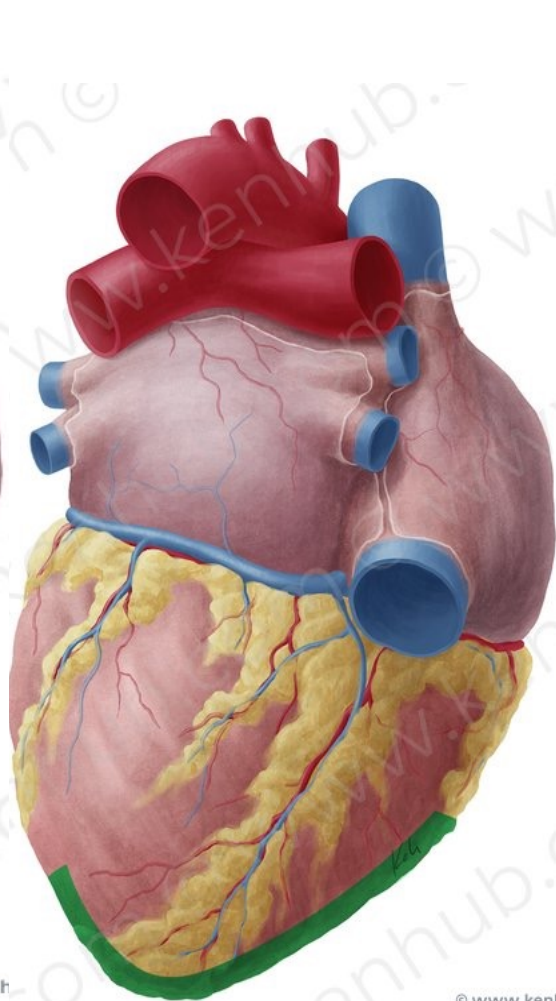
**Inferior border**



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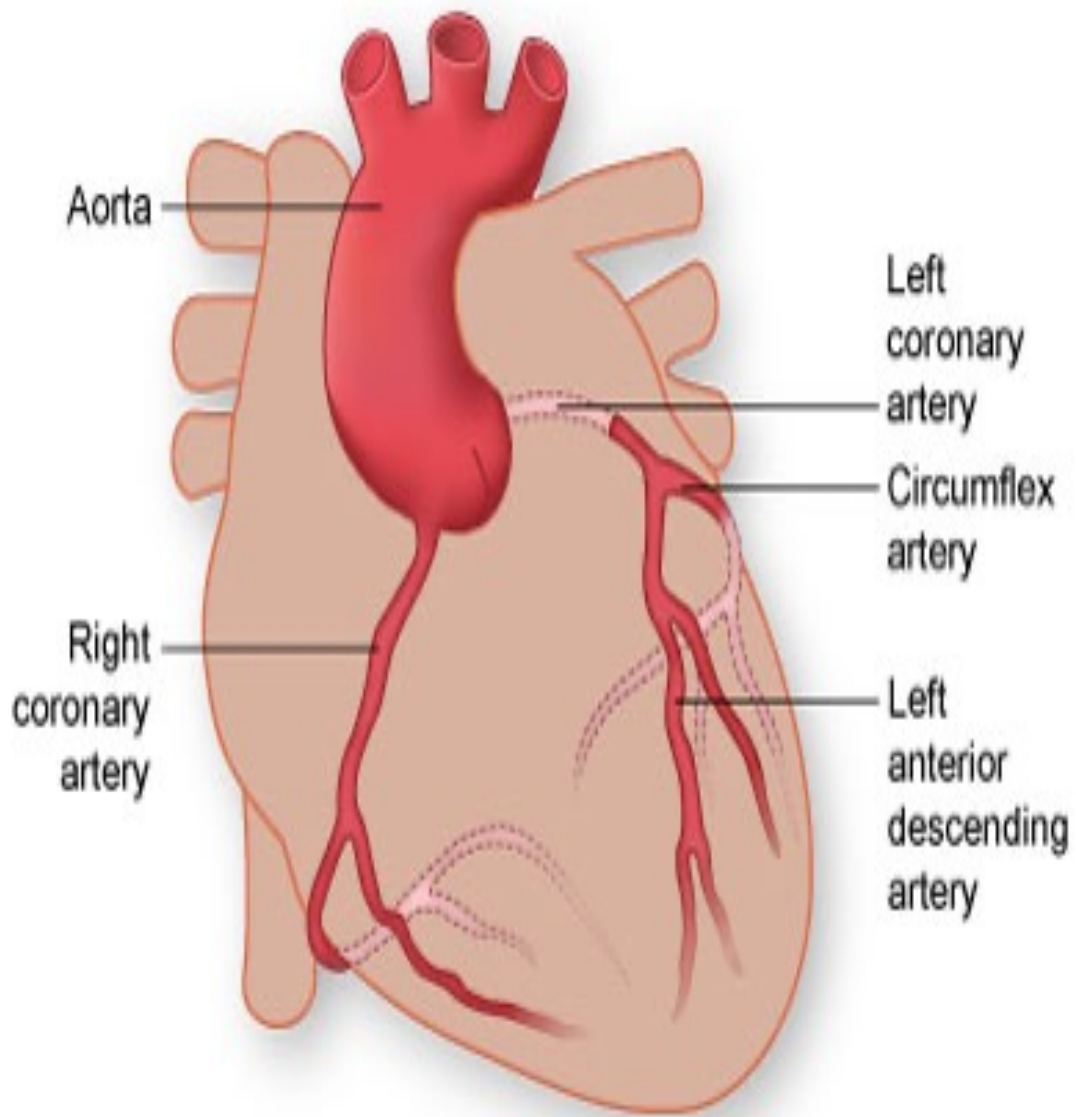


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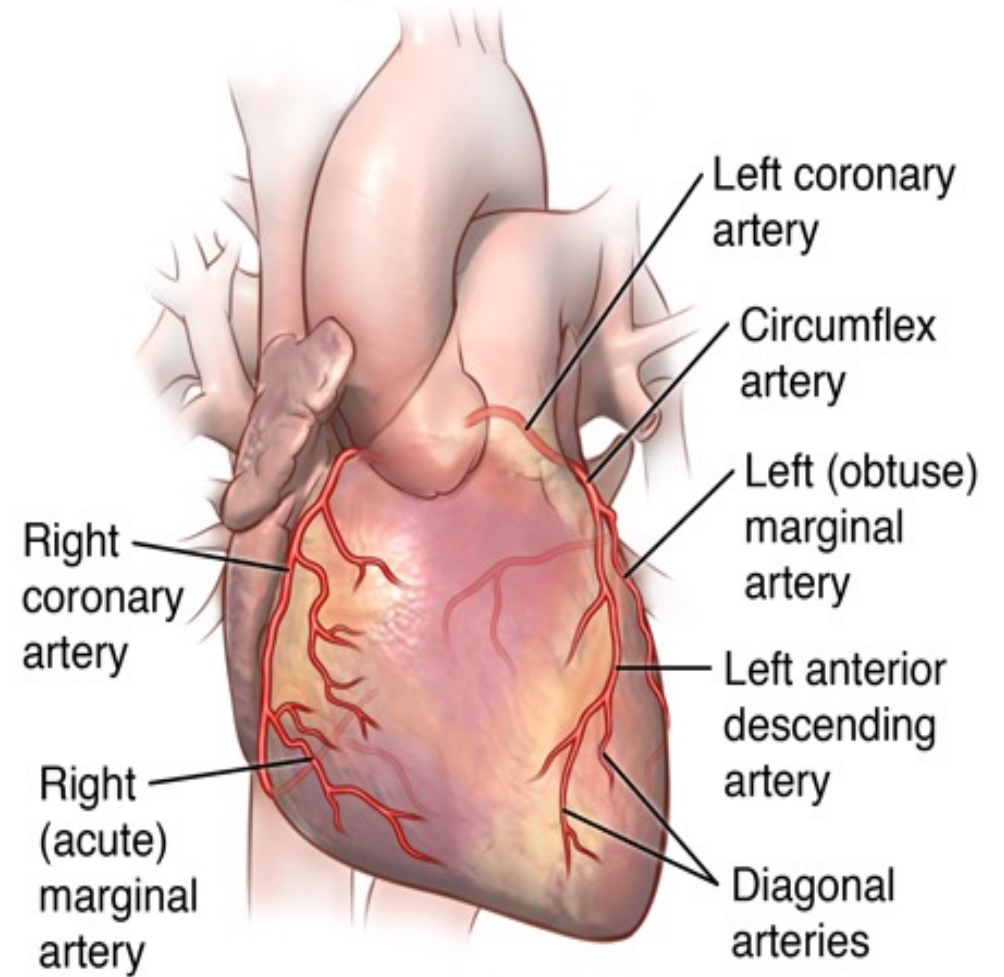


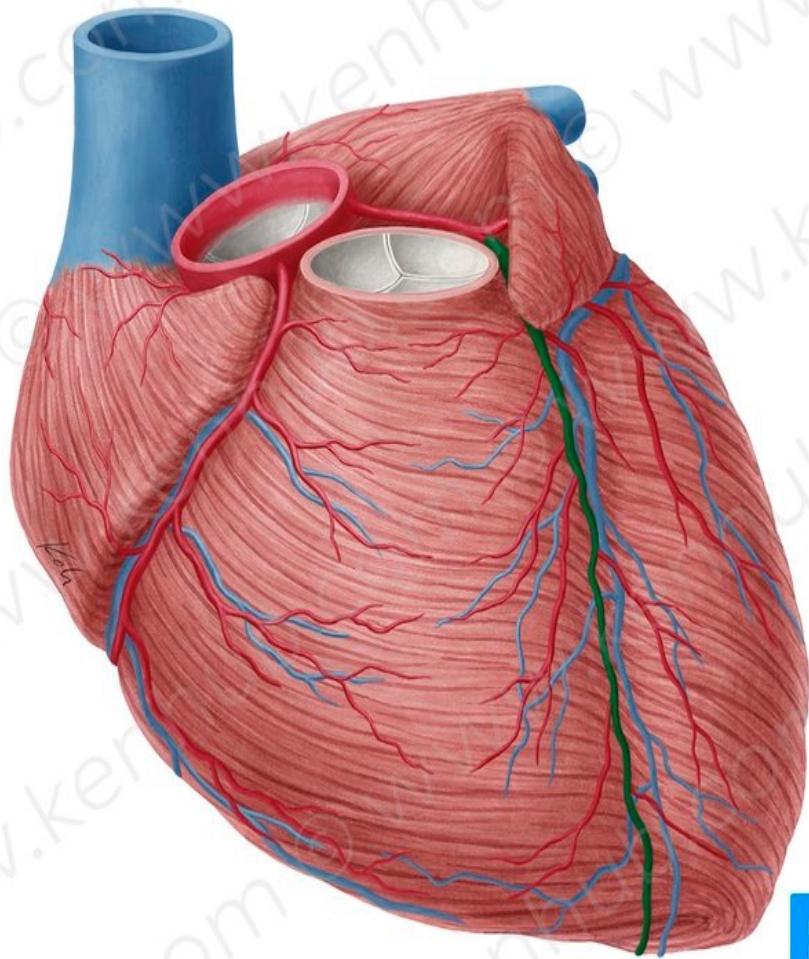
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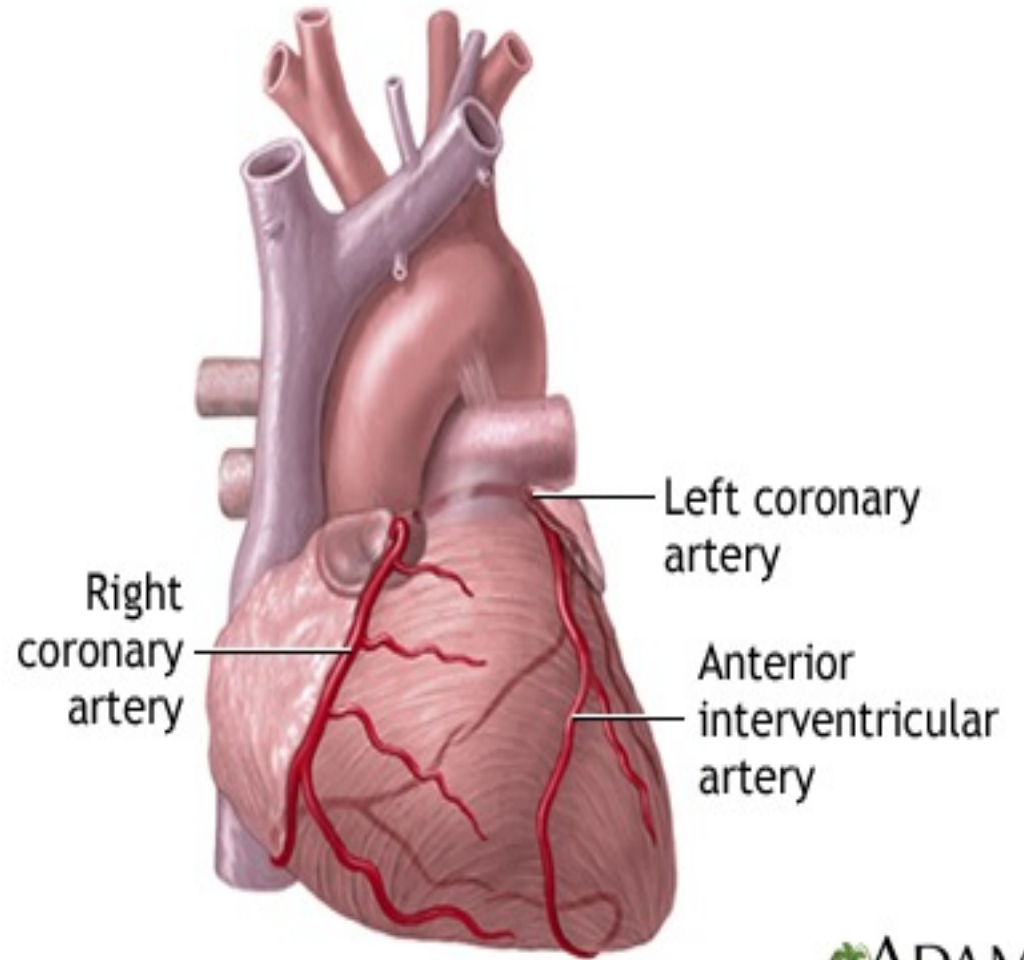


