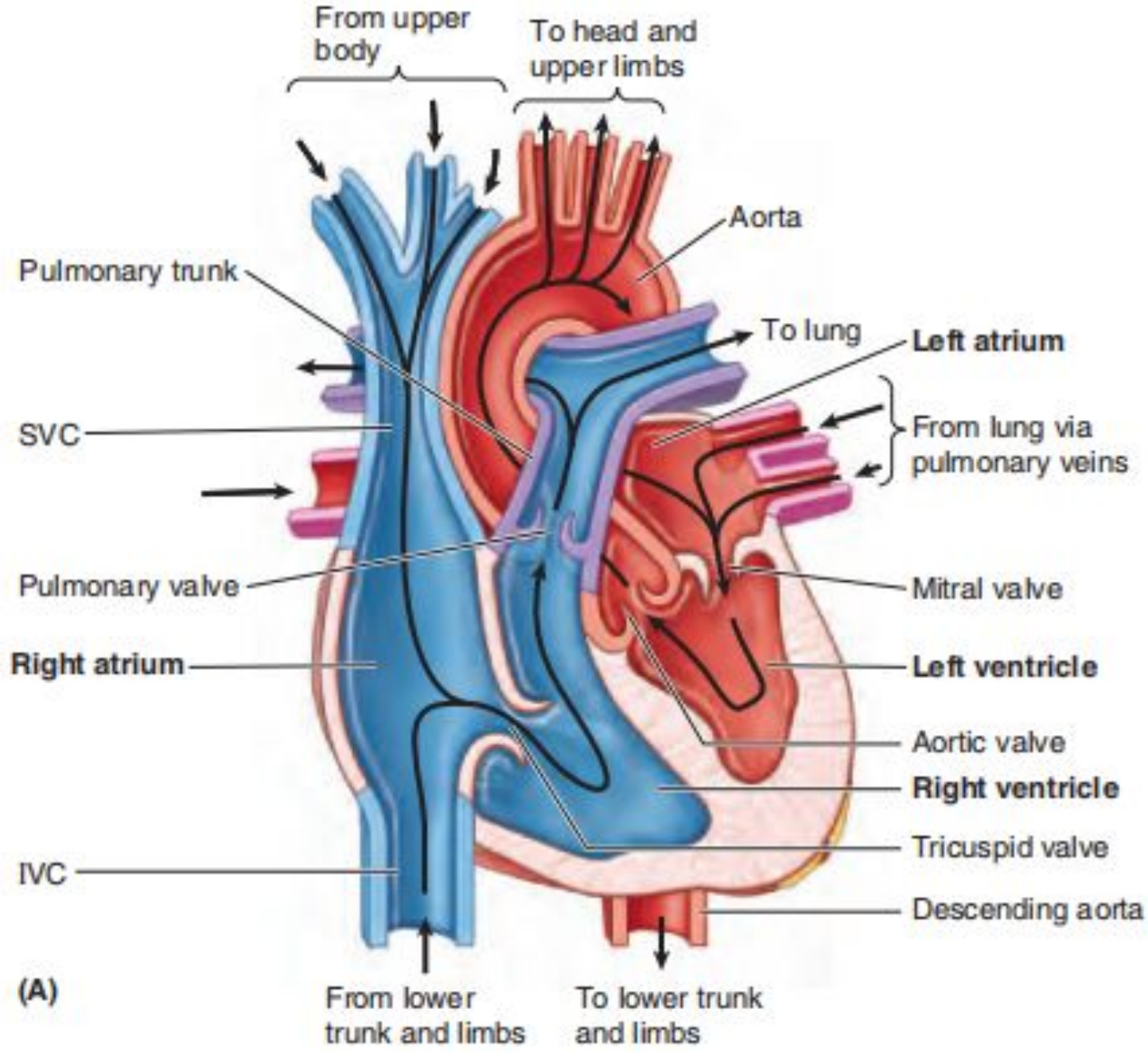
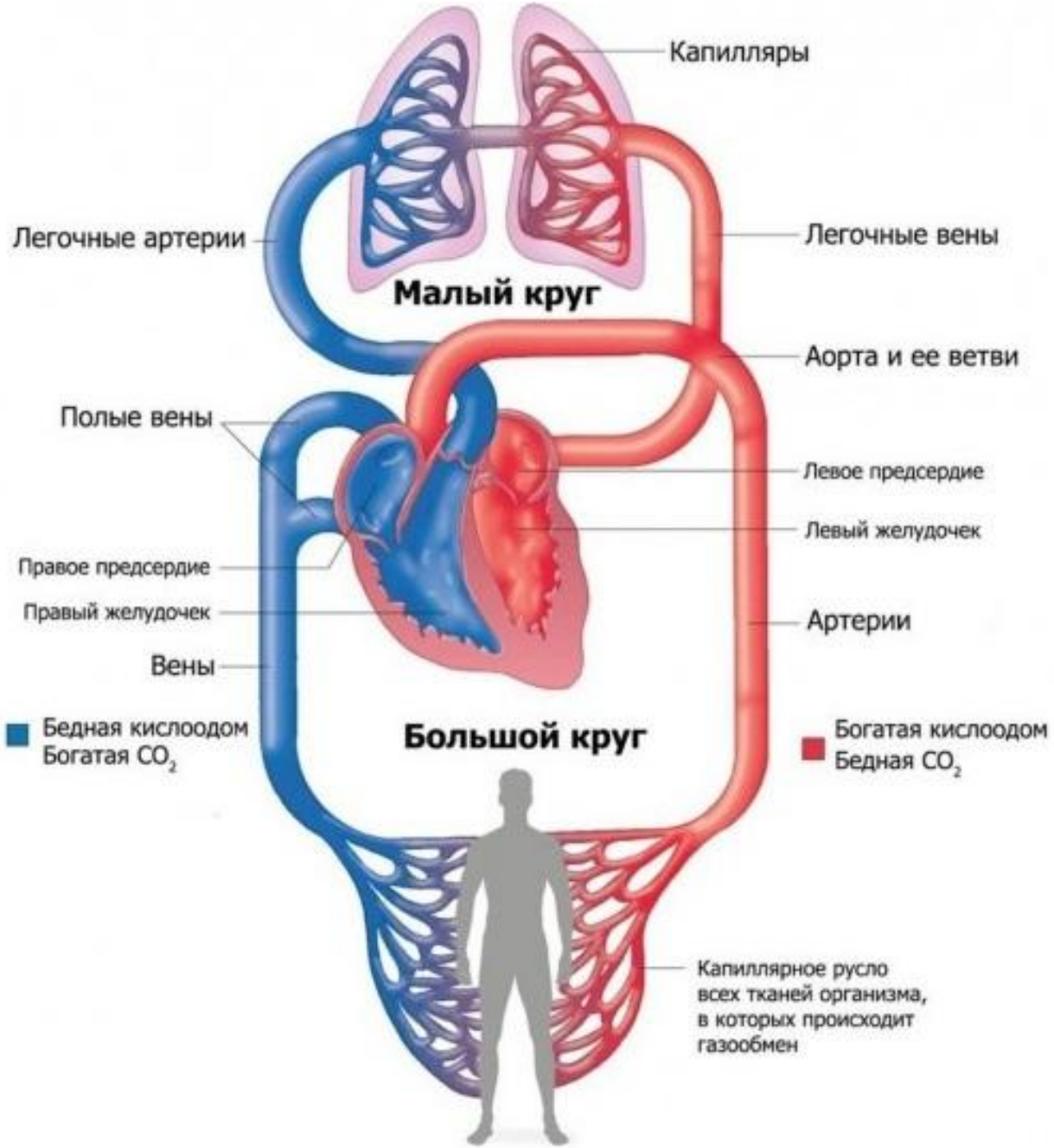
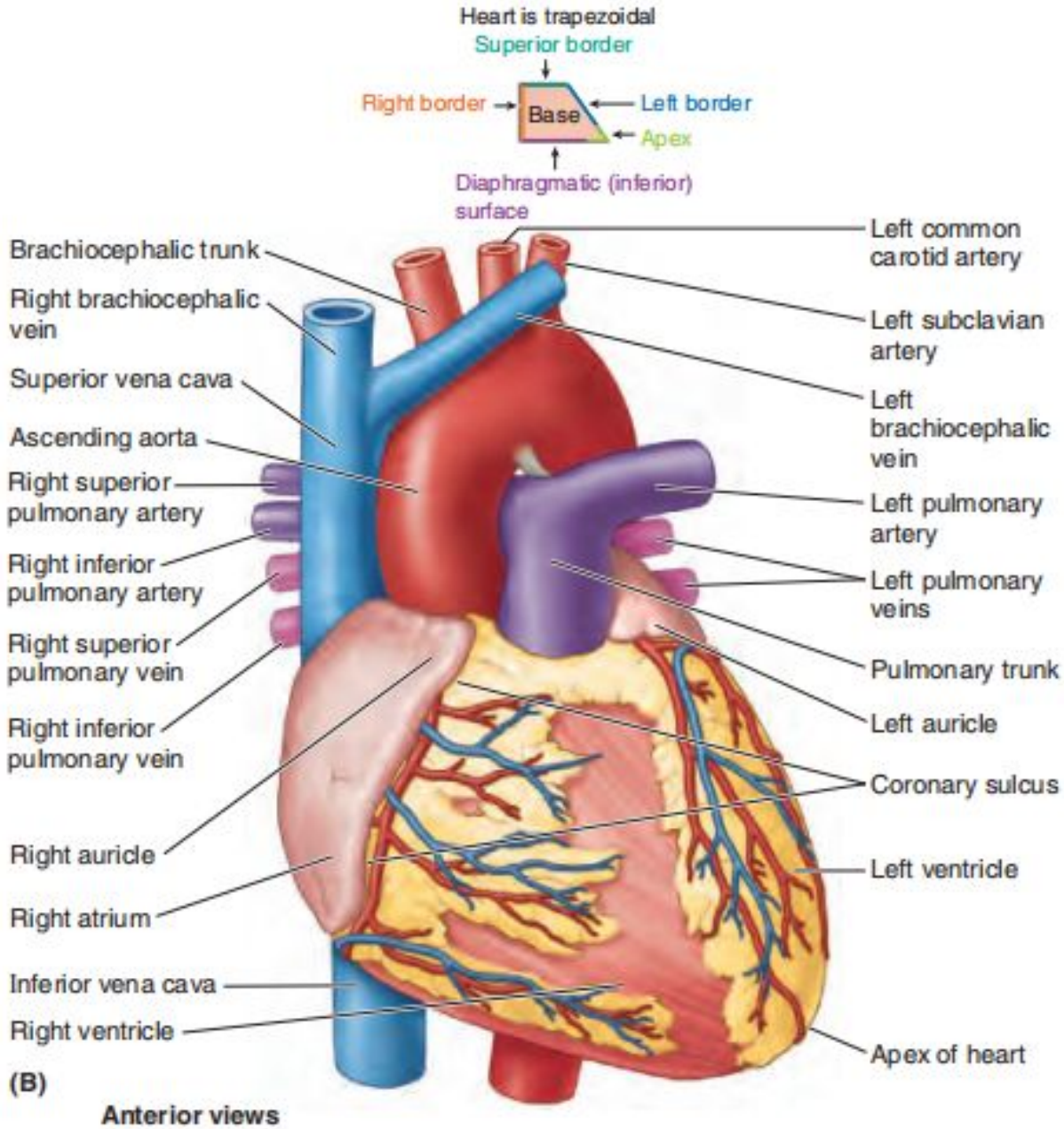
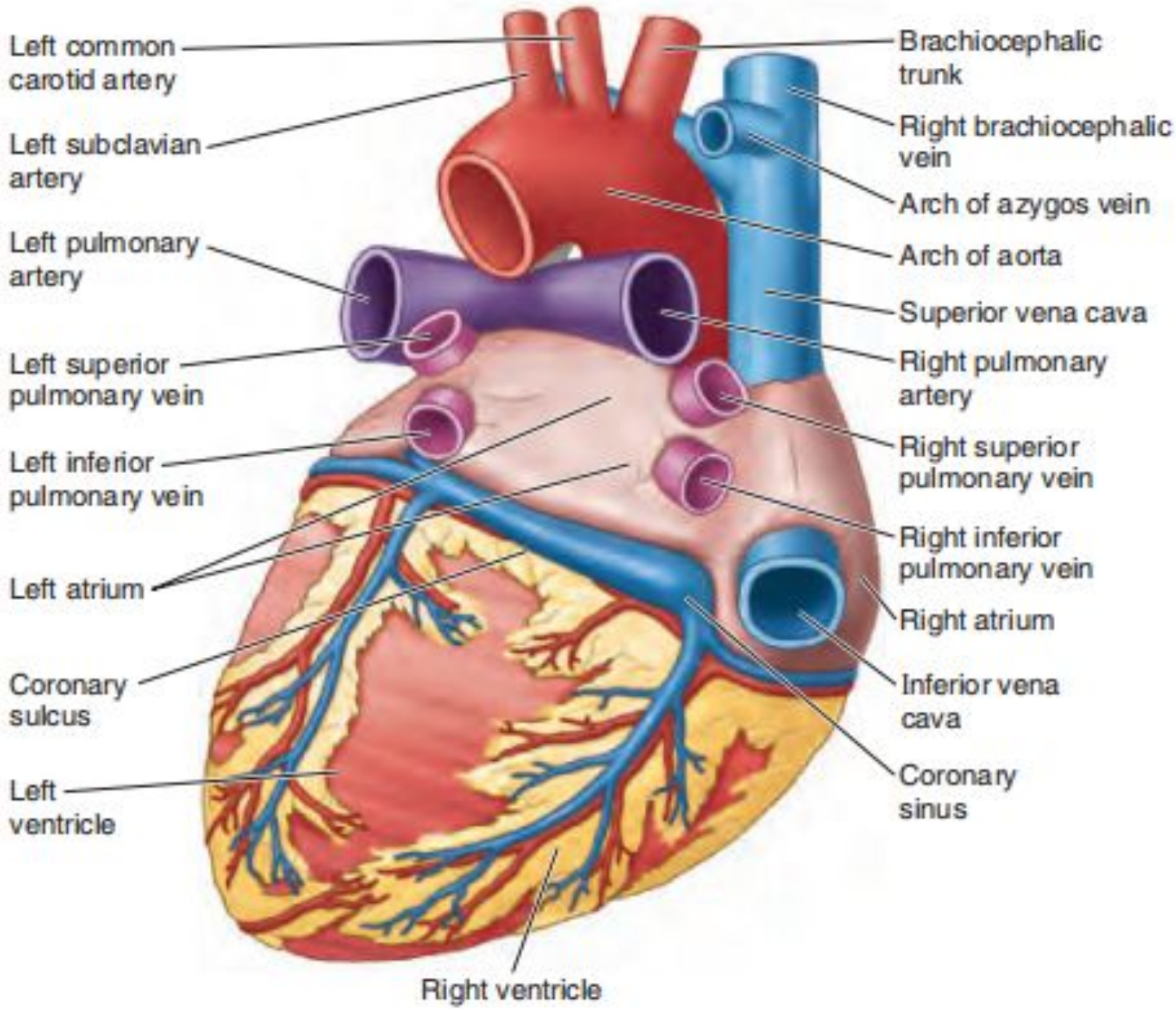

From upper body
To head and upper limbs
Aorta
Pulmonary trunk
To lung
Left atrium
SVC
From lung via pulmonary veins
Pulmonary valve
Mitral valve
Right atrium
Left ventricle
Aortic valve
Right ventricle
Tricuspid valve
IVC
Descending aorta
(A)
From lower trunk and limbs
To lower trunk and limbs

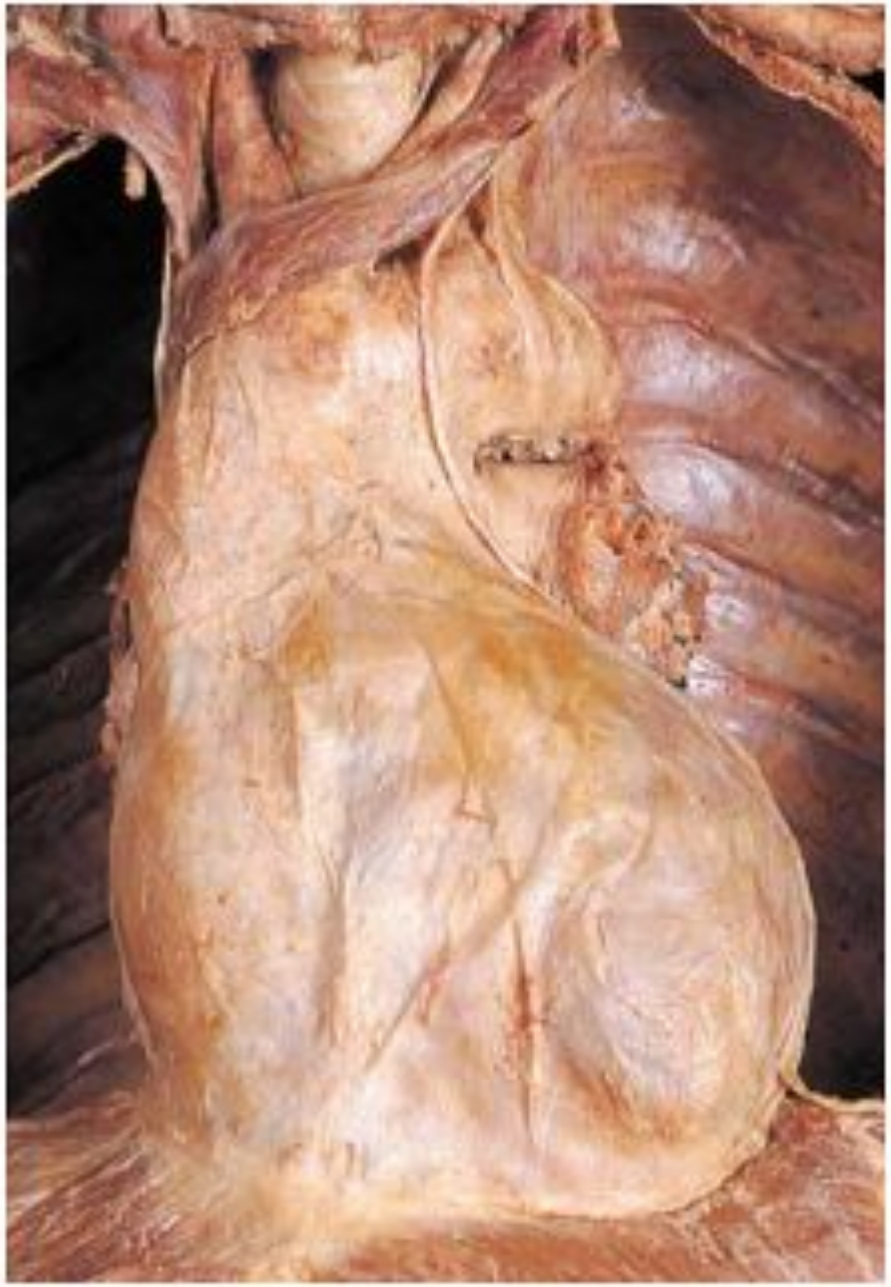

Капилляры
Легочные артерии
Легочные вены
Малый круг
Аорта и ее ветви
Полые вены
Левое предсердие
Левый желудочек
Правое предсердие
Правый желудочек
Артерии
Вены
Бедная кислоодом
Богатая CO_2
Большой круг
Богатая кислоодом
Бедная CO_2
Капиллярное русло
всех тканей организма,
в которых происходит
газообмен

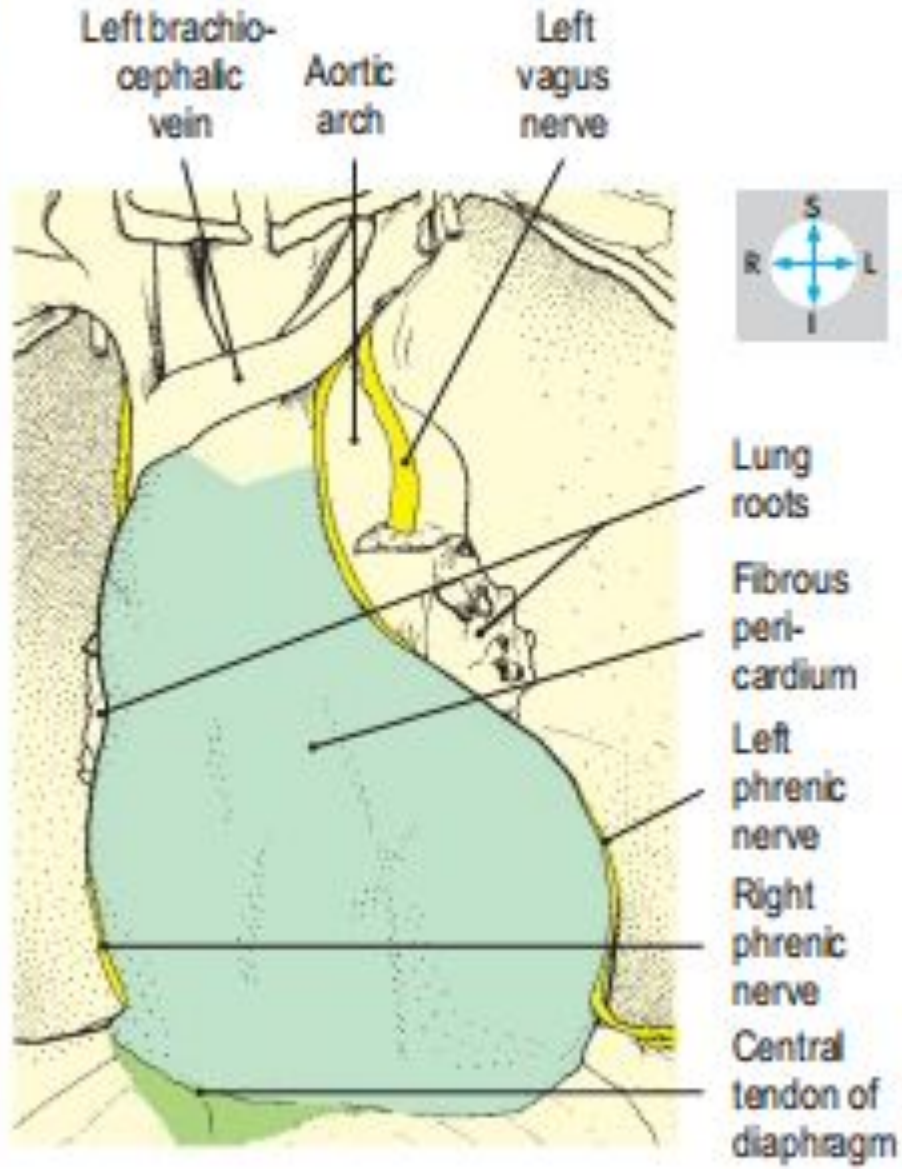


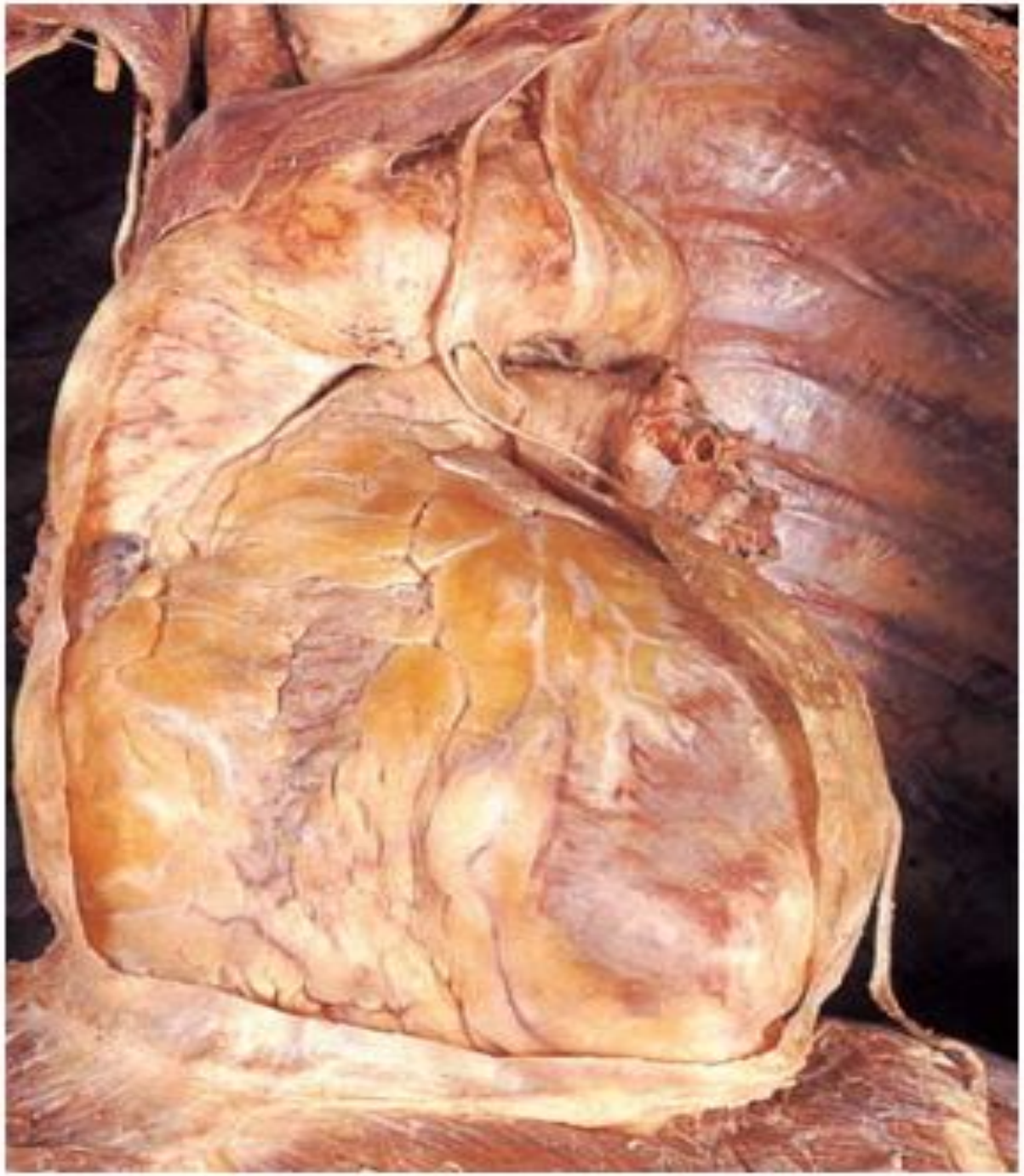
(B)

