Chapter Twelve
MULTIPLE CHOICE QUIZ

Name: ______________________________

In the box write the letter of the choice that is the definition of the term or best answers the question. There is only one correct answer for each question.

1. Tubes that bifurcate from the windpipe:
   A. Alveoli
   B. Bronchioles
   C. Sinuses
   D. Adenoids
   E. Bronchi

2. Uppermost portion of the lung:
   A. Hilum
   B. Apex
   C. Base
   D. Lobe
   E. Diaphragm

3. Space between the lungs in the chest:
   A. Pleura
   B. Peritoneum
   C. Mediastinum
   D. Trachea
   E. Bronchial tubes

4. Nasopharyngeal lymphatic tissue:
   A. Mucosa
   B. Adenoids
   C. Visceral pleura
   D. Paranasal sinuses
   E. Epiglottis

5. Pulmonary parenchyma:
   A. Trachea
   B. Pharynx
   C. Alveoli and bronchioles
   D. Red blood cells
   E. Cilia

6. Removal of the voice box:
   A. Laryngectomy
   B. Pharyngectomy
   C. Laryngectomy
   D. Esophagectomy
   E. Pharyngectomy

7. Phren/o means:
   A. Lung
   B. Chest
   C. Membrane around the lung
   D. Air sac
   E. Diaphragm

8. Medical term for a condition of decreased oxygen in the blood:
   A. Hematemesis
   B. Paroxysmal
   C. Hypoxemia
   D. Hemorrhage
   E. Hemoptysis

9. Type of pneumoconiosis:
   A. Asbestosis
   B. Pyothorax
   C. Atelectasis
   D. Pneumonia
   E. Epiglottitis

10. Breathing is easier in an upright position:
    A. Dysphonia
    B. Hemothorax
    C. Dyspnea
    D. Orthopnea
    E. Anosmia

11. Collection of pus in the pleural cavity:
    A. Cyanosis
    B. Pleuritis
    C. Hemoptysis
    D. Pyothorax
    E. Pneumothorax

12. Sharp, short blows to the surface of the chest:
    A. Auscultation
    B. Percussion
    C. Stridor
    D. Rales
    E. Expectoration

13. The “P” in DPT stands for:
    A. Pneumonia
    B. Pertussis
    C. Pleurisy
    D. Pneumothorax
    E. Pulmonary
14. Stridor occurs in which upper respiratory disorder?  
   A. Croup  
   B. Diphtheria  
   C. Asthma  
   D. Epistaxis  
   E. Pneumonia

15. Difficult breathing:  
   A. Anosmia  
   B. Dyspnea  
   C. Dysphonia  
   D. Tachypnea  
   E. Hypoxia

16. Bronchial airway obstruction marked by paroxysmal dyspnea, wheezing, and cough:  
   A. Pleurisy  
   B. Epistaxis  
   C. Cor pulmonale  
   D. Diphtheria  
   E. Asthma

17. Collapsed lung:  
   A. Pneumonitis  
   B. Endotracheal  
   C. Thoracotomy  
   D. Atelectasis  
   E. Tracheoesophageal fistula

18. Material is expelled from the lungs:  
   A. Rhinorrhea  
   B. Bronchiolitis  
   C. Sinusitis  
   D.Expiration  
   E. Expectoration

19. Localized area of pus formation in the lungs:  
   A. Pulmonary edema  
   B. Pulmonary embolism  
   C. Pleural effusion  
   D. Pulmonary abscess  
   E. Pleurisy

20. Spitting up blood from the lungs:  
   A. Pleurodynia  
   B. Hematemesis  
   C. Hemothorax  
   D. Hydrothorax  
   E. Hemoptysis

21. Tube is placed through the mouth to the trachea to establish an airway:  
   A. Endotracheal intubation  
   B. Tracheostomy  
   C. Tracheotomy  
   D. Thoracentesis  
   E. Laryngoscopy

22. PPD:  
   A. Pulmonary function test  
   B. Type of lung x-ray  
   C. Drug used to treat pneumonia  
   D. Tuberculin test  
   E. None of the above

23. Airway obstruction associated with emphysema and chronic bronchitis:  
   A. RDS  
   B. COPD  
   C. CPR  
   D. SOB  
   E. IPPB

24. Which of the following is an endoscopic examination?  
   A. Tracheostomy  
   B. Lung scan  
   C. Thoracentesis  
   D. Bronchoscopy  
   E. Auscultation

