LEARNING OBJECTIVES

After completing this chapter, you will be able to:

• Define and spell the word parts used to create terms for the cardiovascular system.
• Break down and define common medical terms used for symptoms, diseases, disorders, procedures, treatments, and devices associated with the cardiovascular system.
• Build medical terms from the word parts associated with the cardiovascular system.
• Pronounce and spell common medical terms associated with the cardiovascular system.
CHAPTER 8
The Cardiovascular System

Worksheet 1

Phonetic Spelling Challenge
Spell the medical term correctly in the space provided.

1. ah RITH mee ah
2. ahr TEE ree oh skleh ROH siss
3. kor pull moh NAY lee
4. HIGH poh TEN shun
5. throm BOH siss
6. NIGH troh GLIH ser ihn
7. dee fib rih LAY shun
8. AN jee oh plass tee
9. fleh BOT oh mee
10. ahr tee ree OG rah fee
11. teh TRALL oh jee of fah LOH
12. iss KEE mee ah
13. fih bril AY shun
14. brad ee KAR dee ah
15. ay or TYE tiss
16. kar dee oh my OPP ah thee
17. EHN doh kar DYE tiss
18. AN jee oh spazm
19. pal pih TAY shun
20. tack ee KAR dee ah
Spelling Challenge

These terms are spelled incorrectly. Spell each term correctly in the space provided.

1. Dopler sonographey ____________________________
2. Anjiotomy ____________________________
3. Halter monitor ____________________________
4. Phebectomey ____________________________
5. Cardioemeggaly ____________________________
6. Arteriopathey ____________________________
7. Myoncarditis ____________________________
8. Valveoloplasty ____________________________
9. Phebottomy ____________________________
10. Spygmomanometry ____________________________
11. Thrombolitic ____________________________
12. Corocanary ____________________________
13. Angiopasy ____________________________
14. Catheterenezation ____________________________
15. Electronecardiography ____________________________

Abbreviation Matchup

Select and match the correct abbreviation to the definition.

______ 1. positron emission tomography a. AV
______ 2. congestive heart failure b. ASHD
______ 3. myocardial infarction c. CABG
______ 4. atrioventricular d. CHF
______ 5. coronary artery disease e. CPR
______ 6. atherosclerotic heart disease f. MI
______ 7. atrial septal defect g. ECG/EKG
______ 8. coronary artery bypass graft h. PET
______ 9. electrocardiogram i. ASD
______ 10. cardiopulmonary resuscitation j. CAD
True/False
Mark each statement as true (T) or false (F).

1. A heart attack is an MI.  
2. Inflammation of the membrane surrounding the heart is called phlebitis.  
3. An abnormally low flow of blood to tissues is the condition known as hypotension.  
4. An inflammation of the valves of the heart is called cardiovalvulitis.  
5. An injury to the atrioventricular node (AV node), which normally receives impulses from the sinoatrial node (SA node) and transmits them to the ventricles to stimulate ventricular systole, is called an AV block.  
6. Cardiovalvulitis is usually diagnosed from the presence of a heart murmur.  
7. A chronic condition of abnormally low blood pressure is called hypertension.  
8. The primary symptom of an insufficient supply of oxygen to the heart is chest pain, called angina pectoris.  
9. A general term for a disease that afflicts the coronary arteries supplying the heart is atherosclerosis.  
10. Inflammation of the myocardium of the heart is an acute condition called pericarditis.

Fill in the Blank
Fill in the blank with the correct medical term from this chapter.

11. The presence of stationary blood clots within one or more blood vessels is called ____________________________.

12. Death of a portion of the myocardium is called ____________________________.

13. An abnormally dilated vein is called ____________________________.

14. A congenital disease characterized by aortic stenosis that is present at birth is known as ____________________________.

15. A(n) ____________________________ is a general term that means “blockage.”

16. Persistently high blood pressure is an abnormal condition called ____________________________.

17. The use of a flexible fiberoptic instrument, or endoscope, to observe a diseased blood vessel to assess the lesion is a procedure called ____________________________.

18. A procedure that obtains an x-ray image of an artery is known as ____________________________.
19. An incision into an artery is called ____________________________.

20. Insertion of a narrow, flexible tube, called a catheter, through a coronary vessel into the heart is called ____________________________.

Short Answer
Write the definition for each of the following terms.

21. Cardiac pacemaker ___________________________________________________________

22. CABG _____________________________________________________________

23. Echocardiography _____________________________________________________________

24. Embolectomy _____________________________________________________________

25. Endarterectomy _____________________________________________________________

Word Search
Fill in the blank with the correct medical term from this chapter, then find the words in the word search puzzle that follows.

1. Abnormal muscular contractions, or spasms, of the smooth muscles forming vessel walls are called ____________________________.

2. ____________________________ is an abnormally slow heart rate, usually under 50 beats per minute.

3. A symptom in which a blue tinge is seen in the skin and mucous membranes is called ____________________________.

4. A congenital condition characterized by a failure of the foramen ovale to close at birth, producing an opening in the septum that separates the right and left atria, is called ____________________________ septal defect.

5. A general term for a disease of the myocardium of the heart is ____________________________

6. A tumor arising from a blood vessel is called a(n) ____________________________.

7. A general term for a disease of an artery is ____________________________.

8. An interference with the normal electrical conduction of the heart is called heart ____________________________.

9. A chronic condition of abnormally low blood pressure is called ____________________________.
10. The presence of swollen, or varicose, veins in the anal region is called ________________________.

11. A congenital disease characterized by aortic stenosis that is present at birth is known as ________________________ of the aorta.