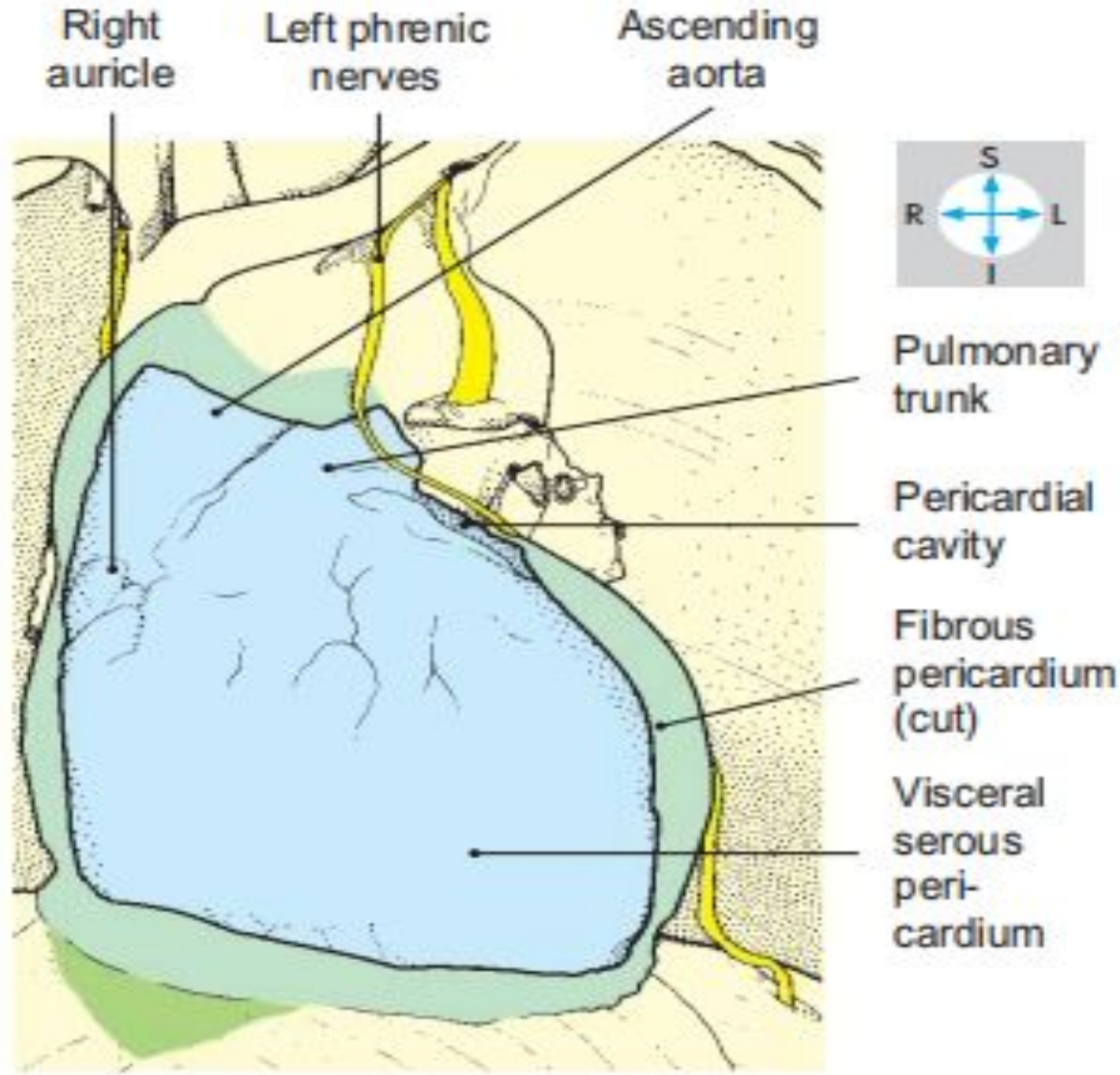
Anterior views

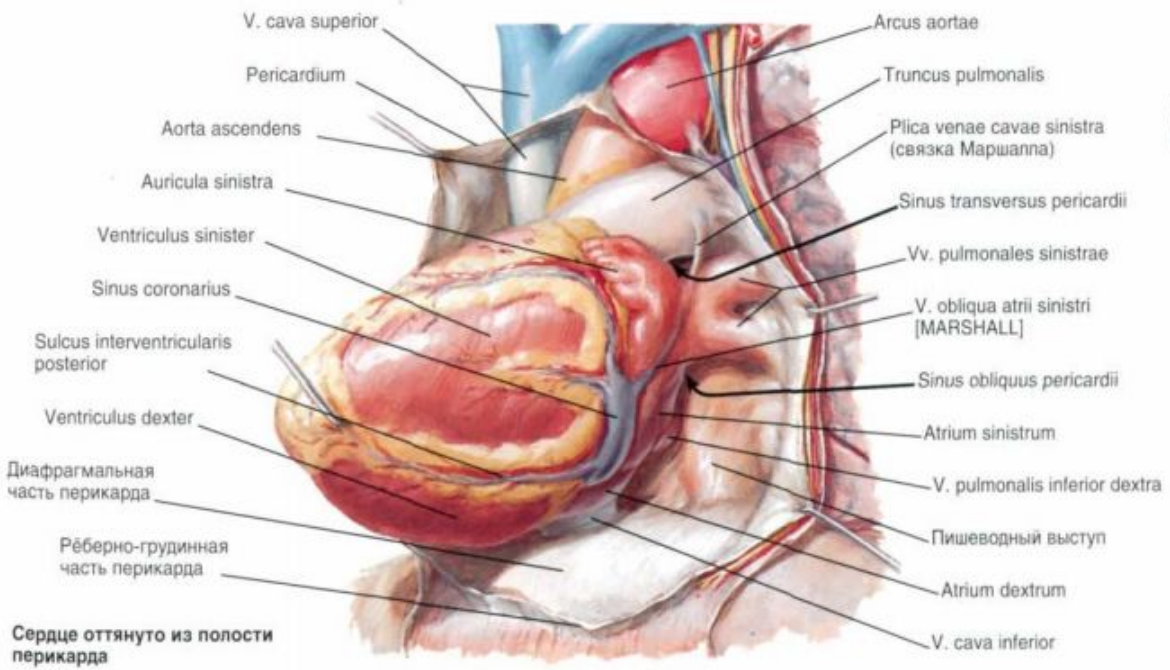

Left common carotid artery
Left subclavian artery
Left pulmonary artery
Left superior pulmonary vein
Left inferior pulmonary vein
Left atrium
Coronary sulcus
Left ventricle
Right ventricle
Brachiocephalic trunk
Right brachiocephalic vein
Arch of azygos vein
Arch of aorta
Superior vena cava
Right pulmonary artery
Right superior pulmonary vein
Right inferior pulmonary vein
Right atrium
Inferior vena cava
Coronary sinus



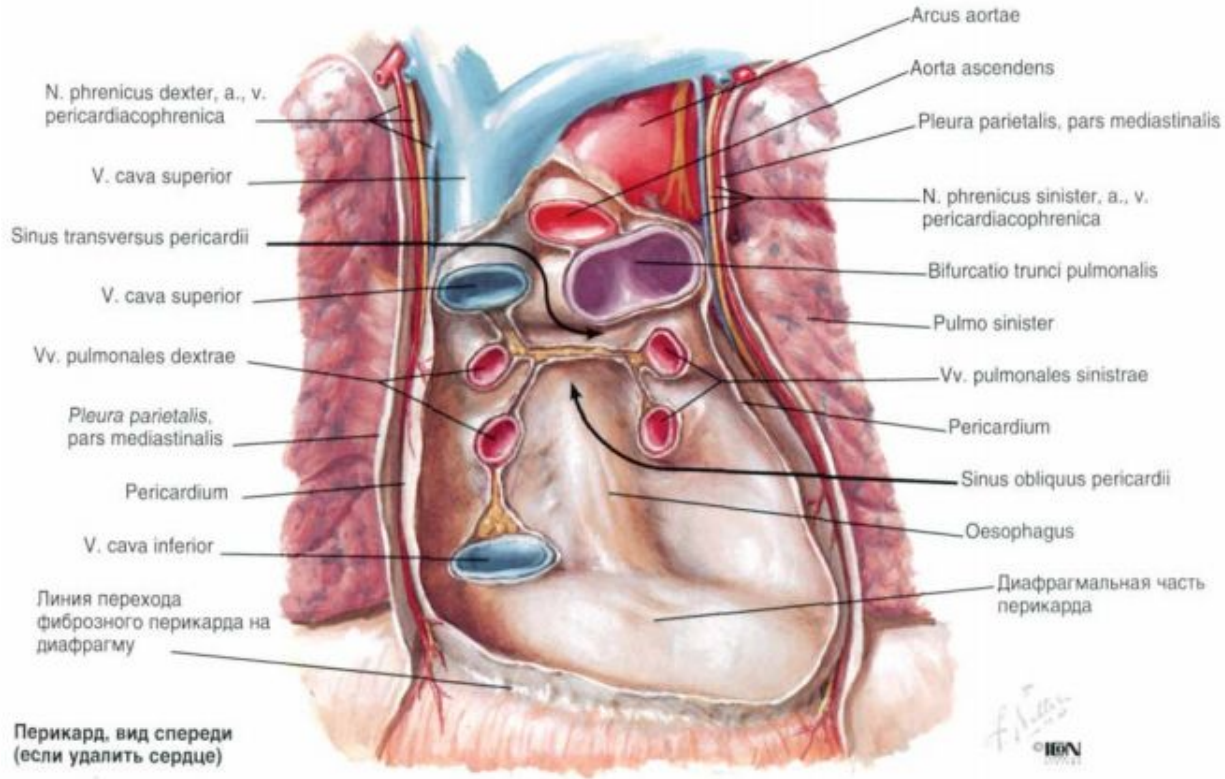

Left brachio-cephalic vein
Aortic arch
Left vagus nerve
S
R
L
I
Lung roots
Fibrous peri-cardium
Left phrenic nerve
Right phrenic nerve
Central tendon of diaphragm



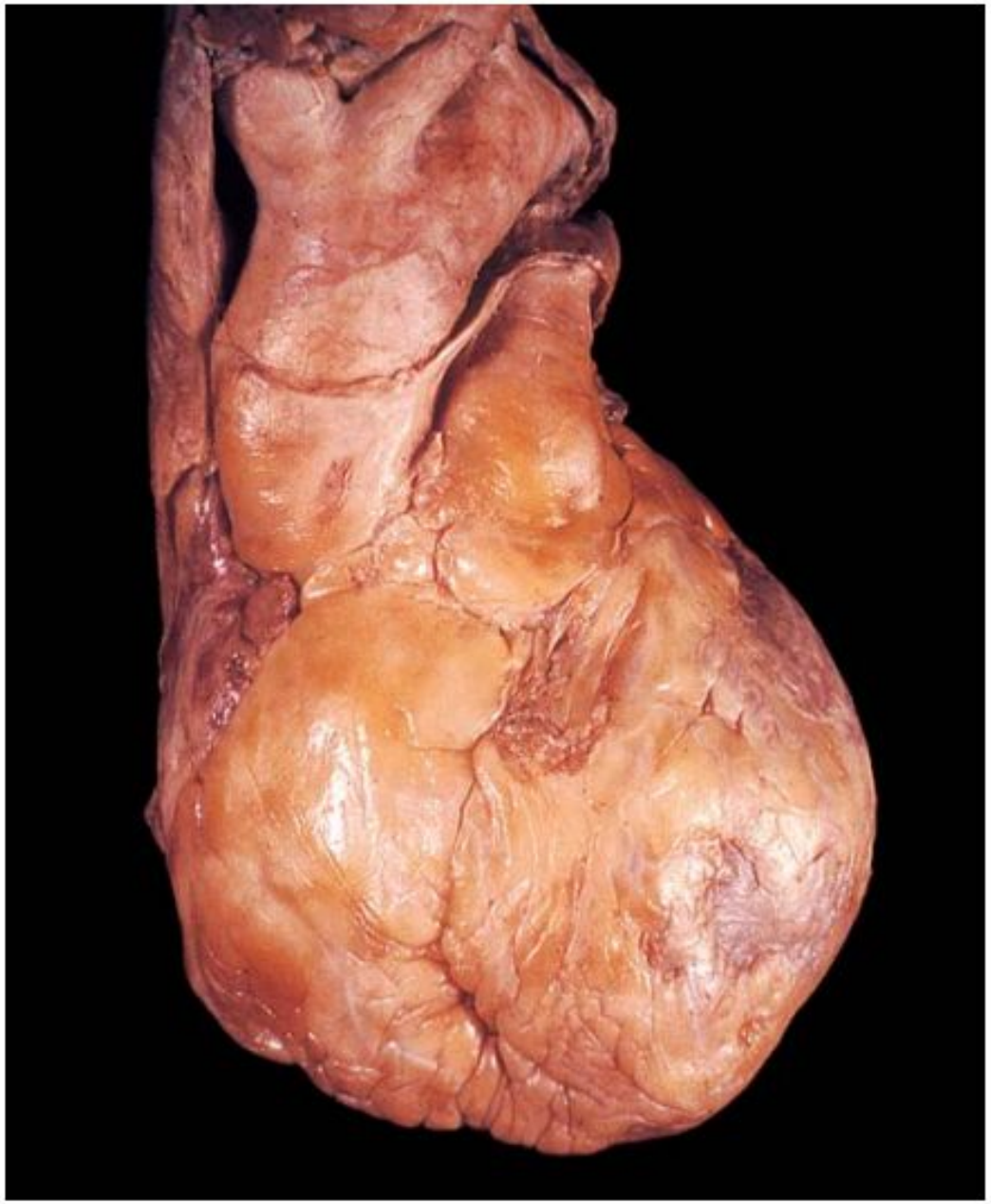

Right auricle
Left phrenic nerves
Ascending aorta
S
R
L
I
Pulmonary trunk
Pericardial cavity
Fibrous pericardium (cut)
Visceral serous peri-cardium

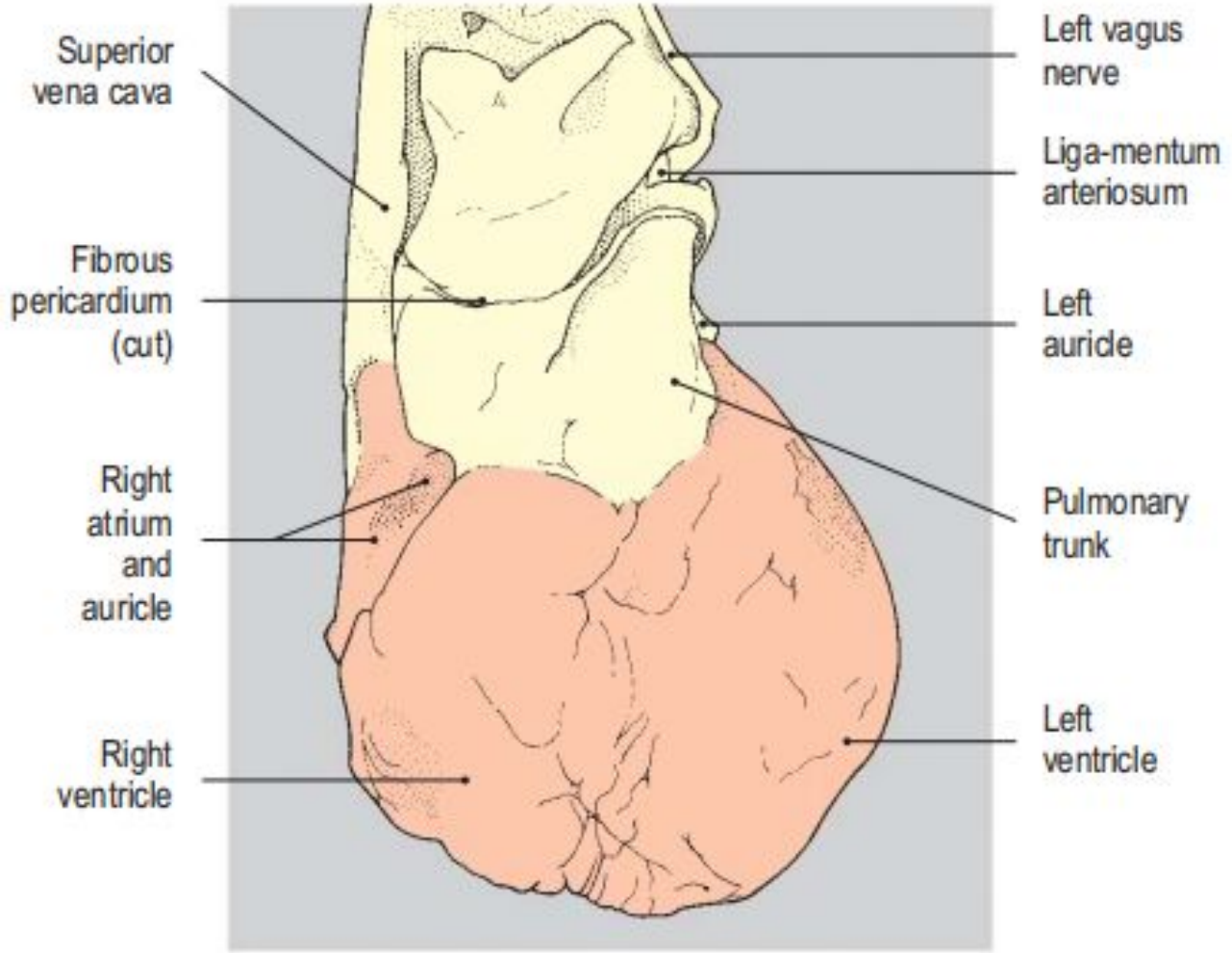


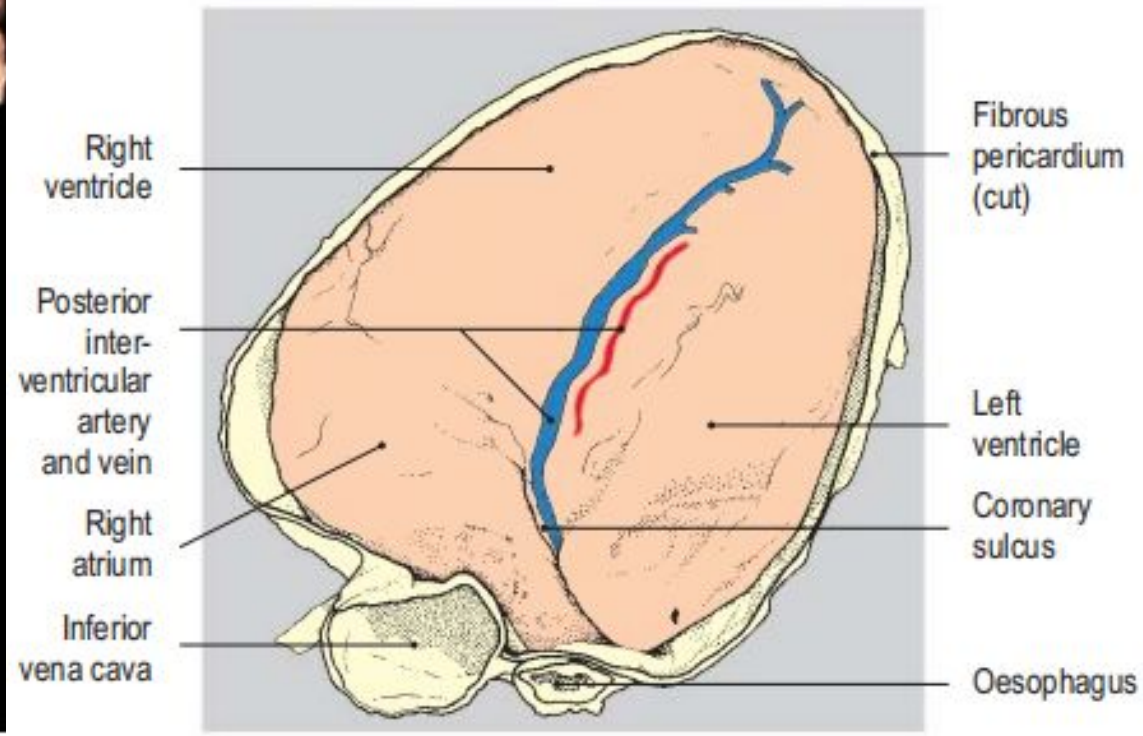
Сердце оттянуто из полости перикарда

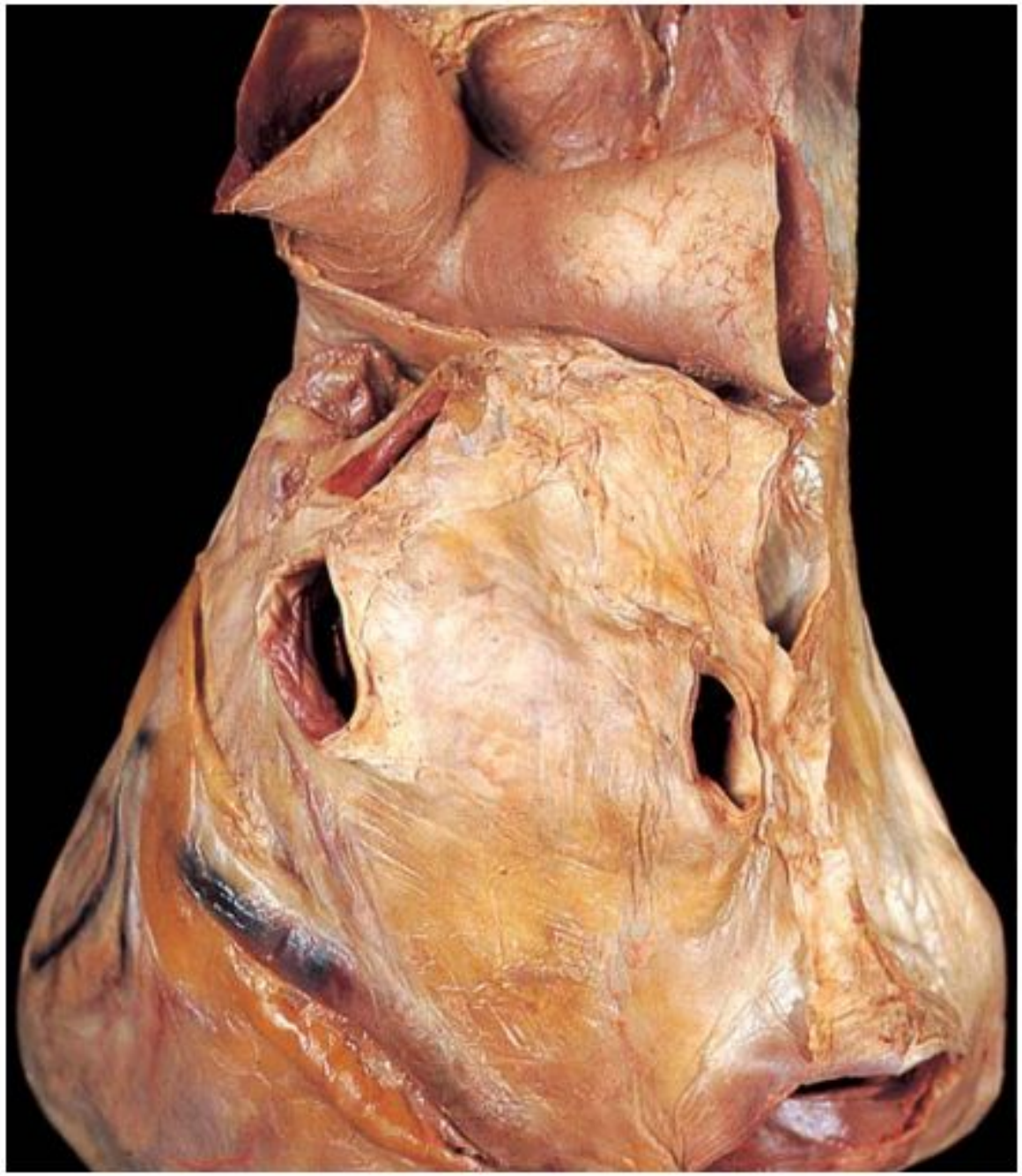


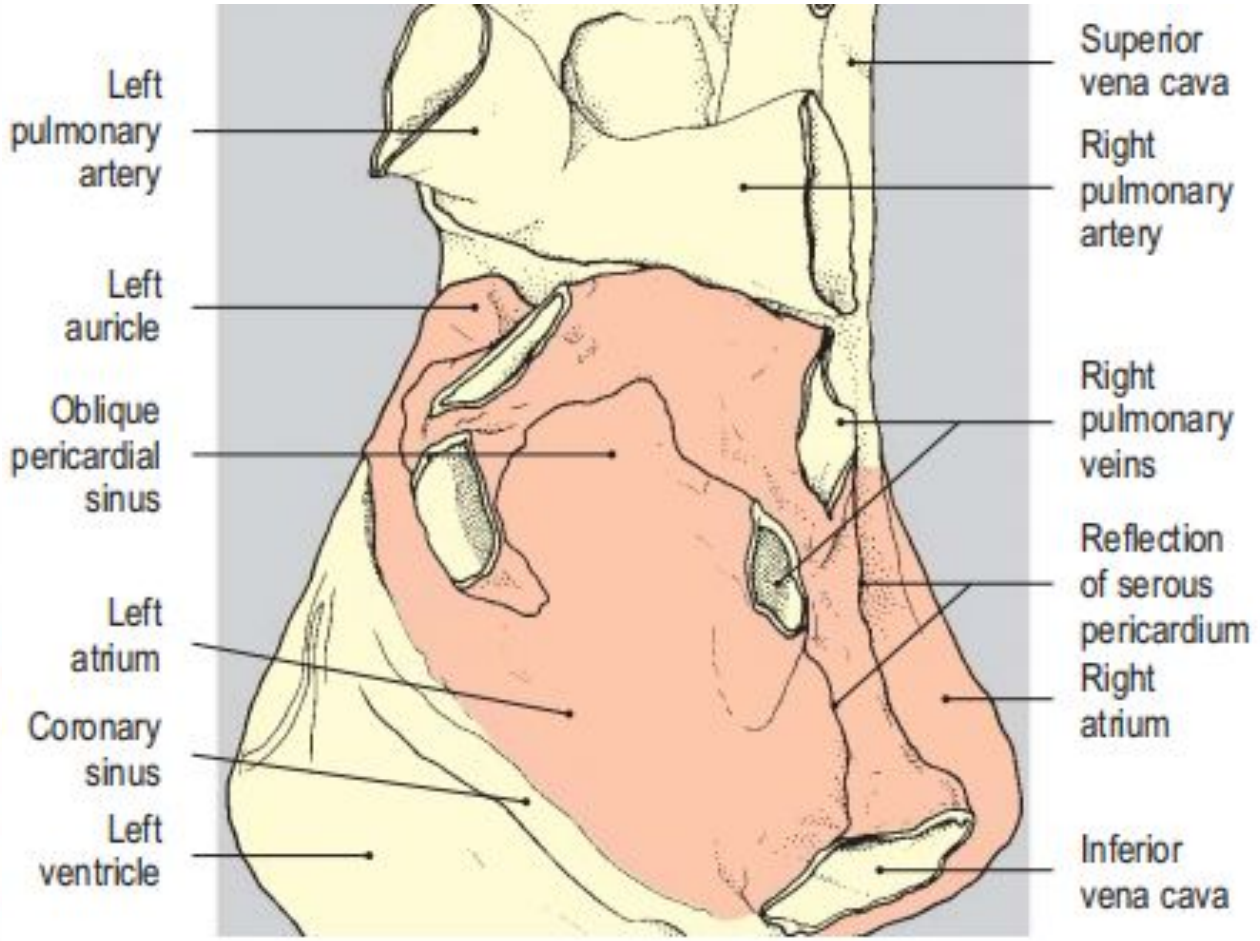
Перикард, вид спереди (если удалить сердце)