## Coronary arteries of the heart

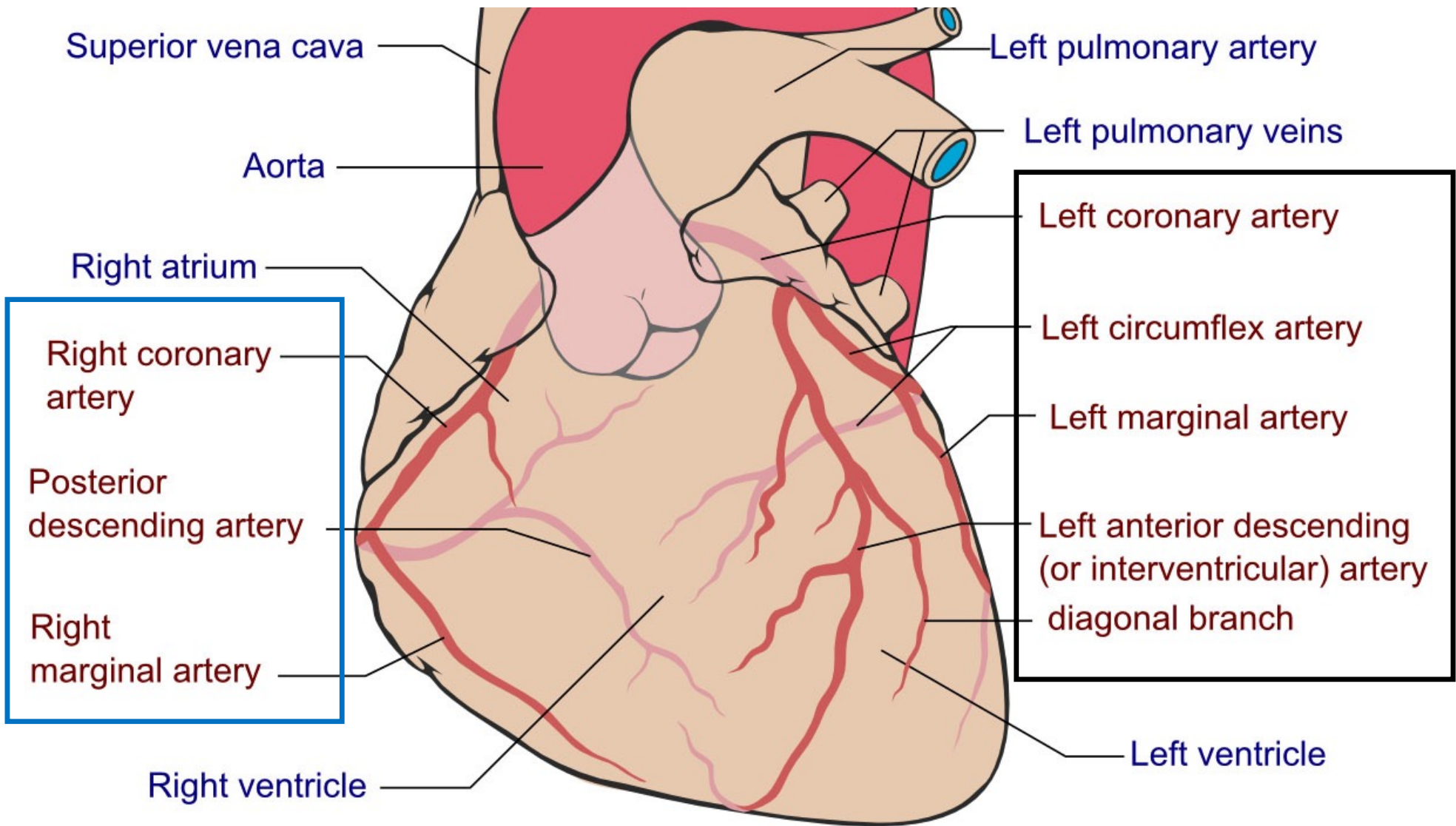


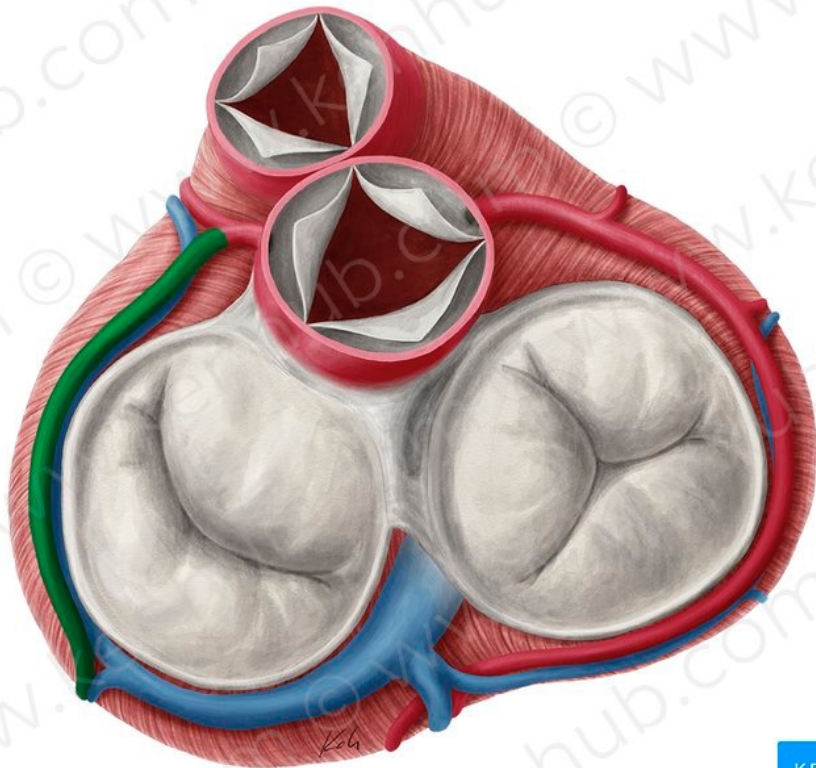


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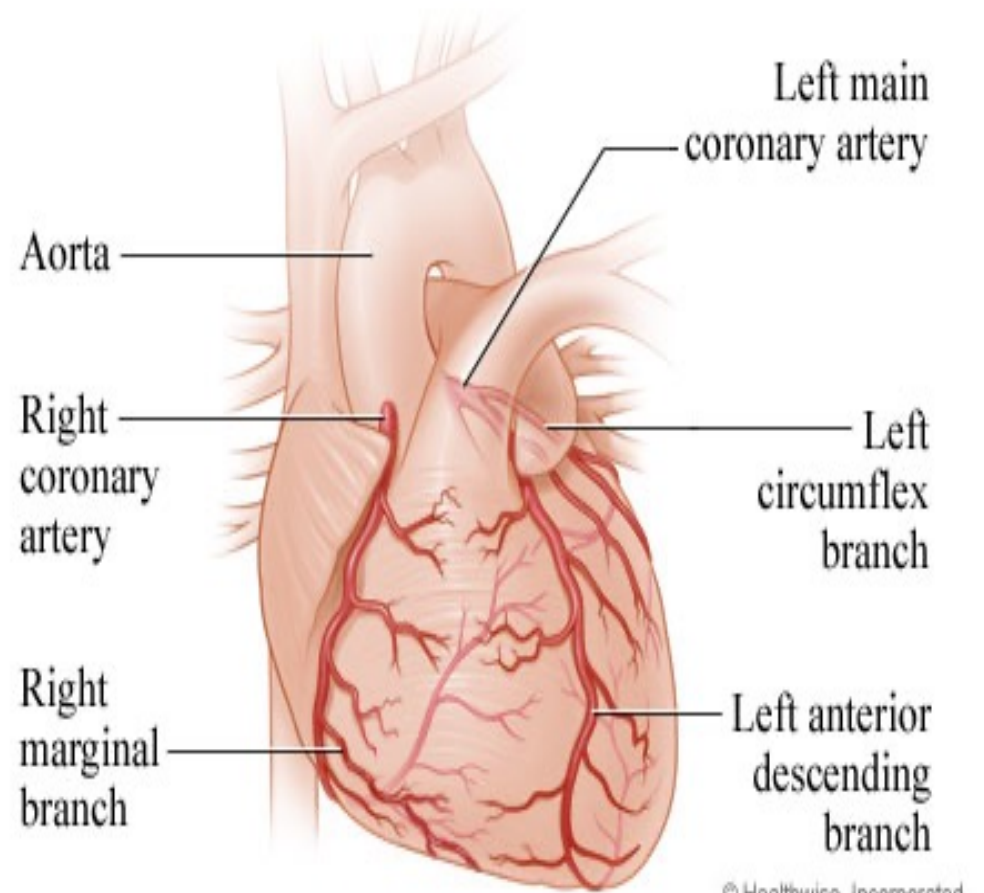


## Anterior interventricular artery



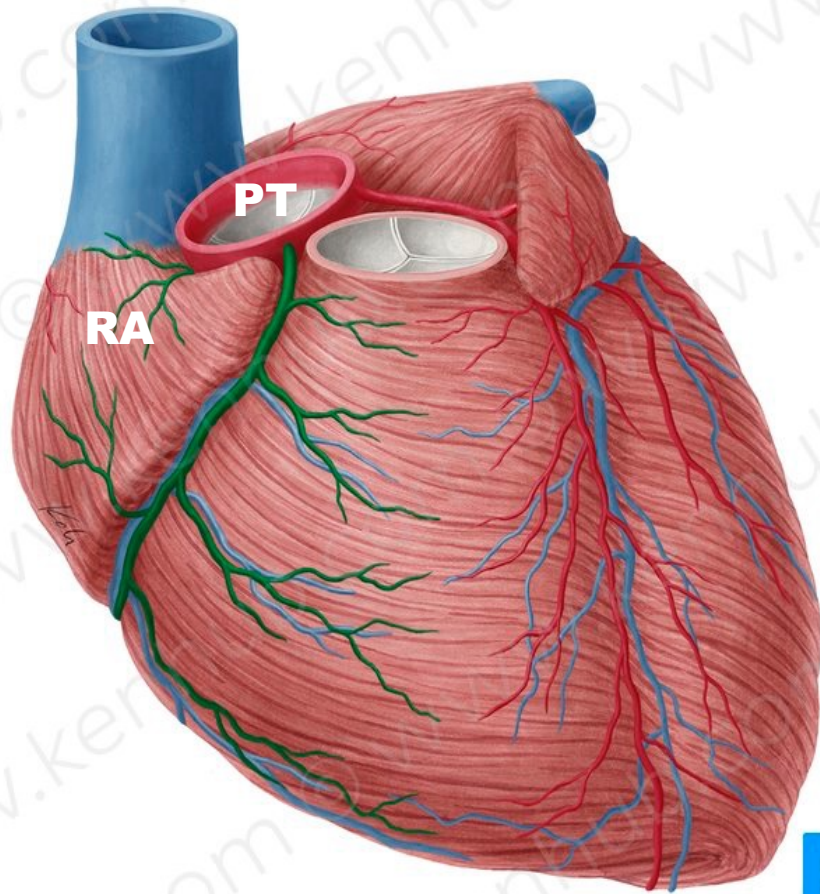


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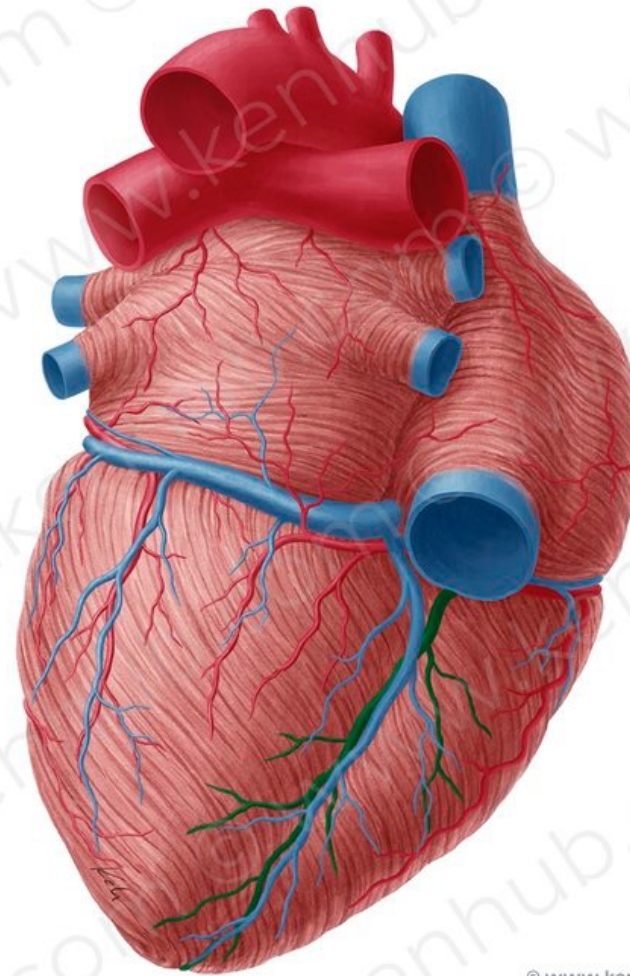


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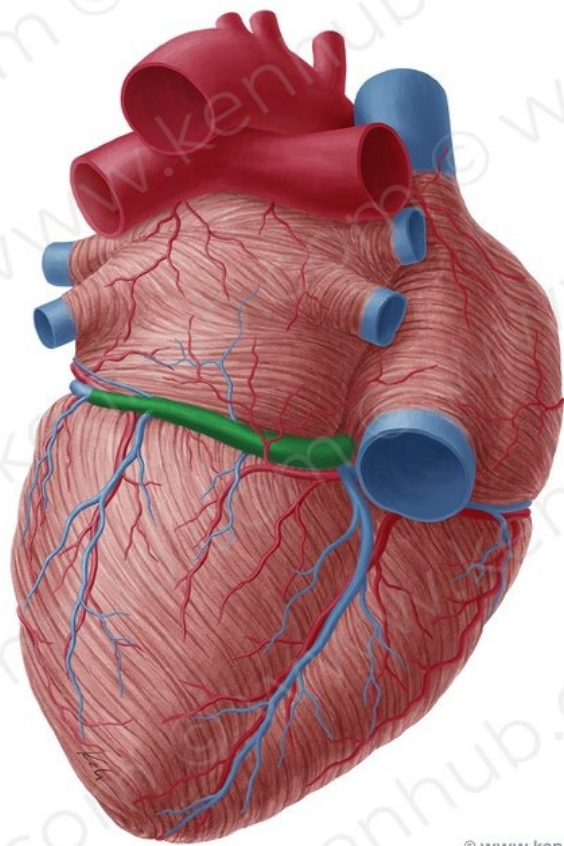
## The circumflex artery



