

# G. Blood Pressure

- Color and label:**
- 1. ○ myocardium
  - 2. ○ arteriole

- Color:**
- pressure arrows
- Label:**
- 3. aortic semilunar valve

- 4. aorta
- 5. large artery
- 6. capillary

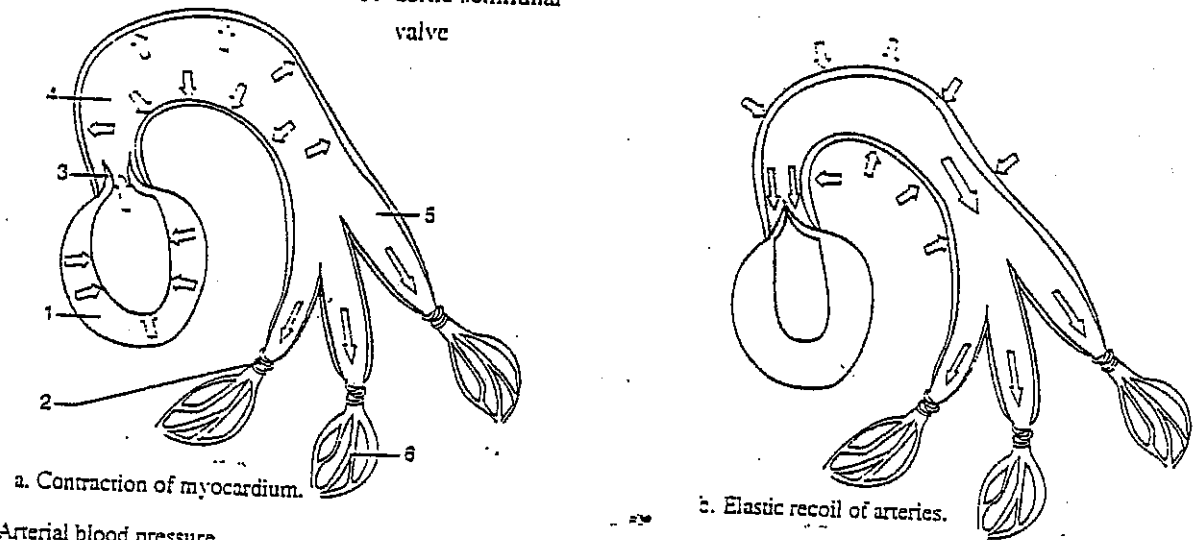


Figure 12.7. Arterial blood pressure.

**Exercise 12.7:**

- \_\_\_\_\_ 1. When the myocardium of the left ventricle contracts, the pressure in the ventricle \_\_\_\_\_ (increases, decreases). (figure 12.7a)
  - \_\_\_\_\_ a. When the pressure in the left ventricle exceeds the pressure in the aorta, the aortic semilunar valve \_\_\_\_\_ (opens, closes).
  - \_\_\_\_\_ b. This pressure forces blood into the aorta, causing its pressure to \_\_\_\_\_ (increase, decrease).
- \_\_\_\_\_ 2. When the pressure in the aorta exceeds the pressure in the left ventricle, the aortic semilunar valve \_\_\_\_\_ (opens, closes). (figure 12.7b)
- \_\_\_\_\_ 3. The pressure of the blood on the walls of the aorta causes its elastic connective tissue to \_\_\_\_\_.
- \_\_\_\_\_ 4. The pressure exerted by the heart muscle and the elastic rebound of the aorta and large arteries causes the blood to flow toward the \_\_\_\_\_.
- \_\_\_\_\_ 5. Before blood reaches the capillaries, it passes through \_\_\_\_\_.
  - \_\_\_\_\_ a. The major structural feature of arterioles is \_\_\_\_\_.
  - \_\_\_\_\_ b. When this smooth muscle contracts, the diameter of the arteriole becomes \_\_\_\_\_ (larger, smaller). This is called \_\_\_\_\_ (vasoconstriction, vasodilation).
- \_\_\_\_\_ 6. Because arterioles restrict the flow of blood into capillaries, do they cause the pressure to be high or to be low in
  - \_\_\_\_\_ a. capillaries?
  - \_\_\_\_\_ b. arteries?