25. Hypercapnia:  
   A. Increased oxygen to the tissues  
   B. High blood pressure  
   C. High carbon dioxide levels in the blood  
   D. Decreased carbon dioxide in the blood  
   E. Decreased oxygen in the blood
Chapter Twelve

VOCABULARY QUIZ

(textbook pages 484–485)

Name: ______________________________

A. Match the following terms with their meanings below:

<table>
<thead>
<tr>
<th>Term</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>adenoids</td>
<td>bronchi</td>
</tr>
<tr>
<td>alveolus</td>
<td>cilia</td>
</tr>
<tr>
<td>apex of the lung</td>
<td>diaphragm</td>
</tr>
<tr>
<td>base of the lung</td>
<td>epiglottis</td>
</tr>
<tr>
<td>bronchioles</td>
<td>expiration</td>
</tr>
<tr>
<td></td>
<td>Thin hairs attached to the mucous membrane epithelium lining the</td>
</tr>
<tr>
<td></td>
<td>respiratory tract</td>
</tr>
<tr>
<td></td>
<td>Lower portion of the lung</td>
</tr>
<tr>
<td></td>
<td>Branches of the trachea leading into the lungs</td>
</tr>
<tr>
<td></td>
<td>Lymphatic tissue in the nasopharynx</td>
</tr>
<tr>
<td></td>
<td>Tip or uppermost portion of the lung</td>
</tr>
<tr>
<td></td>
<td>Breathing out (exhalation)</td>
</tr>
<tr>
<td></td>
<td>Small branches of the tubes leading into the lungs</td>
</tr>
<tr>
<td></td>
<td>Muscle separating the chest and abdomen</td>
</tr>
<tr>
<td></td>
<td>Air sac in the lung</td>
</tr>
<tr>
<td></td>
<td>Lid-like piece of cartilage covering the larynx</td>
</tr>
</tbody>
</table>

B. Match the following terms with their meanings below:

<table>
<thead>
<tr>
<th>Term</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>glottis</td>
<td>mediastinum</td>
</tr>
<tr>
<td>hilum of the lung</td>
<td>nares</td>
</tr>
<tr>
<td>inspiration</td>
<td>palatine tonsil</td>
</tr>
<tr>
<td>larynx</td>
<td>paranasal sinus</td>
</tr>
<tr>
<td>lobe of the lung</td>
<td>pharynx</td>
</tr>
</tbody>
</table>

1. Voice box
2. One of a pair of masses of lymphatic tissue in the oropharynx
3. Openings through the nose carrying air into the air passageways
4. Breathing in
5. Slit-like opening to the voice box
6. Region between the lungs in the thoracic cavity
7. Throat
8. One of the air cavities in the bones near the nose ________________________________

9. Division of the lung ________________________________

10. Midline region where the bronchi, blood vessels, and nerves enter and exit the lungs ________________________________

C. Match the following terms with their meanings below:

- carbon dioxide
- oxygen
- parietal pleura
- pleural cavity
- pulmonary parenchyma
- respiration
- trachea
- visceral pleura

1. Gas that passes into the bloodstream at the lungs and travels to all body cells ________________________________

2. Space between the double-folded membrane surrounding each lung ________________________________

3. Inner fold of membrane surrounding each lung and closest to the lung tissue ________________________________

4. Windpipe ________________________________

5. Essential parts of the lung responsible for respiration; bronchioles and alveoli ________________________________

6. Gas that is exhaled through the lungs ________________________________

7. Process of moving air into and out of the lungs; breathing ________________________________

8. Outer fold of membrane surround each lung and lying closest to the ribs ________________________________
Chapter Twelve

TERMINOLOGY QUIZ

(textbook pages 465–470)

Name: ______________________________

A. Using the following word parts, build or complete medical terms from the definitions below:

<table>
<thead>
<tr>
<th>Word Part</th>
<th>Word Part</th>
<th>Prefix</th>
<th>Word Part</th>
</tr>
</thead>
<tbody>
<tr>
<td>adenoid/o</td>
<td>capn/o</td>
<td>-al</td>
<td>-itis</td>
</tr>
<tr>
<td>alveol/o</td>
<td>coni/o</td>
<td>-ar</td>
<td>-osis</td>
</tr>
<tr>
<td>bronch/o</td>
<td>epiglott/o</td>
<td>-ectasis</td>
<td>-spasm</td>
</tr>
<tr>
<td>bronchi/o</td>
<td>pleur/o</td>
<td>-ectomy</td>
<td>-trophy</td>
</tr>
<tr>
<td>bronchiol/o</td>
<td>pneum/o</td>
<td>-ia</td>
<td>hyper-</td>
</tr>
</tbody>
</table>