**Right coronary artery**

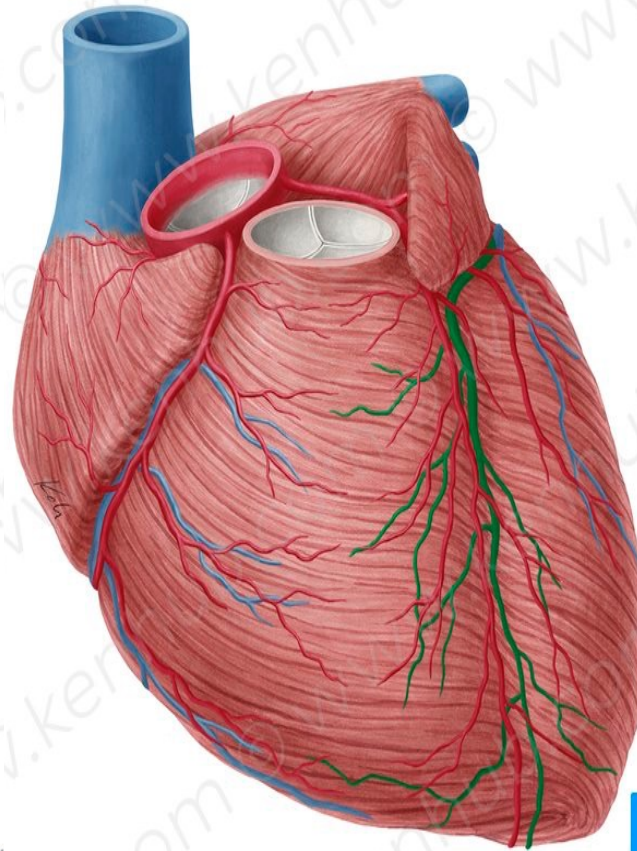


**Inferior interventricular artery**



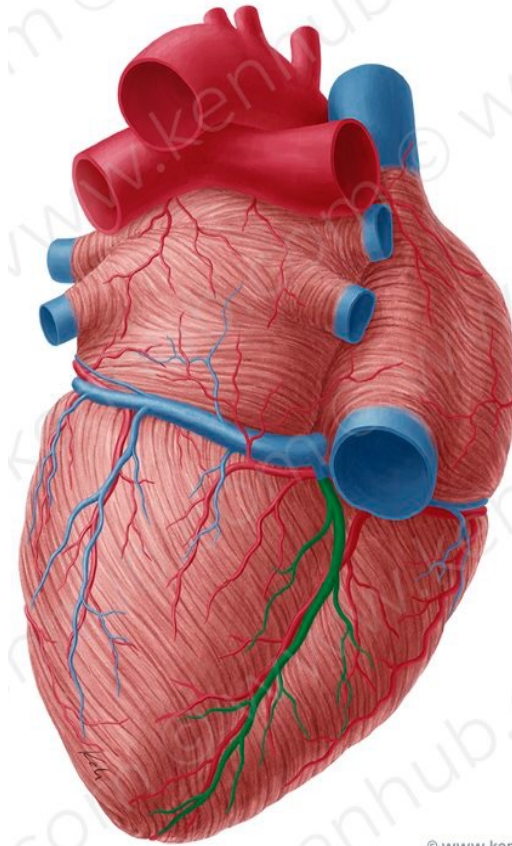
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**Coronary sinus**



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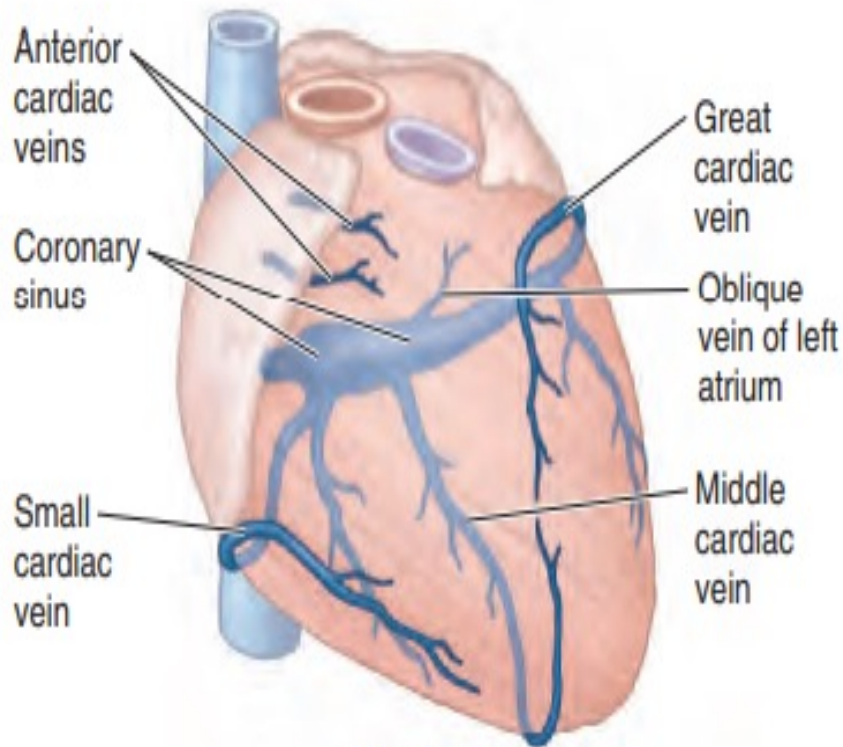
**Great cardiac vein**



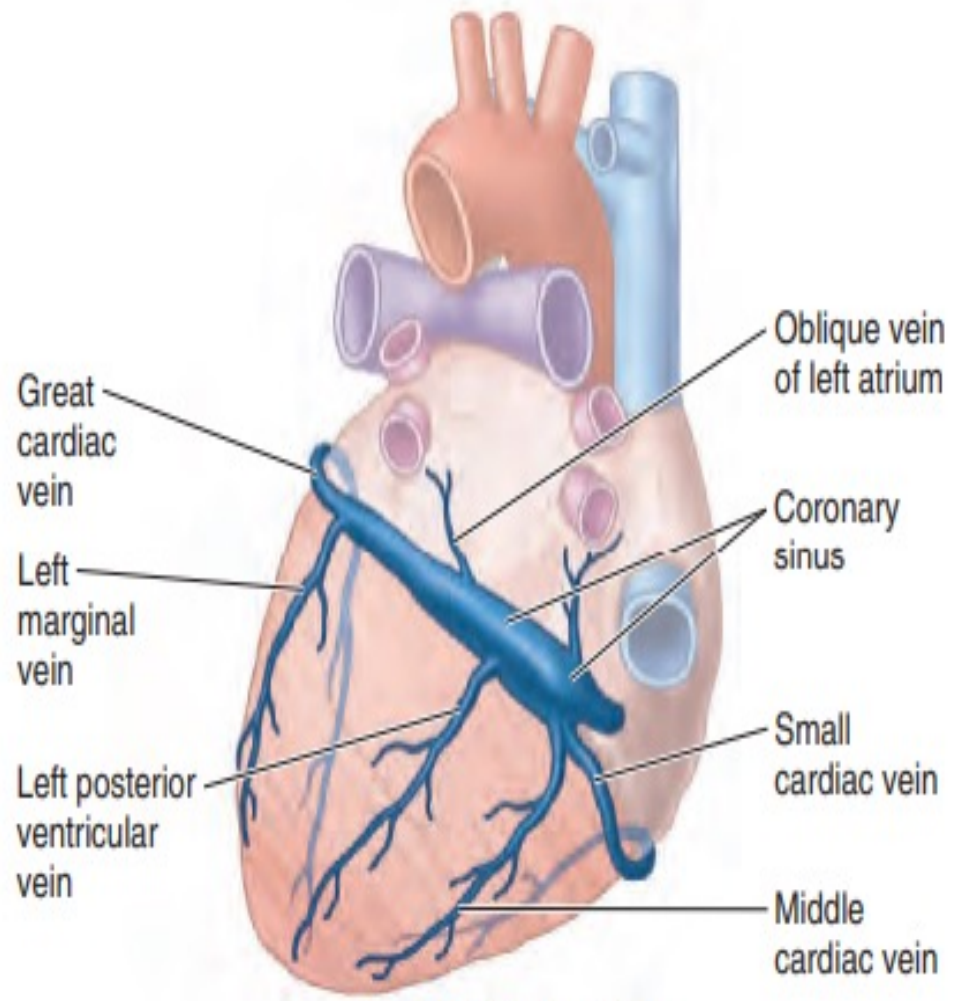
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**Middle cardiac vein**

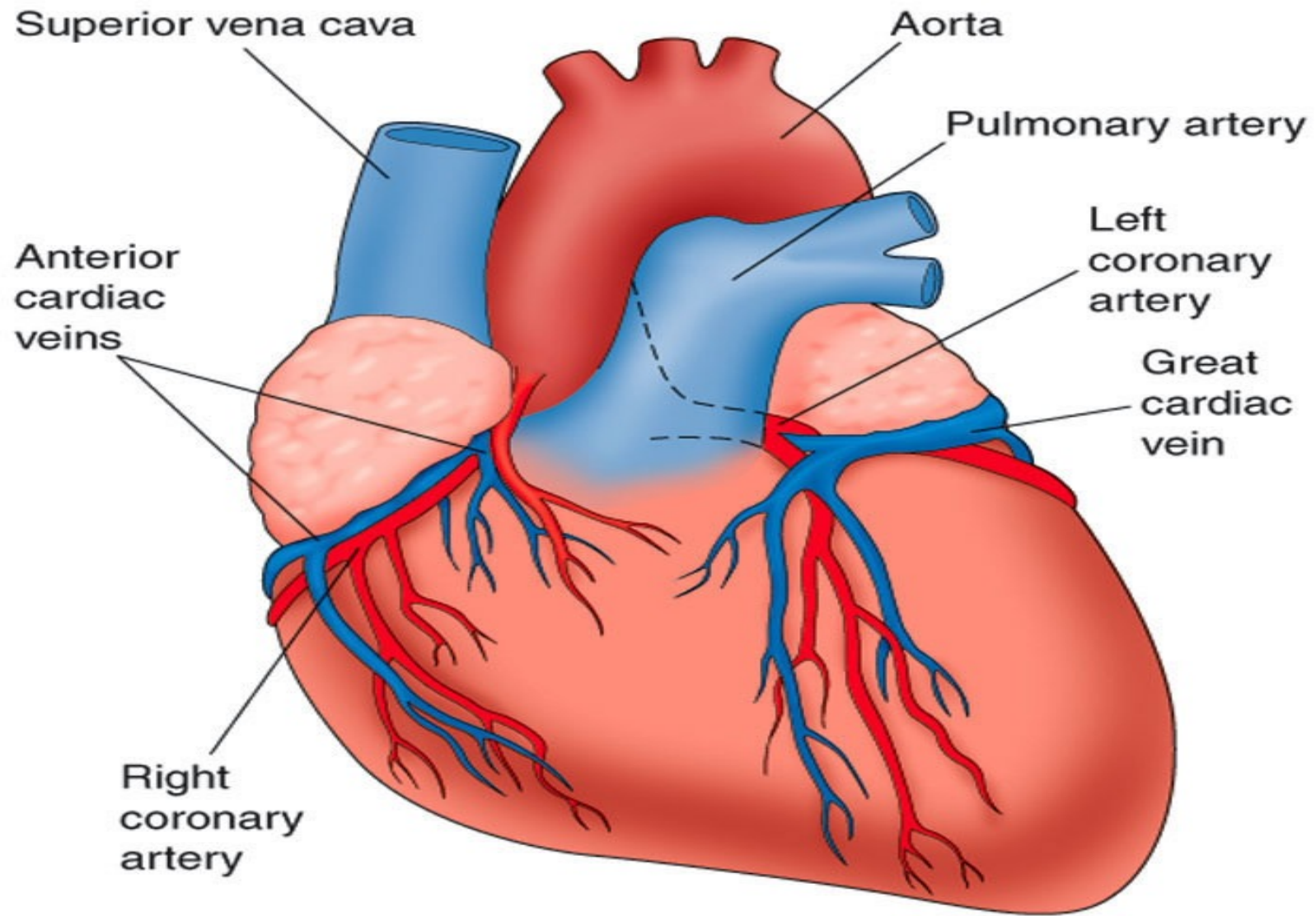




**Anterior view**



**Postero-inferior view**



# **Internal morphology of the heart**

## **I -Right atrium**

- a. Smooth posterior wall
- b. Rough anterior wall (L. musculi pectinati).
- c. Septal wall
- d. Sulcus terminalis
- e. Crista terminalis
- f. Fossa ovalis
- g. Annulus ovalis (limbus fossa ovalis).
- h. The right auricle
- i. Opening of Coronary sinus

## **II- Right ventricle**

- a. Smooth outflow part named conus arteriosus (infundibulum)
- b. supraventricular crest
- c. Trabeculae carneae
- d. Posterior papillary muscle
- e. Anterior papillary muscle
- f. Septal papillary muscle
- g. Chordae tendineae
- h. Interventricular septum

## **III- Left ventricle**

- a. Smooth outflow part named aortic vestibule
- b. subaortic curtain
- c. Trabeculae carneae
- d. Posterior papillary muscle
- e. Anterior papillary muscle
- f. Chordae tendineae