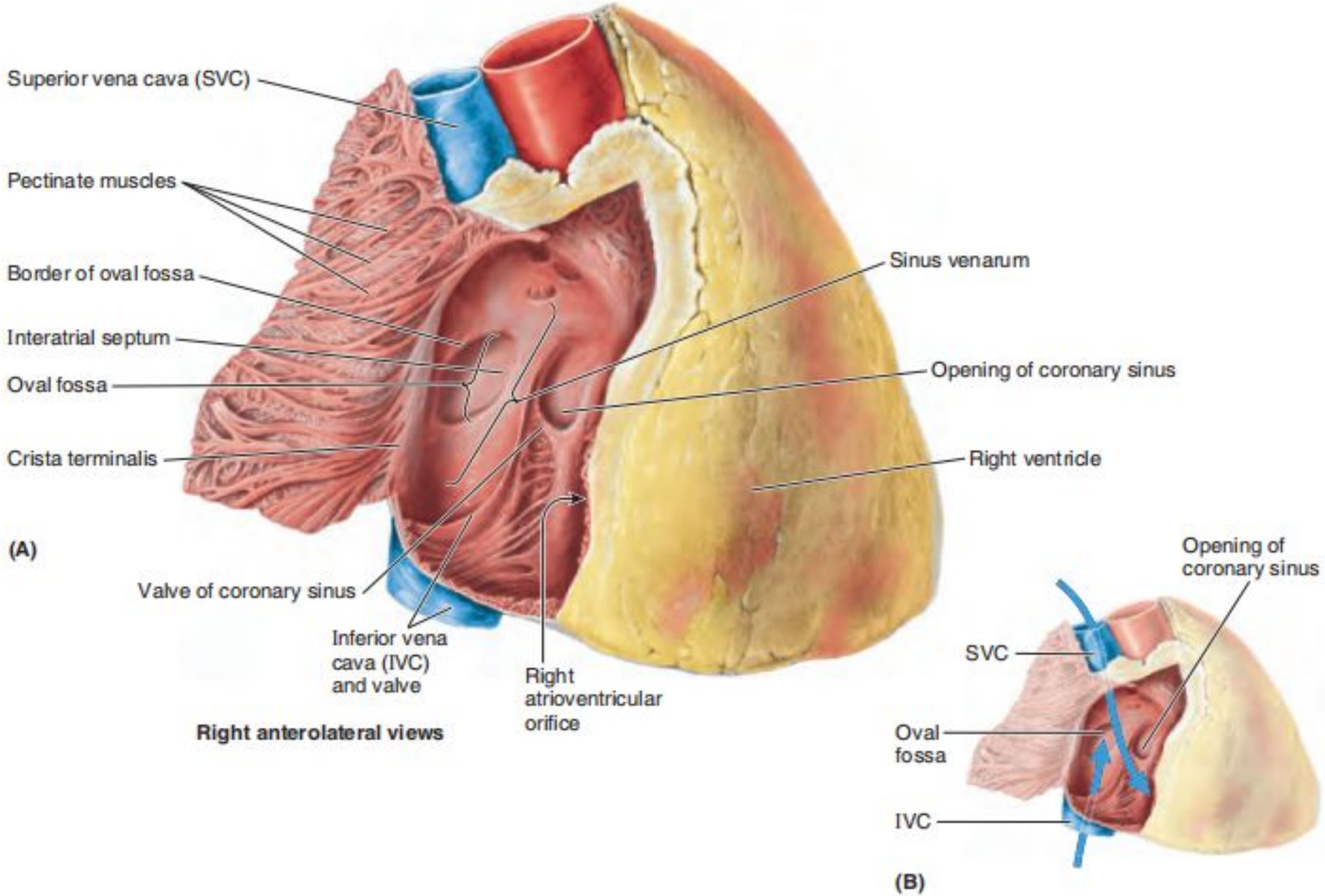


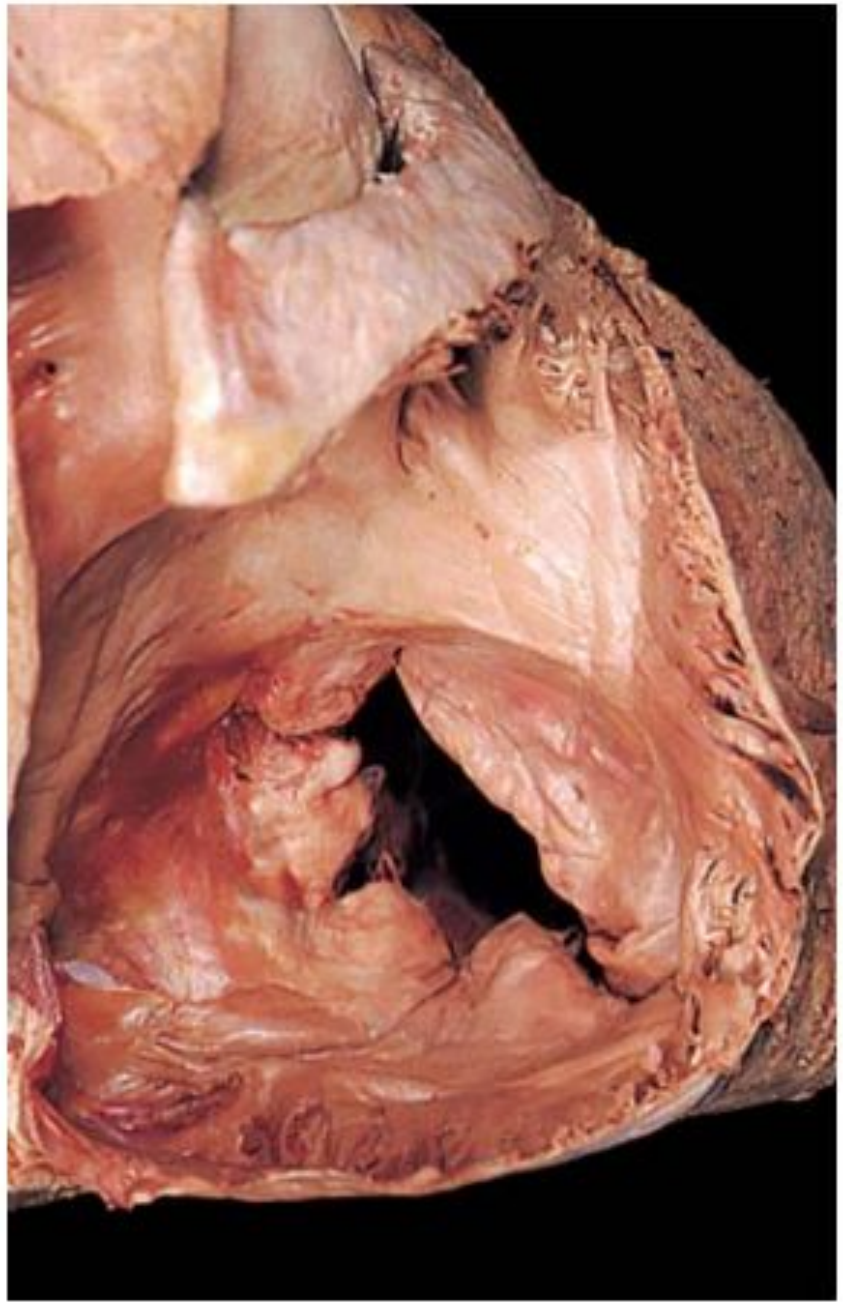

Superior vena cava
Fibrous pericardium (cut)
Right atrium and auricle
Right ventricle
Left vagus nerve
Liga-mentum arteriosum
Left auricle
Pulmonary trunk
Left ventricle


Right ventricle
Posterior inter-ventricular artery and vein
Right atrium
Inferior vena cava
Fibrous pericardium (cut)
Left ventricle
Coronary sulcus
Oesophagus




Left pulmonary artery
Left auricle
Oblique pericardial sinus
Left atrium
Coronary sinus
Left ventricle
Superior vena cava
Right pulmonary artery
Right pulmonary veins
Reflection of serous pericardium
Right atrium
Inferior vena cava


Superior vena cava (SVC)
Pectinate muscles
Border of oval fossa
Interatrial septum
Oval fossa
Crista terminalis
Sinus venarum
Opening of coronary sinus
Right ventricle
(A)
Valve of coronary sinus
Inferior vena cava (IVC) and valve
Right atrioventricular orifice
Right anterolateral views
Opening of coronary sinus
SVC
Oval fossa
IVC
(B)



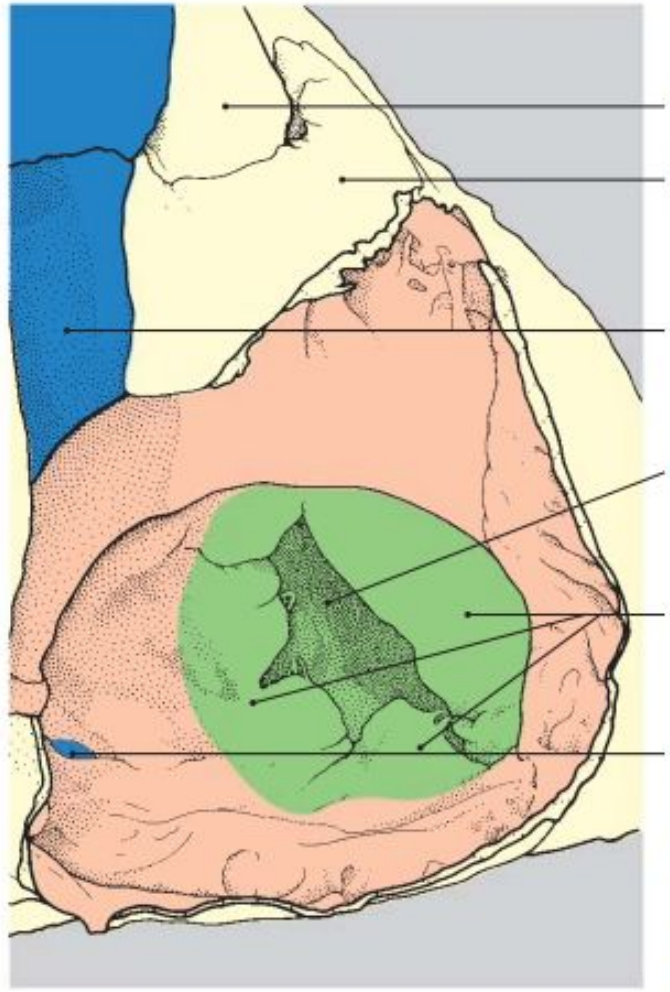
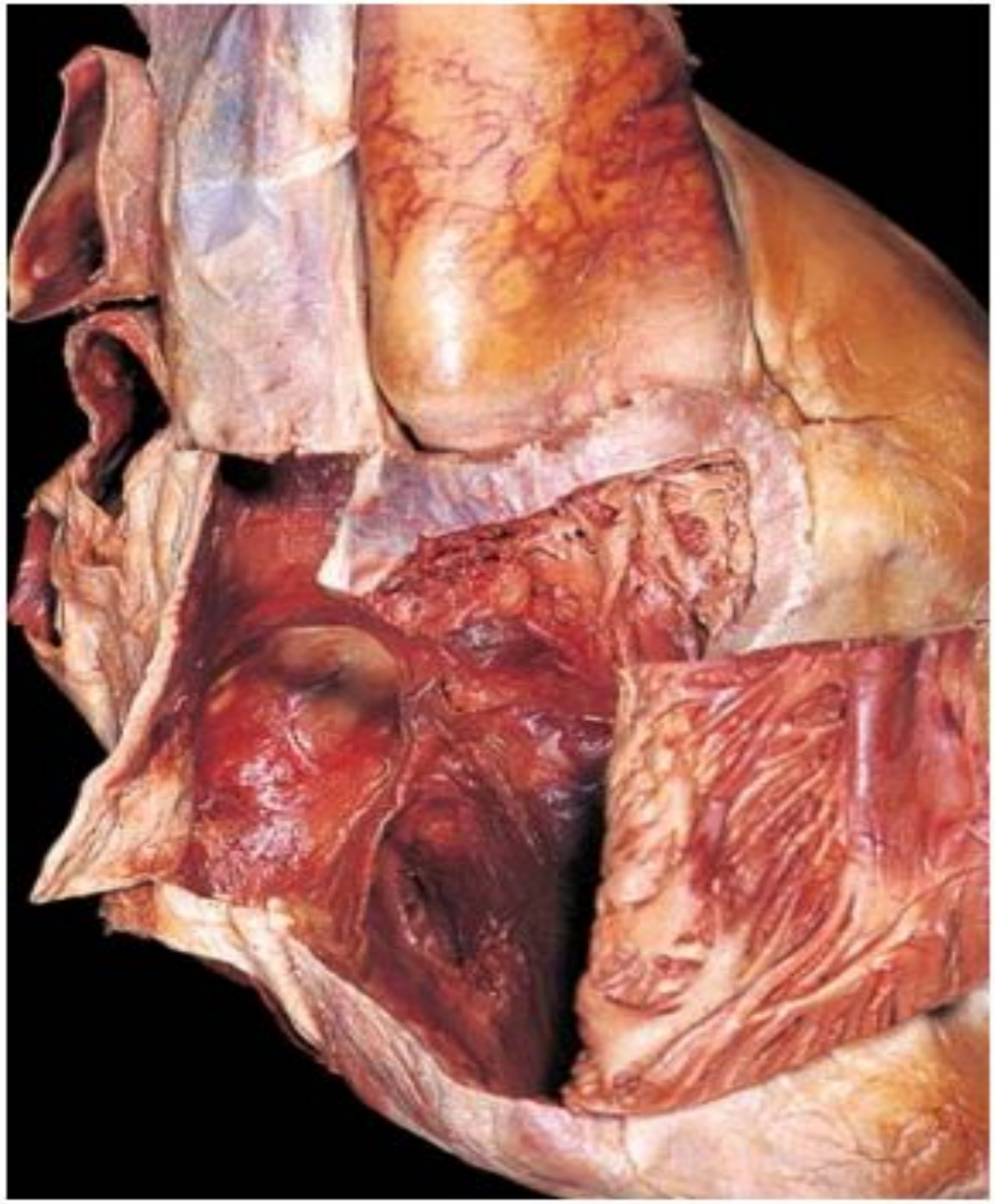


Fig. 2.37 Tricuspid valve, revealed after removal of the lateral wall of the right atrium.



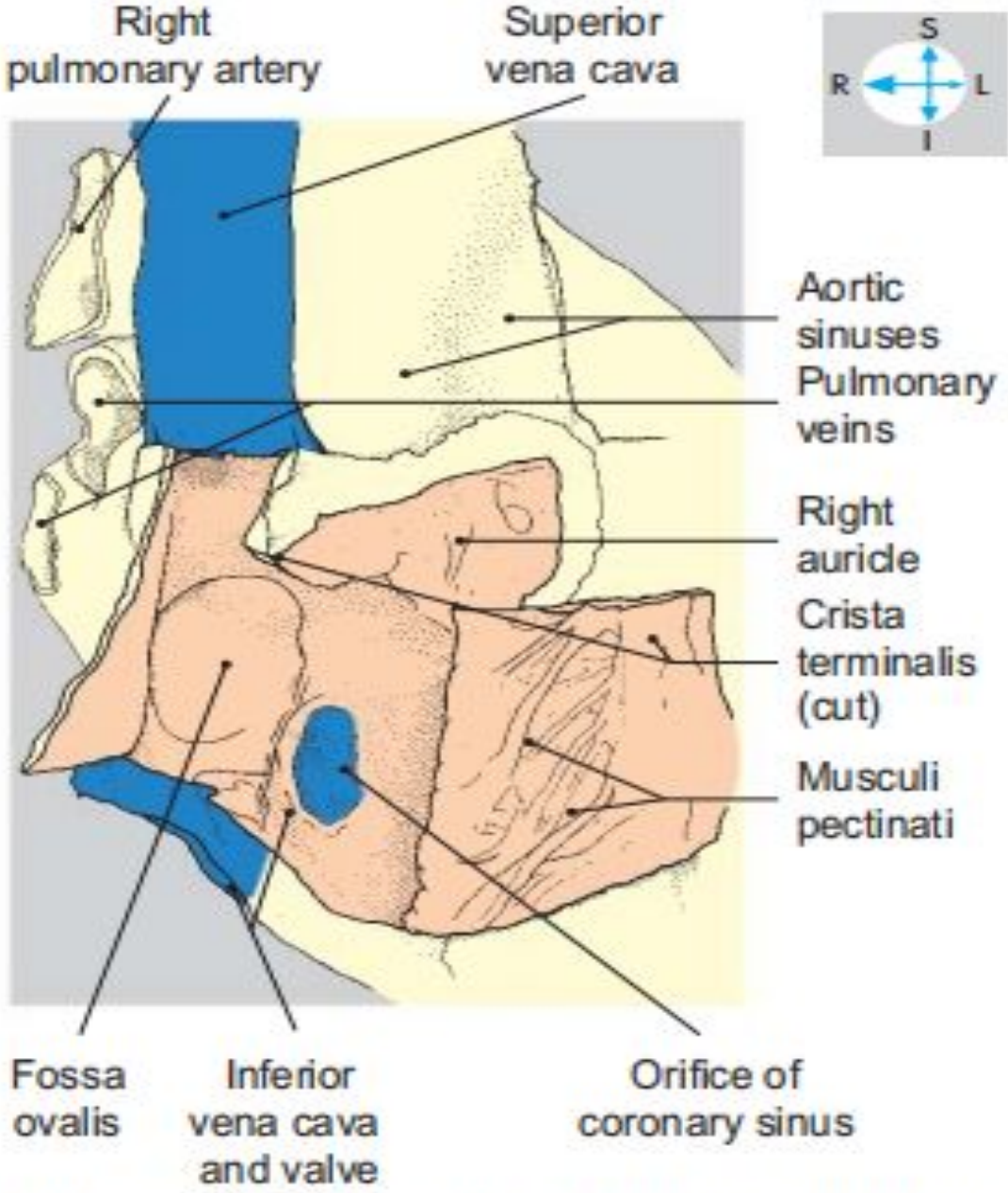
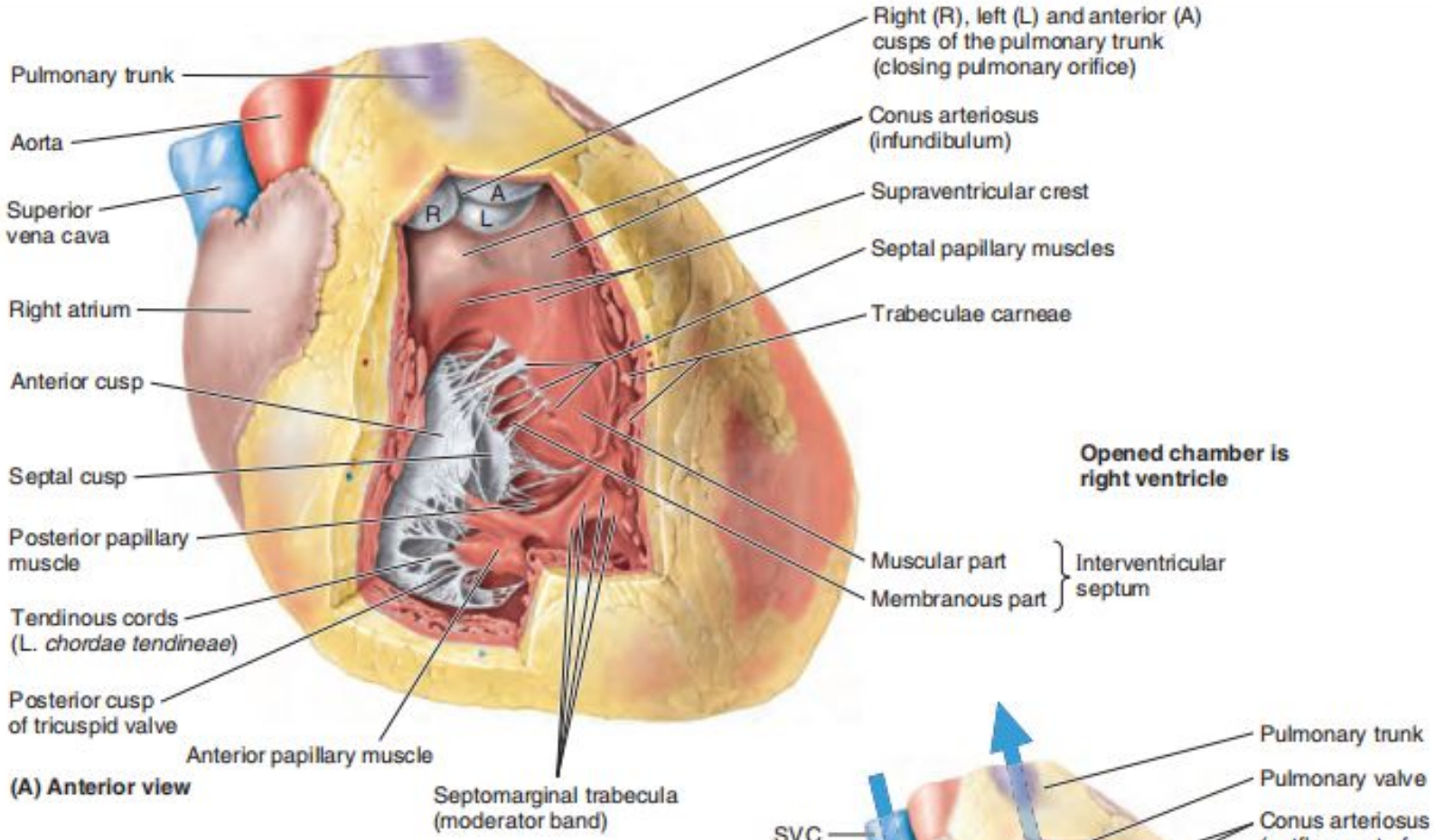
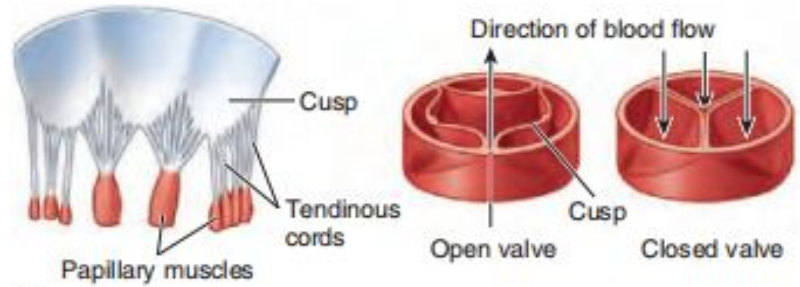


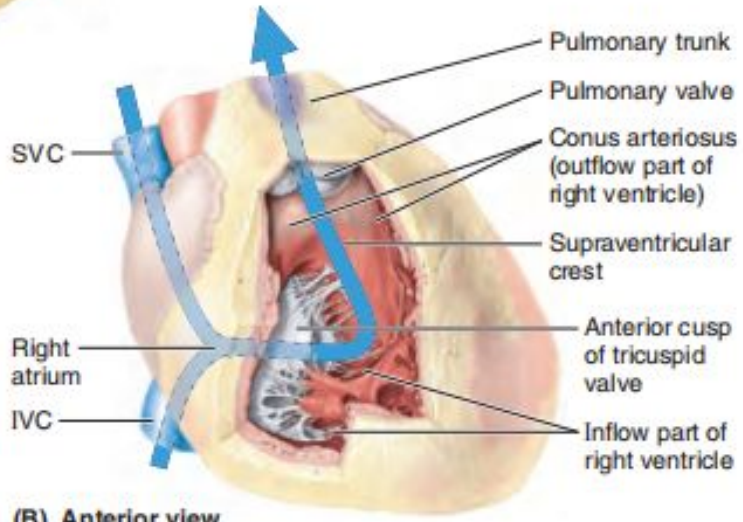
Fig. 2.36 Interior of the right atrium and auricle, exposed by reflection and excision of part of the anterior atrial wall.



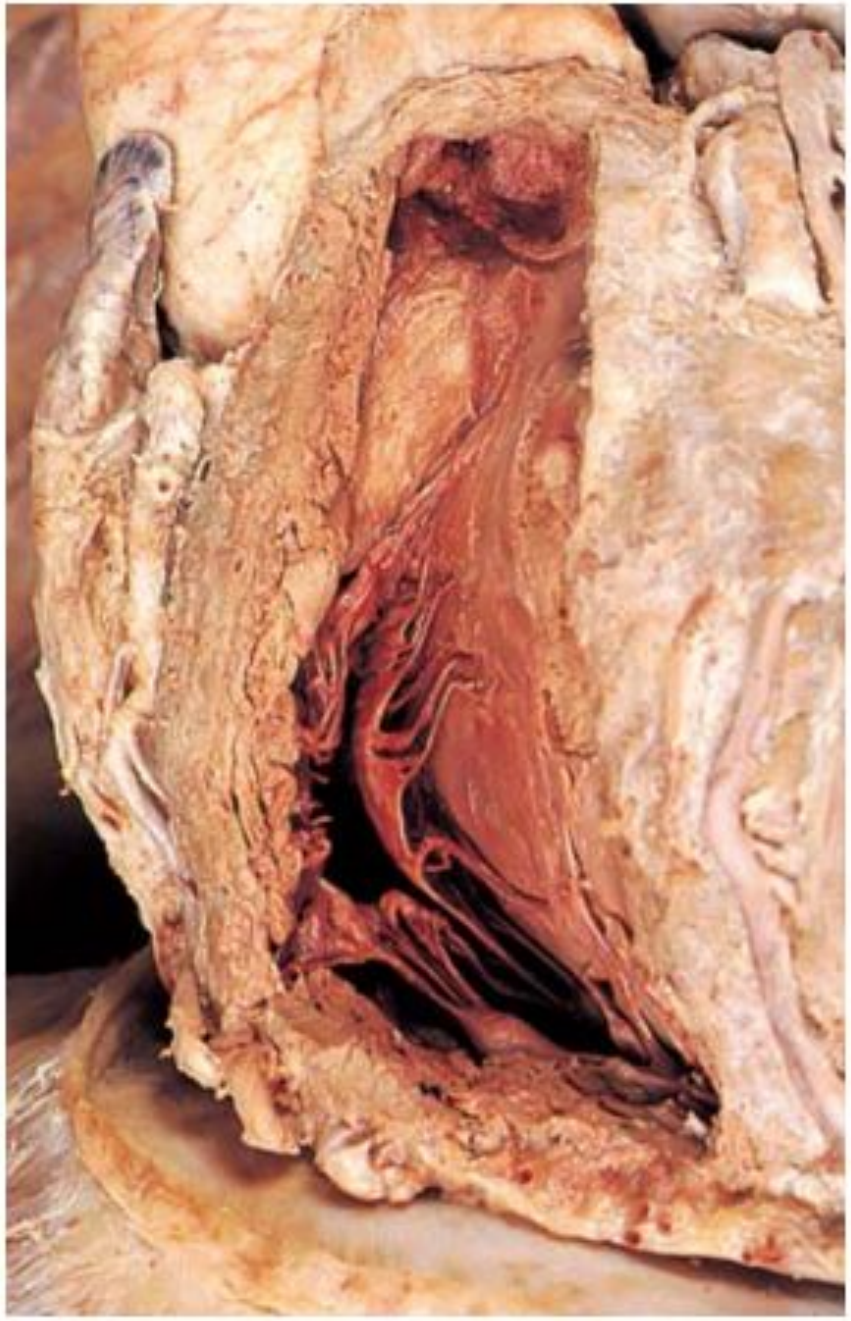
(A) Anterior view



(C)



(B) Anterior view



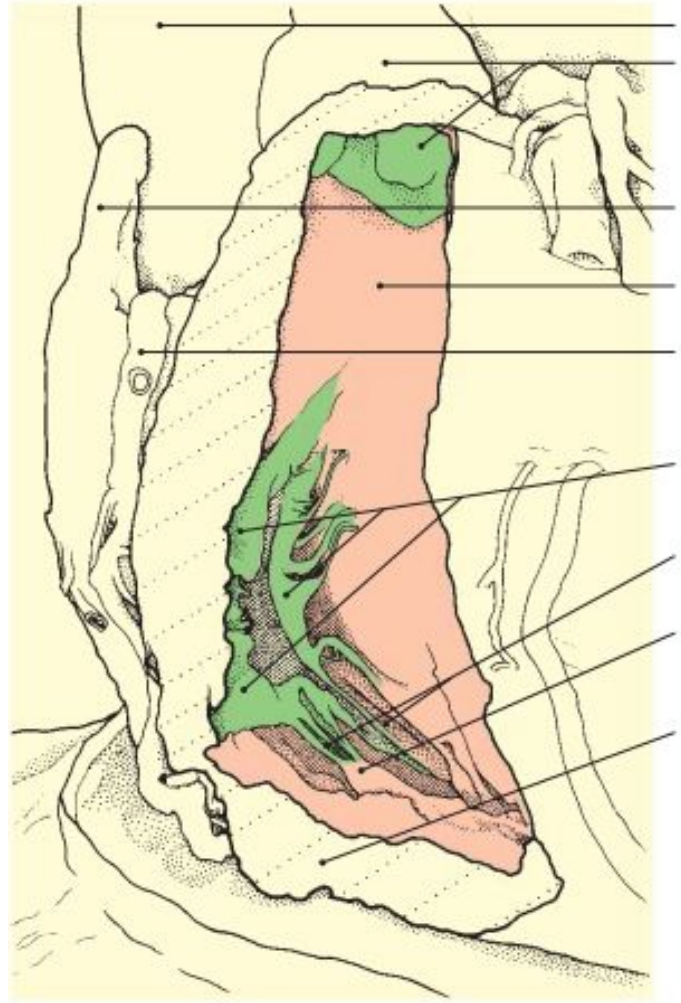
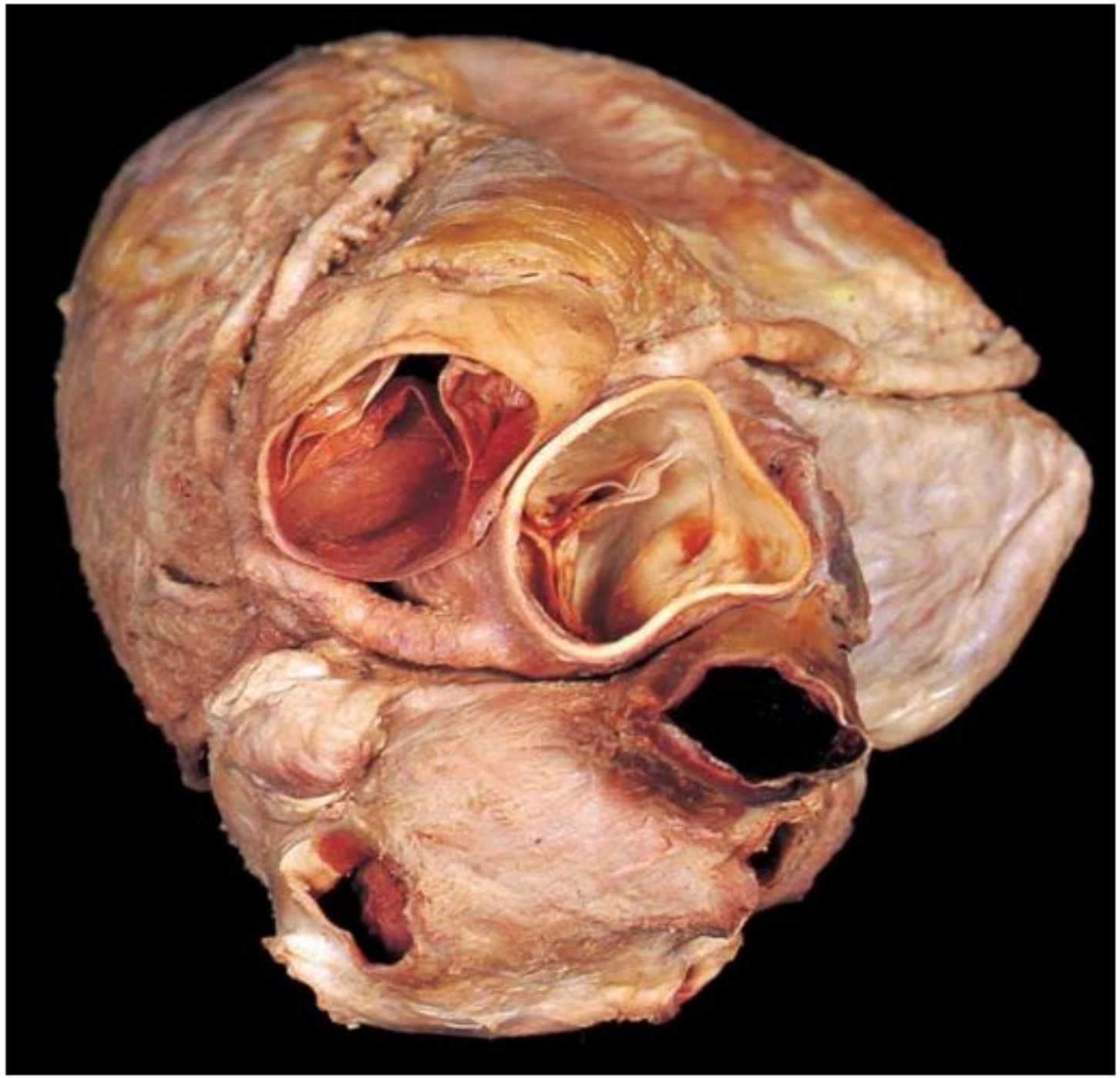


Fig. 2.38 Interior of the right ventricle seen after removal of its anterior wall.