12. Persistently high blood pressure is an abnormal condition called ________________________.

13. An injury to the atrioventricular node (AV node) is called a(n) ________________________ block.

14. A(n) cardiac ________________________ is a battery-powered device that is implanted under the skin and wired to the wall of the heart.

15. An ultrasound procedure that directs sound waves through the heart to observe heart structures in an effort to evaluate heart function is called ________________________.
CHAPTER 8
The Cardiovascular System
Worksheet 2

Dictation Report
Write each numbered term as you hear it, spelling each term correctly. This exercise will help you learn to hear, comprehend, visualize, and spell the new medical terms accurately.

Understanding the (1) _________________________ system is essential for any medical professional. The medical professional associated with this system is known as a(n) (2) _________________________ . There are many terms describing pain in the chest caused by heart-related problems. The primary symptom of an insufficient supply of oxygen to the heart is chest pain, called (3) _________________________ . Pain caused by a sudden blockage of a vessel in the heart is known as a(n) (4) _________________________ . Sometimes blood vessels narrow, creating a condition known as (5) _________________________ . Vessels can spasm, causing a condition known as (6) _________________________ .

These conditions can result in a change in the heartbeat or rhythm. A heartbeat that is too fast is called (7) _________________________ . A heartbeat that is too slow is called (8) _________________________ . A loss of the normal rhythm of the heart is called (9) _________________________ . The term (10) _________________________ is a general term that means “pertaining to the heart.”

Sometimes a vessel has a weak spot that bulges out. This is called a(n) (11) _________________________ . If the vessel bursts, it can cause sudden death. Vessels are a very important part of the cardiovascular system. The presence of swollen, or varicose, veins in the anal region is called (12) _________________________ . If vessels are damaged and are not delivering sufficient blood to the body, the body can suffer from (13) _________________________ , or abnormally low flow of blood to tissues. The force of the blood moving inside the blood vessels can be measured by a simple procedure that measures arterial blood pressure called (14) _________________________ .
If pressure is too low, the condition is called (15) __________________________. If the pressure inside the vessels is too high, the condition is called (16) __________________________. This measurement is made with a(n) (17) __________________________.

The cardiovascular system can also suffer from an infection, just like any other part of the body. (18) __________________________ is an inflammation of the endocardium. Inflammation of the heart and blood vessels is a disease called (19) __________________________. An inflammation the valves of the heart is called (20) __________________________. Inflammation of the myocardium of the heart is an acute condition called (21) __________________________. Inflammation of the membrane surrounding the heart, the pericardium, is called (22) __________________________. Inflammation of a vein is called (23) __________________________. Simultaneous inflammation of many arteries is a condition known as (24) __________________________.

Sometimes something blocks or occludes a vessel. A(n) (25) __________________________ is a blockage within a coronary artery, resulting in a reduced blood flow to an area of the heart wall. A blood clot or foreign particle (including air or fat) that moves through the circulation is called a(n) (26) __________________________. An embolism can block the flow of blood to tissues, causing a condition known as (27) __________________________. The presence of stationary blood clots within one or more blood vessels is called a(n) (28) __________________________. As an area of the heart is deprived of adequate blood flow, the heart gradually dies, which is called a “heart attack,” or a(n) (29) __________________________.
Word Surgery

Read the Medical Word. Break down the medical word into its word parts, and give the meaning of each word part. Then give the definition of the medical word.

1. Cardiomyopathy
   Definition: _____________________________________________________________________
   Combining form and definition: __________________________________________________
   Suffix and definition: ____________________________________________________________

2. Valvuloplasty
   Definition: ___________________________________________________________________
   Combining form and definition: __________________________________________________
   Suffix and definition: ____________________________________________________________

3. Atrioventricular
   Definition: ___________________________________________________________________
   Combining form and definition: __________________________________________________
   Suffix and definition: ____________________________________________________________

4. Angiostenosis
   Definition: ___________________________________________________________________
   Combining form and definition: __________________________________________________
   Suffix and definition: ____________________________________________________________

5. Echocardiogram
   Definition: ___________________________________________________________________
   Combining form and definition: __________________________________________________
   Suffix and definition: ____________________________________________________________

6. Sphygmomanometer
   Definition: ___________________________________________________________________
   Combining form and definition: __________________________________________________
   Suffix and definition: ____________________________________________________________
7. Atherosclerosis
   Definition: ________________________________________________________________
   Combining form and definition: _____________________________________________
   Suffix and definition: ______________________________________________________

8. Ultrasonography
   Definition: ________________________________________________________________
   Prefix and definition: ______________________________________________________
   Combining form and definition: _____________________________________________
   Suffix and definition: ______________________________________________________

9. Embolectomy
   Definition: ________________________________________________________________
   Combining form and definition: _____________________________________________
   Suffix and definition: ______________________________________________________

10. Coronary ischemia
    Definition: ________________________________________________________________
    Combining form and definition: _____________________________________________
    Suffix and definition: _____________________________________________________

11. Ventricular septal defect
    Definition: ________________________________________________________________
    Combining form and definition: _____________________________________________
    Suffix and definition: _____________________________________________________

12. Cardiogenic
    Definition: ________________________________________________________________
    Combining form and definition: _____________________________________________
    Suffix and definition: _____________________________________________________

13. Thrombolytic
    Definition: ________________________________________________________________
    Combining form and definition: _____________________________________________
    Suffix and definition: _____________________________________________________

14. Vasculitis
    Definition: ________________________________________________________________
    Combining form and definition: _____________________________________________
    Suffix and definition: _____________________________________________________
CHAPTER 8
The Cardiovascular System

Worksheet 4

Case Study
Fill in the blank with the correct medical term from this chapter.