1. Pertaining to an air sac: ________________________________________________

2. Dilation of a bronchial tube: ______________________________________________

3. Increased development of adenoids: adenoid hyper _______________________________________

4. Inflammation of small bronchi: ________________________________________________

5. Tightening (involuntary contraction of muscles) of a bronchus: ____________________________

6. Abnormal condition of dust in the lungs: _______________________________________________

7. Removal of the adenoids: ________________________________________________

8. An abnormal connection between a bronchial tube and the pleural cavity: _______________ fistula

9. High levels of carbon dioxide in the blood: _____________________________________________

10. Inflammation of the piece of cartilage over the trachea: ____________________________

B. Using the following word parts, build or complete medical terms from the definitions below:

<table>
<thead>
<tr>
<th>Word Part</th>
<th>Word Part</th>
<th>Prefix</th>
<th>Word Part</th>
</tr>
</thead>
<tbody>
<tr>
<td>cyan/o</td>
<td>ox/o</td>
<td>-itis</td>
<td>-pnea</td>
</tr>
<tr>
<td>laryng/o</td>
<td>pector/o</td>
<td>-pnea</td>
<td>-scopy</td>
</tr>
<tr>
<td>lob/o</td>
<td>-al</td>
<td>-spasm</td>
<td></td>
</tr>
<tr>
<td>mediastin/o</td>
<td>-ectomy</td>
<td>ex-</td>
<td>para-</td>
</tr>
<tr>
<td>nas/o</td>
<td>-eal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>orth/o</td>
<td>-ia</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. Inflammation of the voice box: ________________________________________________

2. Visual examination of the central area of the chest: ______________________________________

3. Involuntary contraction of muscles in the voice box: ______________________________________

4. Bluish discoloration of the skin: ________________________________ osis

5. Cavities within the skull near the nose: ________________________________ sinuses

6. Removal of a lobe of the lung: ________________________________

7. Pertaining to the voice box: ________________________________________________
8. Breathing is easier in an upright position: ___________________________________________________________________

9. Process of expelling sputum from the chest: ___________________________________________________________________

10. Condition of decreased oxygen: hyp ___________________________________________________________________

C. Using the following word parts, build or complete medical terms from the definitions below:

<table>
<thead>
<tr>
<th>Word Parts</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>pharyng/o</td>
<td>pneum/o -al -ectomy</td>
</tr>
<tr>
<td>phon/o</td>
<td>pneumon/o -ary -ia</td>
</tr>
<tr>
<td>phren/o</td>
<td>pulmon/o -dynia -rrhea</td>
</tr>
<tr>
<td>pleur/o</td>
<td>rhin/o -eal -plasty</td>
</tr>
</tbody>
</table>

1. Pain associated with the chest muscles: pleuro ___________________________________________________________________

2. Hoarseness (abnormal sound) of the voice: dys ___________________________________________________________________

3. Pertaining to the throat: _______________________________________________________________________________________

4. Discharge from the nose: _______________________________________________________________________________________

5. Nerve that sends messages to the diaphragm: ___________________________________________________________________

6. Removal of a lung: ____________________________________________________________________________________________

7. Accumulation of air in the chest: ________________________________________________________________________ thorax

8. Collection of fluid in the space surrounding the lungs: __________________________________________________________________ effusion

9. Pertaining to the lungs: _______________________________________________________________________________________

10. Surgical repair of the nose: _________________________________________________________________________________

D. Using the following word parts, build or complete medical terms from the definitions below:

<table>
<thead>
<tr>
<th>Word Parts</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>py/o</td>
<td>tel/o -ectasis -itis</td>
</tr>
<tr>
<td>sinus/o</td>
<td>thorac/o -ectomy -meter</td>
</tr>
<tr>
<td>spir/o</td>
<td>tonsill/o -ema -tomy</td>
</tr>
<tr>
<td>sten/o</td>
<td>trache/o -ic re-</td>
</tr>
</tbody>
</table>

1. Condition of collapsed lung: a ________________________________________________________________________________

2. Incision of the chest: _______________________________________________________________________________________

3. Inflammation of cavities in the skull: _______________________________________________________________________

4. Rhythmic changes in breathing: Cheyne-Stokes __________________________________________________________________

5. Removal of the tonsils: _______________________________________________________________________________________

6. Instrument to measure breathing: ______________________________________________________________________________

7. Incision of the windpipe: _____________________________________________________________________________________

8. Pertaining to the chest: _______________________________________________________________________________________

9. Narrowing of the windpipe: _________________________________________________________________________________ eal __________ osis