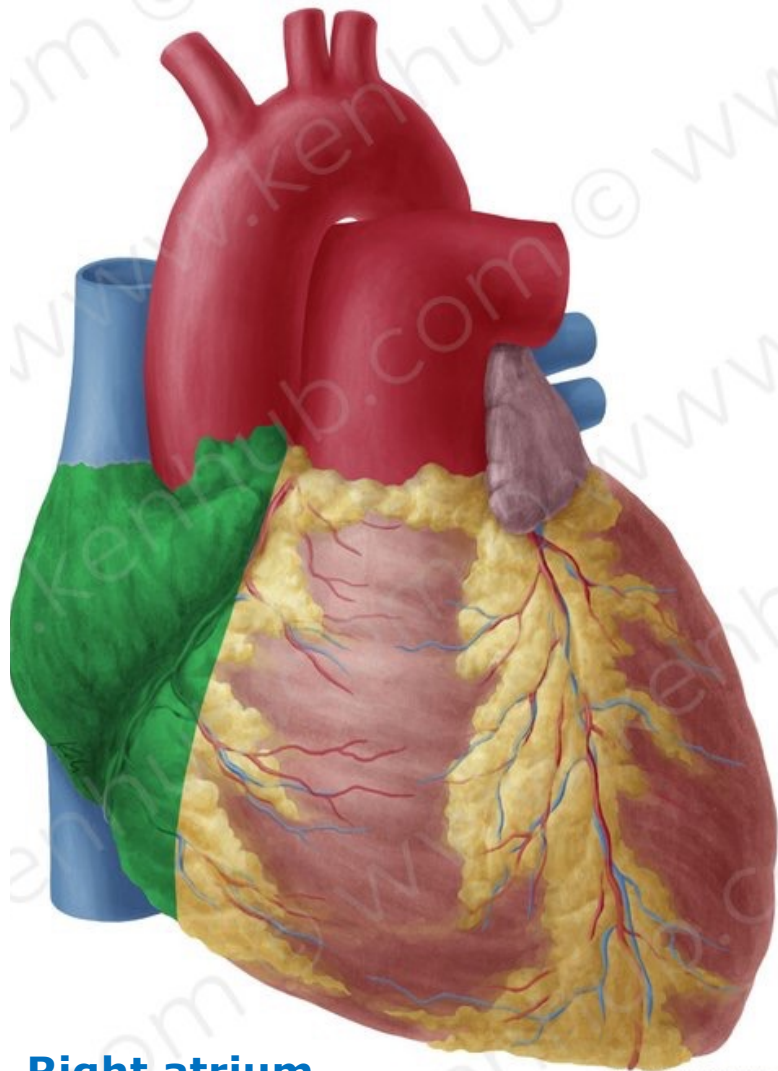
## **IV-Heart Valves**

- a. Tricuspid
- b. Mitral
- c. Pulmonary
- d. Aortic

## **V- Conductive system (Know the sites)**

- a. The sinuatrial node(S.A)
- b. The atrioventricular node (A.V)
- c. The atrioventricular bundle
- d. Right and left terminal branch

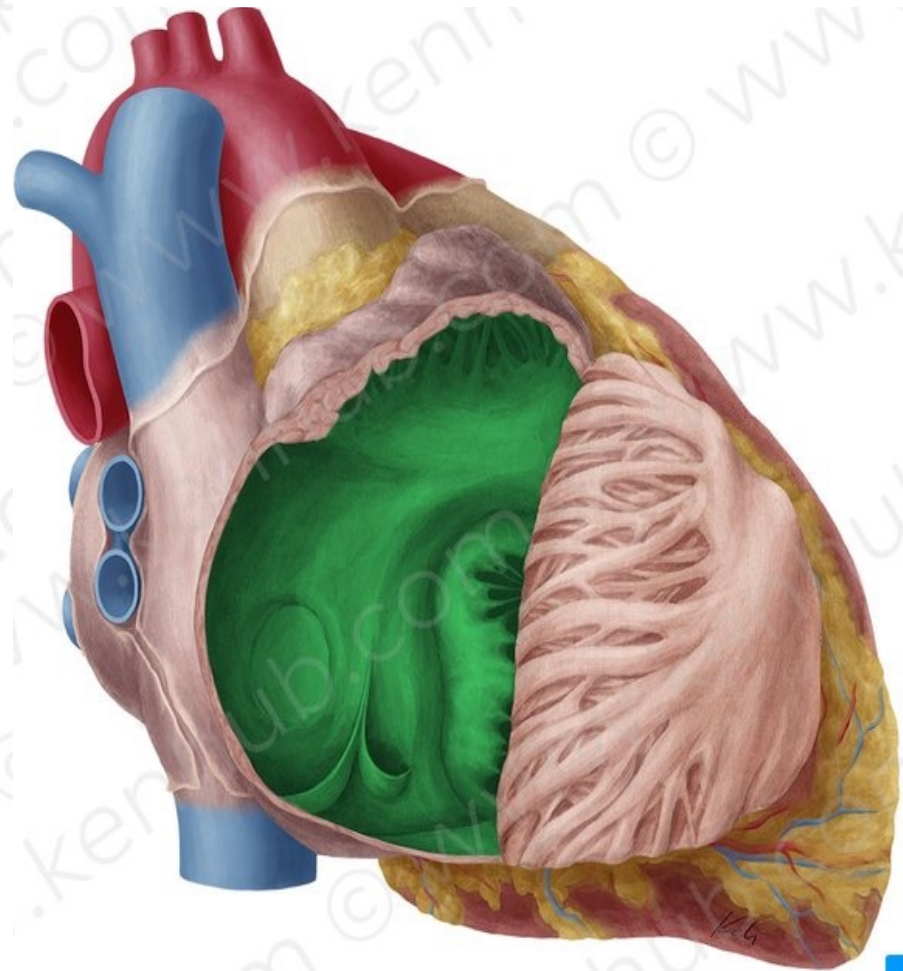
# Right Atrium



**Right atrium**

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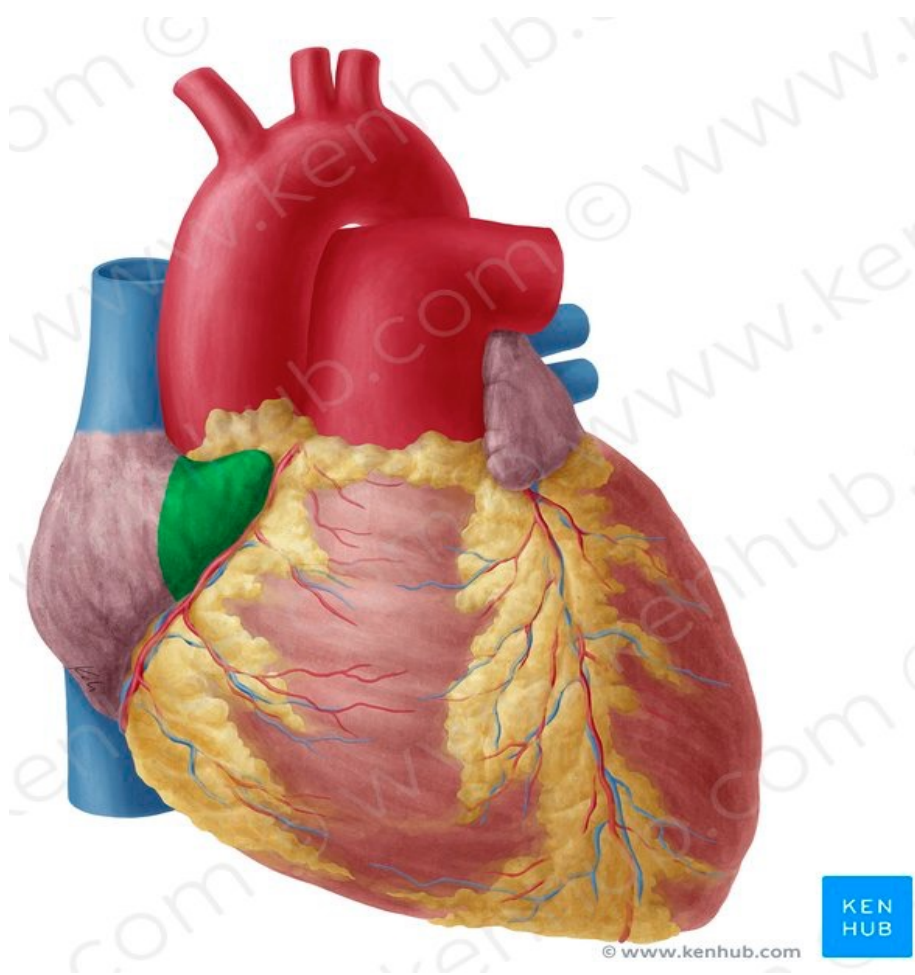
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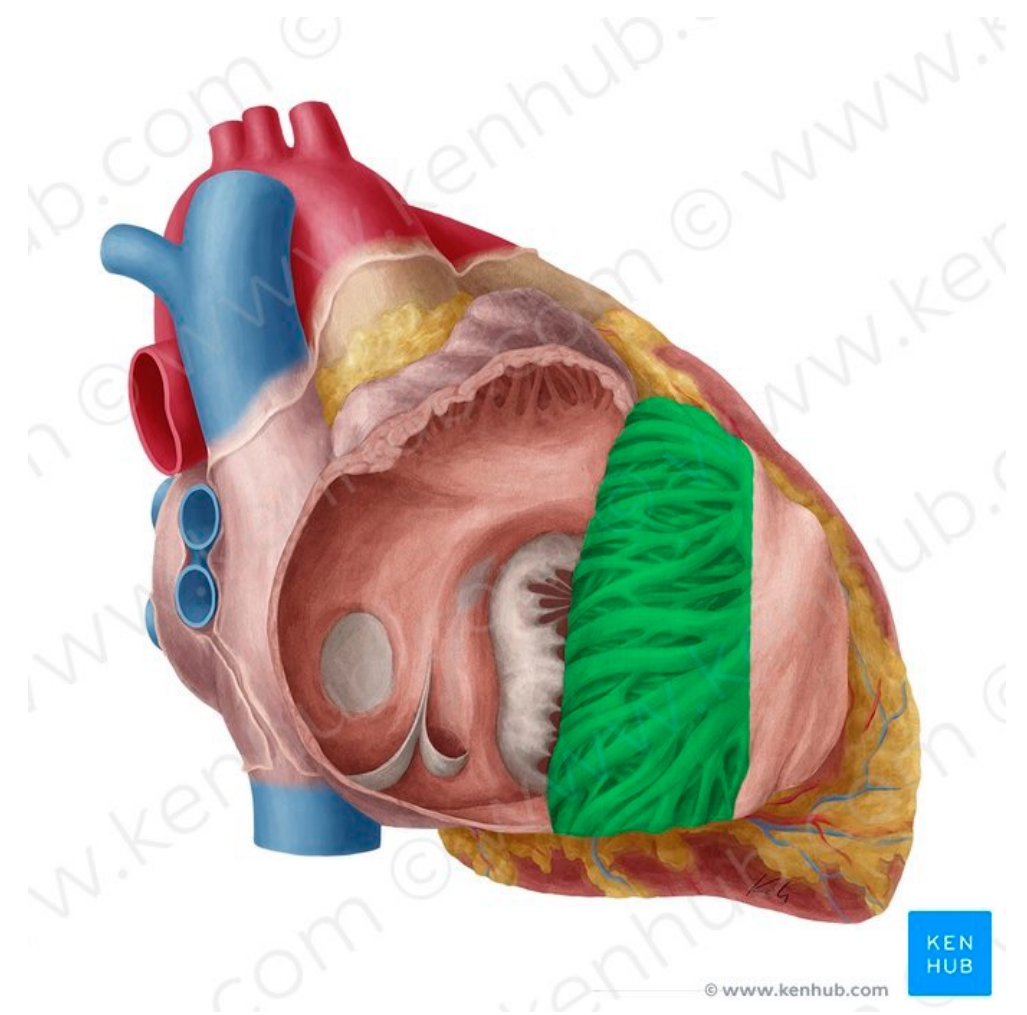
**Smooth posterior part**

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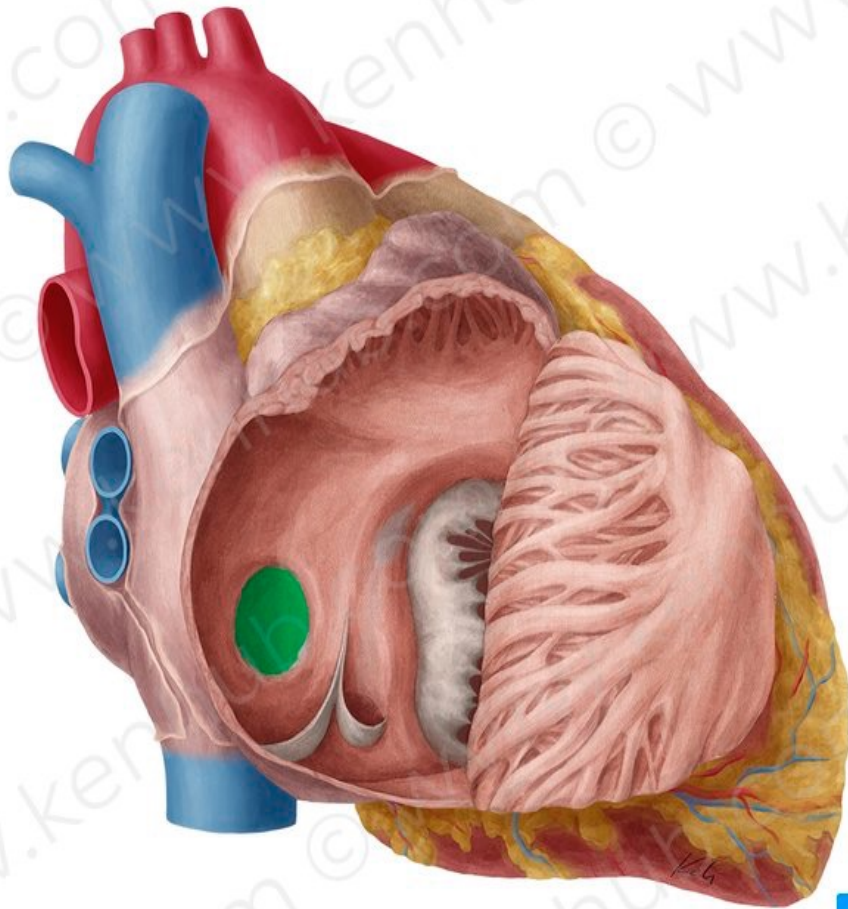
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**The right auricle**