Deborah is a 63-year-old brought by ambulance to the emergency room after she developed chest pain radiating to her left arm with difficult breathing, sweating, nausea, and lightheadedness. She was exercising at the gym when this occurred. In the emergency room she still had the chest pain and underwent diagnostic testing, including blood tests, chest x-ray, and a test of the electrical conduction system of the heart. This test is called a(n) ________________________ (1). Based on these tests, Deborah is given the diagnosis of a heart attack, also known as a(n) ________________________ (2). Early in the course of a heart attack accurate diagnosis of where the blockage is and clearing the blockage out of the artery will save heart muscle from dying. Thus, Deborah was taken for a test called a coronary catheterization to image the arteries of the heart. The test to image the arteries of the heart is also called a(n) ________________________ (3). The image resulting from this test, called a(n) ________________________ (4), showed a blockage in a major artery of the heart, generally known as a(n) ________________________ (5). During this same procedure a balloon can be used to open the blocked artery. This procedure is called a(n) ________________________ (6). Frequently this procedure is followed with placing a scaffold to keep the artery open. This scaffold is called a(n) ________________________ (7). Because of this series of diagnostics and therapeutics, Deborah did not have any significant heart muscle damage. The heart muscle itself is called ________________________ (8).
CHAPTER 8
The Cardiovascular System

Worksheet 5

Medical Report Analysis
Consider the following excerpt from a clinician’s notes following completion of a cardiovascular examination. For the highlighted terms or word parts, provide the meaning.

Patient was referred to cardiology (A) ____________________________ for evaluation of ischemic chest pain not accompanied by diagnostic changes on electocardiogram (B) _____________________________. Echocardiographic (C) ____________________________ evaluation showed normal muscular activity and sufficient blood flow to the muscle. However, membrane abnormalities suggestive of pericarditis (D) ____________________________ were noted. Complete blood count and blood cultures were ordered. Due to accumulation of purulent fluid within the sac a pericardiocentesis (E) ____________________________ was conducted.
Which Term Does Not Belong?

Circle the term that is not related to the other terms. Then explain why the term does not belong with the others.

1. Signs and symptoms
   a. arrhythmia
   b. cardiodynia
   c. cyanosis
   d. palpitation
   e. pectoral

   Why does it not belong? ________________________________________________________________

2. Diseases and disorders
   a. cardiogram
   b. embolism
   c. hypertension
   d. pericarditis
   e. phlebitis

   Why does it not belong? ________________________________________________________________

3. Treatments and procedures
   a. aortic stenosis
   b. echocardiography
   c. embolectomy
   d. phlebotomy
   e. valvuloplasty

   Why does it not belong? ________________________________________________________________

4. Treatments and procedures
   a. angioplasty
   b. auscultation
   c. cardiac catheterization
   d. cardiomyopathy
   e. defibrillation

   Why does it not belong? ________________________________________________________________
5. Word roots
   a. angi
   b. ather
   c. metry
   d. my
   e. sclera

Why does it not belong? ___________________________________________________________
Labeling

Label the diagram below.

- Blood low in oxygen and high in carbon dioxide (deoxygenated)
- Blood high in oxygen and low in carbon dioxide (oxygenated)
CHAPTER 8
The Cardiovascular System

Worksheet 8

Key Terms Double Check

Remember that the chapter’s key terms appeared alphabetically throughout this chapter. This exercise helps you check your knowledge and review for tests.

1. First, fill in the missing word in the definitions for the chapter’s key terms.
2. Then, check your answers using the answer key.
3. If you got the answer right, put a checkmark in the right column.
4. If your answer was incorrect, go back to the frame number provided and review the content.

Use the checklist to study the terms you don’t know until you’re confident you know them all.