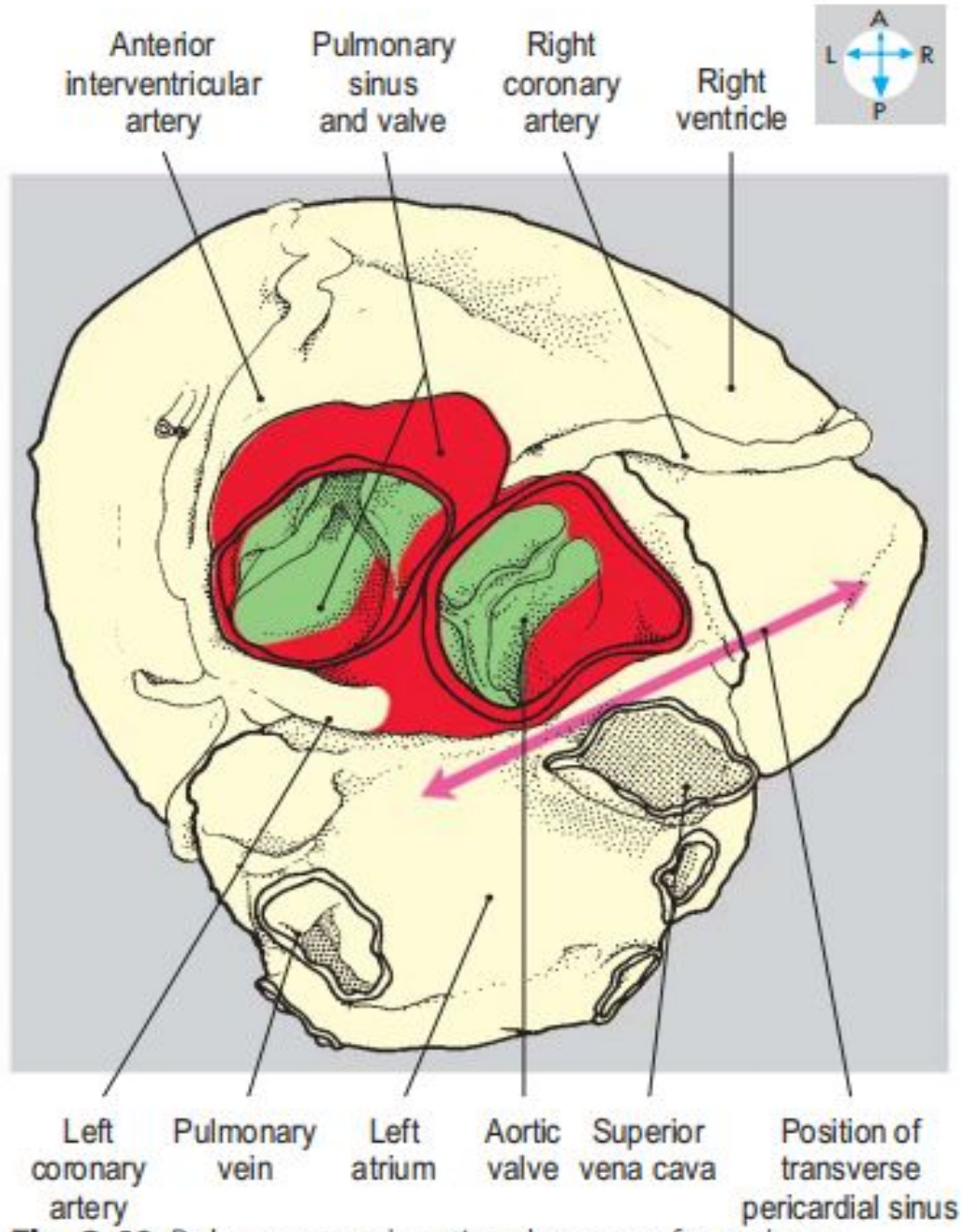
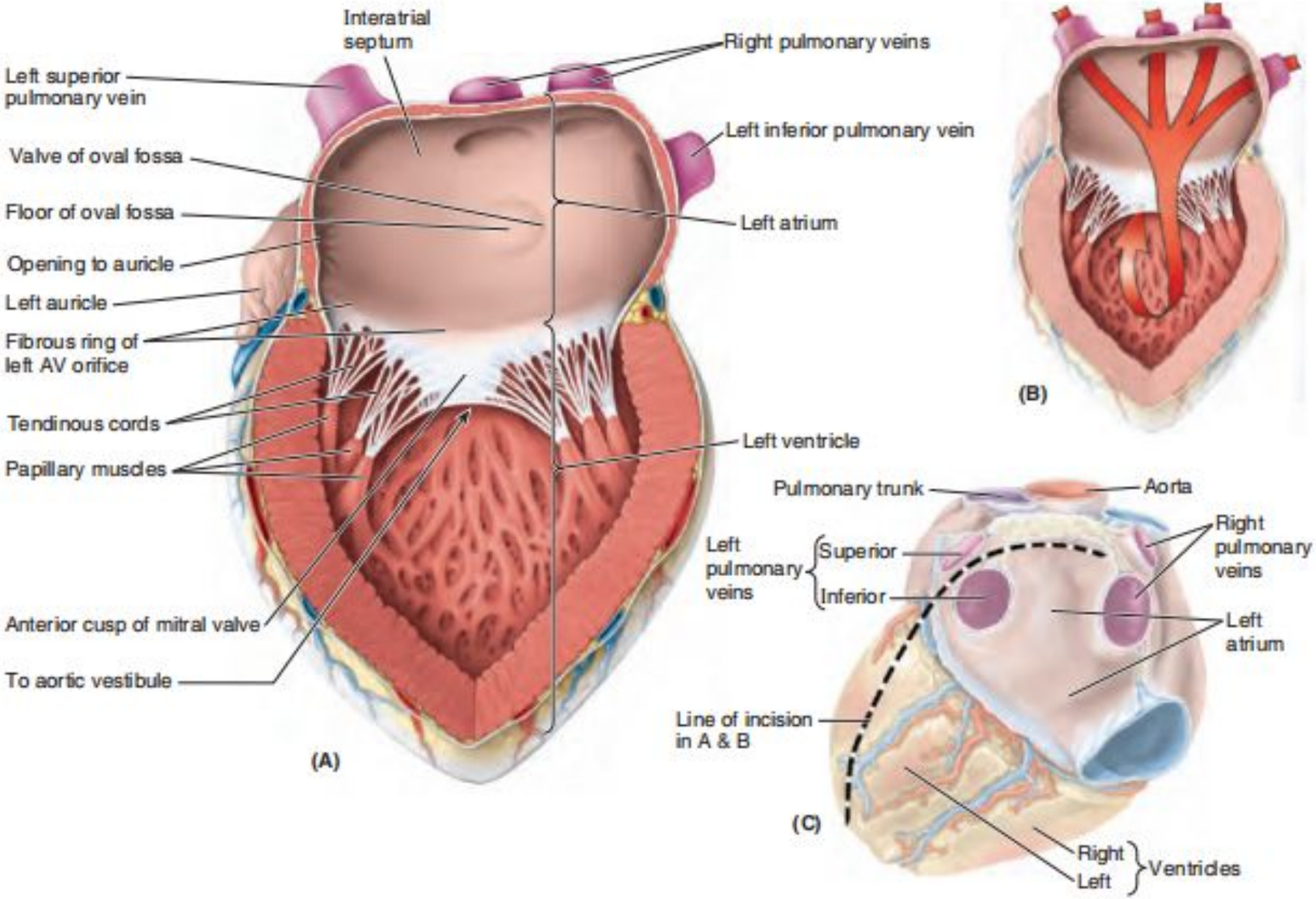
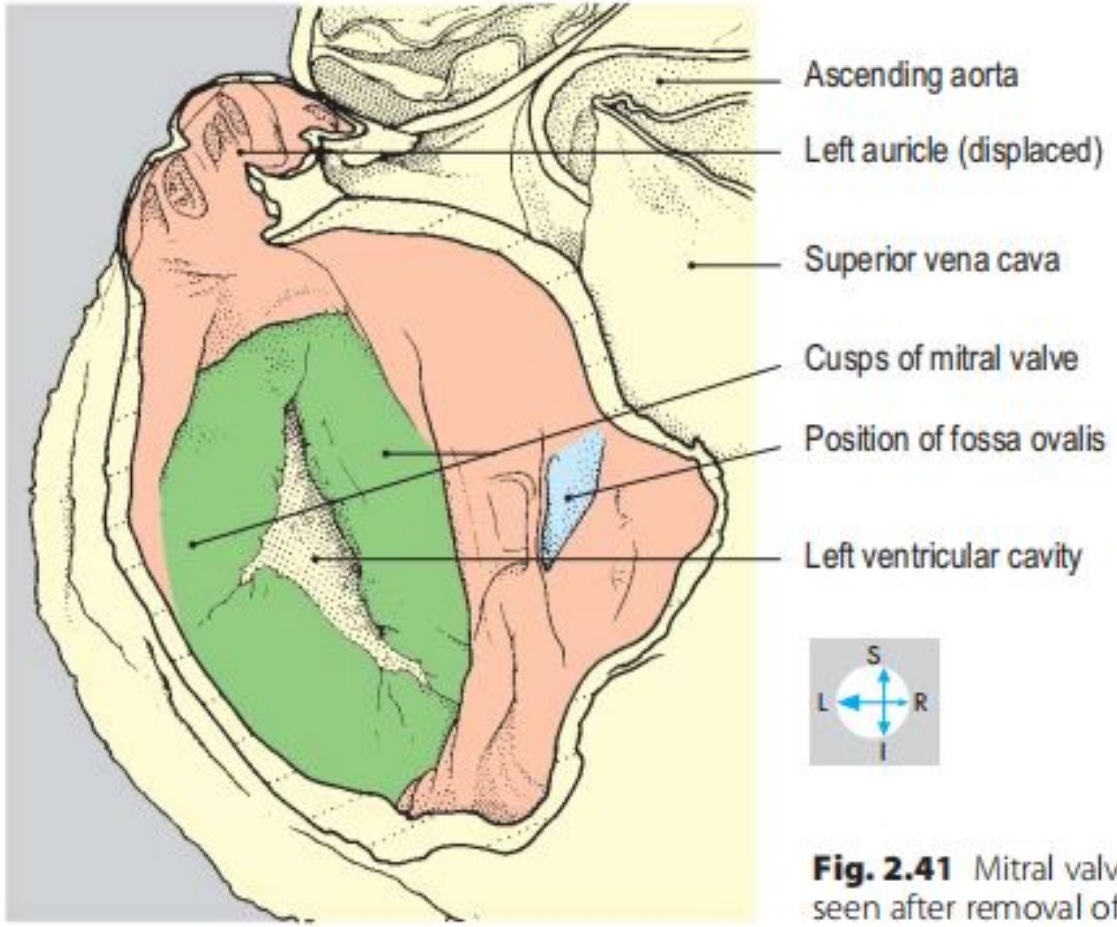


Fig. 2.40 Pulmonary and aortic valves seen from above.


Interatrial septum
Left superior pulmonary vein
Right pulmonary veins
Left inferior pulmonary vein
Valve of oval fossa
Floor of oval fossa
Left atrium
Opening to auricle
Left auricle
Fibrous ring of left AV orifice
Tendinous cords
Papillary muscles
Left ventricle
Anterior cusp of mitral valve
To aortic vestibule
(A)
(B)
Pulmonary trunk
Aorta
Left pulmonary veins
Superior
Inferior
Right pulmonary veins
Left atrium
Line of incision in A & B
(C)
Right
Left
Ventricles



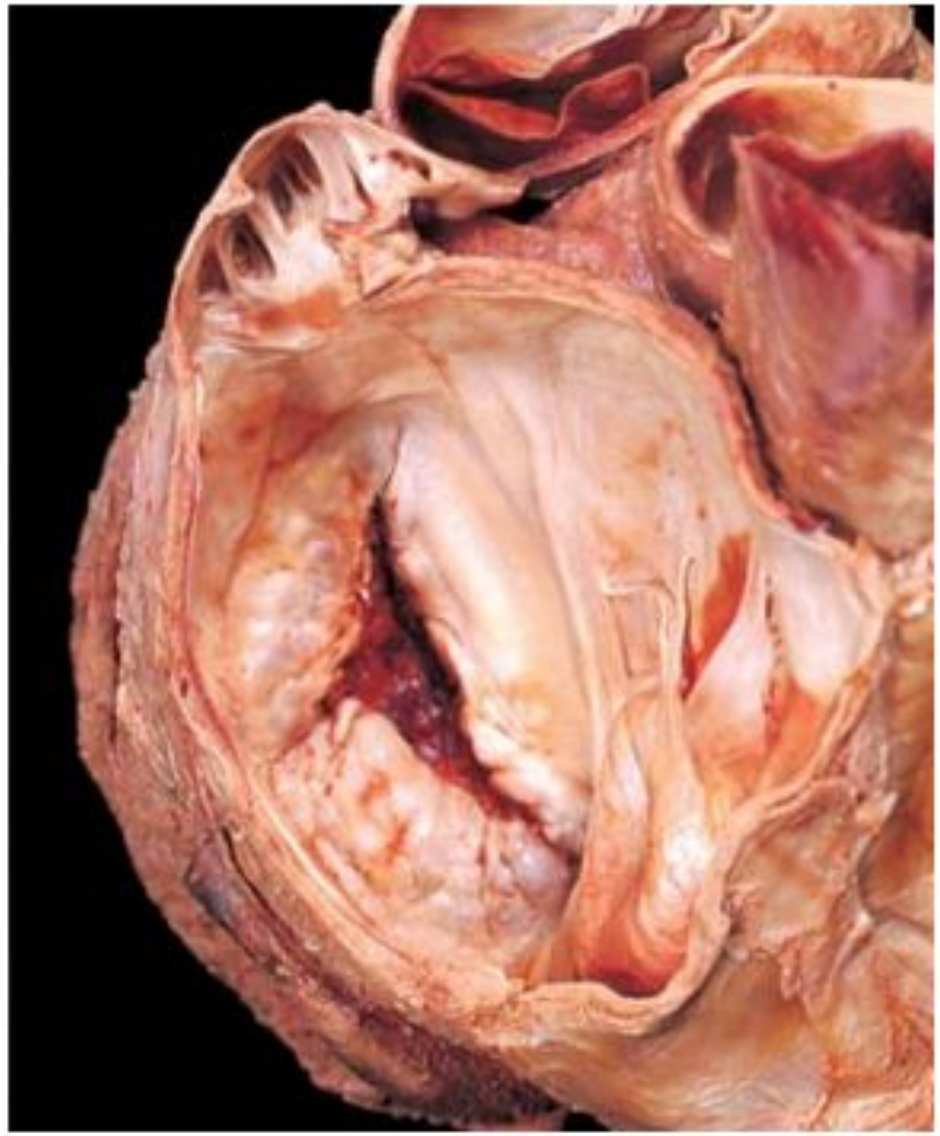
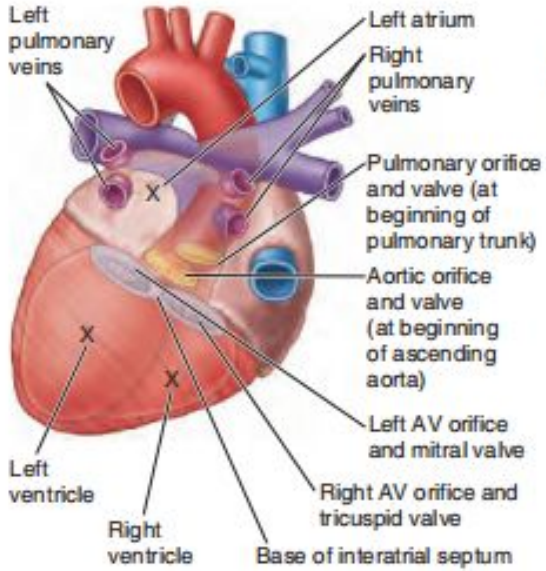
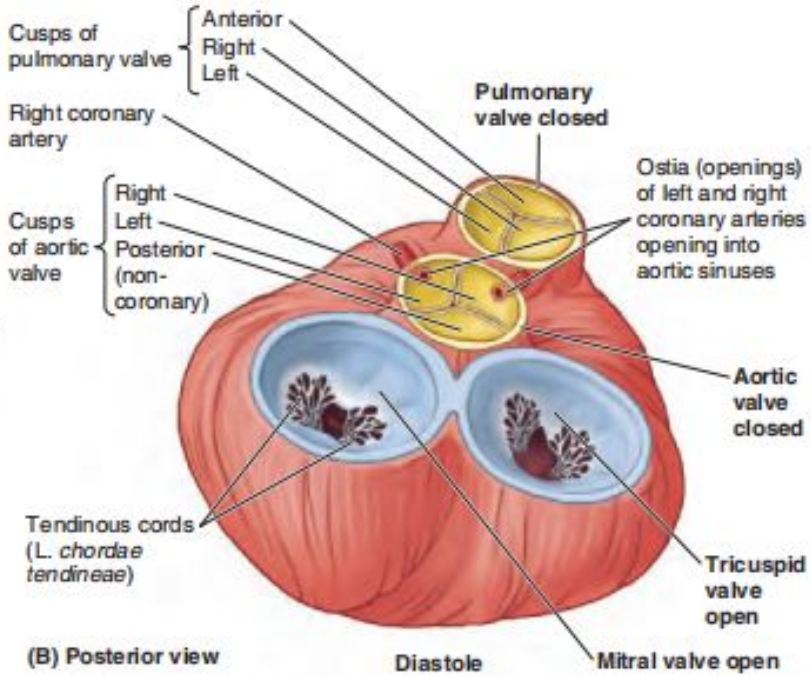
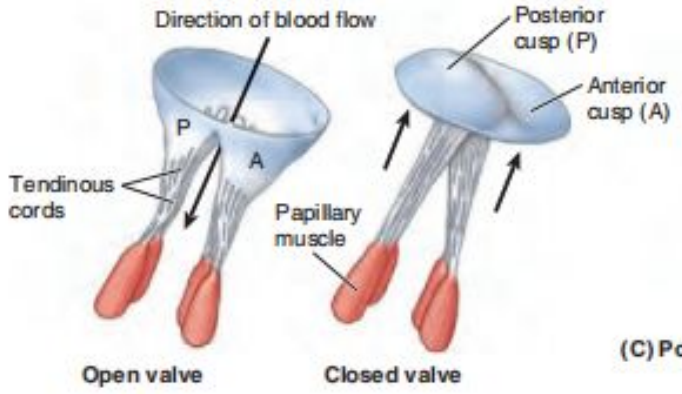


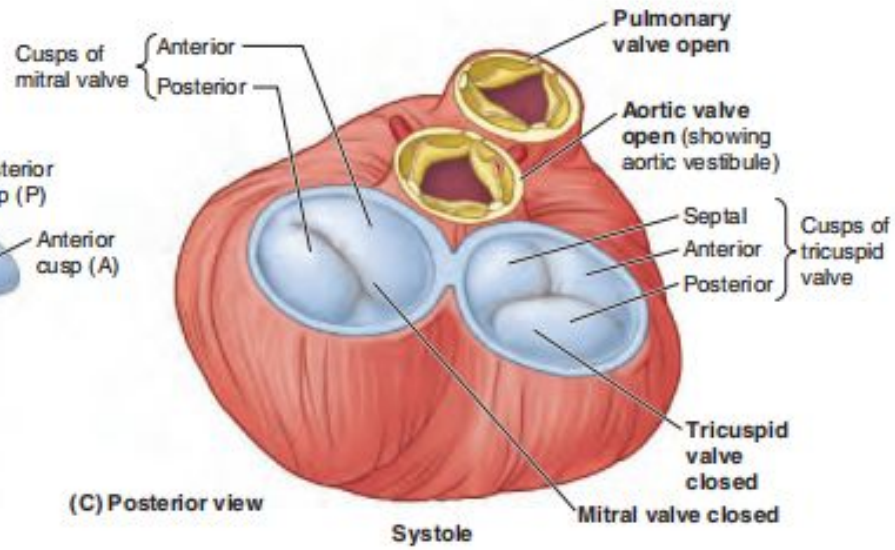
Fig. 2.41 Mitral valve and interior of the left atrium and auricle seen after removal of the posterior wall of the chamber.

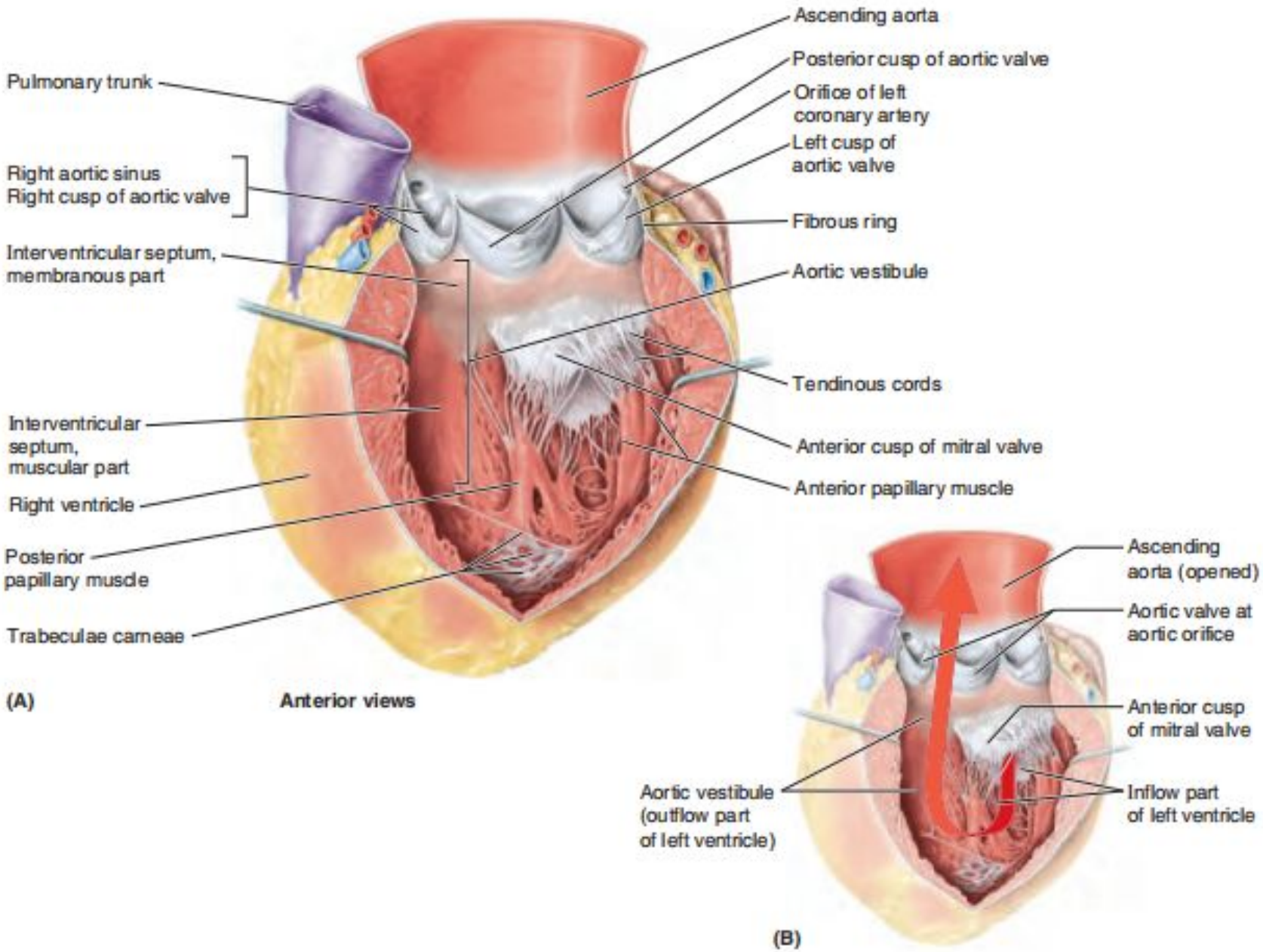


(A) Posteroinferior view








Pulmonary trunk
Right aortic sinus
Right cusp of aortic valve
Interventricular septum, membranous part
Interventricular septum, muscular part
Right ventricle
Posterior papillary muscle
Trabeculae carneae
Ascending aorta
Posterior cusp of aortic valve
Orifice of left coronary artery
Left cusp of aortic valve
Fibrous ring
Aortic vestibule
Tendinous cords
Anterior cusp of mitral valve
Anterior papillary muscle
(A)
Anterior views
Ascending aorta (opened)
Aortic valve at aortic orifice
Anterior cusp of mitral valve
Aortic vestibule (outflow part of left ventricle)
Inflow part of left ventricle
(B)