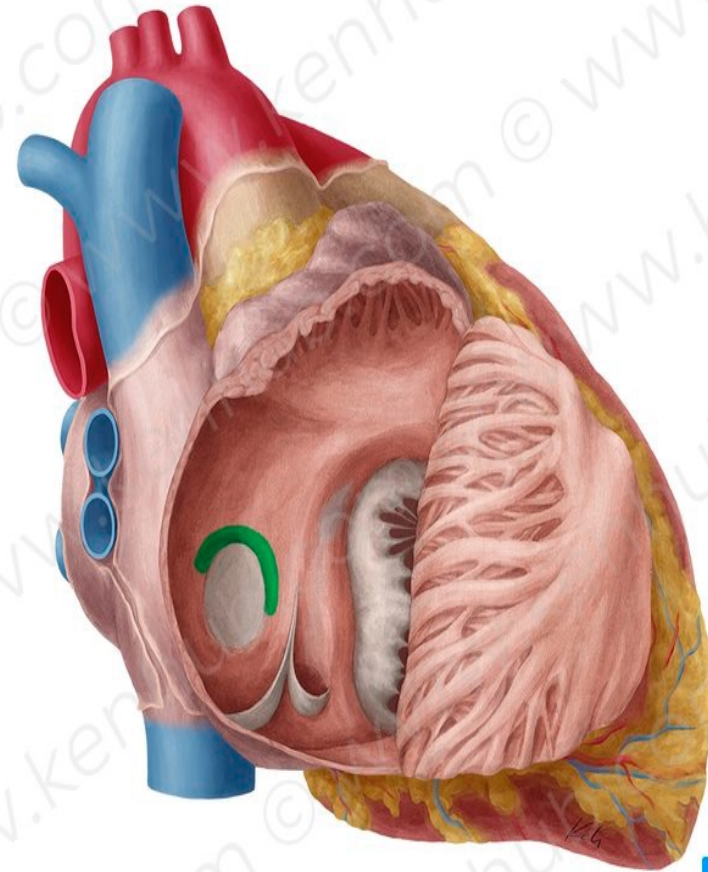


**(L. muscoli pectinati)**



**Fossa ovalis**

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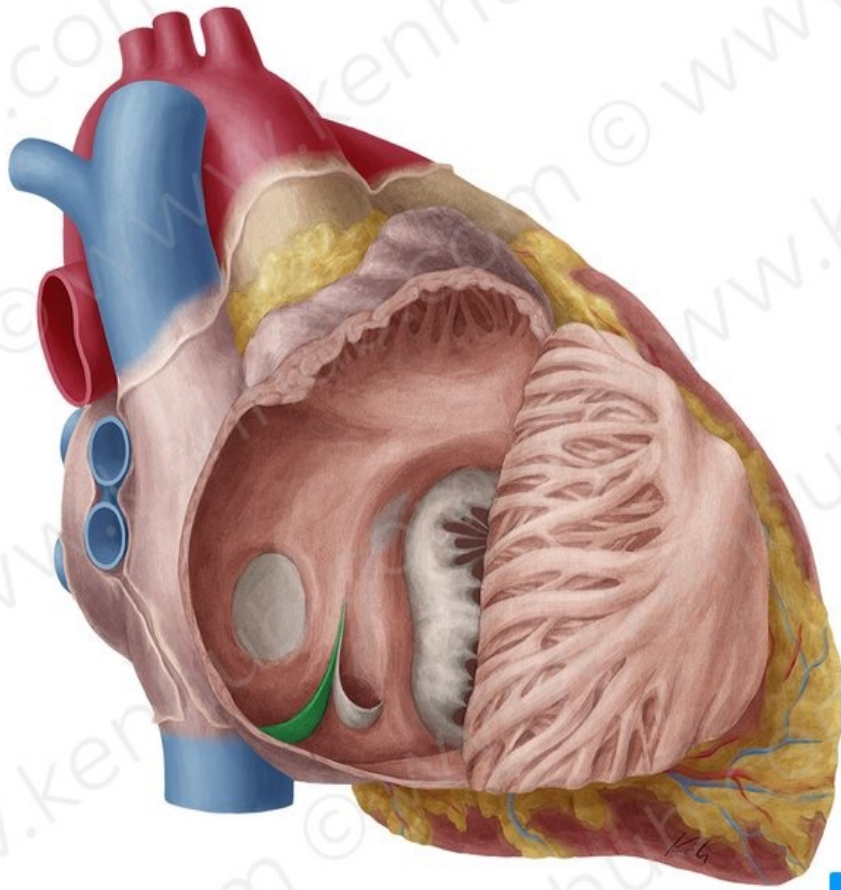


**Annulus ovalis**

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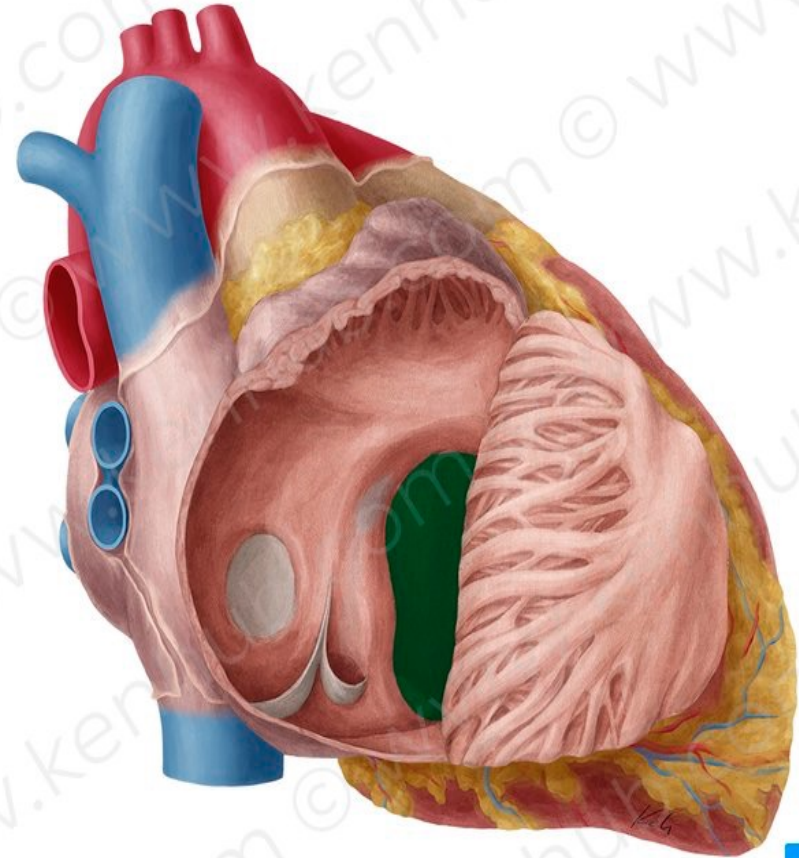




**Eustachian valve**

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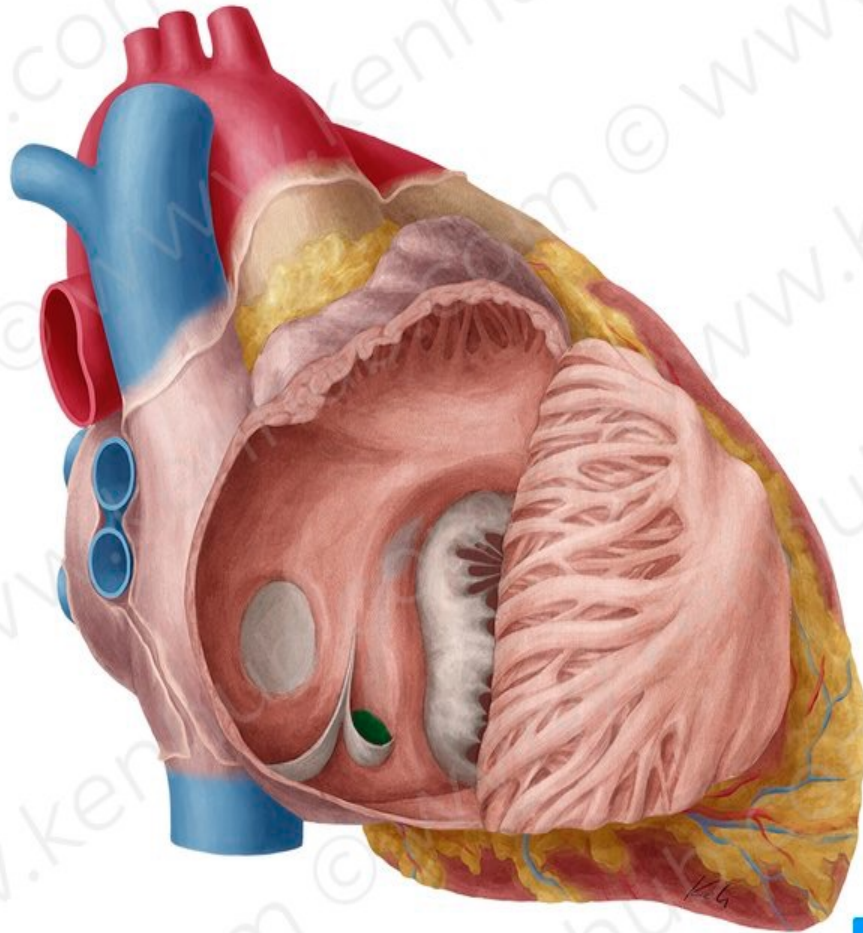
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**Right atrioventricular orifice**

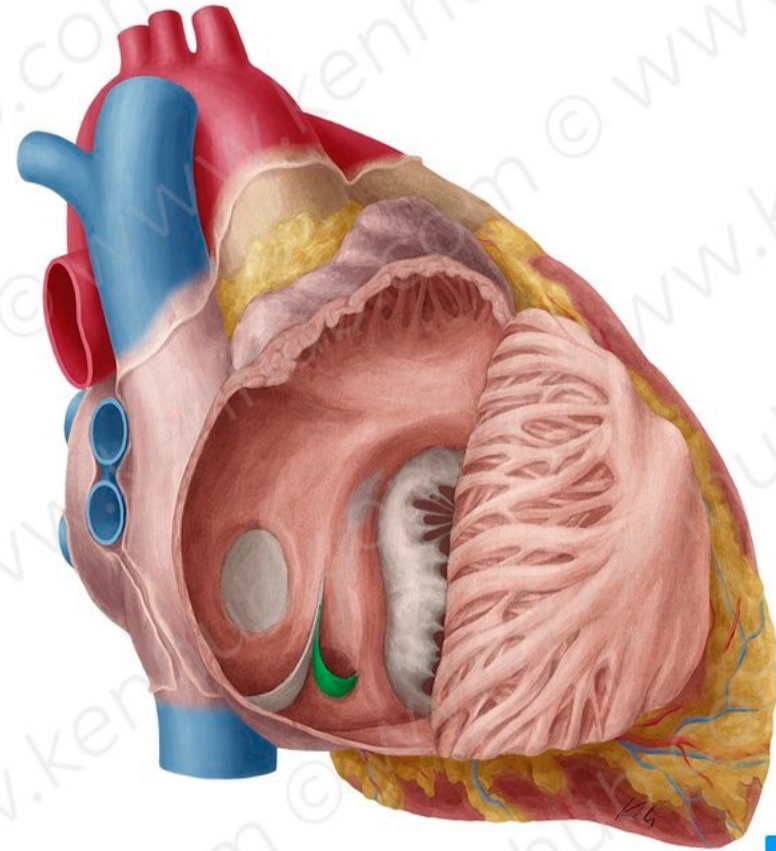
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**Opening of coronary sinus**

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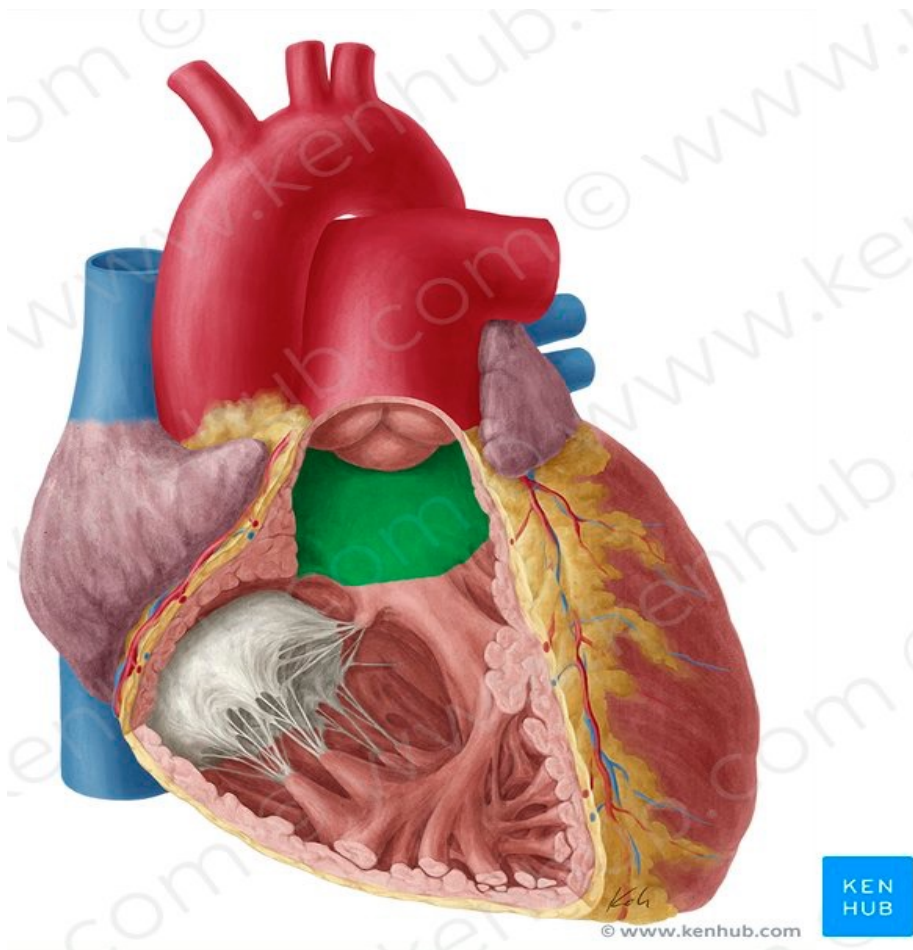


