

CVS-Physiology

Archive

lecture 3

**HEART CHAMBERS &
CARDIAC VALVES**

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1. Right Ventricle have the following except?

- a. Two papillary muscles
- b. The conus arteriosus (infundibulum) which leads into the pulmonary trunk
- c. The septomarginal trabecula
- d. The supraventricular crest
- e. Form small part of the diaphragmatic surface

Answer ✓: d

2. Which is wrong regarding the right atrium?

- a. Forms the right border of the heart
- b. The SVC opens into it at the level of the right 5th costal cartilage
- c. Have the opening of the coronary sinus
- d. Have rough, muscular anterior wall
- e. The oval fossa seen in interatrial septum separating the atria

Answer ✓: b

3. What can be seen in right atrium

- a. Opening of coronary sinus

Answer ✓: a

4. Choose the wrong information:

- A. The chordae tendineae connect the papillary muscles to the valve leaflets.
- B. The pulmonary valve guards the pulmonary artery.
- C. The pulmonary valve is semilunar.
- D. The mitral valve has two leaflets.
- E. Each atrium has an additional appendage called an auricle.

Answer ✓: A

5. Pulmonary valve

- a. Located at the apex of the infundibulum of the RV into the pulmonary trunk
- b. Consists of the left, right, and anterior semilunar cusps
- c. The margin of each cusp is called lunula and has thickened portion called the nodule
- d. Each cusp forms a pocket-like sinus a dilation in the wall of the initial portion of the pulmonary trunk

Answer ✓: جميع الخيارات صحيحة

6. Left Atrium

- a. Situated behind the right atrium and forms the greater part of the base or posterior surface of the heart
- b. Left auricle possesses muscular ridges
- c. Four pulmonary veins open through the posterior wall and have no valves
- d. Left atrioventricular orifice is guarded by the mitral valve

Answer ☒: جميع الخيارات صحيحة

7. Left Ventricle

- a. Forms the apex of the heart and most of the diaphragmatic surface
- b. Walls two to three times as thick as right ventricle
- c. Trabeculae carneae finer and more numerous than right ventricle
- d. Anterior and posterior papillary muscles larger than right ventricle
- e. A smooth-walled, superoanterior outflow part, the aortic vestibule, leading to aortic orifice
- f. Double-leaflet mitral valve guards the left AV orifice
- g. Aortic orifice lies in its right posterosuperior part

Answer ☒: جميع الخيارات صحيحة

8. Mitral valve

- a. Guards the left AV orifice
- b. Consists of two cusps, one anterior and one posterior
- c. Anterior cusp is larger and intervenes between atrioventricular and aortic orifices

Answer ☒: جميع الخيارات صحيحة

9. Aortic valve

- a. Guards the aortic orifice
- b. One cusp is situated on the anterior wall (right cusp)
- c. Two cusps are located on the posterior wall (left and posterior cusps)
- d. Behind each cusp, the aortic wall bulges to form an aortic sinus
- e. Anterior aortic sinus gives origin to the right coronary artery
- f. Left posterior sinus gives origin to the left coronary artery
- g. Located posterior to the left side of the sternum at level of 3rd intercostal space

Answer ☒: جميع الخيارات صحيحة

10. Cardiac skeleton & AV bundle

- a. Collection of dense fibrous connective tissue in the form of four rings
- b. Surround AV orifices, aortic orifice, and pulmonary trunk openings
- c. Separates atrial musculature from ventricular musculature
- d. AV bundle passes through the anulus and is the single connection between atrial and ventricular myocardium

Answer ☒: جميع الخيارات صحيحة

11. Atrial Septal Defect (ASD)

- a. Congenital anomaly of interatrial septum
- b. Usually incomplete closure of foramen ovale
- c. Small openings cause no hemodynamic abnormalities and are of no clinical significance

Answer ☒: جميع الخيارات صحيحة

12. Ventricular Septal Defect (VSD)

- a. Membranous part is common site of VSDs
- b. Defects also occur in muscular part
- c. Isolated VSDs account for ~25% of congenital heart disease
- d. Causes left-to-right shunt of blood
- e. Large shunt increases pulmonary blood flow → pulmonary hypertension and possible cardiac failure

Answer ☒: جميع الخيارات صحيحة

13. Which of the following congenital heart defects are associated with a right-to-left shunt? (5 Ts)

- a) Tetralogy of Fallot
- b) Transposition of the great arteries
- c) Truncus arteriosus
- d) Total anomalous pulmonary venous return
- e) Tricuspid atresia

Answer ☒: جميع الخيارات صحيحة

15. Which of the following cardiac fibers conduct action potentials the fastest?

- a) Atrial muscle fibers
- b) Ventricular muscle fibers
- c) Purkinje fibers
- d) AV node fibers

Answer ☒: c Purkinje fibers



”تأتيك الأشياء
على قدر سعيك، لا
على قدر رغبتك.”