Левый желудочек

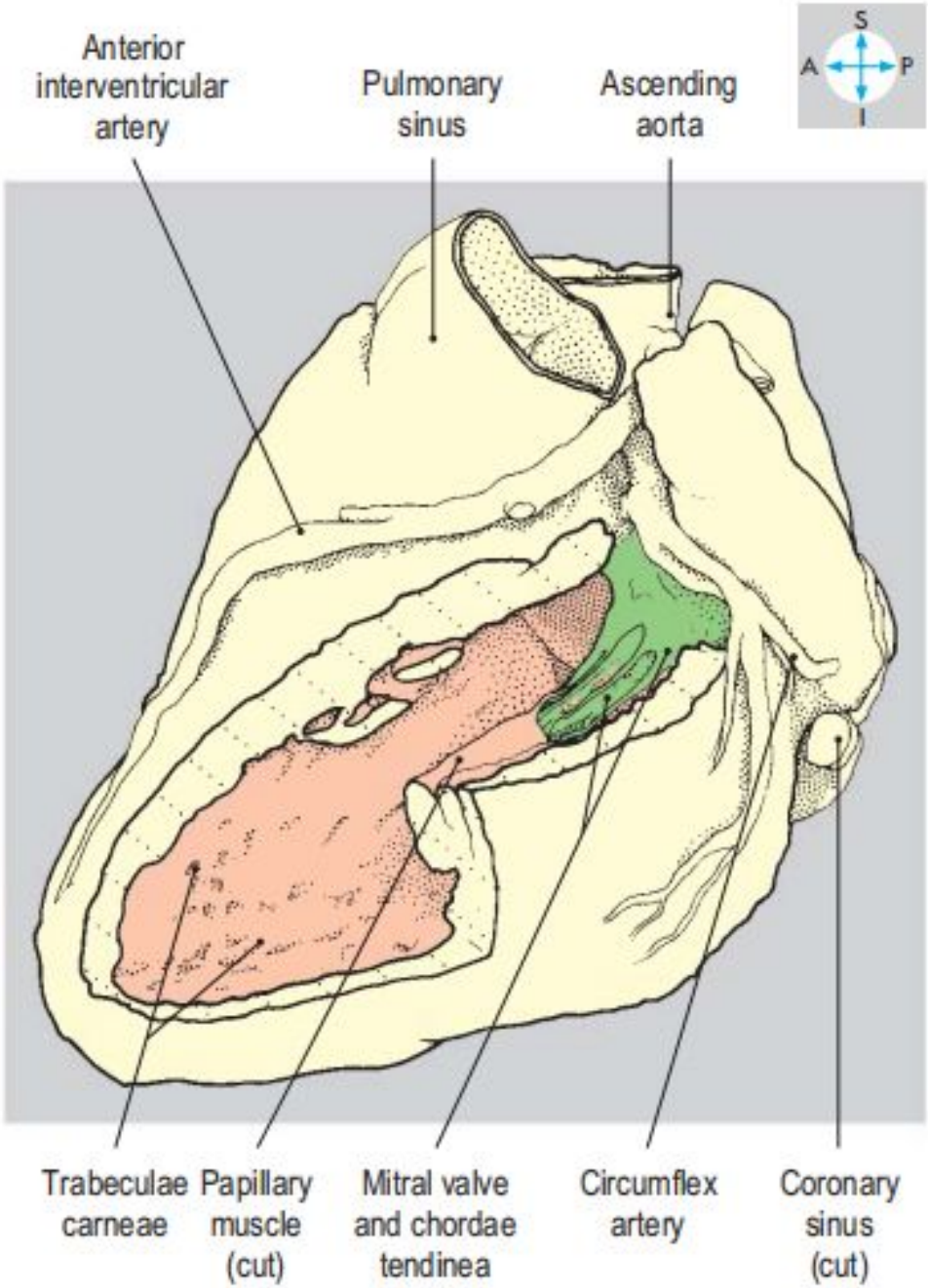
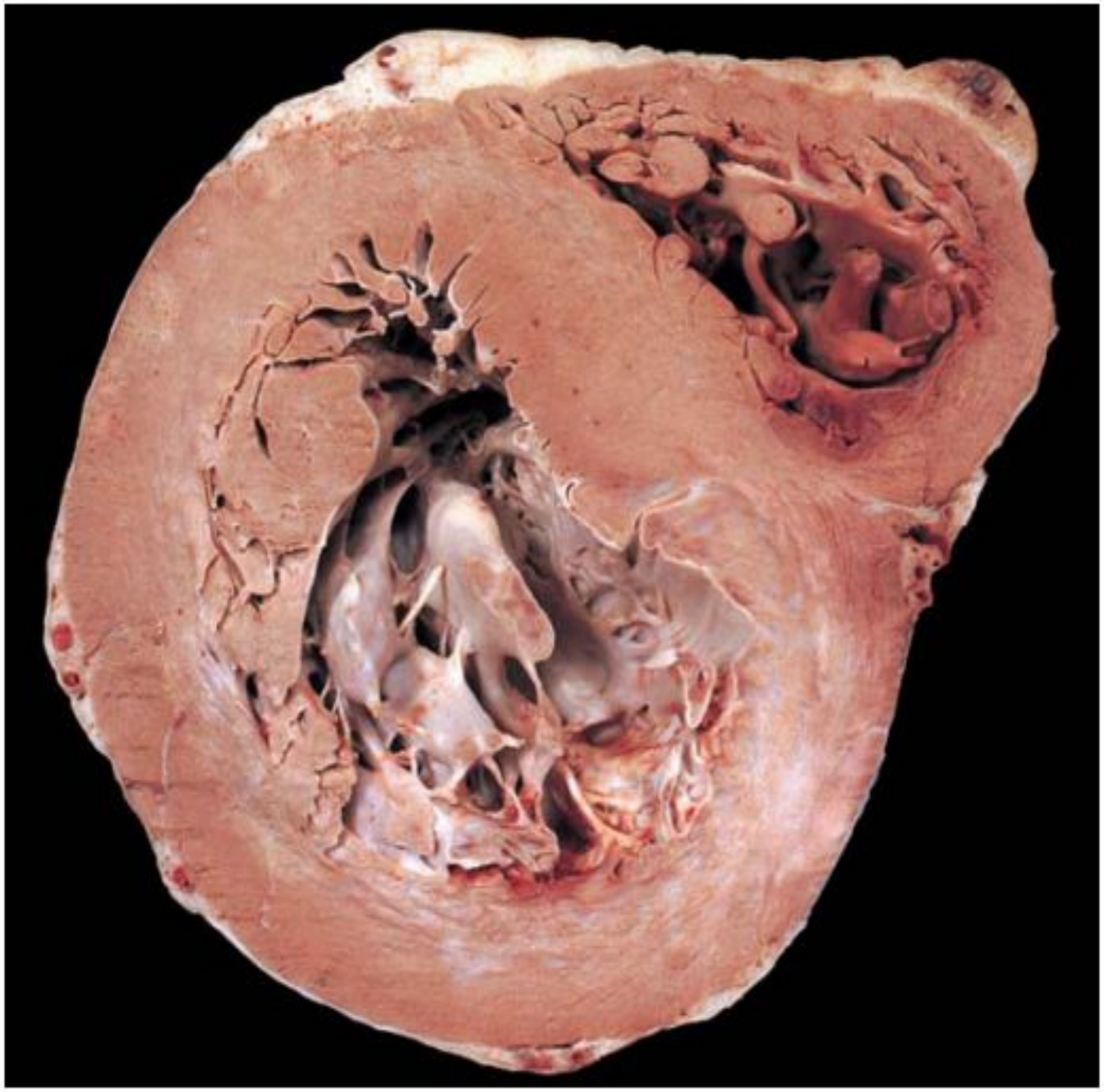


Fig. 2.42 Interior of the left ventricle seen after removal of part of its wall.



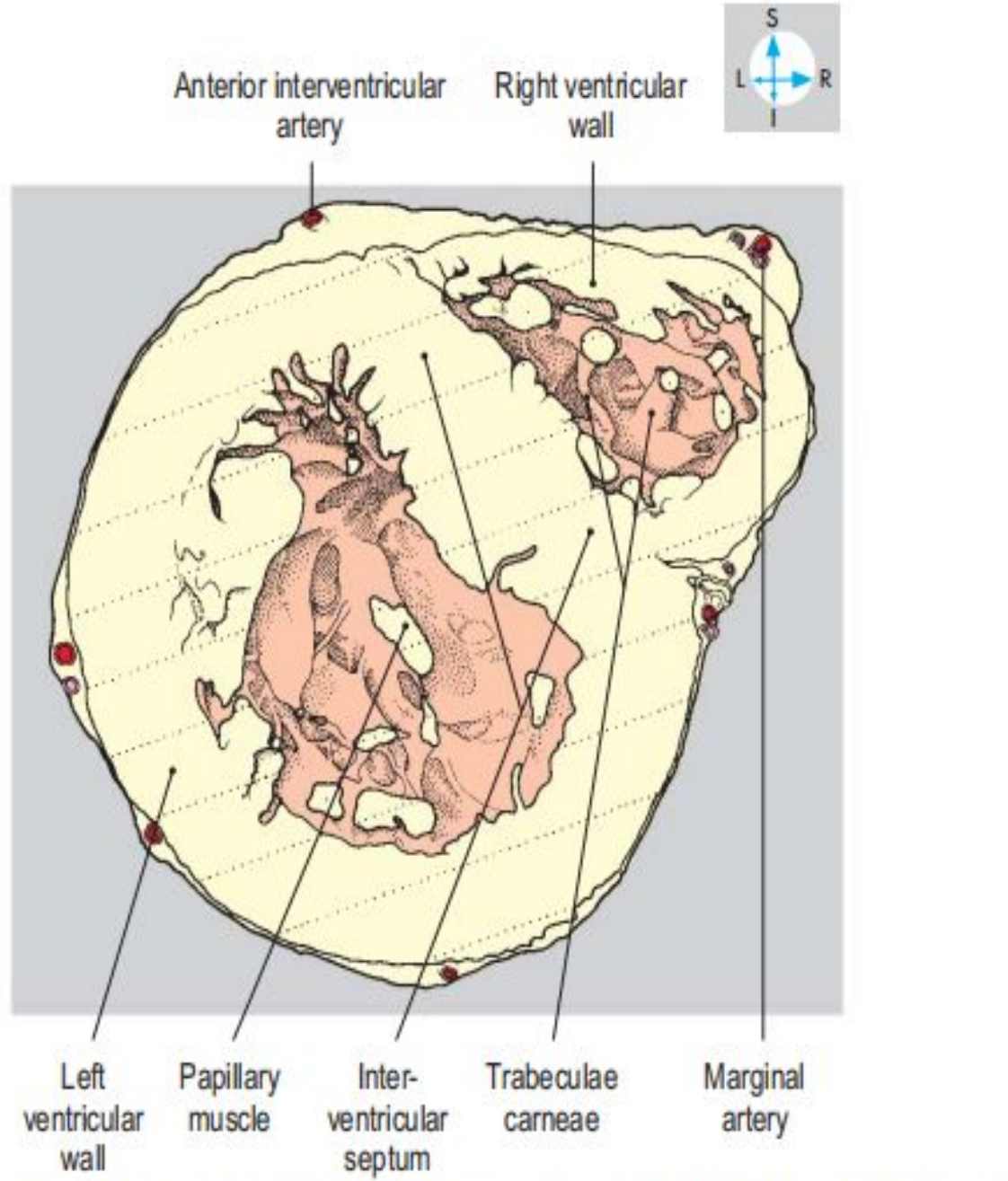
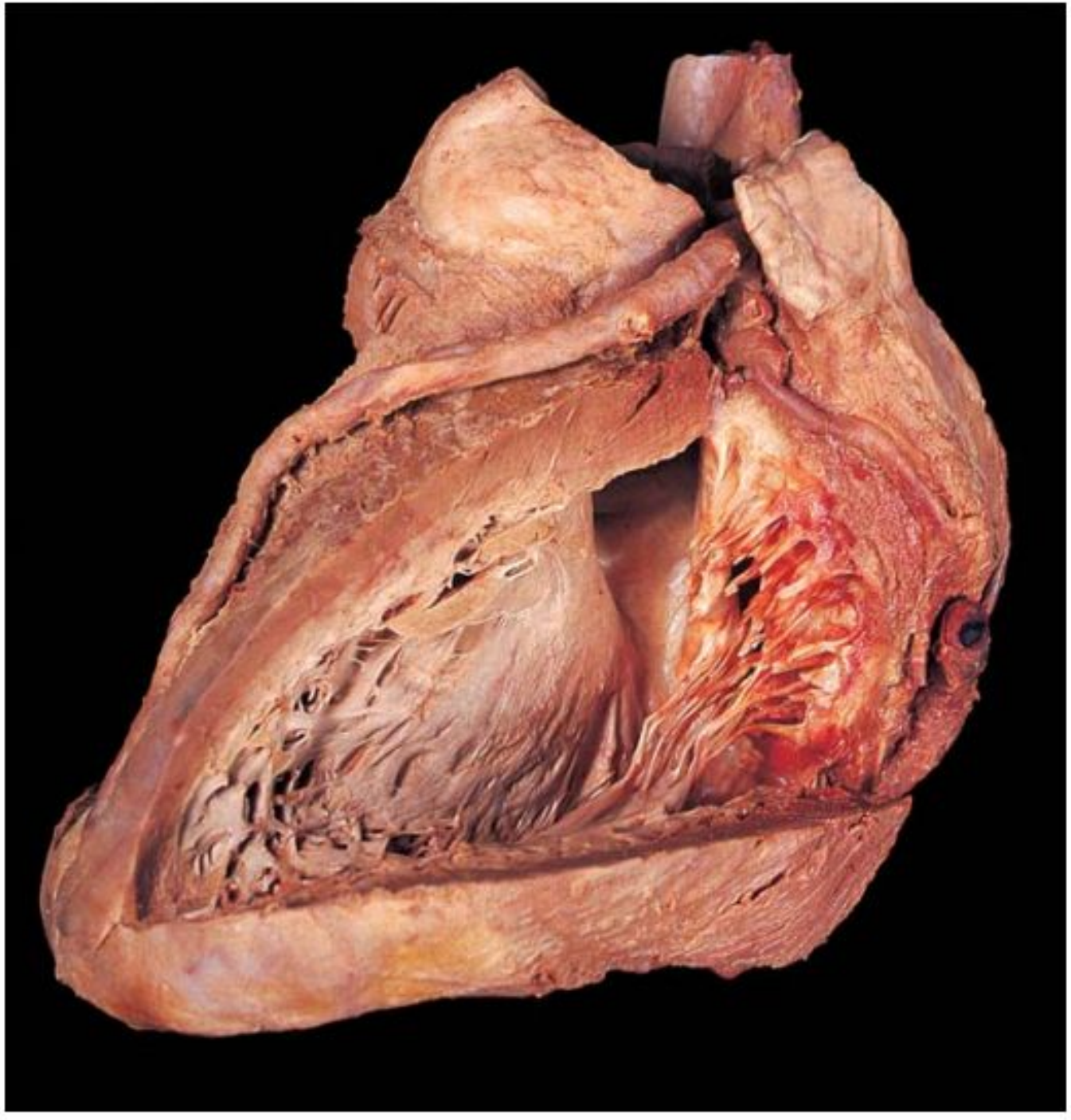


Fig. 2.43 Section through the heart showing the apical portions of the left and right ventricles.



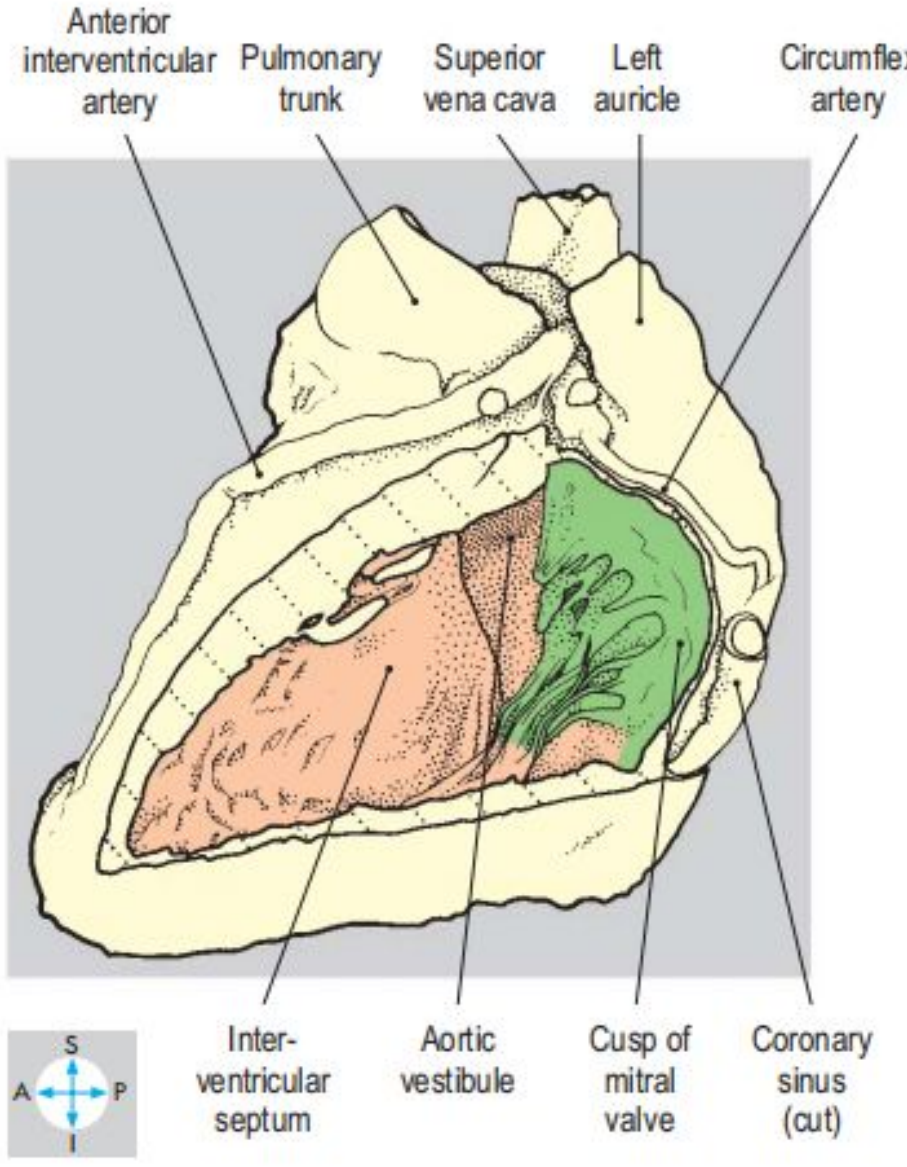


Fig. 2.44 Mitral valve and aortic vestibule, exposed by removal of part of the left ventricular wall.

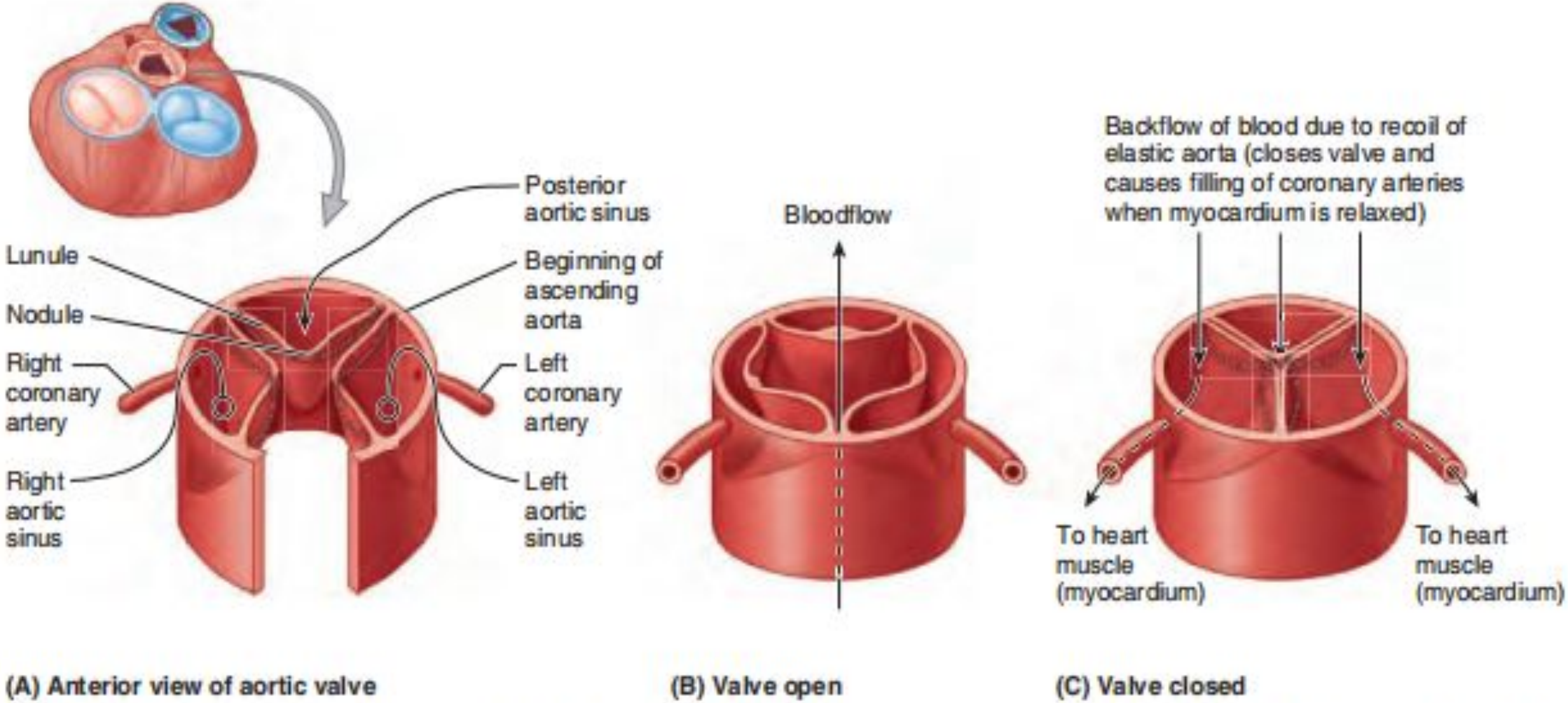
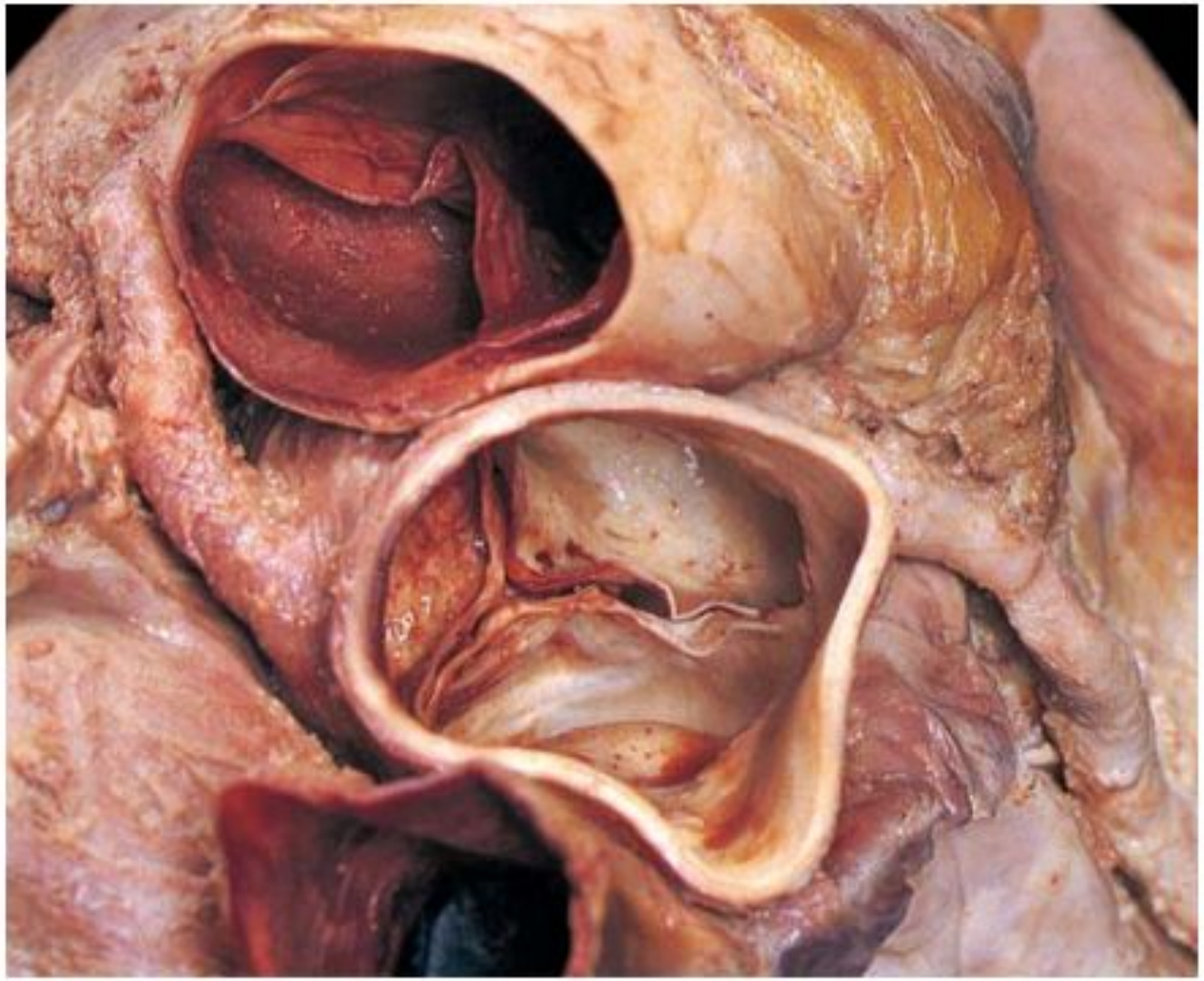


FIGURE 1.58. Aortic valve, aortic sinuses, and coronary arteries. A. Like the pulmonary valve, the aortic valve has three semilunar cusps: right, posterior, and left. B. Blood ejected from the left ventricle forces the cusps apart. C. When the valve closes, the nodules and lunules meet in the center.