<table>
<thead>
<tr>
<th>Key Term</th>
<th>Frame</th>
<th>Definition</th>
<th>Know It?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. aneurysm</td>
<td>8.18</td>
<td>an abnormal __________ of an arterial wall usually caused by a congenital defect or an acquired weakness of the arterial wall</td>
<td>☐</td>
</tr>
<tr>
<td>2. angina pectoris</td>
<td>8.7</td>
<td>chest pain that is a primary symptom of an insufficient supply of ___________ to the heart</td>
<td>☐</td>
</tr>
<tr>
<td>3. angiocarditis</td>
<td>8.19</td>
<td>inflammation of the __________ and blood vessels, usually caused by widespread bacterial infection of the blood</td>
<td>☐</td>
</tr>
<tr>
<td>4. angiography</td>
<td>8.60</td>
<td>a diagnostic procedure that includes x-ray photography, MRI, or ___________ images of a blood vessel after injection of a contrast medium</td>
<td>☐</td>
</tr>
<tr>
<td>5. angioma</td>
<td>8.20</td>
<td>a tumor arising from a blood vessel, also known as a(n) ___________</td>
<td>☐</td>
</tr>
<tr>
<td>6. angioplasty</td>
<td>8.61</td>
<td>the surgical repair of a blood vessel, including ___________ angioplasty and laser angioplasty</td>
<td>☐</td>
</tr>
<tr>
<td>7. angioscopy</td>
<td>8.62</td>
<td>the use of a flexible fiberoptic instrument, or ___________, to observe a diseased blood vessel and to assess any lesions</td>
<td>☐</td>
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<tr>
<td>Key Term</td>
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<td>Definition</td>
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<tr>
<td>8. angiospasm</td>
<td>8.8</td>
<td>abnormal _____________ contractions, or spasms, of the smooth muscles forming the vessel walls</td>
<td>□</td>
</tr>
<tr>
<td>9. angiostenosis</td>
<td>8.9</td>
<td>narrowing of a blood _____________ causing the reduction of blood flow to a part of the body</td>
<td>□</td>
</tr>
<tr>
<td>10. angiostomy</td>
<td>8.63</td>
<td>the surgical creation of an opening into a blood vessel, usually for the insertion of a(n) _____________</td>
<td>□</td>
</tr>
<tr>
<td>11. angiotomy</td>
<td>8.64</td>
<td>the surgical _____________ into a blood vessel</td>
<td>□</td>
</tr>
<tr>
<td>12. aortic insufficiency</td>
<td>8.21</td>
<td>a condition in which the semilunar valve fails to close completely during ventricular _____________, causing blood to return to the left ventricle, which makes the left ventricle work harder</td>
<td>□</td>
</tr>
<tr>
<td>13. aortic stenosis</td>
<td>8.22</td>
<td>a narrowing of the _____________ that reduces the flow of blood through this large vessel, which causes the left ventricle to work harder than normal</td>
<td>□</td>
</tr>
<tr>
<td>14. aortitis</td>
<td>8.23</td>
<td>_____________ of the aorta often caused by a bacterial infection</td>
<td>□</td>
</tr>
<tr>
<td>15. aortography</td>
<td>8.65</td>
<td>a procedure that obtains an x-ray photograph, MRI, or CT scan image of the aorta; the image is called a(n) _____________</td>
<td>□</td>
</tr>
<tr>
<td>16. arrhythmia</td>
<td>8.10</td>
<td>the loss of the normal rhythm of the heart; also called _____________</td>
<td>□</td>
</tr>
<tr>
<td>17. arteriography</td>
<td>8.66</td>
<td>a procedure that obtains an image of an artery that is called a(n) _____________</td>
<td>□</td>
</tr>
<tr>
<td>18. arteriopathy</td>
<td>8.24</td>
<td>a general term for a disease of a(n) _____________</td>
<td>□</td>
</tr>
<tr>
<td>19. arteriosclerosis</td>
<td>8.25</td>
<td>a disease in which an artery wall becomes thickened and loses its _____________, resulting in a reduced flow of blood to tissues</td>
<td>□</td>
</tr>
<tr>
<td>20. arteriotomy</td>
<td>8.67</td>
<td>an incision into a(n) _____________</td>
<td>□</td>
</tr>
<tr>
<td>21. atherosclerosis</td>
<td>8.26</td>
<td>a form of arteriosclerosis in which one or more fatty _____________ form along the inner walls of arteries, reducing the flow of blood through the affected vessel</td>
<td>□</td>
</tr>
<tr>
<td>Key Term</td>
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<td>Definition</td>
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<tr>
<td>22. atrial septal defect</td>
<td>8.27</td>
<td>a congenital condition characterized by a failure of the foramen ovale to close at birth, producing an opening in the septum that separates the right and left _______________</td>
<td>□</td>
</tr>
<tr>
<td>23. atriomegaly</td>
<td>8.28</td>
<td>a condition of abnormally enlarged or dilated atria with reduced ability to push blood into the _______________</td>
<td>□</td>
</tr>
<tr>
<td>24. atrioventricular block</td>
<td>8.29</td>
<td>an injury to the _______________ node (AV node), which normally receives impulses from the sino-atrial node (SA node) and transmits them to the ventricles to stimulate ventricular systole</td>
<td>□</td>
</tr>
<tr>
<td>25. auscultation</td>
<td>8.68</td>
<td>a physical examination that involves listening to internal sounds using a(n) _______________</td>
<td>□</td>
</tr>
<tr>
<td>26. bradycardia</td>
<td>8.11</td>
<td>an abnormally _______________ heart rate</td>
<td>□</td>
</tr>
<tr>
<td>27. cardiac arrest</td>
<td>8.30</td>
<td>the _______________ of heart activity</td>
<td>□</td>
</tr>
<tr>