10. Collection of pus in the pleural cavity: em __________________________________________________________________
### E. Using the following word parts, build or complete medical terms from the definitions below:

<table>
<thead>
<tr>
<th>hem/o</th>
<th>hyper-</th>
<th>tachy-</th>
</tr>
</thead>
<tbody>
<tr>
<td>py/o</td>
<td>ptysis</td>
<td>a-</td>
</tr>
<tr>
<td>-osmia</td>
<td>-sphyxia</td>
<td>an-</td>
</tr>
<tr>
<td>-pnea</td>
<td>-thorax</td>
<td>dys-</td>
</tr>
</tbody>
</table>

1. Increase in depth of breathing: ________________________________
2. Excessive or rapid breathing: _________________________________
3. Blood in the chest (pleural space): hemo _______________________
4. Not breathing: _____________________________________________
5. Pus in the chest (pleural space): _____________________________
6. Spitting up blood: _________________________________________
7. Abnormal breathing (shortness of breath): ______________________
8. No sense of smell: _________________________________________
9. Lack of pulse: _____________________________________________
A. Match the following diagnostic terms with their meanings below:

- auscultation
- percussion
- pleural rub
- rales
- rhonchi
- sputum
- stridor
- wheezes

1. Material expelled from the lungs or upper respiratory tract by spitting ______________________
2. Continuous high-pitched whistling sounds produced during breathing ______________________
3. Tapping on a surface to determine the difference in density of the underlying structure _______________________________________________________________
4. Loud, rumbling sound heard on auscultation over bronchi obstructed by sputum ______________________
5. Fine crackling sound heard on auscultation during inhalation ______________________
6. Scratchy sound produced by pleural surfaces roughened by inflammation rubbing against each other ______________________
7. Listening to sounds within the body __________________________________________________
8. Strained, high-pitched sound made on inspiration; caused by obstruction in the pharynx or larynx __________________________________________________________

B. Match the following respiratory disorders with their explanations below.

- asthma
- atelectasis
- bronchiectasis
- chronic bronchitis
- croup
- cystic fibrosis
- diphtheria
- emphysema
- epistaxis
- pertussis

1. Nosebleed __________________________________________________________
2. Acute viral infection of infants and children with laryngeal obstruction and stridor __________________________________________________________
3. Chronic dilation of a bronchus secondary to infection in the bronchial tree __________________________________________________________
4. Inherited disorder of exocrine glands resulting in thick, mucous secretions in the respiratory tract that do not drain normally __________________________________________________________
5. Chronic inflammatory disorder of bronchi with airway obstruction, bronchial edema, constriction, and increased mucus production __________________________________________________________
6. Collapsed lung

7. Inflammation of bronchi persisting over a long period of time; type of COPD

8. Acute infection (membrane forms) of the throat and upper respiratory tract caused by Corynebacterium

9. Whooping cough: highly infectious bacterial infection of the pharynx, larynx, and trachea marked by spasms of coughing

10. Hyperinflation of air sacs with destruction of alveolar walls

C. Match the following respiratory pathologic terminology with the descriptions below:

<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>lung cancer</td>
<td>sarcoiosis</td>
</tr>
<tr>
<td>mesothelioma</td>
<td>pneumonia</td>
</tr>
<tr>
<td>pleural effusion</td>
<td>pulmonary abscess</td>
</tr>
<tr>
<td>pleurisy</td>
<td>pulmonary edema</td>
</tr>
<tr>
<td>pneumoconiosis</td>
<td>pulmonary embolism</td>
</tr>
<tr>
<td>pulmonary fibrosis</td>
<td>tuberculosis</td>
</tr>
<tr>
<td>inflation of pleura</td>
<td>Chronic inflammatory disease in which small nodules (granulomas) develop in lungs, lymph nodes and other organs</td>
</tr>
<tr>
<td>pleurisy</td>
<td>Clot or other material lodges in vessels of the lung</td>
</tr>
<tr>
<td>pneumoconiosis</td>
<td>Infectious disease of the lungs caused by bacilli (mycobacteria)</td>
</tr>
<tr>
<td>pulmonary fibrosis</td>
<td>Acute inflammation and infection of alveoli, which fill with pus or inflammatory products</td>
</tr>
<tr>
<td>lung cancer</td>
<td>Malignant tumor arising from the lungs and bronchi; non–small cell and small cell are types</td>
</tr>
<tr>
<td>pleural effusion</td>
<td>Collection of fluid in air sacs and bronchioles</td>
</tr>
<tr>
<td>pleurisy</td>
<td>Dust in the lungs; chronic inflammation, infection, and bronchitis</td>
</tr>
<tr>
<td>pneumoconiosis</td>
<td>Large collection of pus (bacterial infection) in the lungs</td>
</tr>
<tr>
<td>pulmonary fibrosis</td>
<td>Formation of scar tissue in the connective tissue of the lungs</td>
</tr>
<tr>
<td>lung cancer</td>
<td>Abnormal accumulation of fluid the pleural space</td>
</tr>
<tr>
<td>mesothelioma</td>
<td>Rare malignant tumor arising in the pleura</td>
</tr>
</tbody>
</table>
D. Match the following pathologic terms with their meanings below:

