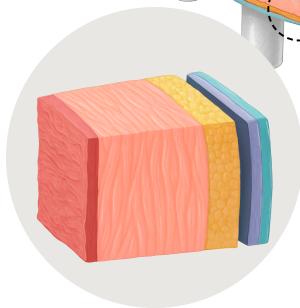
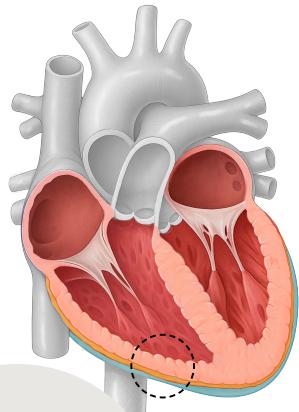


## **CONCEPT: CARDIOVASCULAR SYSTEM: HEART**

### **Introduction to Heart Structure**

- ◆ **Heart:** Central organ of the cardiovascular system primarily made up of \_\_\_\_\_ muscle.
- ◆ The walls of the heart are made up of \_\_\_ layers.
  - ▶ \_\_\_\_\_ **cardium:** Lines heart chambers, reduces inner friction as blood flows.
  - ▶ \_\_\_\_\_ **cardium:** Thick muscular layer, contraction produces pumping.
  - ▶ \_\_\_\_\_ **cardium:** Double-walled fluid-filled sac, reduces outer friction as the heart beats.
- ◆ The heart has \_\_\_ chambers/cavities:
  - ▶ **Atria:** 2 Upper chambers \_\_\_\_\_ blood.
  - ▶ **Ventricles:** 2 Lower chambers \_\_\_\_\_ blood.



### **EXAMPLE**

Use the words in the word-bank to fill in the blanks and complete the sentences.

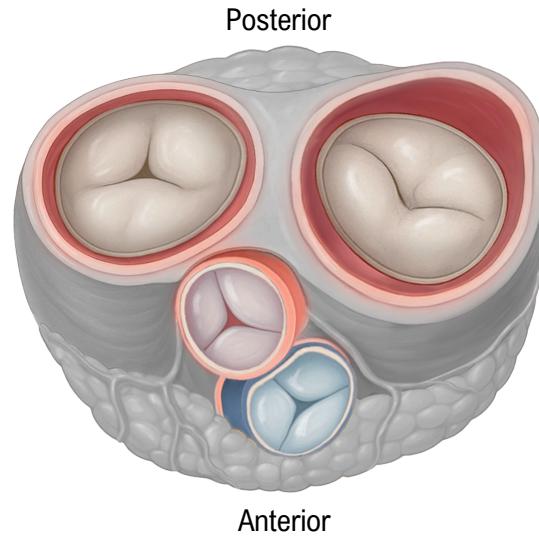
**Word-Bank:** Pump   Receive   Myo   Exo   Endo   Peri

The heart is a muscular pump and its walls are made up of 3 layers. The \_\_\_\_\_ cardium provides protection to the \_\_\_\_\_ cardium, the insides of which are lined by \_\_\_\_\_ cardium. The upper chambers of the heart are for \_\_\_\_\_ ing blood while the lower chambers of the heart are for \_\_\_\_\_ ing blood.

## **CONCEPT: CARDIOVASCULAR SYSTEM: HEART**

### **Heart Valves**

- ◆ Situated at the entrances & exits to the \_\_\_\_\_ and control the \_\_\_\_\_ of blood flow.
- ◆ **Atrioventricular Valves:** Allow blood received in the atria to \_\_\_\_\_ the ventricles.
  - **Tricuspid Valve:** From body.
  - **Bicuspid (Mitral) Valve:** From lungs.
- ◆ **Semilunar Valves:** Allow blood to flow \_\_\_\_\_ of the ventricles.
  - **Aortic Valve:** To body.
  - **Pulmonary Valve:** To lungs.



### **EXAMPLE**

Identify each of the following statements as true (T) or false (F).

a) _____	The tricuspid valve gets its name from its three “leaves” (cusps).
b) _____	Semilunar valves allow blood in the atria to enter the ventricles.
c) _____	Aortic valve is a semilunar valve that allows blood to flow out of the atria.
d) _____	Atrioventricular valves connect atria to ventricles and are posterior to the semilunar valves.

### **PRACTICE**

Which of the following is not true about a heart chamber or valve?

- a) Endocardium lines the inner walls of heart chambers and reduces friction as blood flows through the chambers.
- b) Heart valves are situated at the entrances & exits of the ventricle and ensure that blood flows in one direction only.
- c) Atria are the upper chambers that receive blood while the ventricles pump out blood when they contract.
- d) Tricuspid valve is an atrioventricular valve and allows blood from the ventricles to enter the atria.