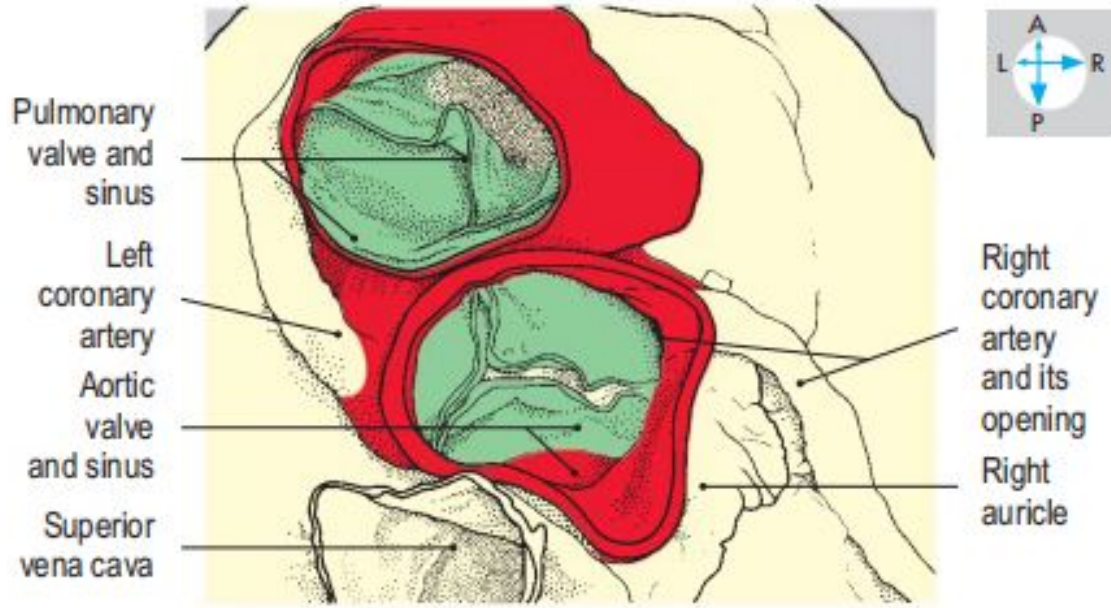
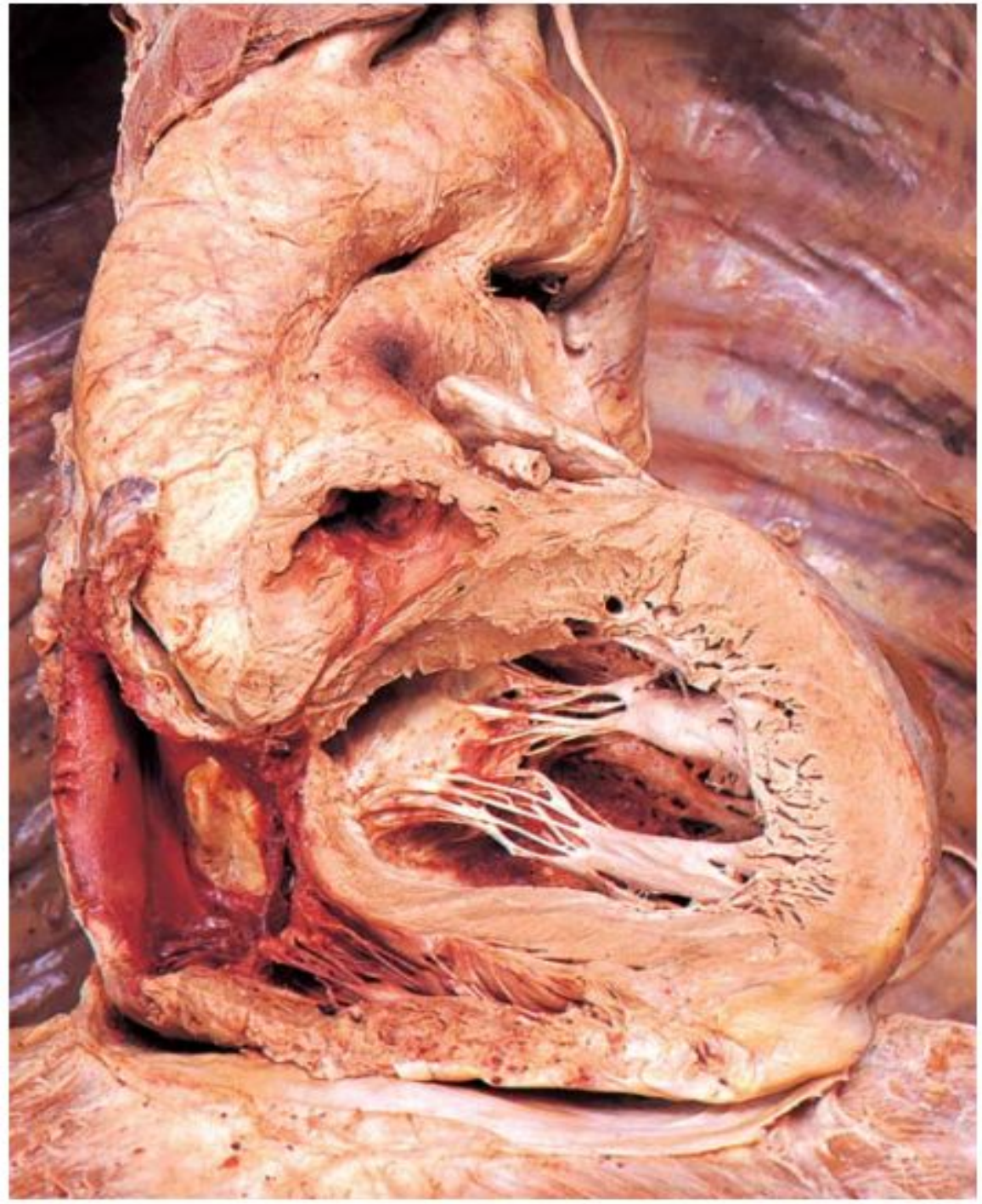


Fig. 2.45 Aortic and pulmonary valves viewed obliquely from above.



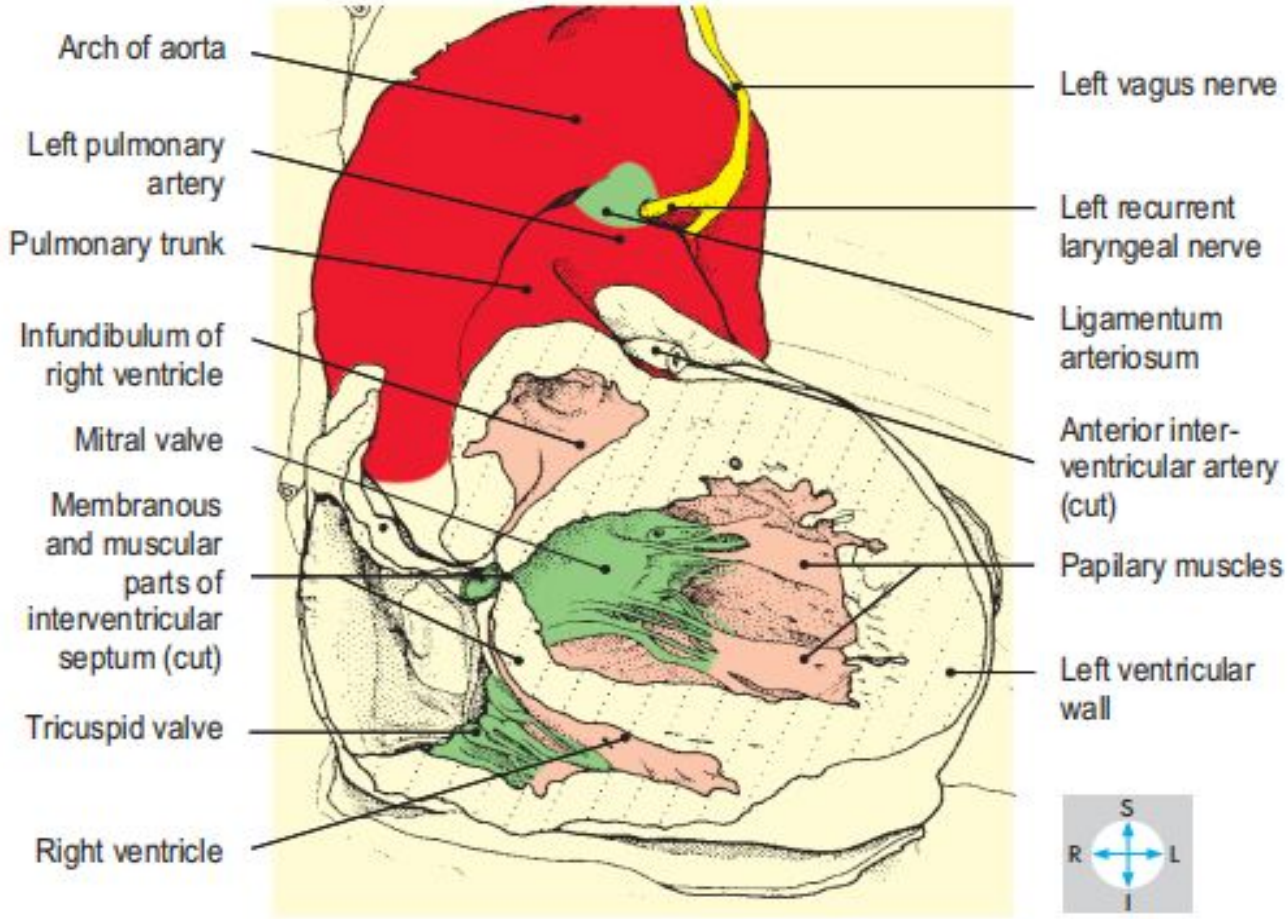


Fig. 2.46 Anterior view of the aorta, pulmonary trunk and ligamentum arteriosum. Most of the muscular part of the interventricular septum has been removed to show the interior of the left ventricle.

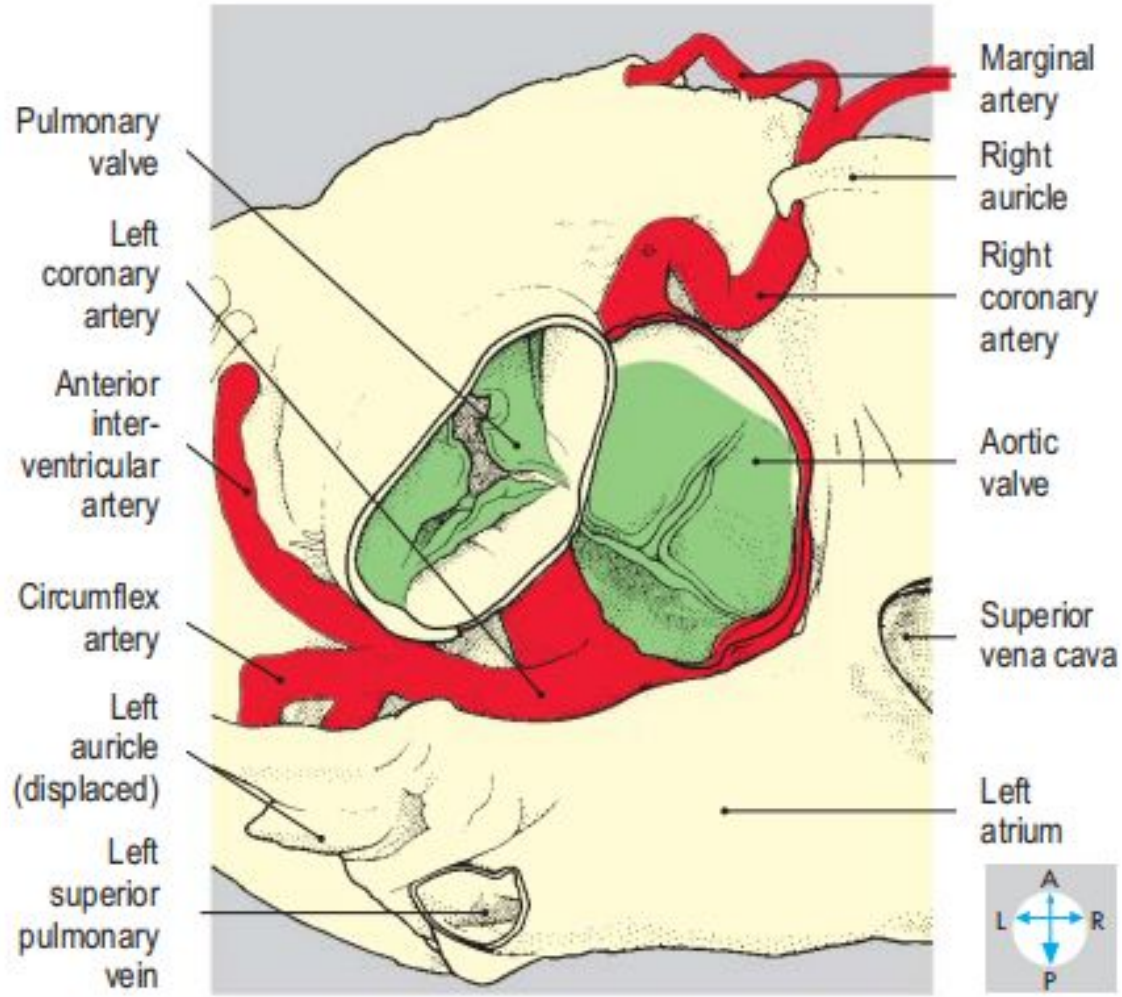
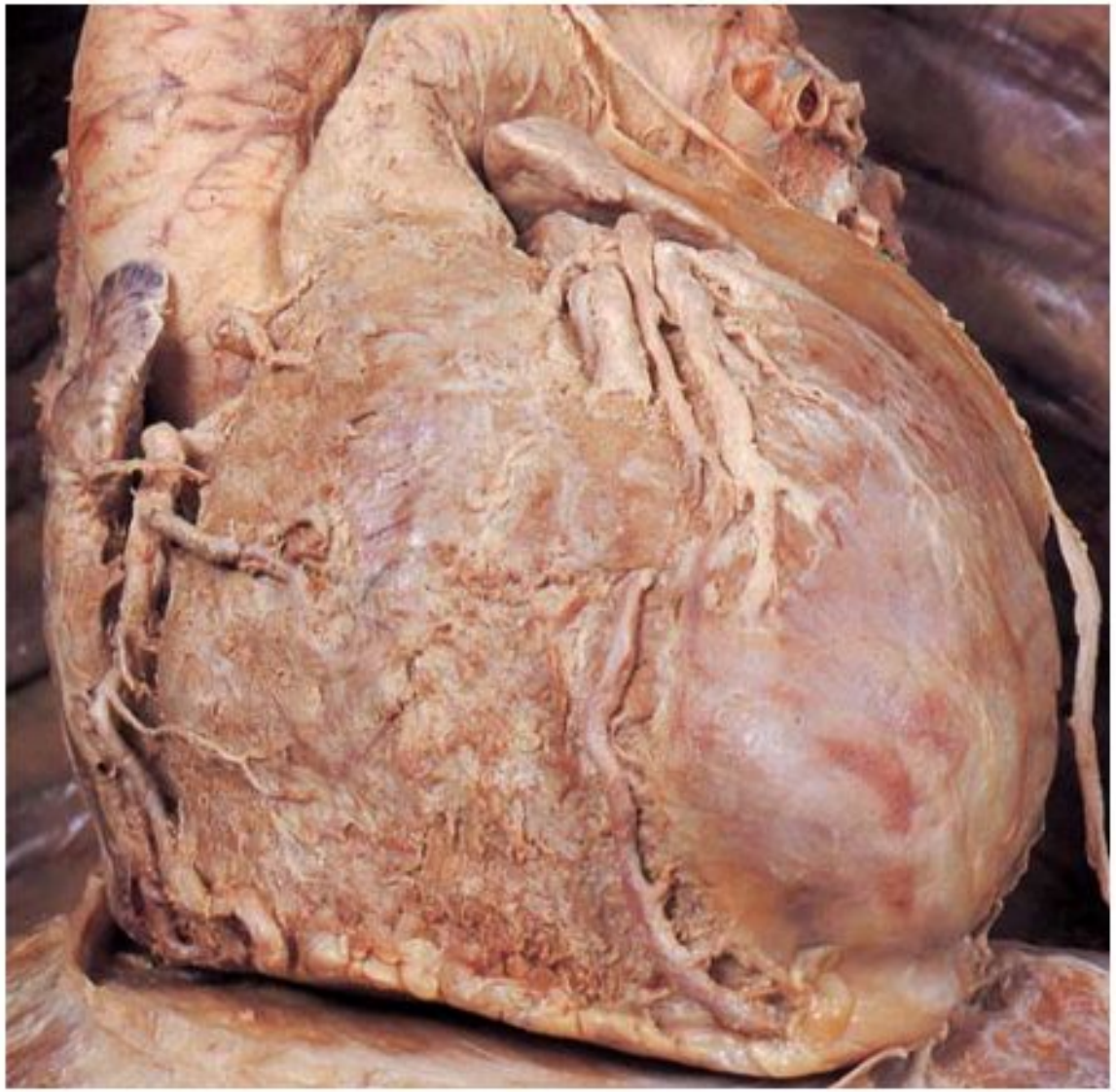


Fig. 2.47 Origins of the right and left coronary arteries from the root of the ascending aorta seen from above.



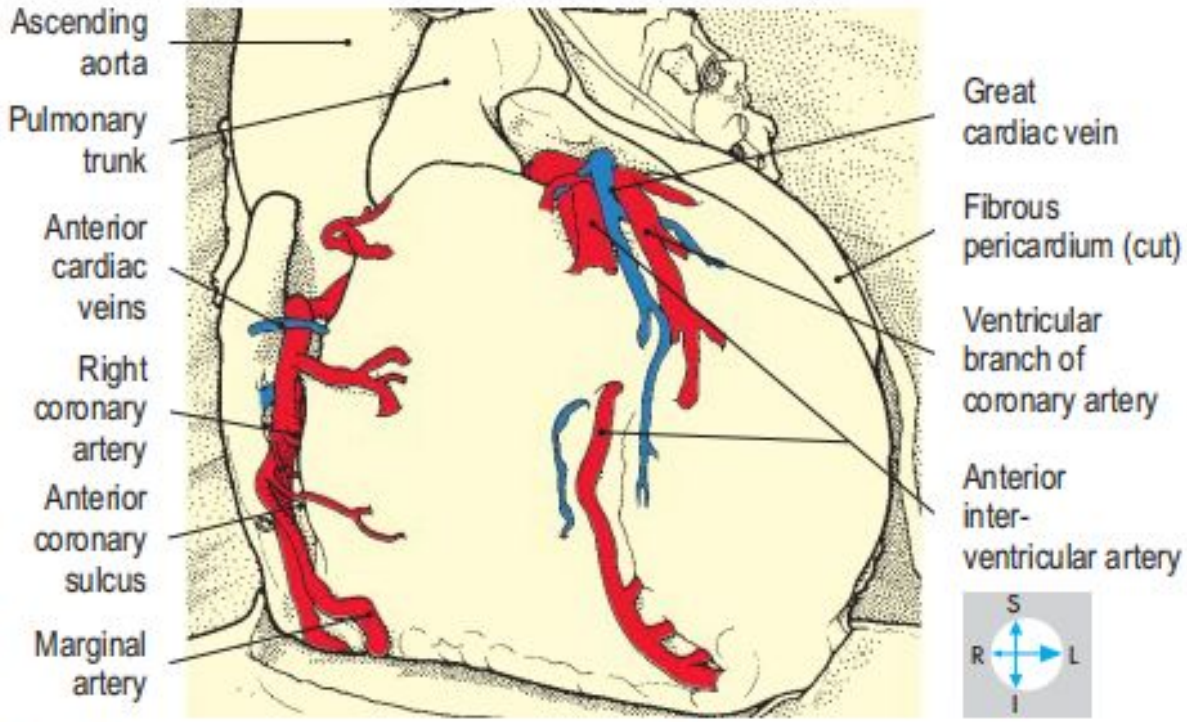
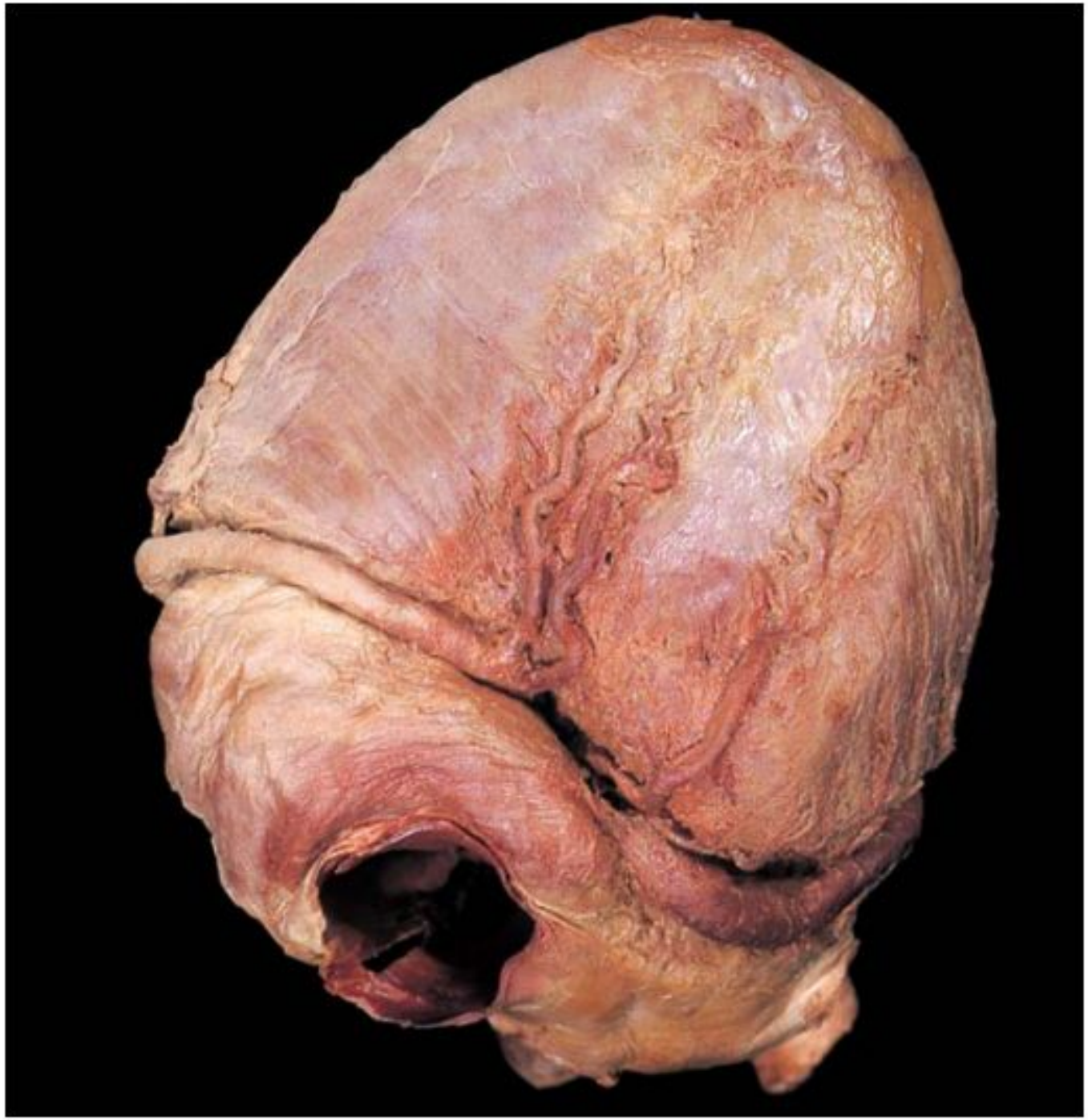


Fig. 2.48 Right and left coronary arteries and their branches on the anterior surface of the heart.



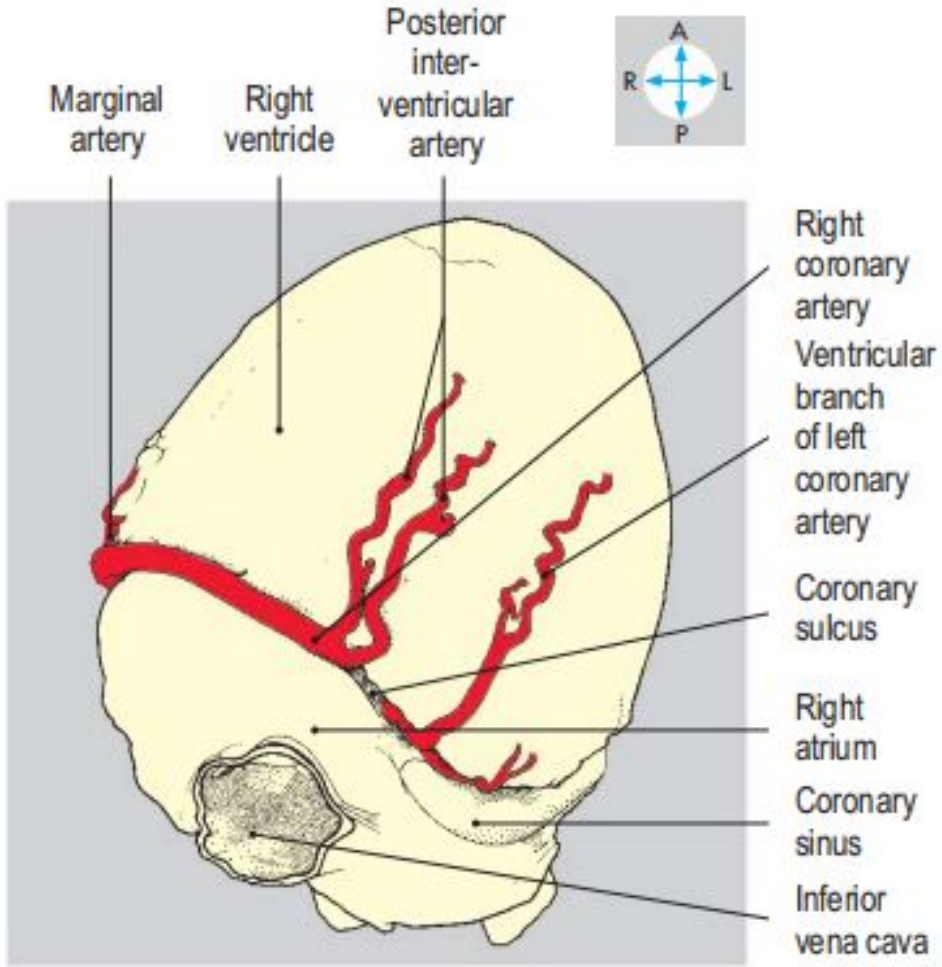
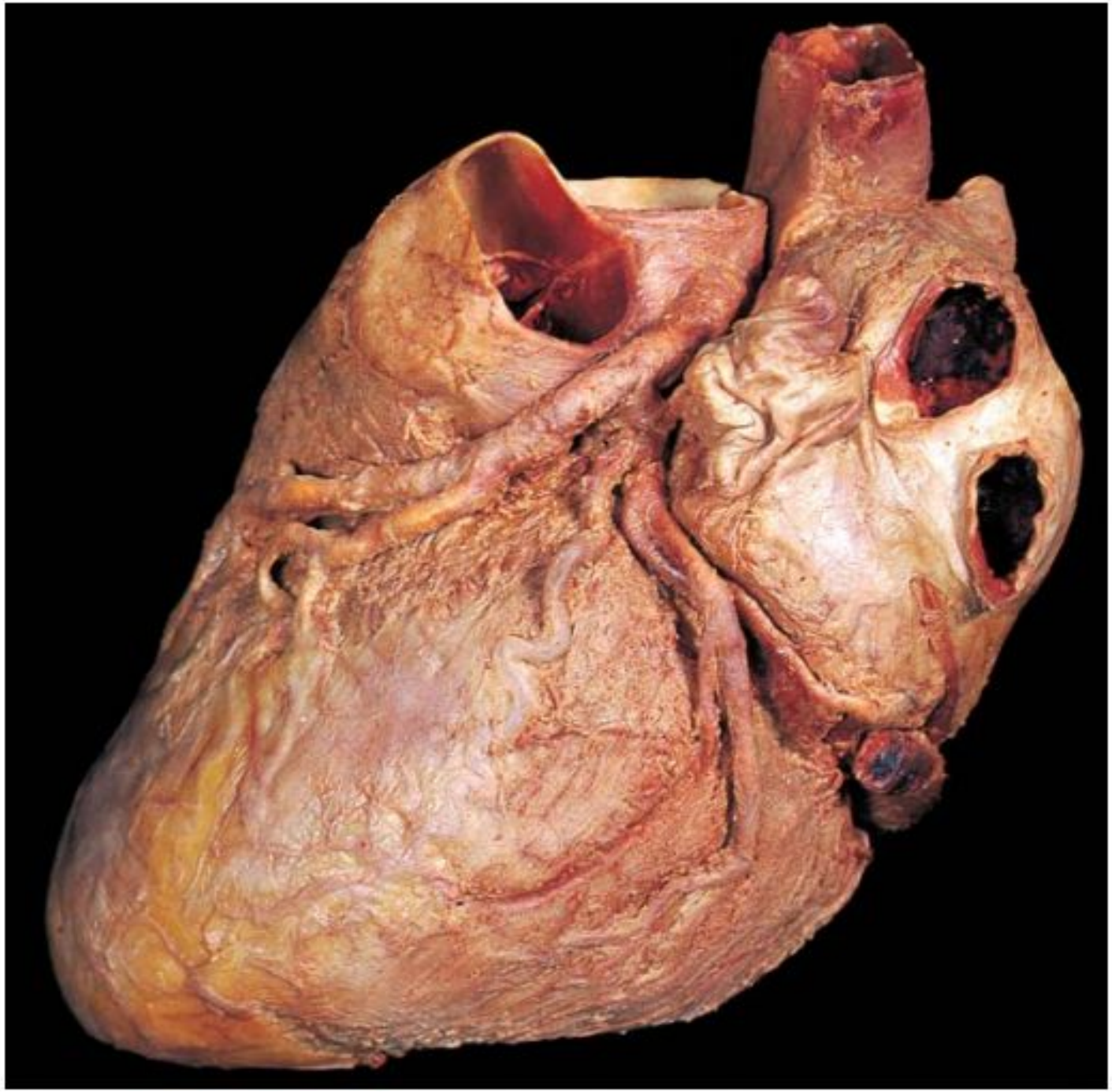


Fig. 2.49 Right and left coronary arteries and their branches on the inferior surface of the heart. The posterior interventricular artery is duplicated in this specimen.