<td>28. cardiac catheterization</td>
<td>8.69</td>
<td>the insertion of a narrow flexible tube, called a(n) _______________, through a blood vessel leading into the heart for the purpose of withdrawing samples or injecting contrast medium</td>
<td>□</td>
</tr>
<tr>
<td>29. cardiac pacemaker</td>
<td>8.70</td>
<td>a battery-powered device that is implanted under the skin and wired to the _______________ of the heart to produce timed electric pulses that replace the function of the SA node</td>
<td>□</td>
</tr>
<tr>
<td>30. cardiac tamponade</td>
<td>8.31</td>
<td>an acute compression of the heart due to the accumulation of _______________ within the pericardial cavity</td>
<td>□</td>
</tr>
<tr>
<td>31. cardiodynia</td>
<td>8.12</td>
<td>an alternate term for chest _______________</td>
<td>□</td>
</tr>
<tr>
<td>32. cardiogenic</td>
<td>8.13</td>
<td>a symptom or sign that _______________ from a condition of the heart</td>
<td>□</td>
</tr>
<tr>
<td>33. cardiomegaly</td>
<td>8.32</td>
<td>an abnormally _______________ heart, which occurs when the heart must work harder than normal to meet the oxygen demands of body cells</td>
<td>□</td>
</tr>
<tr>
<td>34. cardiomyopathy</td>
<td>8.33</td>
<td>a general term for a disease of the _______________ of the heart</td>
<td>□</td>
</tr>
<tr>
<td>35. cardioplegia</td>
<td>8.14</td>
<td>a sign in which the heart has become _______________</td>
<td>□</td>
</tr>
<tr>
<td>36. cardiopulmonary resuscitation</td>
<td>8.71</td>
<td>an emergency procedure that is used to restore breathing by applying a combination of chest _______________ and artificial ventilation at intervals</td>
<td>□</td>
</tr>
<tr>
<td>Key Term</td>
<td>Frame</td>
<td>Definition</td>
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</tr>
<tr>
<td>37. cardiovalvulitis</td>
<td>8.34</td>
<td>inflammation of the valves of the heart that is usually diagnosed from the presence of a(n) ______________, which is a gurgling sound detected during auscultation</td>
<td></td>
</tr>
<tr>
<td>38. coarctation of the aorta</td>
<td>8.35</td>
<td>a congenital defect that is present at birth that causes reduced systemic circulation of blood and ______________ of fluid in the lungs</td>
<td></td>
</tr>
<tr>
<td>39. congestive heart failure</td>
<td>8.36</td>
<td>a chronic form of heart disease characterized by the failure of the left ventricle to pump enough blood to supply systemic tissues, abbreviated ______________</td>
<td></td>
</tr>
<tr>
<td>40. cor pulmonale</td>
<td>8.37</td>
<td>a chronic enlargement of the right ventricle resulting from congestion of the ______________ circulation</td>
<td></td>
</tr>
<tr>
<td>41. coronary artery bypass graft</td>
<td>8.72</td>
<td>a surgical procedure that involves removing a blood vessel from another part of the body and inserting it into the coronary circulation, abbreviated ______________</td>
<td></td>
</tr>
<tr>
<td>42. coronary artery disease</td>
<td>8.38</td>
<td>a disease that afflicts the ______________ arteries supplying the heart</td>
<td></td>
</tr>
<tr>
<td>43. coronary occlusion</td>
<td>8.39</td>
<td>______________ within a coronary artery, resulting in a reduced blood flow to an area of the heart muscle</td>
<td></td>
</tr>
<tr>
<td>44. coronary stent</td>
<td>8.73</td>
<td>an artificial, metallic scaffold that is used to anchor a surgical implant, or ______________</td>
<td></td>
</tr>
<tr>
<td>45. cyanosis</td>
<td>8.15</td>
<td>a symptom of a blue tinge in the skin and mucous membranes that is caused by oxygen ______________ in tissues</td>
<td></td>
</tr>
<tr>
<td>46. defibrillation</td>
<td>8.74</td>
<td>an electric charge applied to the chest wall to stop the heart conduction system ______________, then restart it with a more normal heart rhythm</td>
<td></td>
</tr>
<tr>
<td>47. Doppler sonography</td>
<td>8.75</td>
<td>a(n) ______________ procedure that evaluates blood flow through a blood vessel to evaluate coronary circulation</td>
<td></td>
</tr>
<tr>
<td>48. echocardiography</td>
<td>8.76</td>
<td>an ultrasound procedure that directs sound waves through the heart to observe heart structures to evaluate heart function; recorded data is typically called a(n) ______________</td>
<td></td>
</tr>
<tr>
<td>Key Term</td>
<td>Frame</td>
<td>Definition</td>
<td>Know It?</td>
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<tr>
<td>49. electrocardiography</td>
<td>8.77</td>
<td>a procedure in which electrodes are pasted to the skin of the chest to detect and record the electrical events of the heart conduction system; the record or image of the data is called a(n) ____________</td>
<td>☐</td>
</tr>
<tr>
<td>50. embolectomy</td>
<td>8.78</td>
<td>the surgical removal of a floating blood clot, or ________________</td>
<td>☐</td>
</tr>
<tr>
<td>51. embolism</td>
<td>8.40</td>
<td>a blood ____________ or foreign particle (including air or fat) that moves through the circulation and causes a blockage</td>
<td>☐</td>
</tr>
<tr>
<td>52. endarterectomy</td>
<td>8.79</td>
<td>the surgical removal of the inner lining of an artery to remove a(n) ____________ plaque</td>
<td>☐</td>
</tr>
<tr>
<td>53. endocarditis</td>
<td>8.41</td>