**Thebesian valve**

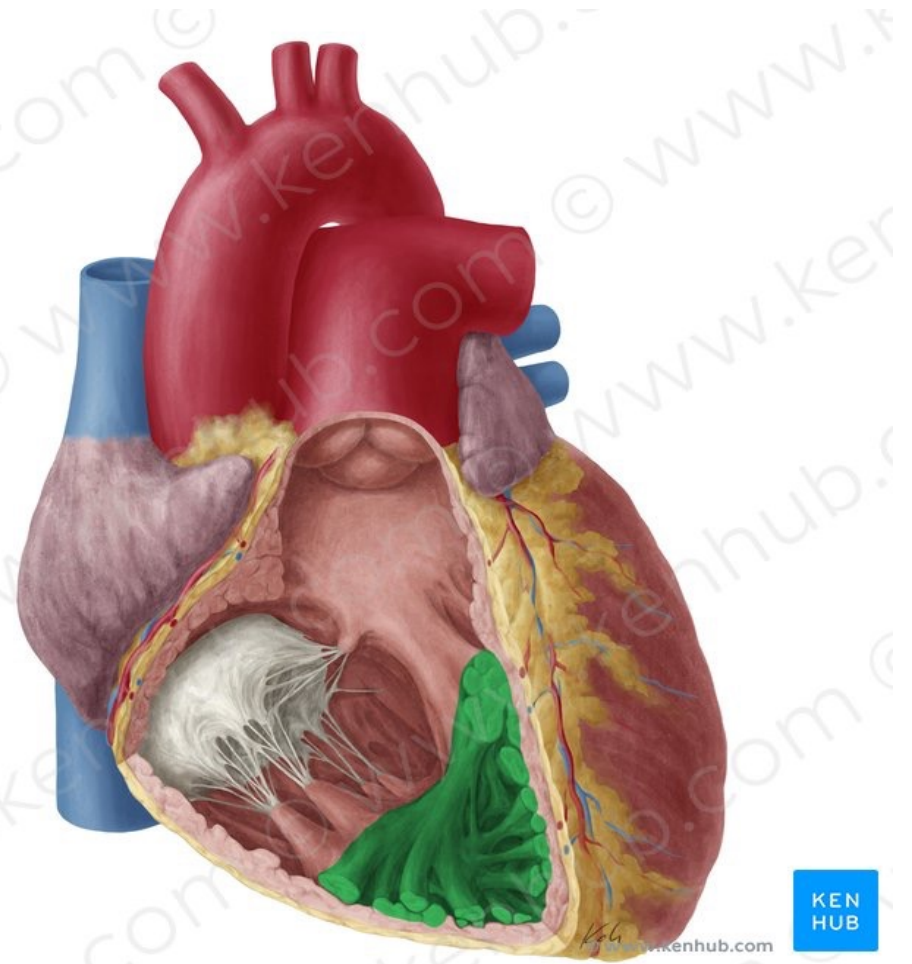
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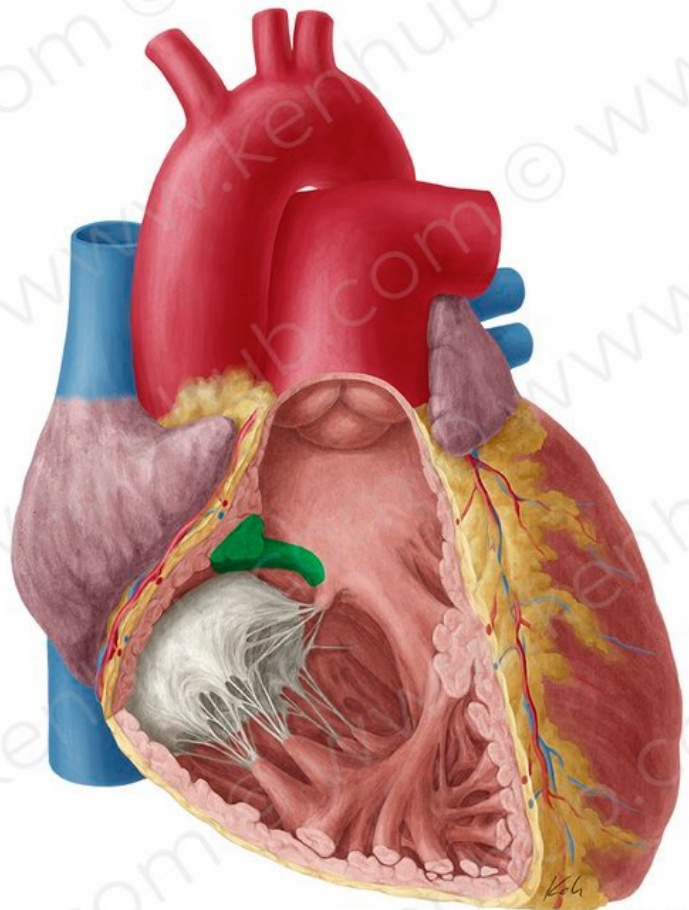
**Right ventricle**



**Conus arteriosus**



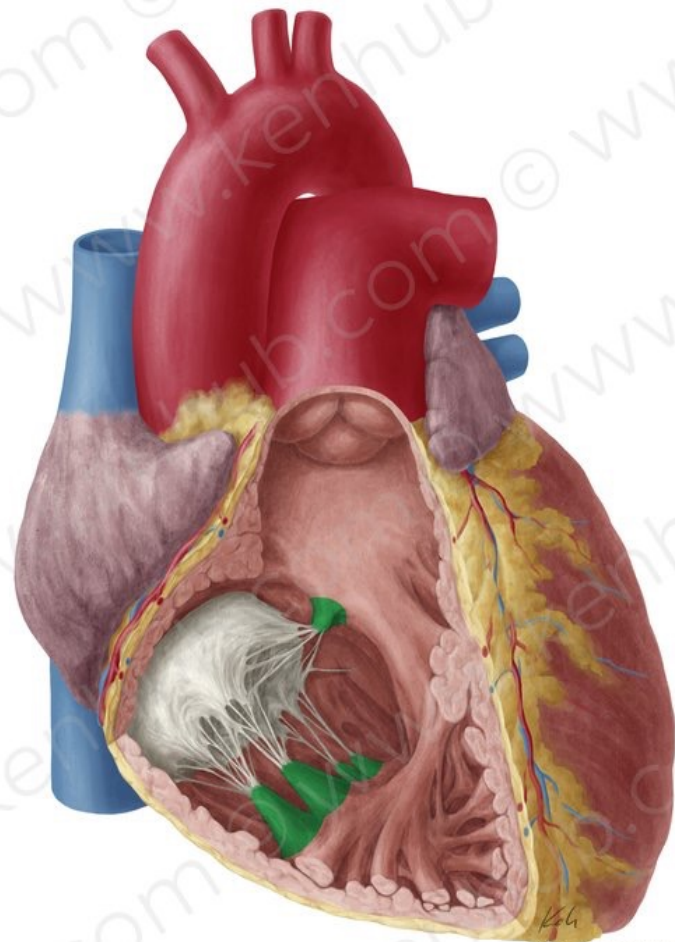
**Trabeculae carneae**



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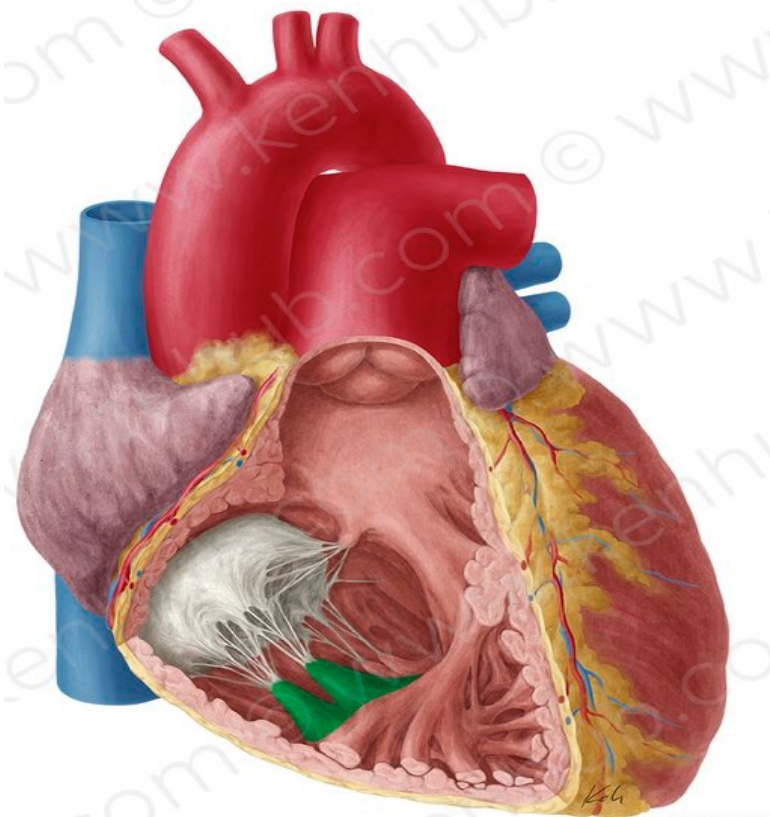
**supraventricular crest**



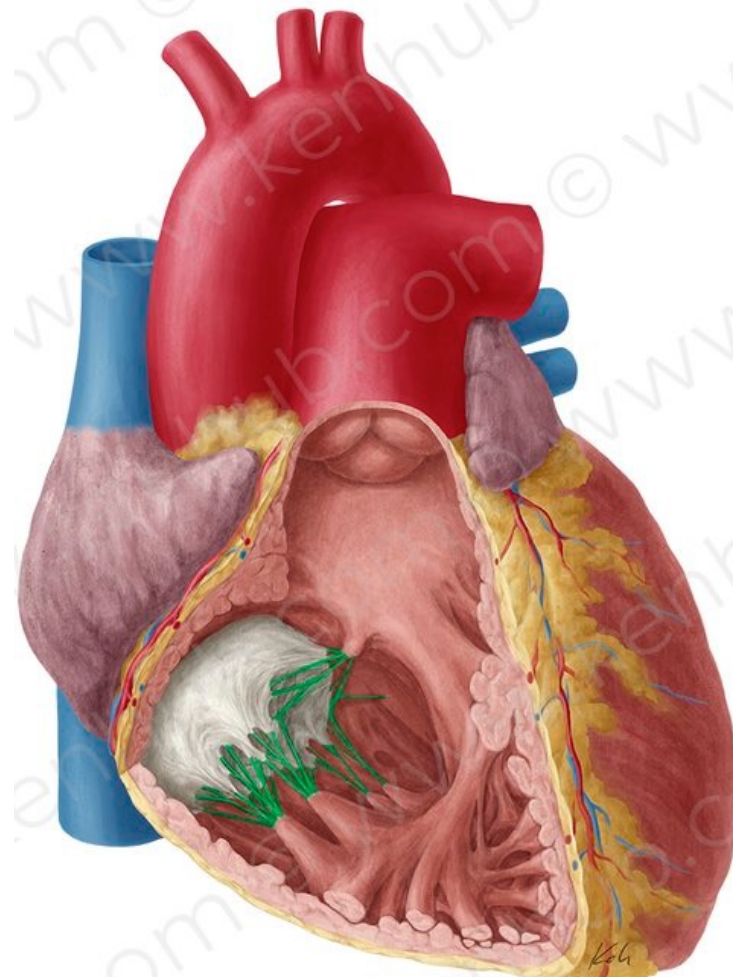
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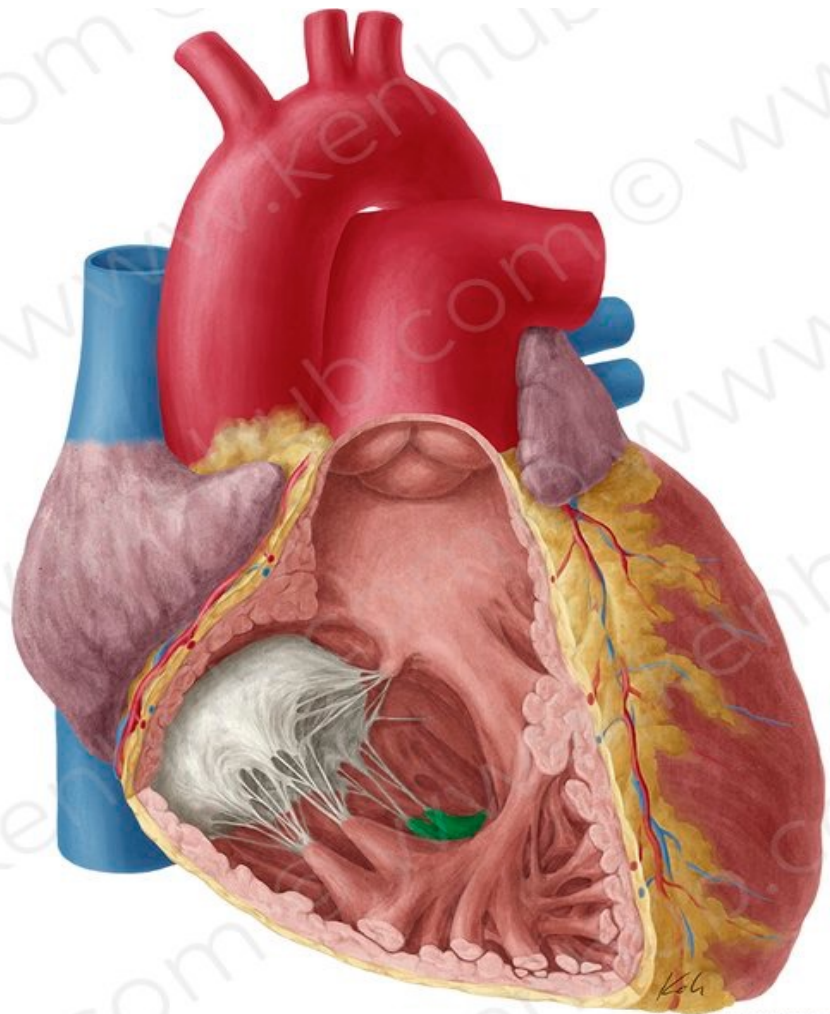
**Papillary muscles**



