

# Study Guide 11-2

## CARDIOVASCULAR SYSTEM: BLOOD VESSELS

13. Complete the following statements concerning blood vessels.

- \_\_\_\_\_ 1. The central cavity of a blood vessel is called the (1). Reduction of the diameter of this cavity is called (2), and enlargement of the vessel diameter is called (3). Blood is carried to the heart by (4) and away from the heart by (5). Capillary beds are supplied by (6) and drained by (7).
- \_\_\_\_\_ 2.
- \_\_\_\_\_ 3.
- \_\_\_\_\_ 4.
- \_\_\_\_\_ 5.
- \_\_\_\_\_ 6.
- \_\_\_\_\_ 7.

14. Briefly explain in the space provided why valves are present in veins but not in arteries.

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15. Name two events *occurring within the body* that aid in venous return. Place your responses in the blanks that follow.

\_\_\_\_\_ and \_\_\_\_\_

16. First, select different colors for each of the three blood vessel tunics listed in the key choices and illustrated in Figure 11-6 on p. 185. Color the color-coding circles and the corresponding structures in the three diagrams. In the blanks beneath the illustrations correctly identify each vessel type. In the additional spaces provided, list the structural details that allowed you to make the identifications. Then, using the key choices, identify the blood vessel tunics

described in each of the following descriptions. Insert the term or letter of the key choice in the answer blanks.

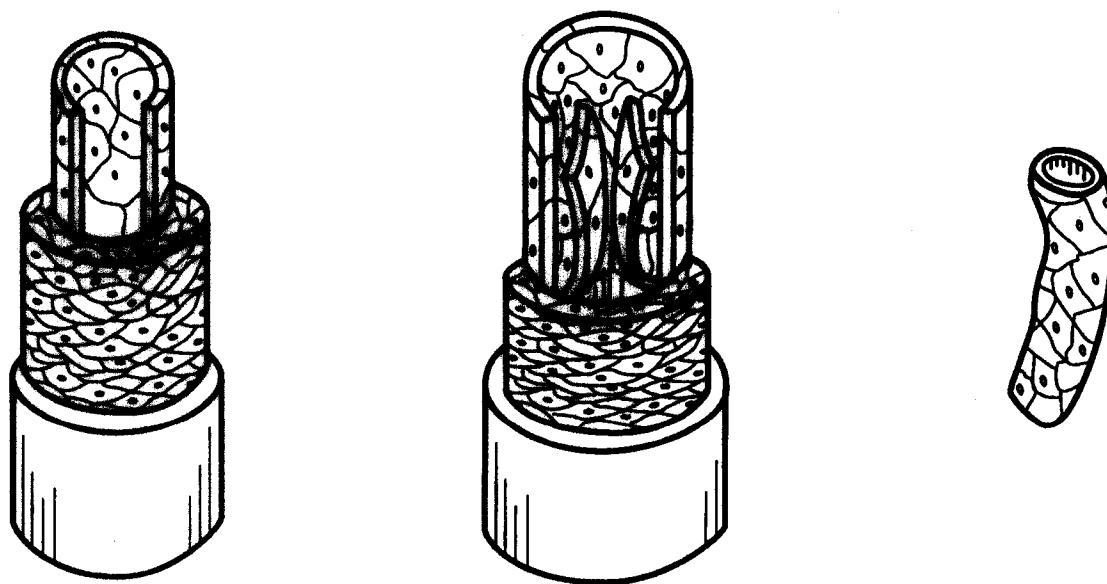
**Key Choices**

A. ☐ Tunica intima

B. ☐ Tunica media

C. ☐ Tunica externa

- \_\_\_\_\_ 1. Single thin layer of endothelium
- \_\_\_\_\_ 2. Bulky middle coat, containing smooth muscle and elastin
- \_\_\_\_\_ 3. Provides a smooth surface to decrease resistance to blood flow
- \_\_\_\_\_ 4. The only tunic of capillaries
- \_\_\_\_\_ 5. Also called the adventitia
- \_\_\_\_\_ 6. The only tunic that plays an active role in blood pressure regulation
- \_\_\_\_\_ 7. Supporting, protective coat