<td>inflammation of the ____________, the membrane lining the inside walls of the heart chambers</td>
<td>☐</td>
</tr>
<tr>
<td>54. fibrillation</td>
<td>8.42</td>
<td>a condition of ____________, rapid contractions of the muscles forming the ventricles or atria</td>
<td>☐</td>
</tr>
<tr>
<td>55. heart block</td>
<td>8.43</td>
<td>a block or delay of the normal ____________ conduction of the heart</td>
<td>☐</td>
</tr>
<tr>
<td>56. heart murmur</td>
<td>8.44</td>
<td>an abnormal soft gurgling or blowing sound heard during ____________ of the heart</td>
<td>☐</td>
</tr>
<tr>
<td>57. hemorrhoids</td>
<td>8.45</td>
<td>dilated, or ____________, veins in the anal region</td>
<td>☐</td>
</tr>
<tr>
<td>58. Holter monitor</td>
<td>8.80</td>
<td>a portable ____________ worn by the patient to monitor electrical activity of the heart over 24-hour periods</td>
<td>☐</td>
</tr>
<tr>
<td>59. hypertension</td>
<td>8.46</td>
<td>abnormally high blood pressure; includes ____________ hypertension and secondary hypertension</td>
<td>☐</td>
</tr>
<tr>
<td>60. hypotension</td>
<td>8.47</td>
<td>abnormally ____________ blood pressure</td>
<td>☐</td>
</tr>
<tr>
<td>61. ischemia</td>
<td>8.48</td>
<td>abnormally low flow of ____________ to tissues</td>
<td>☐</td>
</tr>
<tr>
<td>62. myocardial ___________</td>
<td>8.49</td>
<td>the ____________ of a portion of the myocardium, abbreviated MI and commonly called a heart attack</td>
<td>☐</td>
</tr>
<tr>
<td>63. myocarditis</td>
<td>8.50</td>
<td>inflammation of the ____________ of the heart that is often caused by bacterial infection</td>
<td>☐</td>
</tr>
<tr>
<td>64. nitroglycerin</td>
<td>8.81</td>
<td>a drug commonly used as an emergency ____________ as a treatment for severe angina pectoris or myocardial infarction</td>
<td>☐</td>
</tr>
<tr>
<td>Key Term</td>
<td>Frame</td>
<td>Definition</td>
<td>Know It?</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>65. palpitation</td>
<td>8.16</td>
<td>a symptom of pounding, racing, or skipping of the ________________</td>
<td></td>
</tr>
<tr>
<td>66. patent ductus</td>
<td>8.51</td>
<td>a congenital condition characterized by an ________________ between the pulmonary artery and the aorta due to a failure of the fetal vessel, called the ductus arteriosus, to close</td>
<td></td>
</tr>
<tr>
<td>67. pericarditis</td>
<td>8.52</td>
<td>inflammation of the membrane ________________ the heart, the pericardium</td>
<td></td>
</tr>
<tr>
<td>68. phlebectomy</td>
<td>8.82</td>
<td>the ________________ removal of a vein</td>
<td></td>
</tr>
<tr>
<td>69. phlebitis</td>
<td>8.53</td>
<td>inflammation of a(n) ________________</td>
<td></td>
</tr>
<tr>
<td>70. phlebotomy</td>
<td>8.83</td>
<td>a puncture into a vein to remove blood for sampling or donation is performed by a healthcare professional called a(n) ________________</td>
<td></td>
</tr>
<tr>
<td>71. polyarteritis</td>
<td>8.54</td>
<td>the simultaneous inflammation of ________________ arteries</td>
<td></td>
</tr>
<tr>
<td>72. positron emission</td>
<td>8.84</td>
<td>a noninvasive procedure that provides blood flow images using positron emission tomography techniques combined with radioactive isotope ________________</td>
<td></td>
</tr>
<tr>
<td>73. septicemia</td>
<td>8.55</td>
<td>a bacterial infection of the ________________ that quickly becomes life threatening</td>
<td></td>
</tr>
<tr>
<td>74. sphygmomanometry</td>
<td>8.85</td>
<td>a common procedure that measures arterial blood pressure with a device called a ________________</td>
<td></td>
</tr>
<tr>
<td>75. tachycardia</td>
<td>8.17</td>
<td>a(n) ________________ heart rate</td>
<td></td>
</tr>
<tr>
<td>76. tetralogy of Fallot</td>
<td>8.56</td>
<td>a severe congenital disease in which four defects associated with the heart are present at ________________</td>
<td></td>
</tr>
<tr>
<td>77. thrombolytic</td>
<td>8.86</td>
<td>treatments to ________________ unwanted blood clots after surgery to prevent the development of emboli</td>
<td></td>
</tr>
<tr>
<td>78. thrombosis</td>
<td>8.57</td>
<td>the presence of stationary ________________ ________________ within one or more blood vessels</td>
<td></td>
</tr>
<tr>
<td>79. treadmill stress test</td>
<td>8.87</td>
<td>________________ during echocardiography or electrocardiography (or both) to examine heart function under stress</td>
<td></td>
</tr>
<tr>
<td>80. valvuloplasty</td>
<td>8.88</td>
<td>the surgical repair of a heart ________________</td>
<td></td>
</tr>
<tr>
<td>Key Term</td>
<td>Frame</td>
<td>Definition</td>
<td>Know It?</td>
</tr>
<tr>
<td>--------------------------</td>
<td>-------</td>
<td>---------------------------------------------------------------------------</td>
<td>----------</td>
</tr>
<tr>
<td>81. varicosis</td>
<td>8.58</td>
<td>a condition of an abnormally dilated vein that results when valves within a superficial vein of the leg or elsewhere fail, allowing blood to _________</td>
<td></td>
</tr>
<tr>
<td>82. ventricular septal defect</td>
<td>8.59</td>
<td>a congenital disease in which an opening in the septum separating the right and left ventricles is present at _____________</td>
<td></td>
</tr>
</tbody>
</table>
CHAPTER 8
The Cardiovascular System
Worksheet 9