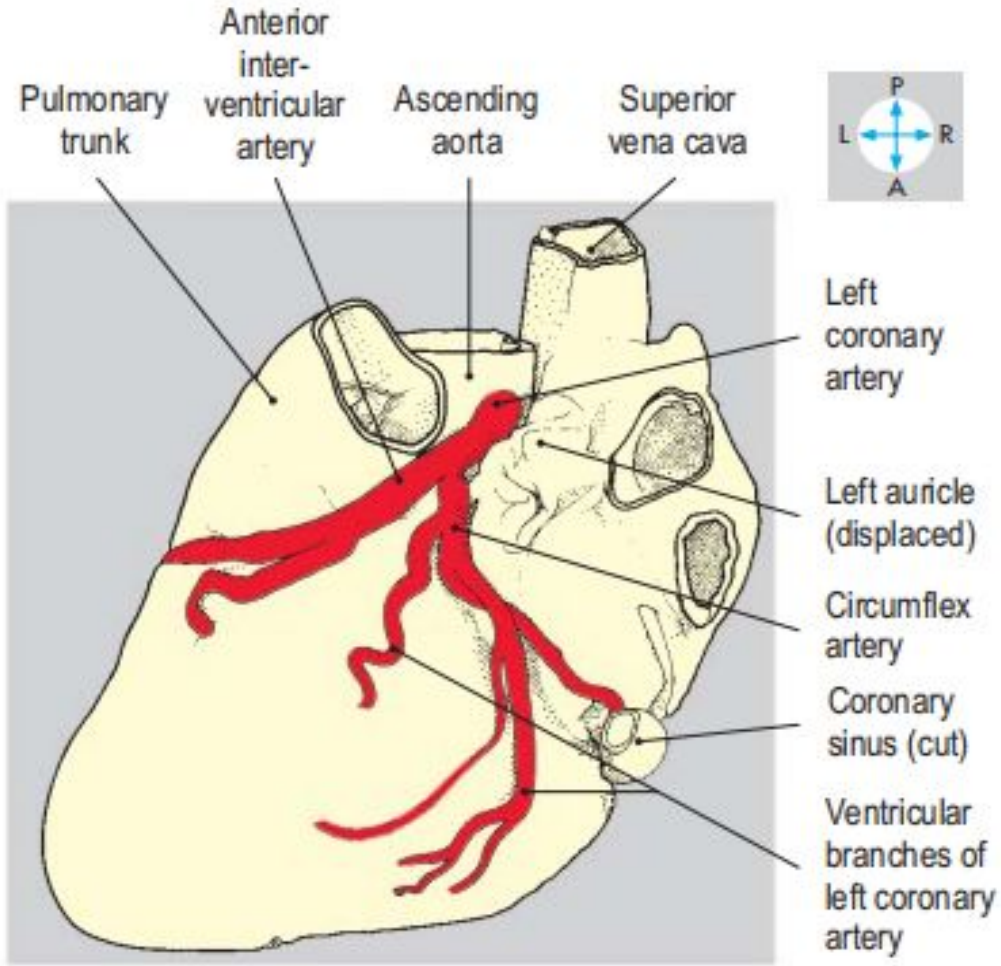
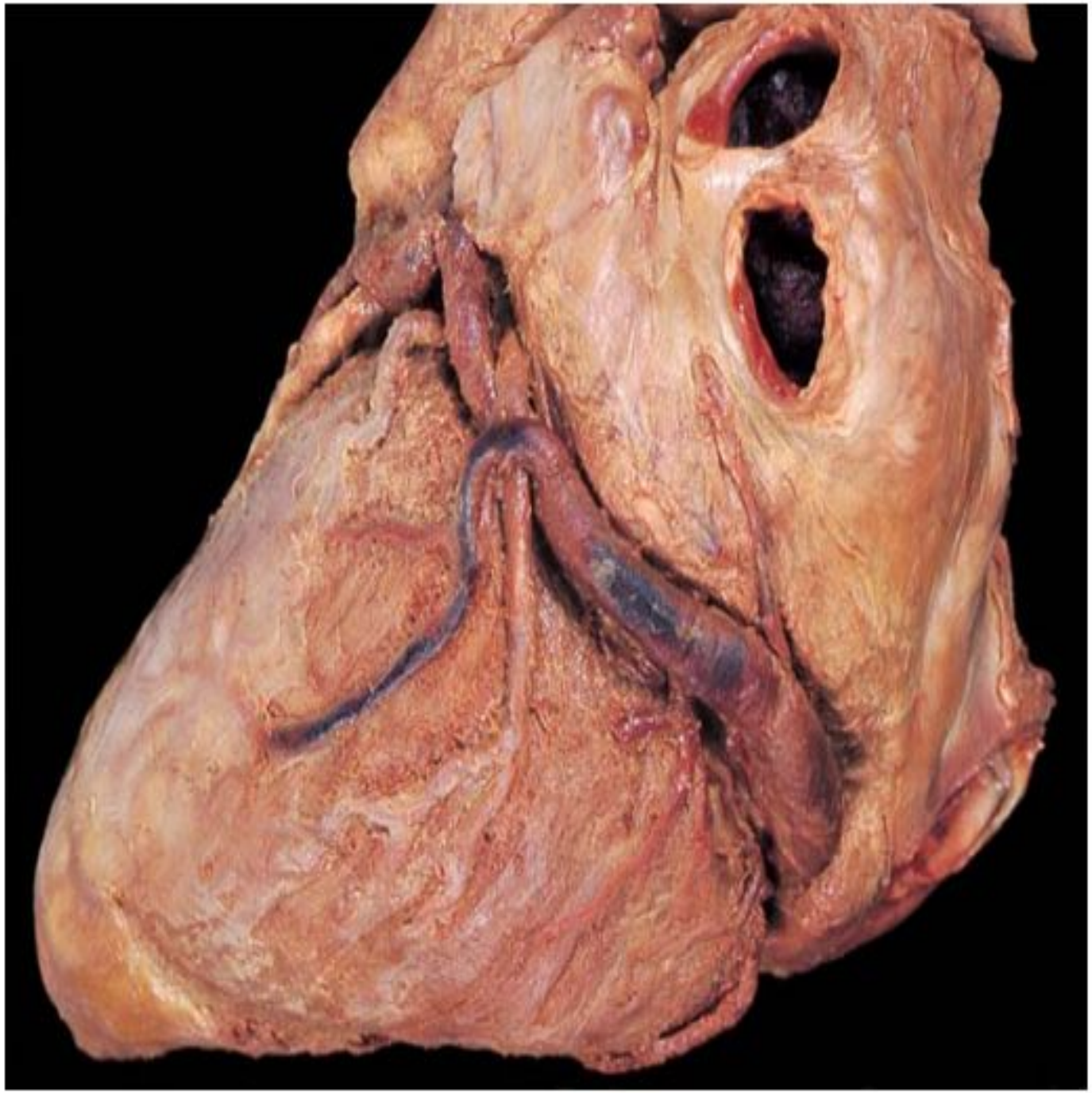


Fig. 2.50 Left coronary artery and its branches, viewed from the left.



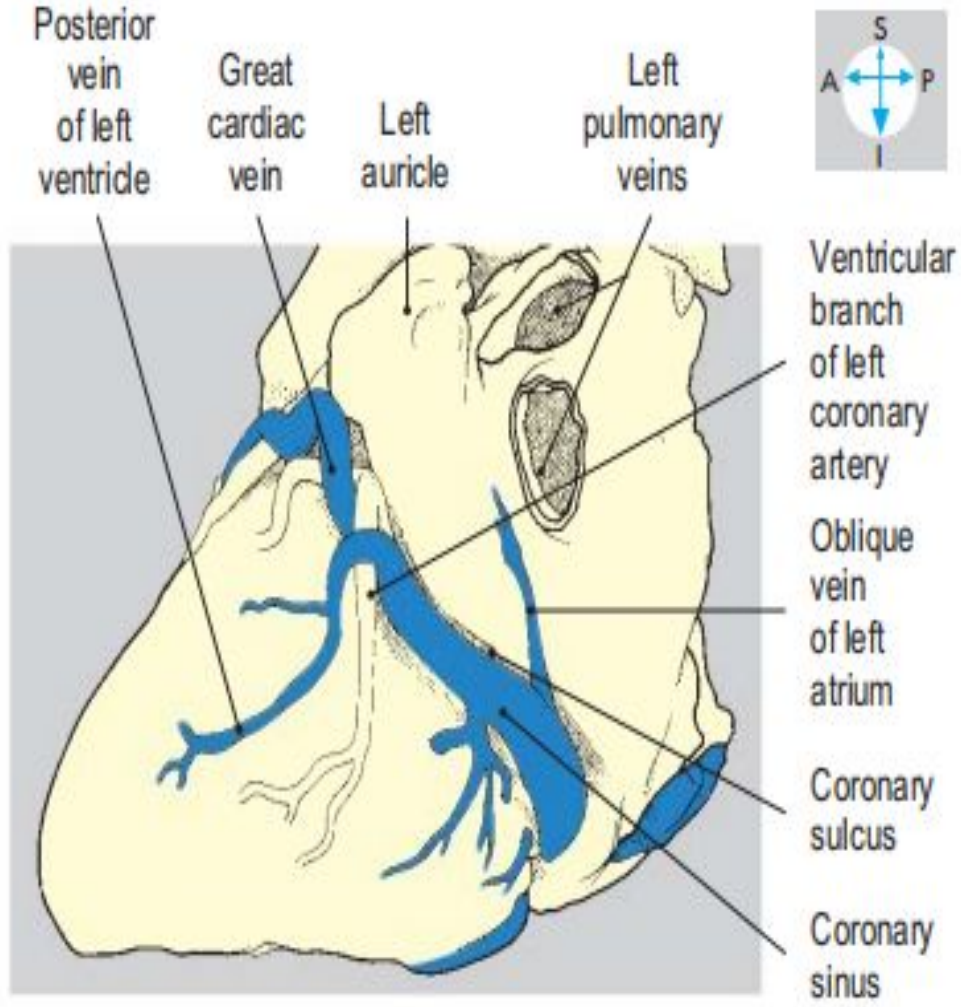
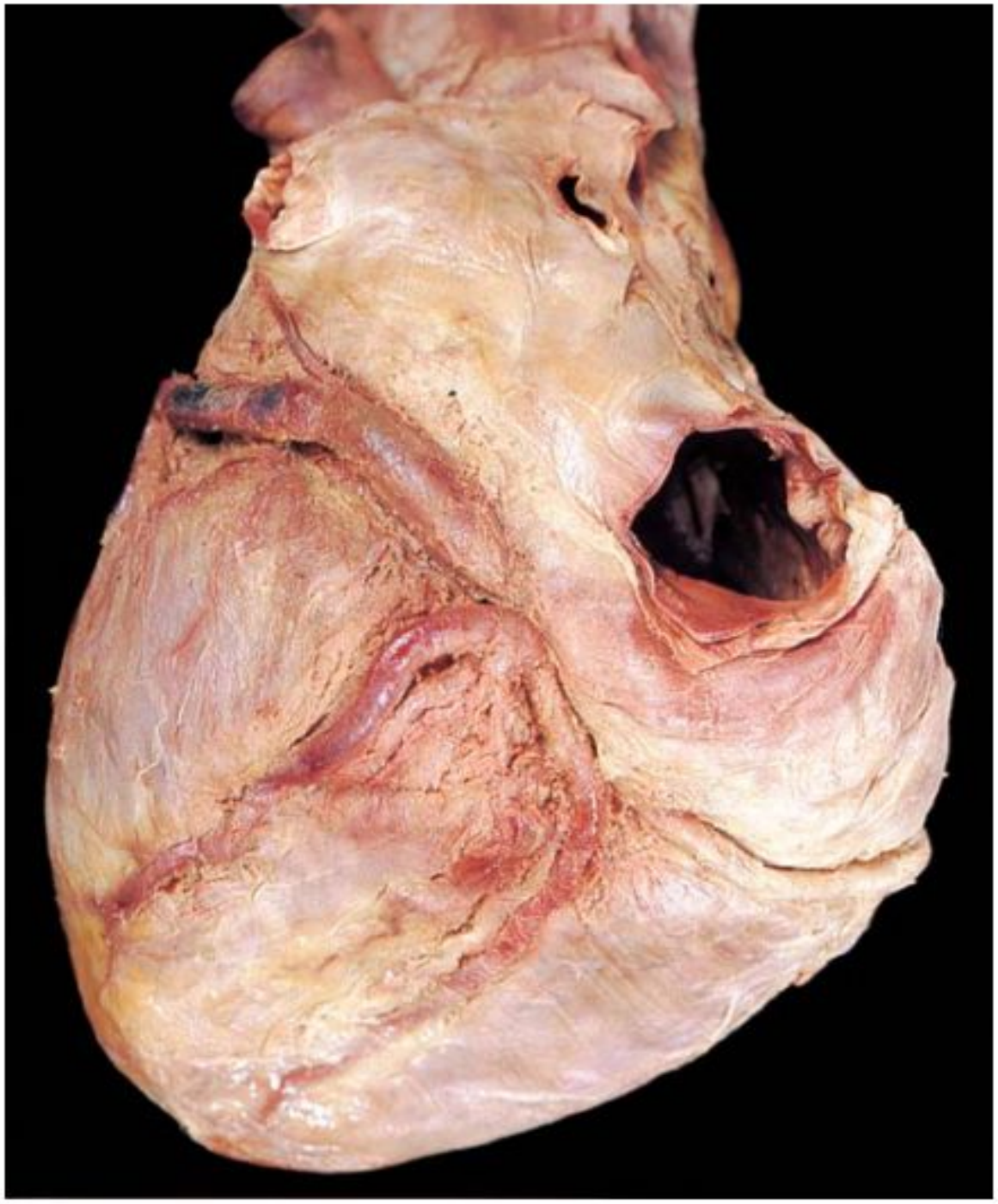


Fig. 2.51 Oblique view of the coronary sinus lying in the coronary sulcus.



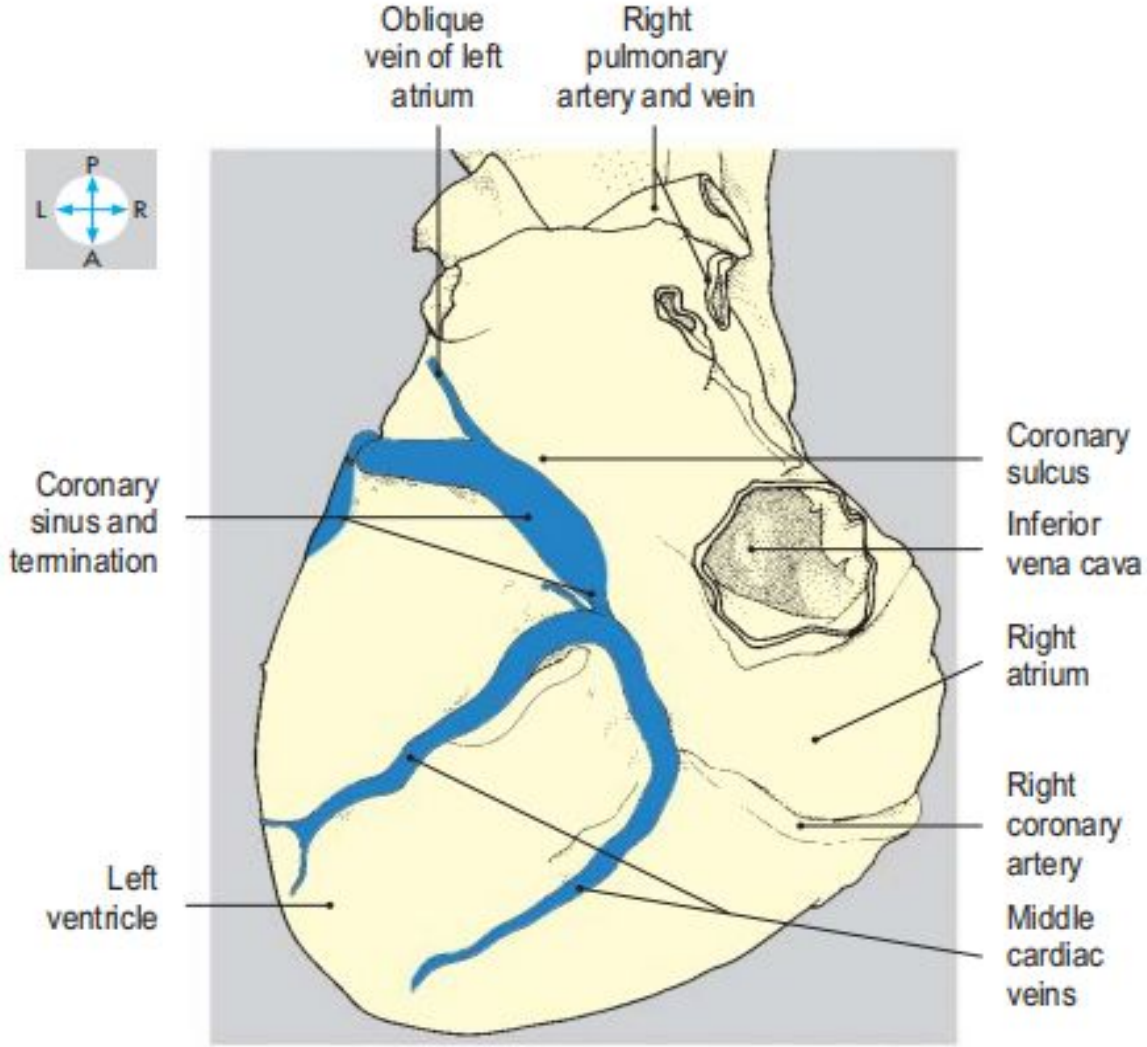
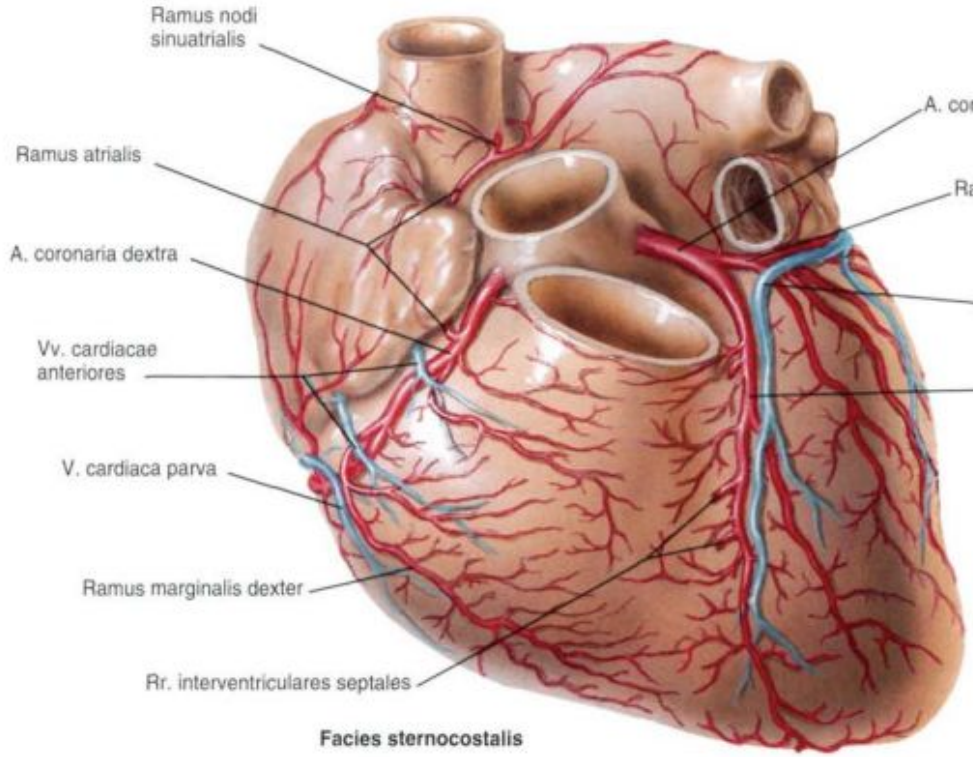
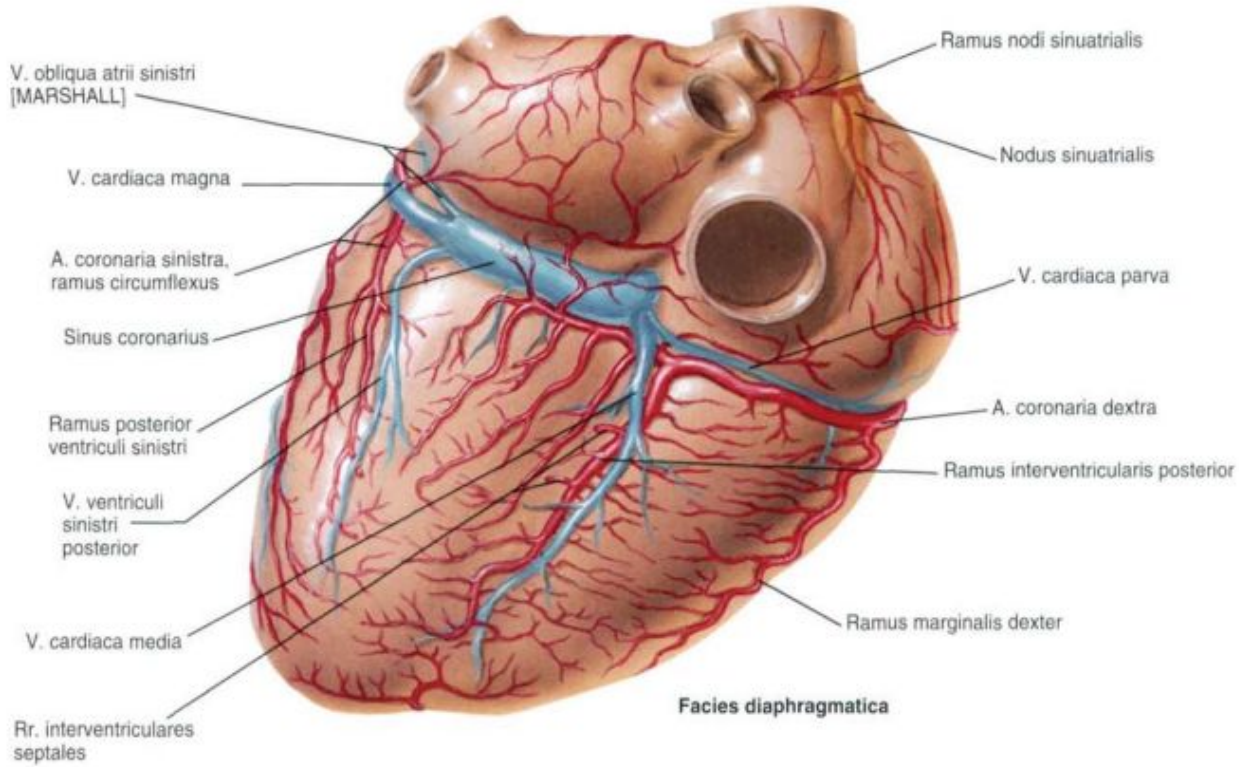


Fig. 2.52 Posteroinferior view of the termination of the coronary sinus in the right atrium.