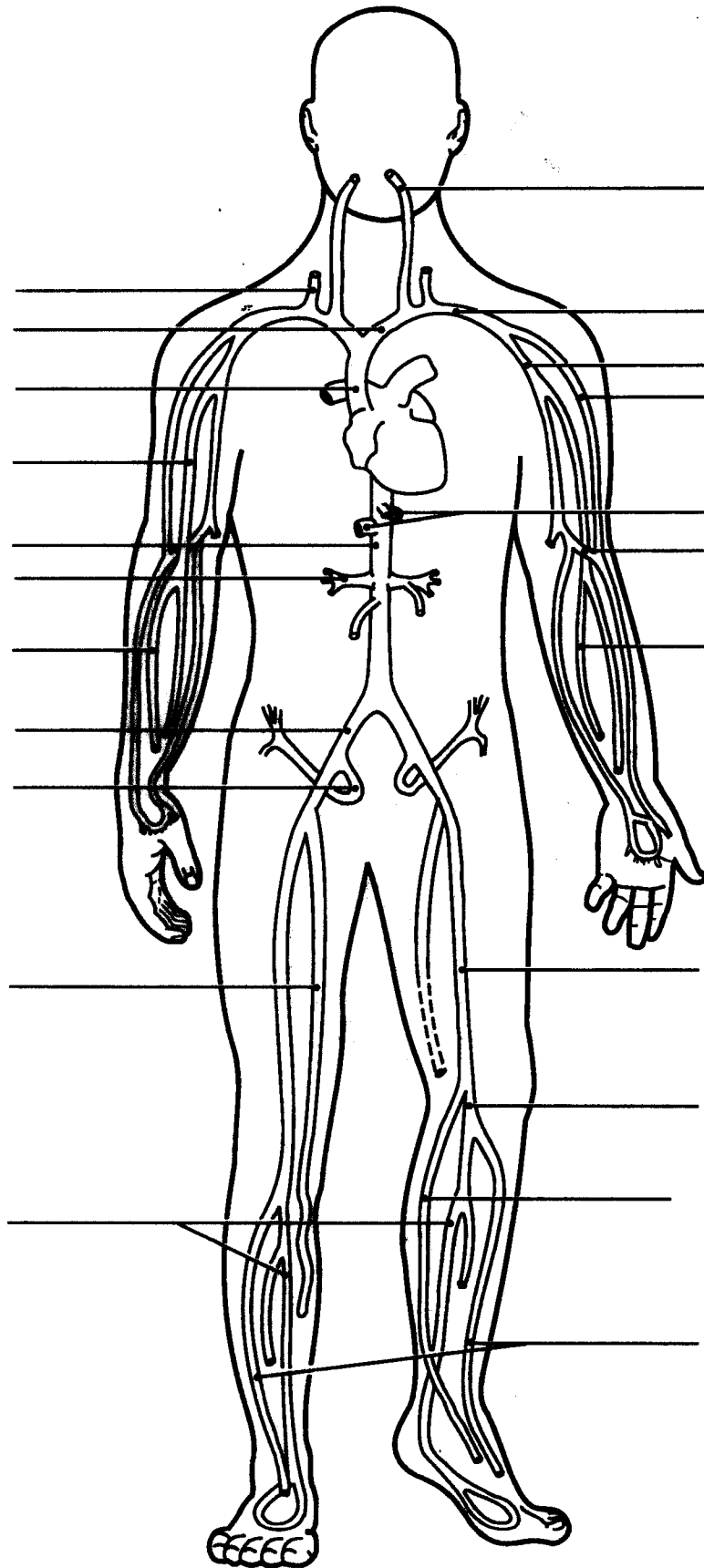
**Figure 11-6**

A \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

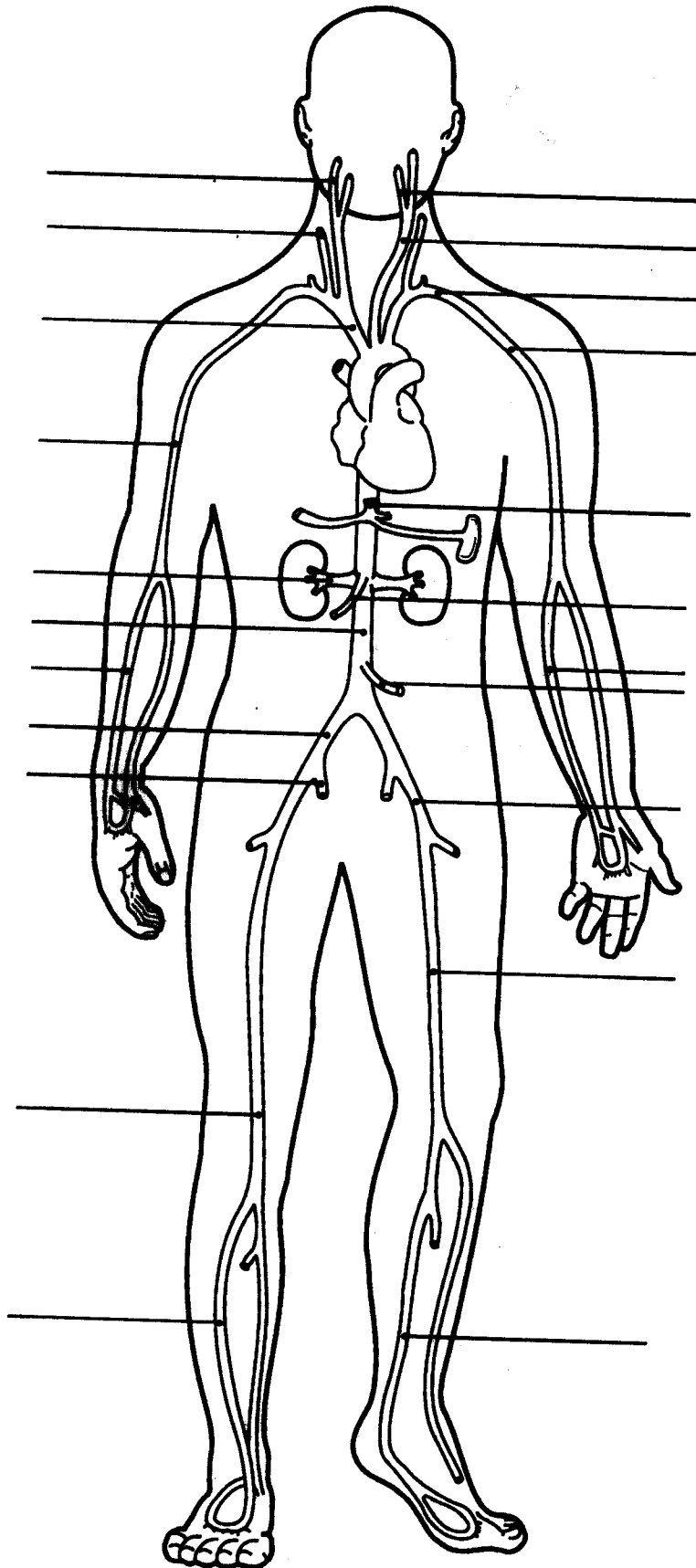
B \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

C \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

17. Figures 11-7 and 11-8 on pp. 186 and 187 illustrate the location of the most important arteries and veins of the body. The veins are shown in Figure 11-7. Color the veins blue and then identify each vein provided with a leader line on the figure. The arteries are shown in Figure 11-8. Color them red and then identify those indicated by leader lines on the figure. NOTE: If desired, the vessels identified may be colored differently to aid you in their later identification.



**Figure 11-7 Veins**



**Figure 11-8 Arteries**