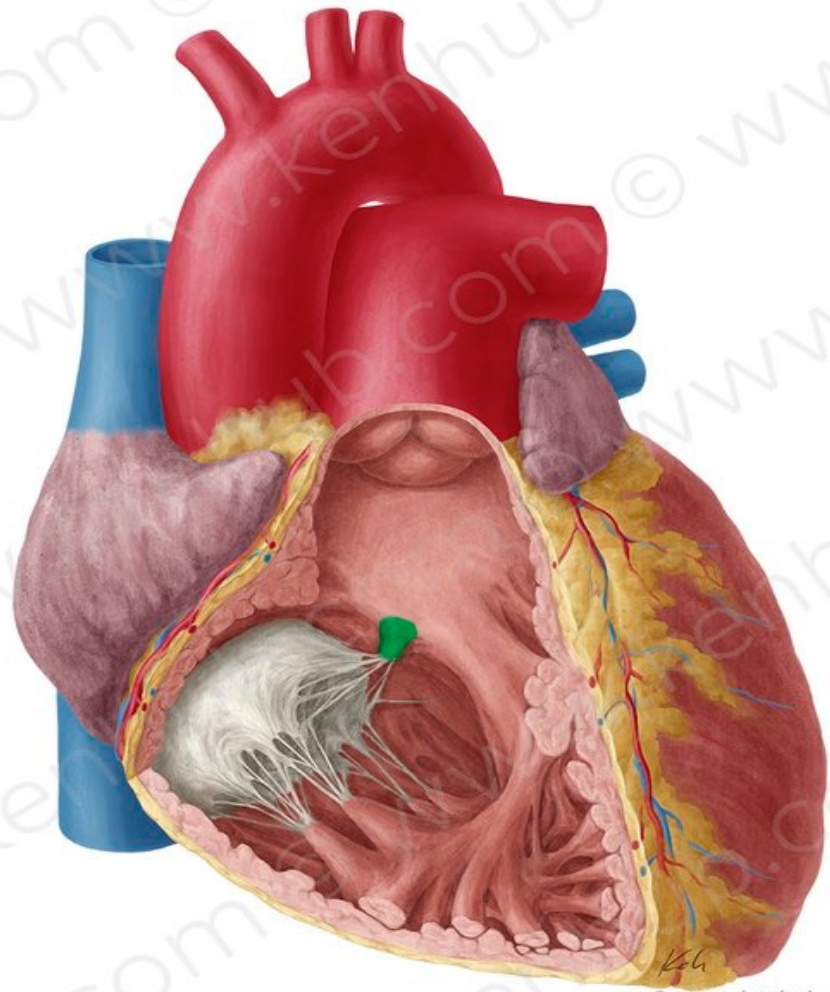
**The anterior papillary muscle**



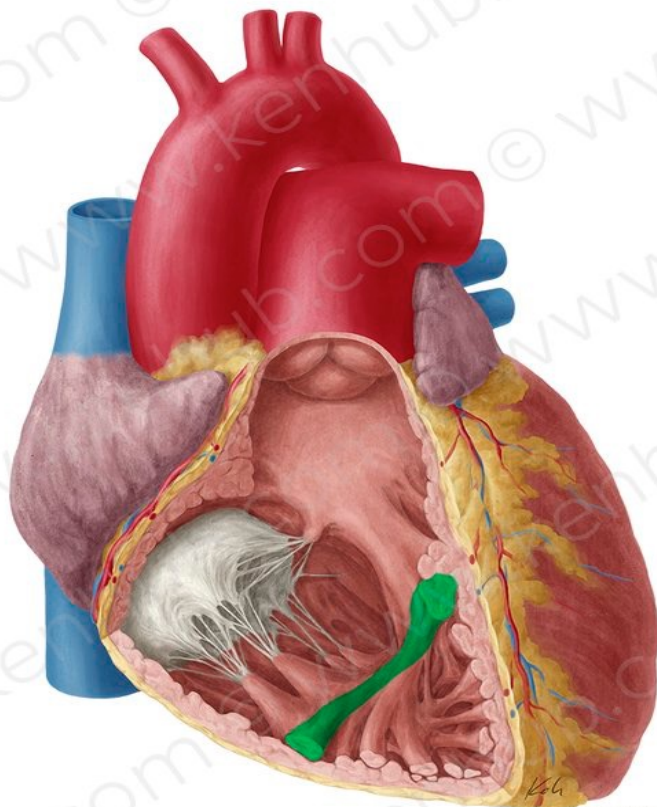
**Tendinous cords**



**Posterior papillary muscle**



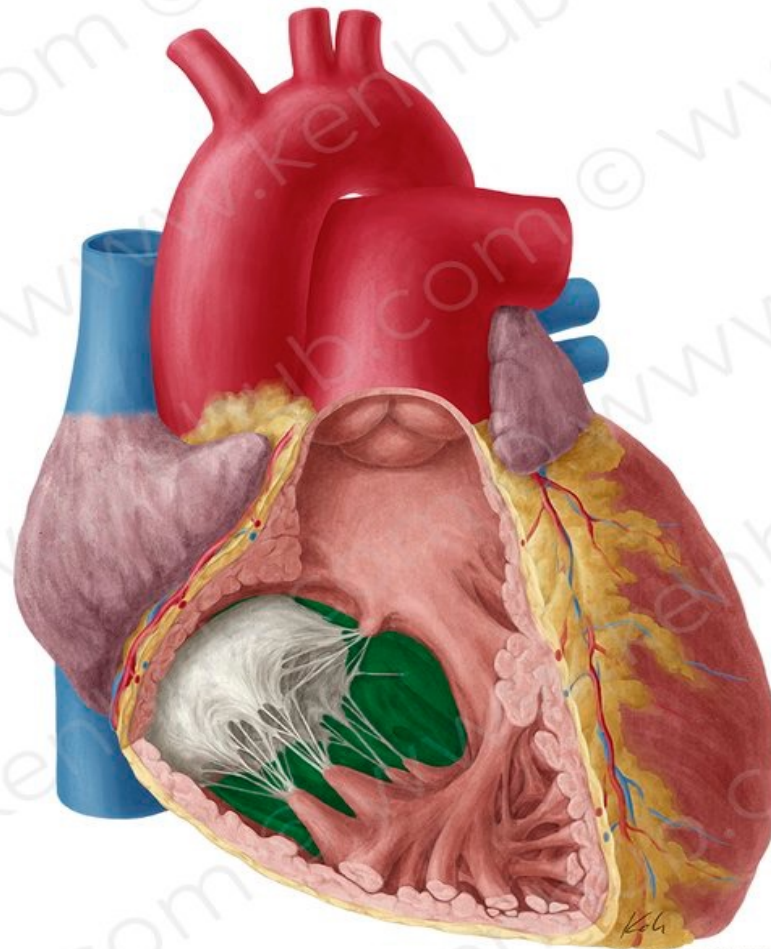
**Septal papillary muscle**



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**Septo marginal trabecula  
(moderator band)**



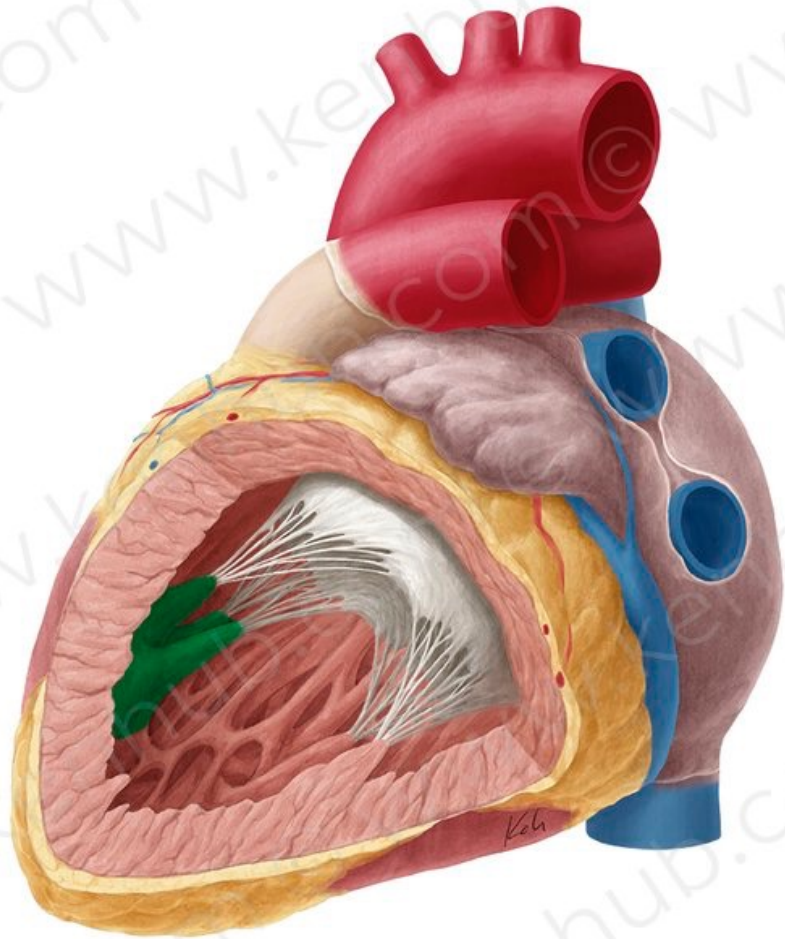
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**The interventricular septum**



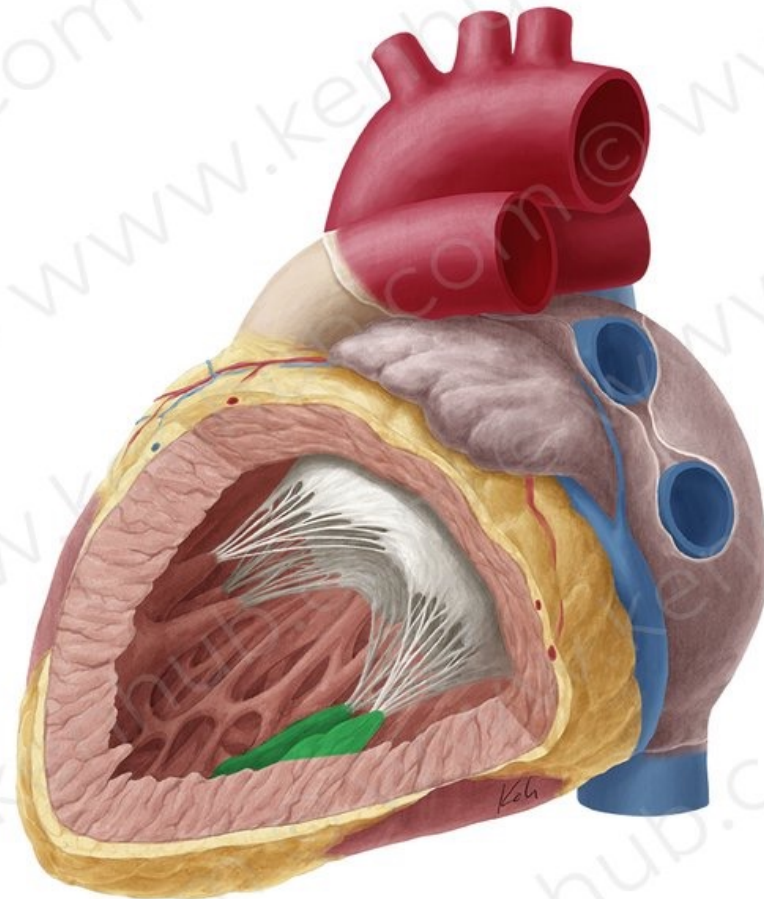
# Left Ventricle



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**Anterior papillary muscles**

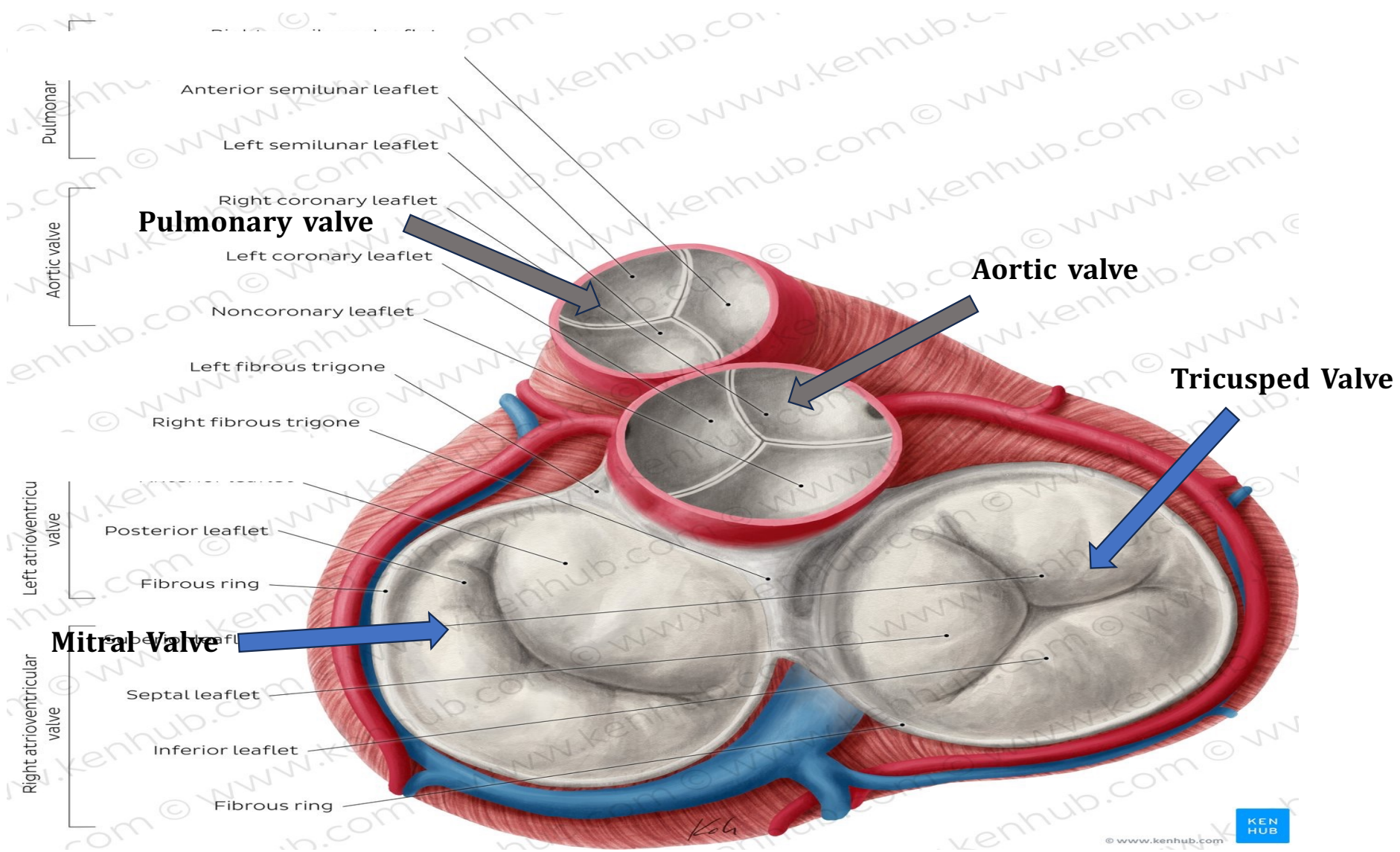


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**Posterior papillary muscles**