Crossword Puzzle

Directions: Fill in the crossword puzzle with the words missing from the sentences below. Match the number of the sentence to the boxes placed across or down the grid. If filled out correctly, the words will fit neatly into the puzzle.

**ACROSS**

2 A cardiac ___________ is a battery-powered device that is implanted under the skin and wired to the wall of the heart.

4 An artificial, usually plastic, scaffold that is used to anchor a surgical implant, or graft, is called a(n) ___________.

7 A coronary ___________ is a blockage within a coronary artery, resulting in a reduced blood flow to an area of the heart muscle.

8 A diagnostic procedure that includes x-ray photography, MRI, or CAT scan images of a blood vessel after injection of a contrast medium is ___________.

9 A puncture into a vein to remove blood for sampling or donation is called ___________.

10 An abnormally low flow of blood to tissues is the condition known as ___________.

**DOWN**

1 An aortic ________ is a narrowing of the aorta that reduces the flow of blood through this large vessel, which causes the left ventricle to work harder than normal.

3 The division of medicine known as _____ provides clinical treatment for heart disease.

5 An alternate term for an abnormal heart rhythm is ______. 

6 An abnormal bulging of an arterial wall is called a(n) ______.
CHAPTER 8
The Cardiovascular System

Worksheet 1 Answers

Phonetic Spelling Challenge
1. Arrhythmia
2. Arteriosclerosis
3. Cor pulmonale
4. Hypotension
5. Thrombosis
6. Nitroglycerin
7. Defibrillation
8. Angioplasty
9. Phlebotomy
10. Arteriography
11. Tetralogy of Fallot
12. Ischemia
13. Fibrillation
14. Bradycardia
15. Aortitis
16. Cardiomyopathy
17. Endocarditis
18. Angiospasm
19. Palpitation
20. Tachycardia

Spelling Challenge
1. Doppler sonography
2. Angiotomy
3. Holter monitor
4. Phlebectomy
5. Cardiomegaly
6. Arteriopathy
7. Myocarditis
8. Valvuloplasty
9. Phlebotomy
10. Sphygmomanometry
11. Thrombolytic
12. Coronary
13. Angioplasty
14. Catheterization
15. Electrocardiography

Abbreviation Matchup
1. PET
2. CHF
3. MI
4. AV
5. CAD
6. ASHD
7. ASD
8. CABG
9. ECG/EKG
10. CPR
True/False

1. T  
2. F  
3. F  
4. T  
5. T  
6. T  
7. F  
8. T  
9. T  
10. F

Fill in the Blank

11. thrombosis  
12. myocardial infarction  
13. varicosis  
14. coarctation of the aorta  
15. occlusion  
16. hypertension  
17. angioscopy  
18. arteriography  
19. arteriotomy  
20. cardiac catheterization

Short Answer

21. A battery-powered device that is implanted under the skin and wired to the wall of the heart. It produces timed electric pulses that replace the function of the SA node as a treatment for a heart block and certain other arrhythmias.

22. Coronary artery bypass graft—a surgical procedure that involves removal of a blood vessel from another part of the body and inserting it into the coronary circulation.

23. An ultrasound procedure that directs sound waves through the heart to observe heart structures in an effort to evaluate heart function.

24. The surgical removal of a floating blood clot, or embolus.

25. A surgical procedure that removes fatty plaque from the inner lining of an artery.
Word Search

1. angiospasm
2. Bradycardia
3. cyanosis
4. atrial
5. cardiomyopathy
6. angioma
7. arteriopathy
8. block
9. hypotension
10. hemorrhoids
11. coarctation
12. hypertension
13. atrioventricular
14. pacemaker
15. echocardiography
CHAPTER 8
The Cardiovascular System
Worksheet 2 Answers

Dictation Report
Write each numbered term as you hear it, spelling each term correctly. This exercise will help you learn to hear, comprehend, visualize, and spell the new medical terms accurately.

Understanding the (1) cardiovascular system is essential for any medical professional. The medical professional associated with this system is known as a (2) cardiologist. There are many terms describing pain in the chest caused by heart-related problems. The primary symptom of an insufficient supply of oxygen to the heart is chest pain, called (3) angina pectoris. A blockage of a vessel in the heart resulting in the death of myocardium is known as a (4) myocardial infarction. Sometimes blood vessels narrow, creating a condition known as (5) angiosclerosis. Vessels can spasm, causing a condition known as (6) angiospasm.

These conditions can result in a change in the heartbeat or rhythm. A heartbeat that is too fast is called (7) tachycardia. A heartbeat that is too slow is called (8) bradycardia. A loss of the normal rhythm of the heart is called (9) arrhythmia. The term (10) cardiogenic is a general term that means “pertaining to arising from the heart”.

Sometimes a vessel has a weak spot that bulges out. This is called an (11) aneurysm. If the vessel bursts, it can cause sudden death. Vessels are a very important part of the cardiovascular system. The presence of swollen, or varicose, veins in the anal region is called (12) hemorrhoids. If vessels are damaged and are not delivering sufficient blood to the body, the body can suffer from (13) ischemia, or abnormally low flow of blood to tissues. The force of the blood moving inside the blood vessels can be measured by a simple procedure that measures arterial blood pressure called a (14) blood pressure reading. If pressure is too low, the condition is called (15) hypotension. If the pressure inside the vessels is too high, the condition is called (16) hypertension. This measurement is made with a (17) sphygmomanometer.
The cardiovascular system can also suffer from an infection, just like any other part of the body. (18) Endocarditis is an inflammation of the endocardium. Inflammation of the heart and blood vessels is a disease called (19) angiocarditis. An inflammation the valves of the heart is called (20) cardio-valvulitis. Inflammation of the myocardium of the heart is an acute condition called (21) myocarditis. Inflammation of the membrane surrounding the heart, the pericardium, is called (22) pericarditis. Inflammation of a vein is called (23) phlebitis. Simultaneous inflammation of many arteries is a condition known as (24) polyarteritis.

Sometimes something blocks or occludes a vessel. A (25) coronary occlusion is a blockage within a coronary artery, resulting in a reduced blood flow to an area of the heart wall. A blood clot or foreign particle (including air or fat) that moves through the circulation is called an (26) embolism. An embolism can block the flow of blood to tissues, causing a condition known as (27) ischemia. The presence of stationary blood clots within one or more blood vessels is called a (28) thrombosis. As an area of the heart is deprived of adequate blood flow, the heart gradually dies, which is called a “heart attack,” or an (29) MI.
CHAPTER 8
The Cardiovascular System

Worksheet 3 Answers

Word Surgery

1. Cardiomyopathy
   Definition: Disease of the heart muscle
   Combining form and definition: cardi/o, heart; my/o, muscle
   Suffix and definition: -pathy, disease

2. Valvuloplasty
   Definition: Surgical restructuring of a defective valve
   Combining form and definition: valvul/o, valve
   Suffix and definition: -plasty, surgical correction or restructuring