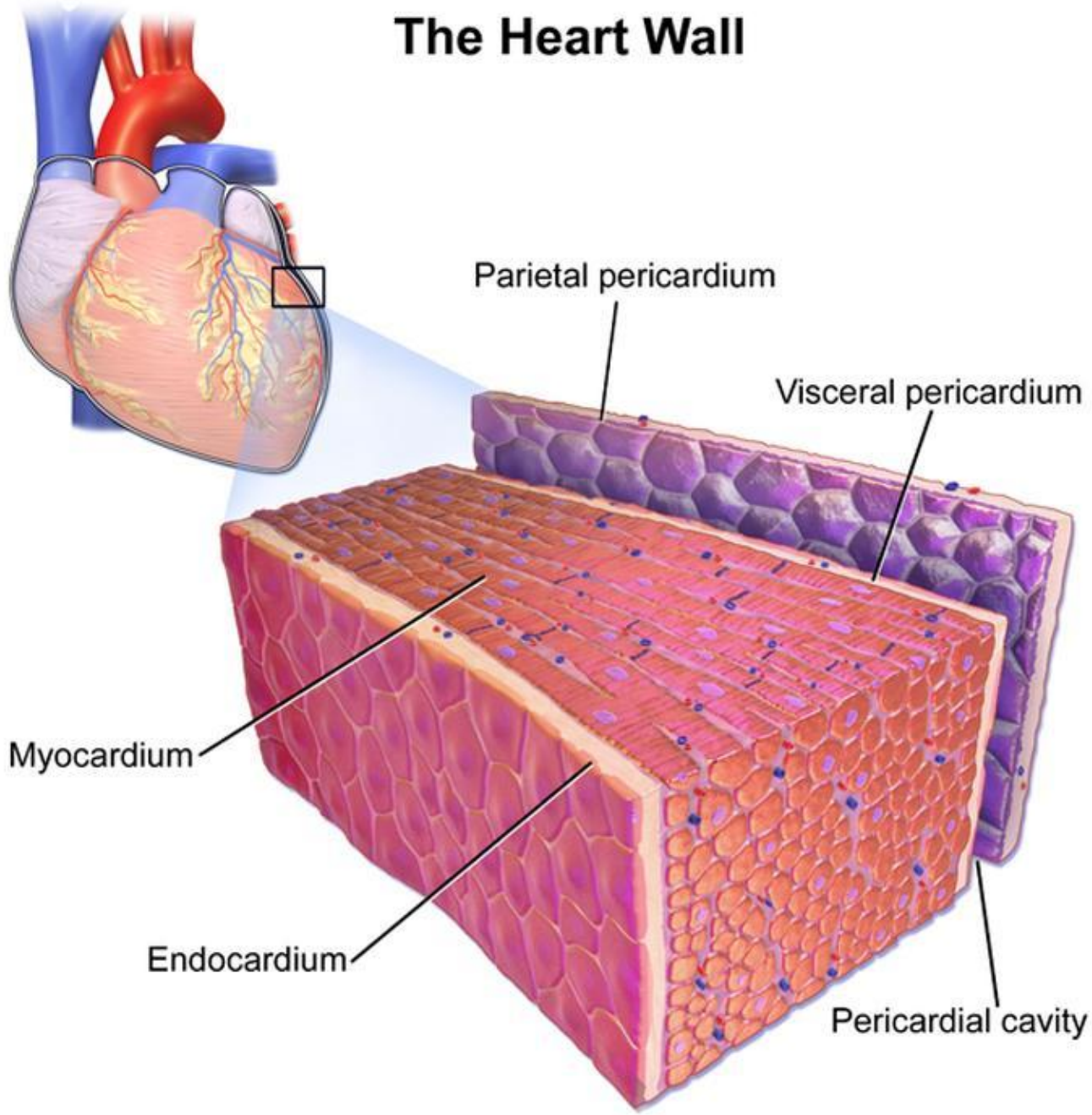


Facies sternocostalis



Facies diaphragmatica

The Heart Wall



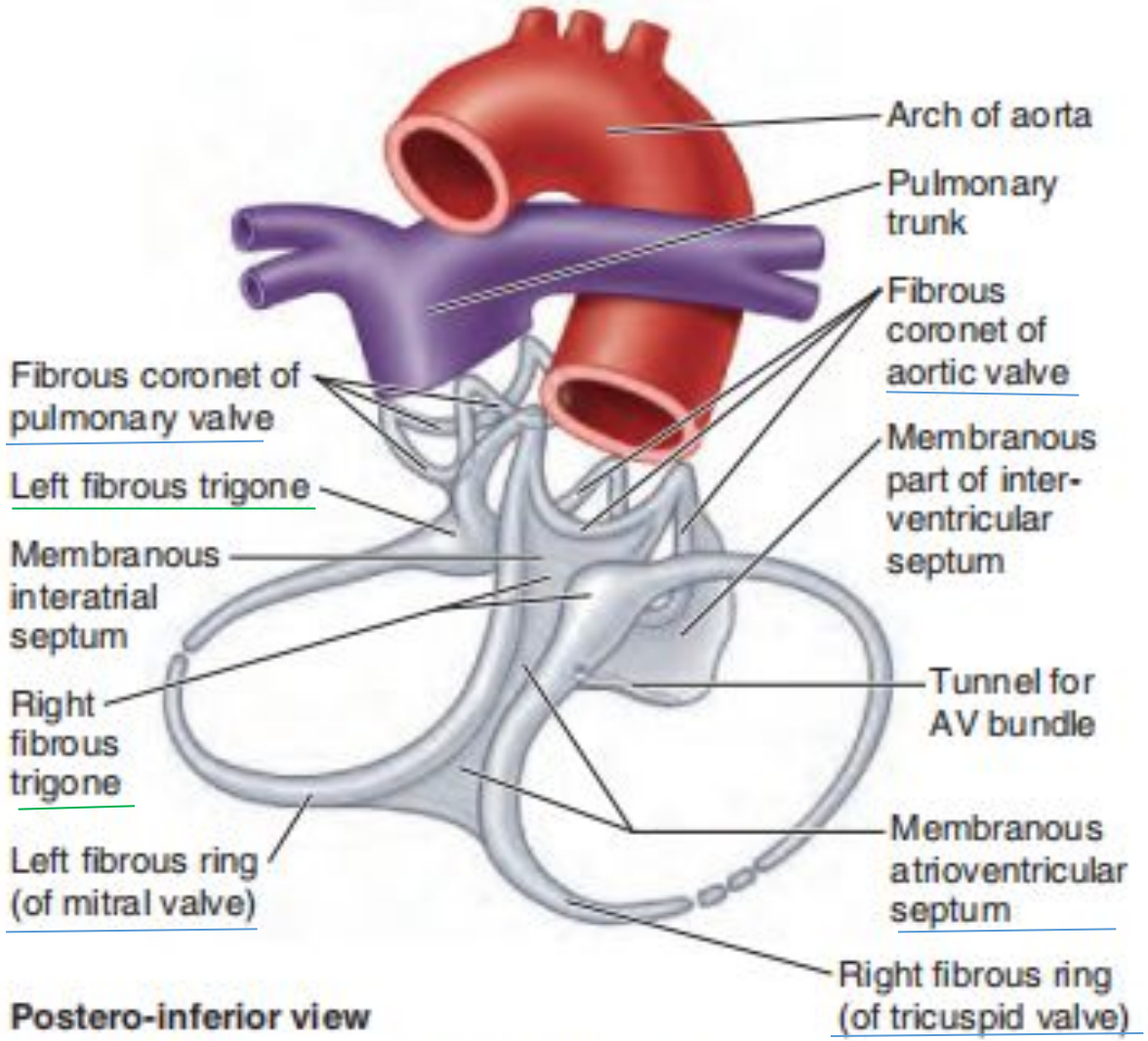
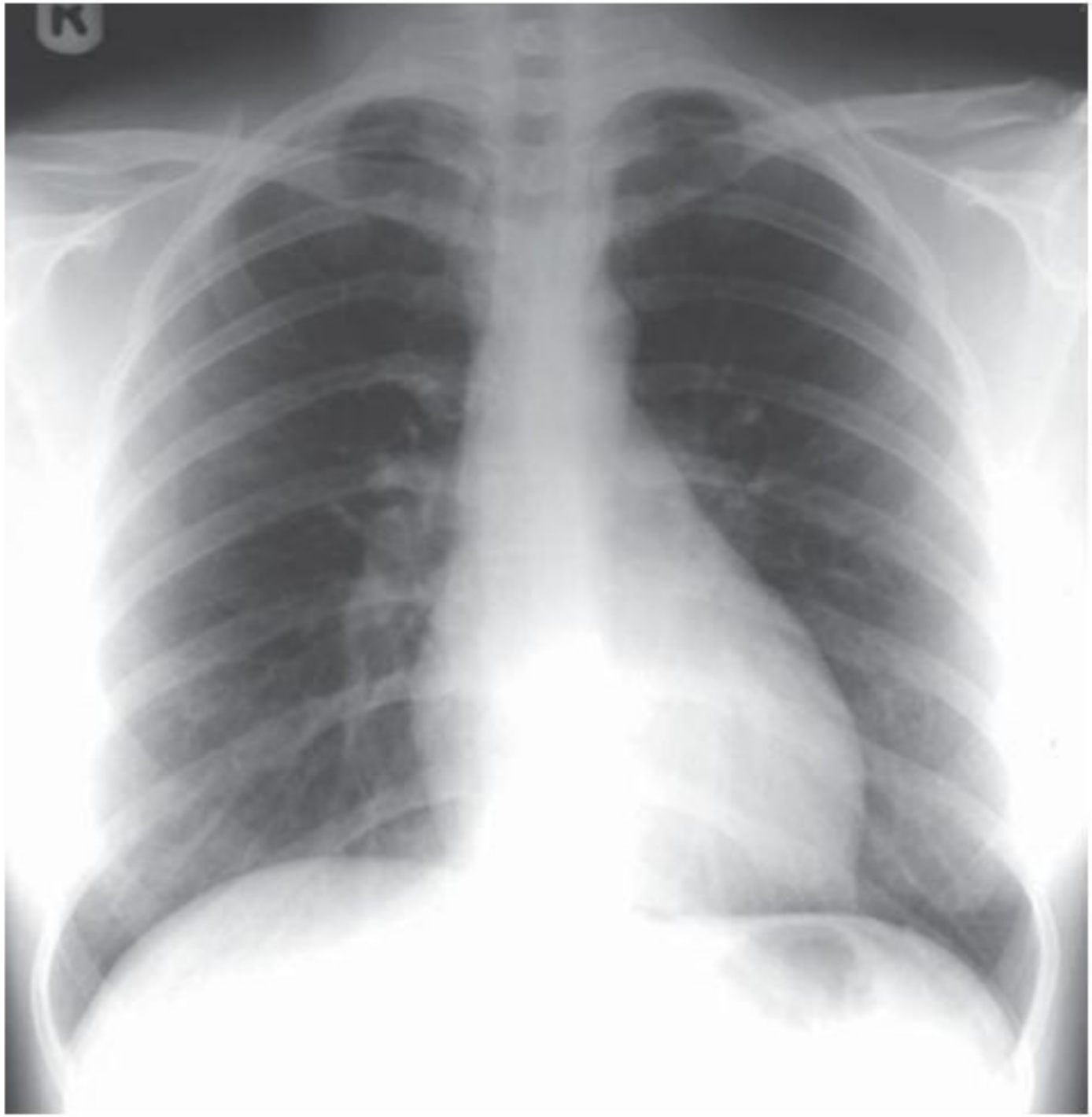
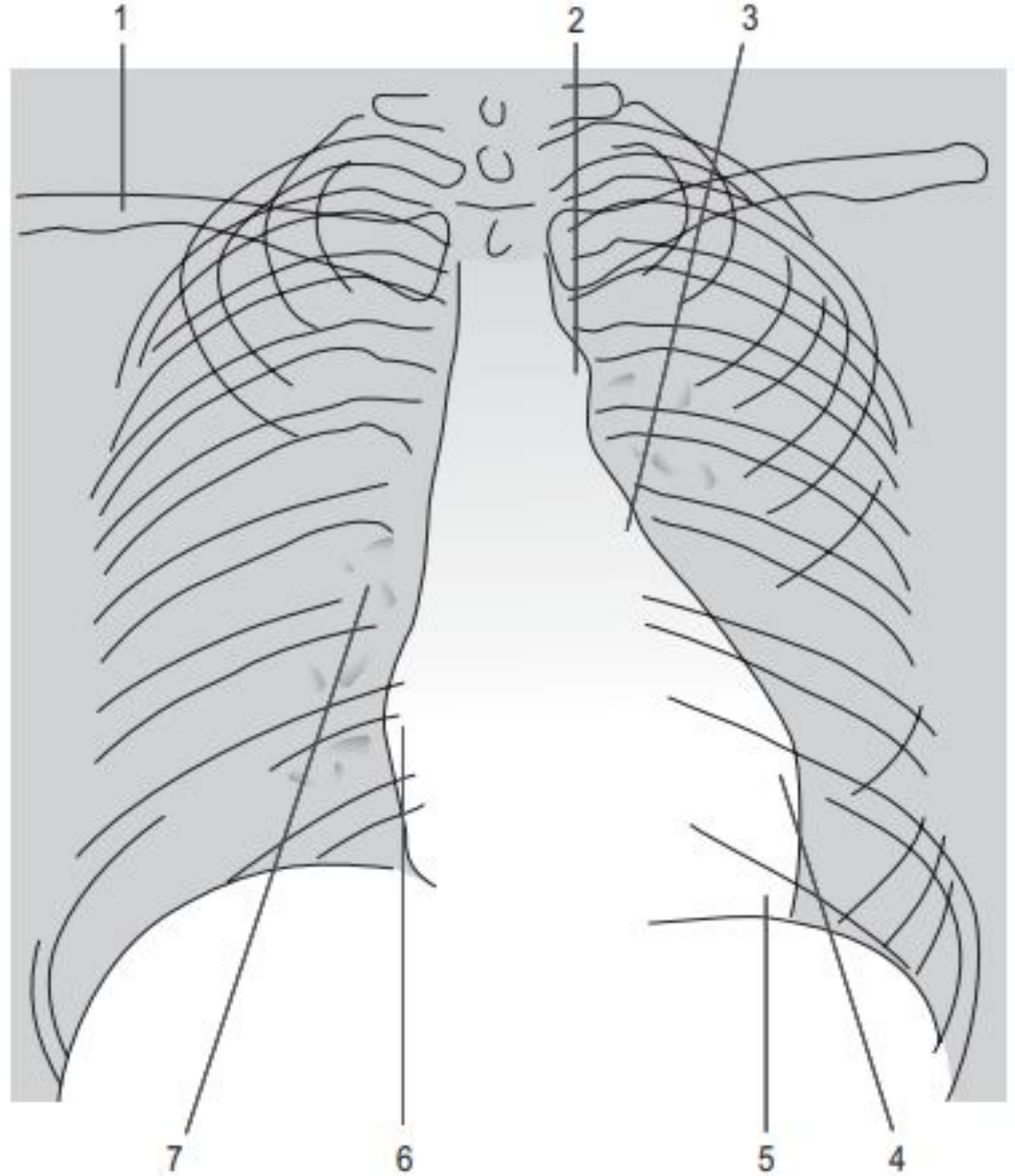


FIGURE 1.51. Fibrous skeleton of heart. The isolated fibrous skeleton is composed of four fibrous rings (or two rings and two "coronets"), each encircling a valve; two trigones; and the membranous portions of the interatrial, interventricular, and atrioventricular septa.

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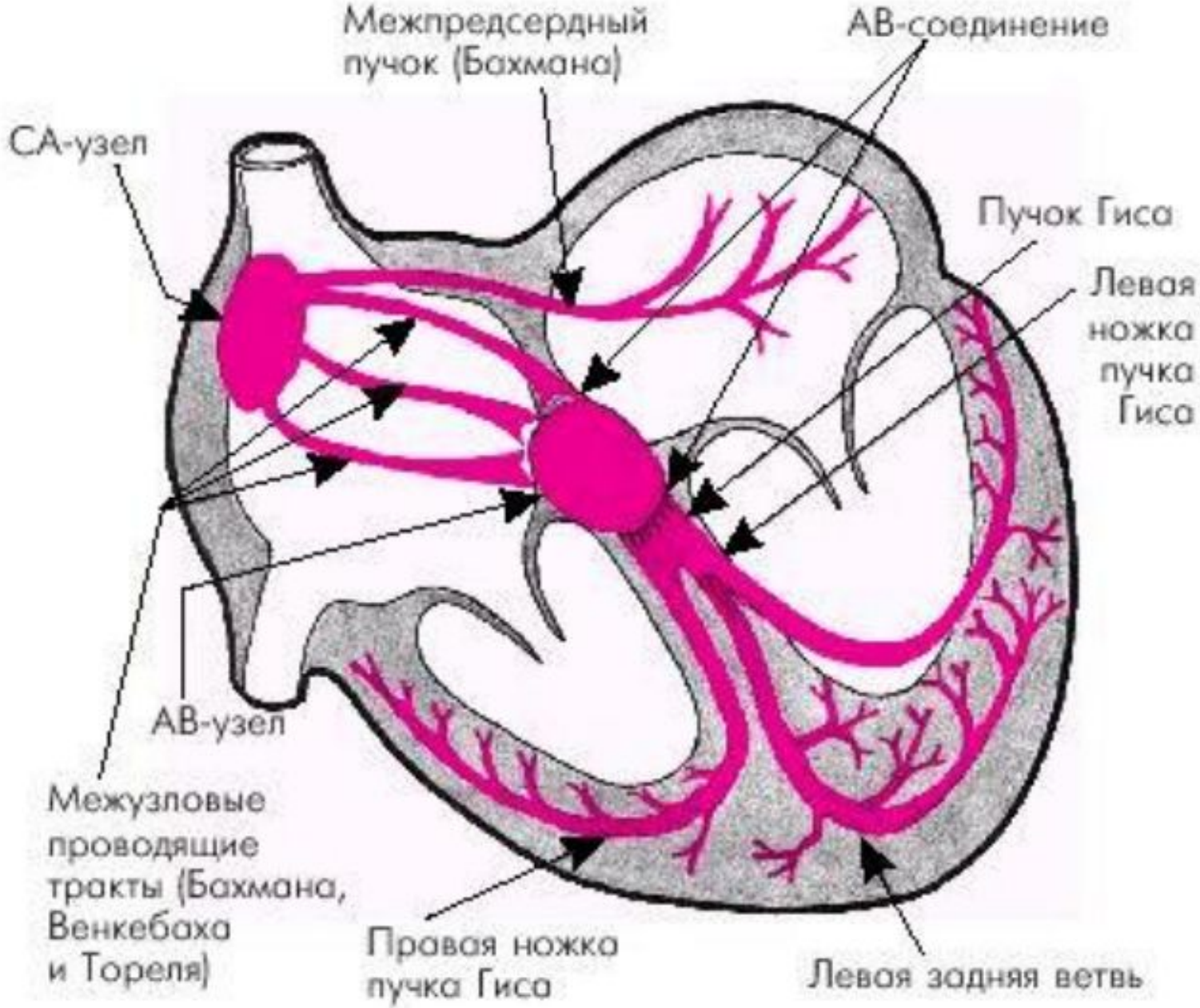

Межпредсердный пучок (Бахмана)
АВ-соединение
СА-узел
Пучок Гиса
Левая ножка пучка Гиса
АВ-узел
Межузловые проводящие тракты (Бахмана, Венкебаха и Тореля)
Правая ножка пучка Гиса
Левая задняя ветвь

Синусно-предсердный узел (SA) генерирует импульсы 70-80/мин; сокращение предсердий

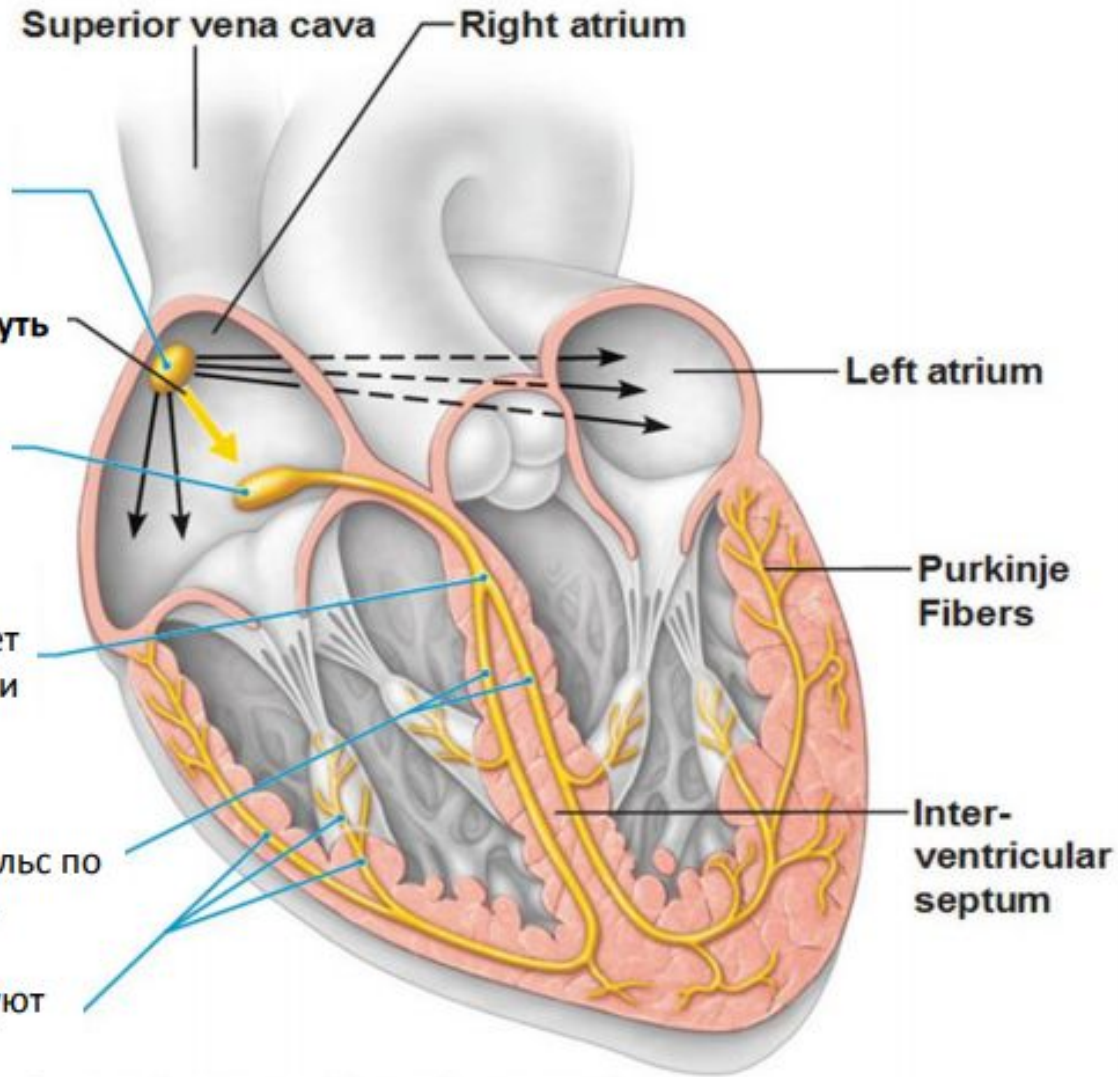
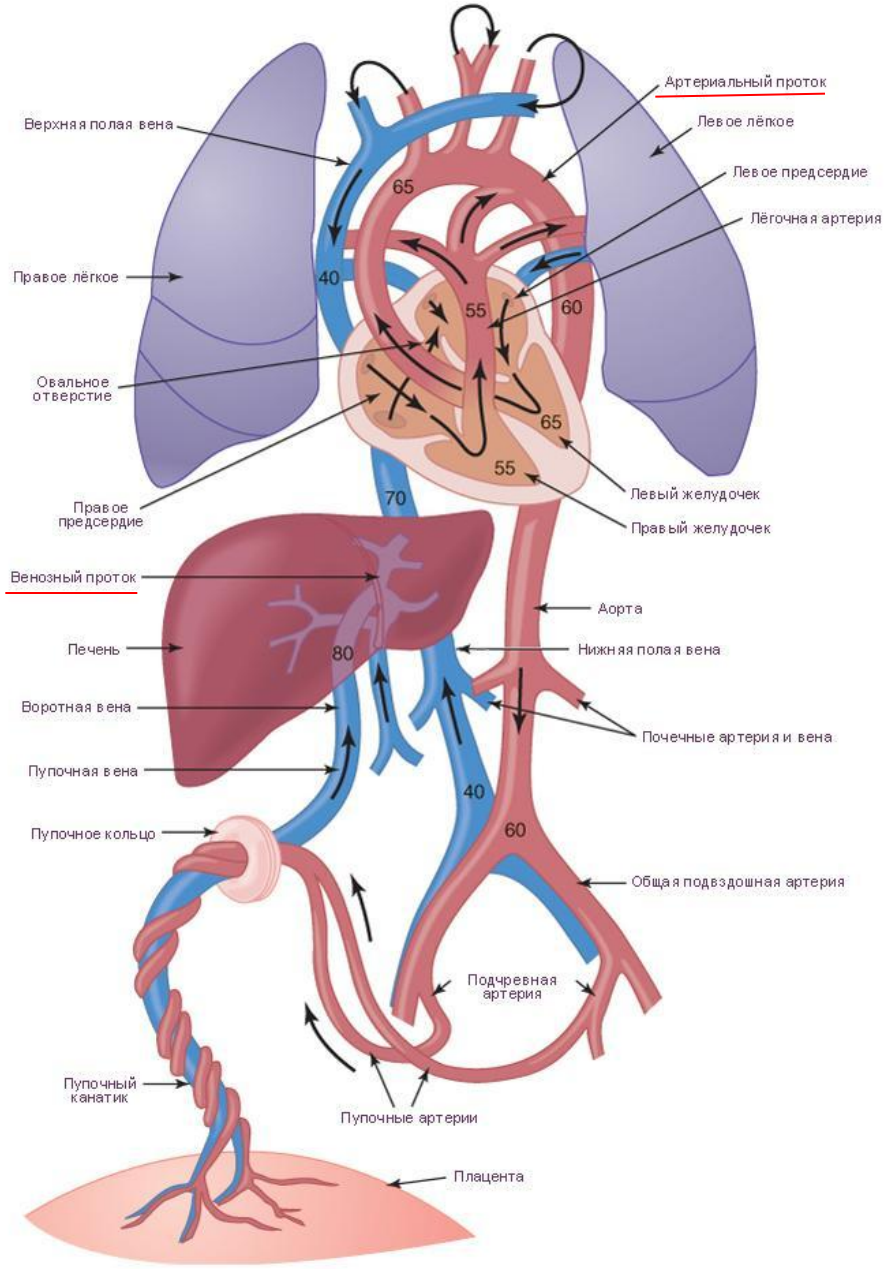
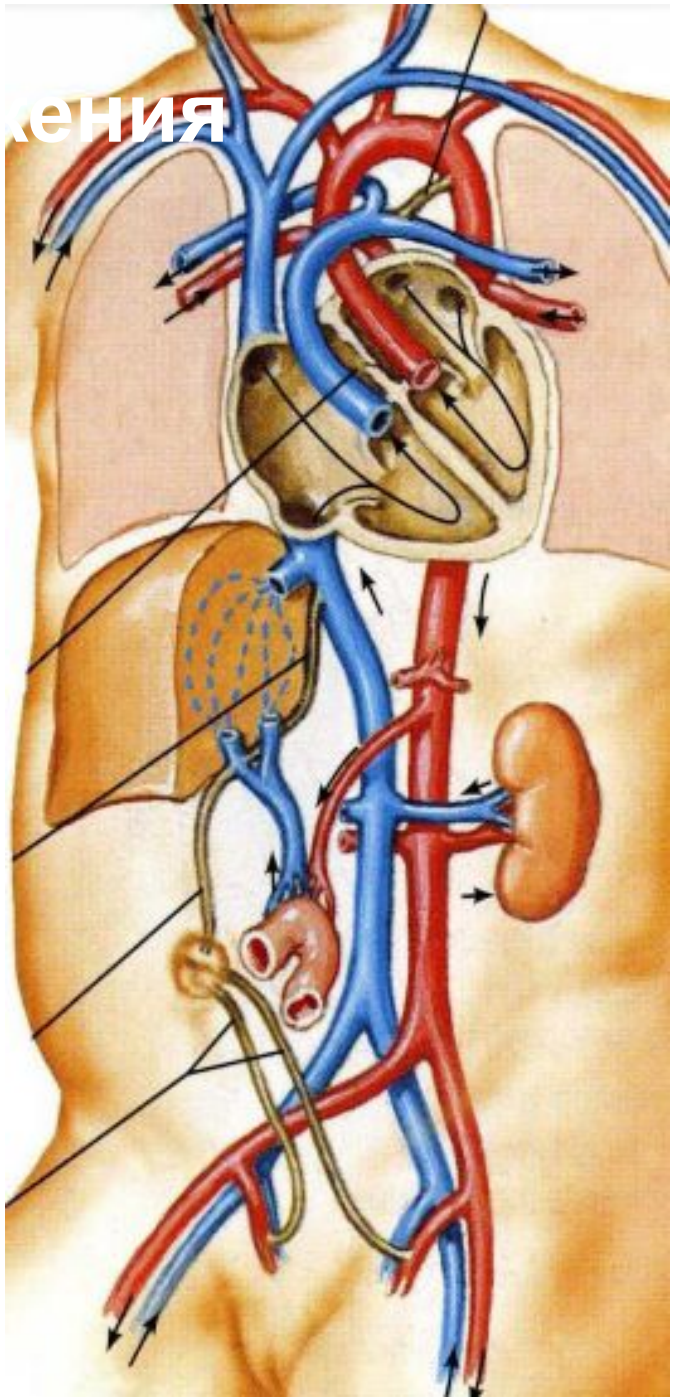
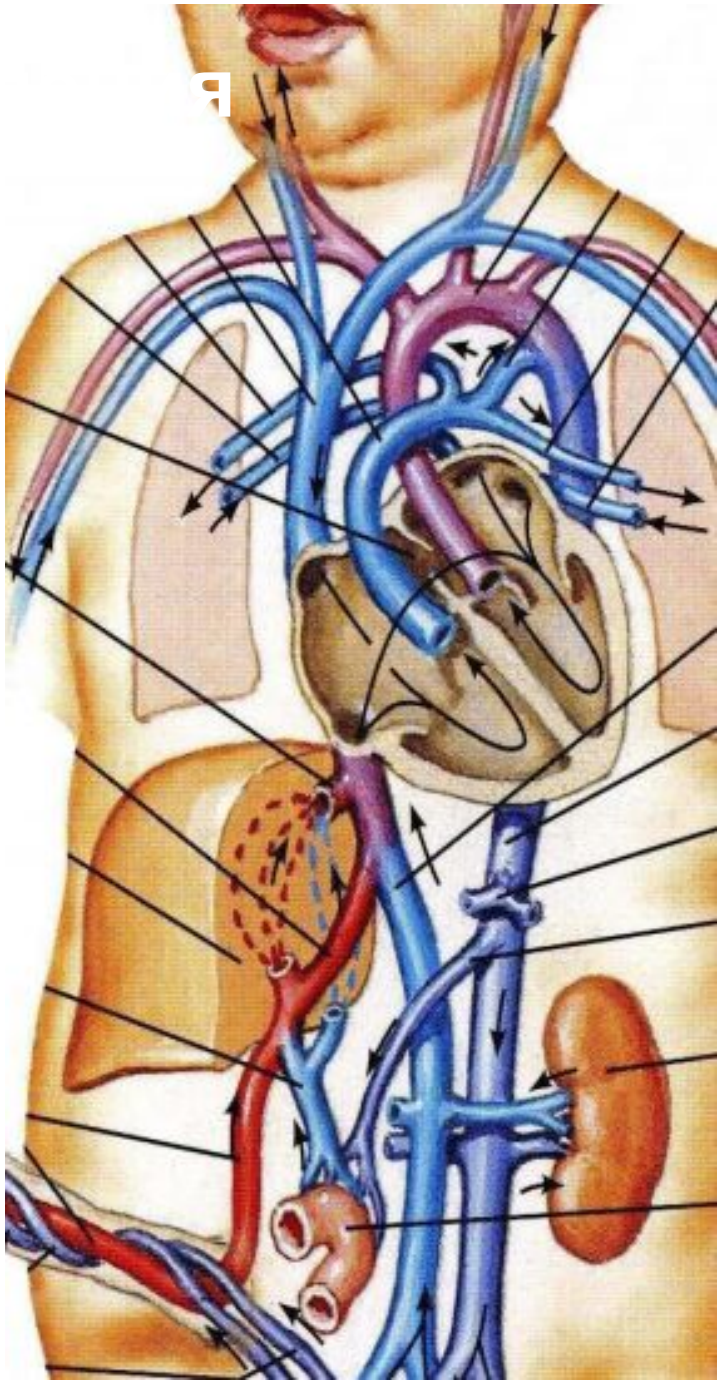
Межузловой путь

Пауза 0,1 сек. на **предсердно-желудочковом узле (AV)** для наполнения желудочков кровью

AV пучок соединяет предсердия и желудочки

AV пучок (Гисса) проводит импульс по межжелудочковой перегородке

Волокна Пуркинье стимулируют рабочие кардиомиоциты желудочков от верхушки сердца вверх



Кровообращение у плода. Гематоплацентраный барьер