# Heart Valves

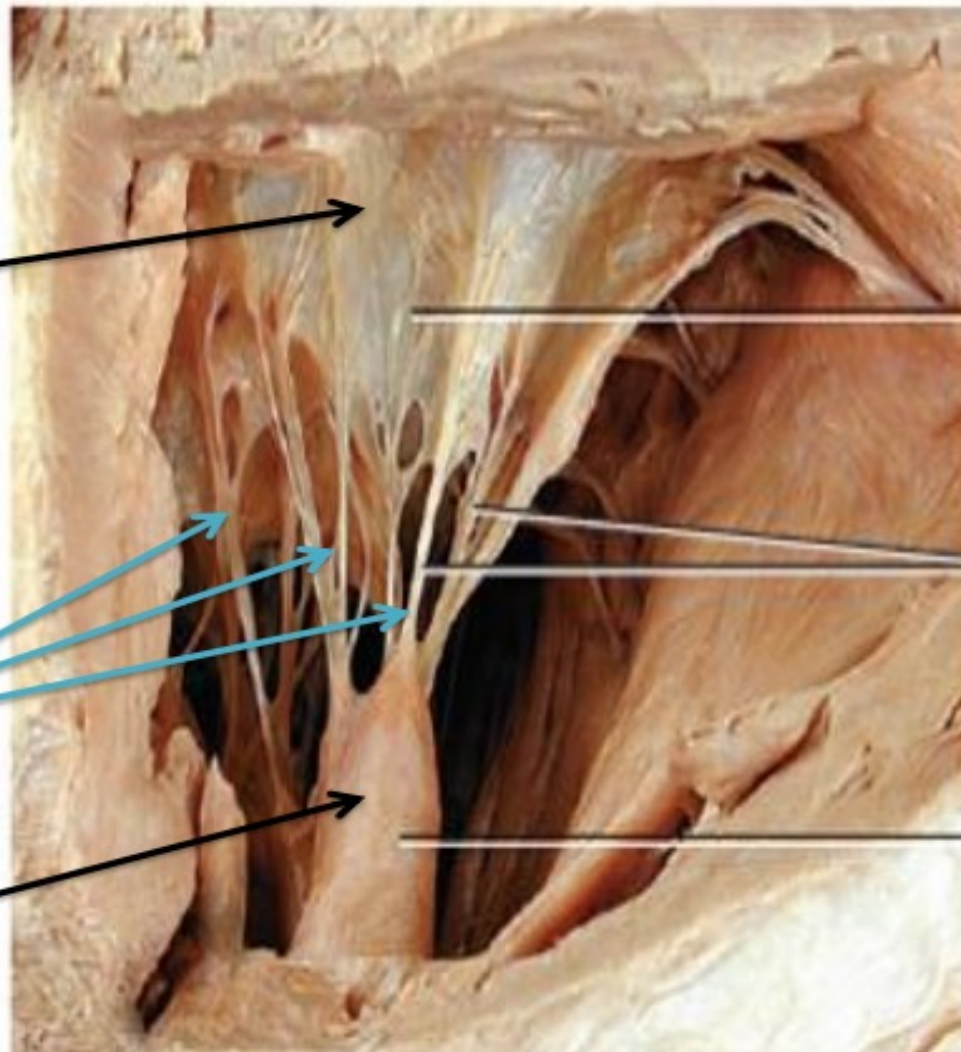


## The Tricuspid Valve

The cusps

The chordae tendineae.

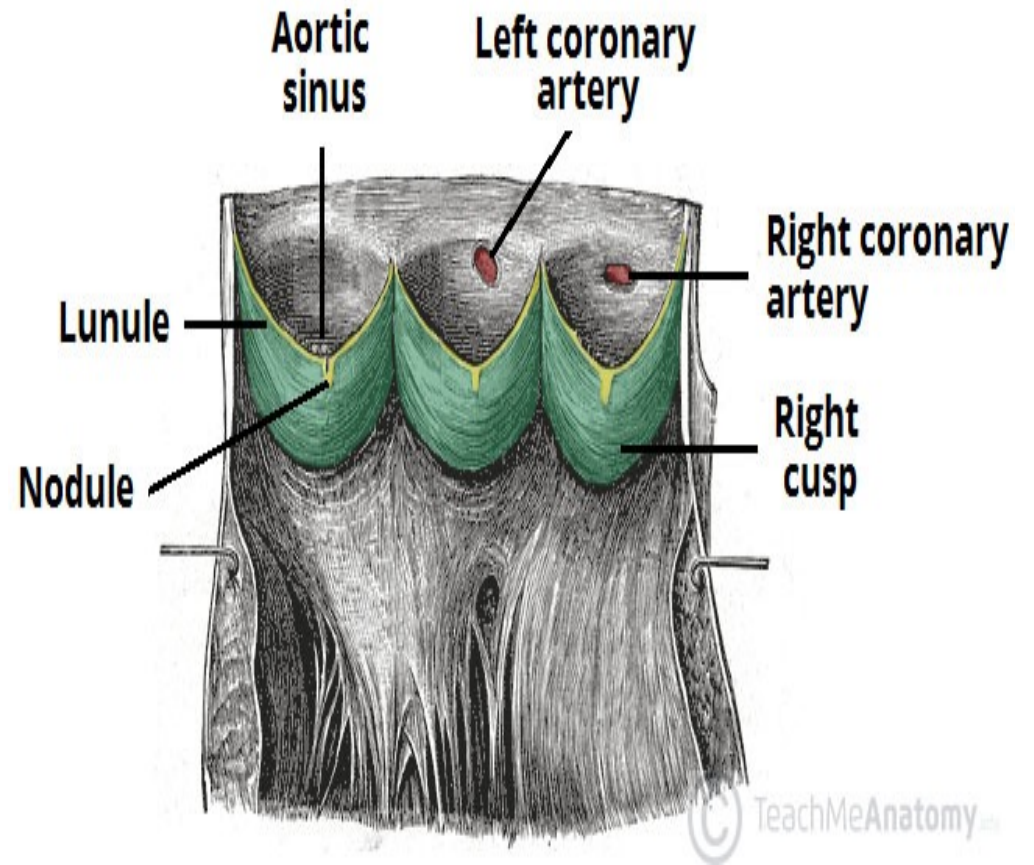
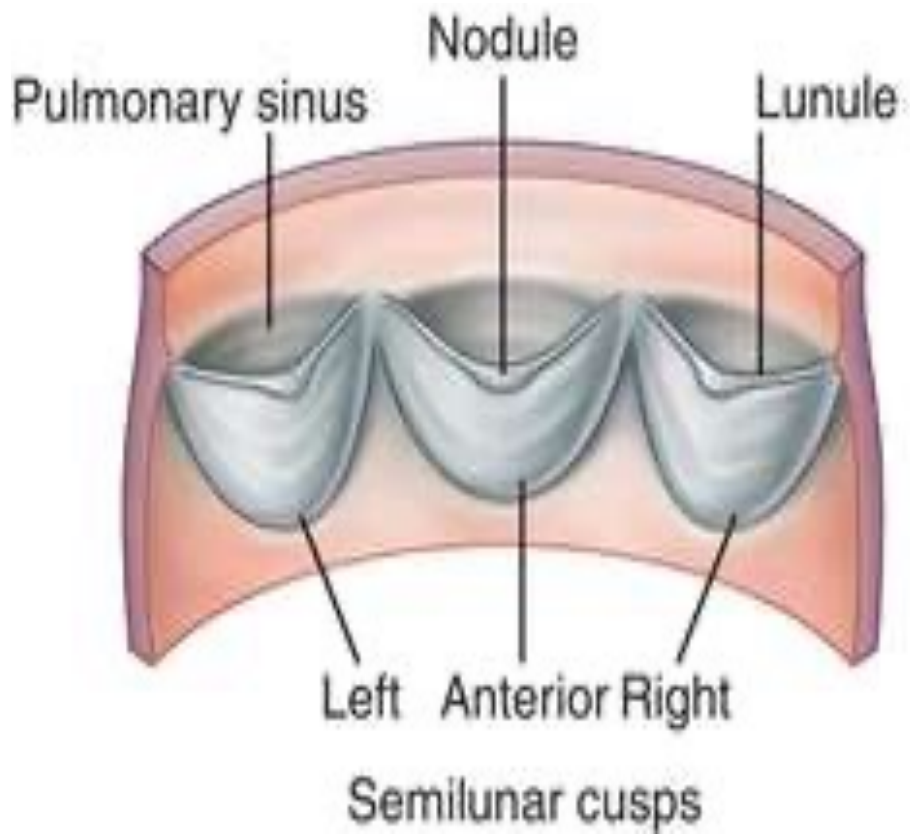
papillary muscles

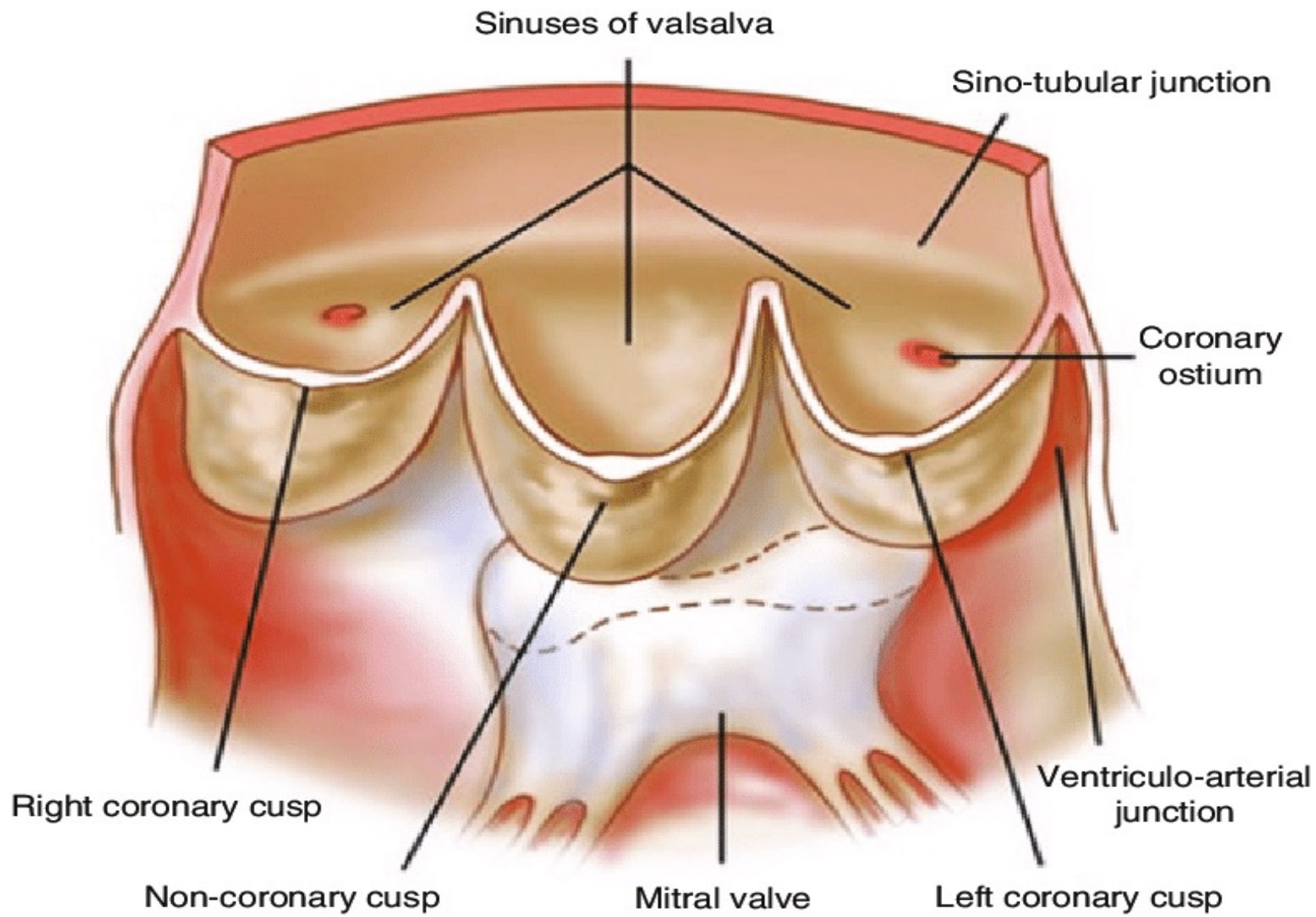


Cusp of tricuspid valve

Chordae tendineae

Papillary muscle





# **Conductive System**



## The electrical system of the heart