3. Atrioventricular
   Definition: Pertaining to the atria and ventricles of the heart
   Combining form and definition: atri/o, atrium; ventricul/o, ventricle
   Suffix and definition: -ar, pertaining to

4. Angiostenosis
   Definition: An abnormal condition characterized by narrowing of blood vessels
   Combining form and definition: angi/o, vessel; sten/o, narrowing
   Suffix and definition: -osis, an abnormal condition

5. Echocardiogram
   Definition: A picture of the heart created by transmitting sound waves through body tissues
   Combining form and definition: ech/o, related to sound waves; cardi/o, heart
   Suffix and definition: -gram, a record

6. Sphygmomanometer
   Definition: Instrument to measure the pressure of blood in the arteries
   Combining form and definition: sphygm/o, pulse; man/o, gas;
   Suffix and definition: -meter, instrument that measures

7. Atherosclerosis
   Definition: condition characterized by the accumulation of fatty deposits on the inside of a vessel causing it to lose its elasticity
   Combining form and definition: ather/o, fat; scler/o, hard
   Suffix and definition: -osis, abnormal condition

8. Ultrasonography
   Definition: The process of creating images by transmitting sound waves with frequencies beyond hearing range through body tissues
   Prefix and definition: ultra-, beyond
   Combining form and definition: son/o, sound
   Suffix and definition: -graphy, recording process

9. Embolectomy
   Definition: Surgical removal of a clot or other foreign body in a blood vessel
   Combining form and definition: embol/o, plug
   Suffix and definition: -ectomy, to surgically remove or excise
10. Coronary ischemia
    Definition: A condition of decreased blood flow through the vessels of the heart
    Combining form and definition: coron/o, heart; isch/o, hold back
    Suffix and definition: -ary, pertaining to; -emia, condition of blood

11. Ventricular septal defect
    Definition: An opening in the muscular wall between the lower chambers of the heart
    Combining form and definition: ventricul/o, ventricles; sept/o, wall or partition;
    Suffix and definition: -ar, pertaining to

12. Cardiogenic
    Definition: Originating from the heart
    Combining form and definition: cardi/o, heart
    Suffix and definition: -genic, beginning or origin

13. Thrombolytic
    Definition: A chemical designed to break down a clot
    Combining form and definition: thromb/o, clot
    Suffix and definition: -lytic, pertaining to loosen, dissolve

14. Vasculitis
    Definition: Inflammation of the blood vessels
    Combining form and definition: vascul/o, little vessel
    Suffix and definition: -itis, inflammation
Case Study

1. electrocardiogram or EKG
2. myocardial infarction
3. coronary angiography
4. coronary angiogram
5. coronary artery
6. balloon angioplasty
7. stent
8. myocardium
CHAPTER 8
The Cardiovascular System

Worksheet 5 Answers

Medical Report Analysis

A. Study of conditions related to the heart
B. Tracing of the electric activity of the heart
C. Examination of the heart using soundwaves
D. Inflammation of the protective sac that surrounds the heart
E. Surgical puncture of the pericardium to remove fluid
CHAPTER 8
The Cardiovascular System

Worksheet 6 Answers

Which Term Does Not Belong?

1. E  Pectoral is a region of the chest rather than a sign or symptom.
2. A  Cardiogram is a diagnostic image of the heart rather than a disease or condition.
3. A  Aortic stenosis is a condition rather than a treatment or procedure.
4. D  Cardiomyopathy is a condition rather than a treatment or procedure.
5. C  -metry is a suffix rather than a word root.
CHAPTER 8
The Cardiovascular System

Worksheet 7 Answers

Labeling

AIR (OXYGEN)

Right lung

Left lung

Right pulmonary artery

Left pulmonary artery

Lung capillaries

Left pulmonary vein

Right pulmonary vein

Heart

Vein

Artery

Venules

Arterioles

BODY CAPILLARIES

= Blood low in oxygen and high in carbon dioxide (deoxygenated)

= Blood high in oxygen and low in carbon dioxide (oxygenated)
CHAPTER 8
The Cardiovascular System

Worksheet 8 Answers

Key Terms Double Check

1. bulging
2. oxygen
3. heart
4. CT scan
5. hemangioma
6. balloon
7. endoscope
8. muscular
9. vessel
10. catheter
11. incision
12. diastole
13. aorta
14. inflammation
15. aortogram
16. dysrhythmia
17. arteriogram
18. artery
19. elasticity
20. artery
21. plaques
22. atria
23. ventricles
24. atrioventricular
25. stethoscope
26. slow
27. cessation
28. catheter
29. wall
30. fluid
31. pain
32. originates
33. enlarged
34. myocardium
35. paralyzed
36. compression
37. heart murmur
38. accumulation
39. CHF
40. pulmonary
41. CABG
42. coronary
43. blockage
44. graft
45. deficiency
46. momentarily
47. ultrasound
48. echocardiogram
49. electrocardiogram
50. embolus
51. clot
52. fatty
53. endocardium
54. uncoordinated
55. electrical
56. auscultation
57. varicose
58. electrocardiograph
59. essential
60. low
61. blood
62. death
63. myocardium
64. vasodilator
65. heartbeat
66. opening
67. surrounding 75. rapid
68. surgical 76. birth
69. vein 77. dissolve
70. phlebotomist 78. blood clots
71. many 79. exercise
72. labeling 80. valve
73. bloodstream 81. pool
74. sphygmomanometer 82. birth
CHAPTER 8
The Cardiovascular System
Worksheet 9 Answers

Crossword Puzzle

Solution:

P A C E M A K E R
T
S T E N T
N
O C C L U S I O N
S
I
S A N G I O G R A P H Y
G Y T
P H L E B O T O M Y
S H M M I
I S C H E M I A