<table>
<thead>
<tr>
<th>Term</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>anthracosis</td>
<td>cor pulmonale</td>
</tr>
<tr>
<td>asbestosis</td>
<td>exudate</td>
</tr>
<tr>
<td>bacilli</td>
<td>hydrothorax</td>
</tr>
<tr>
<td>chronic obstructive pulmonary disease</td>
<td>infiltrate</td>
</tr>
<tr>
<td>palliative</td>
<td>pulmonary infarction</td>
</tr>
<tr>
<td>paroxysmal</td>
<td>purulent</td>
</tr>
<tr>
<td>pneumothorax</td>
<td>silicosis</td>
</tr>
</tbody>
</table>

1. Failure of the right side of the heart to pump sufficient amount of blood to the lungs

2. Containing pus

3. Collection of air in the pleural space

4. Pertaining to a sudden occurrence

5. Rod-shaped bacteria

6. Glass dust in the lungs

7. Collection of fluid or other material within the lung, as seen on x-ray or other radiologic evaluation

8. Chronic bronchitis and emphysema are examples

9. Coal dust accumulation in the lungs

10. Collection of fluid in the pleural space

11. Asbestos particles accumulate in the lungs

12. Relieving, but not curing symptoms

13. Necrotic dead tissue in the lung

14. Fluid and other substances that filter from cells or capillaries oozes into lesions or areas of inflammation
A. Match the following tests and procedures with their descriptions below:

1. Visual examination of the voice box
   - bronchoscopy
2. Detection device records radioactivity in the lung after injection of a radioisotope or inhalation of radioactive gas
   - PET scan of the lung
3. Magnetic waves create detailed images of the chest in different planes of the body
   - MRI of the chest
4. Computer-generated series of x-ray images show thoracic structures in cross-section and other planes
   - CT scan
5. Fiberoptic endoscopic examination of the bronchial tubes
   - endotracheal intubation
6. Radioactive glucose is injected and images show metabolic activity in the lungs
   - V/Q scan
7. Removal of lung tissue followed by microscopic examination
   - lung biopsy
8. Placement of a tube through the mouth, pharynx, larynx, and trachea to establish an airway
   - tracheostomy
9. PA and lateral films show radiographic images of the thoracic cavity
   - chest x-ray
10. Combination of computed tomography and images of blood vessels (with injected contrast)
    - CT angiography

B. Match the following tests and procedures with their descriptions below:

1. Endoscopic visual examination of the area between the lungs
   - mediastinoscopy
2. Heaf, tine and Mantoux tests (based on positive skin reactions) are examples
   - tuberculin tests
3. Large surgical incision of the chest
   - thoracotomy
4. Chest tube is passed through an opening in the chest to continuously drain a pleural effusion

5. Surgical puncture to remove fluid from the pleural space

6. Tests that measure the ventilation mechanics of the lungs

7. Visual examination of the chest via small incisions and use of an endoscope

8. Surgical creation of an opening into the trachea through the neck
Chapter Twelve
ABBREVIATIONS QUIZ

Name: ______________________________

A. On the line provided, give meanings for the following abbreviations, then write each abbreviation next to its explanation below:

1. ABGs _____________________________________________________________
2. ARDS _____________________________________________________________
3. BAL ______________________________________________________________
4. Bronch ___________________________________________________________
5. CF ________________________________________________________________
6. CO$_2$ ___________________________________________________________
7. COPD ____________________________________________________________
8. CPAP _____________________________________________________________
9. CPR _______________________________________________________________
10. C&S _____________________________________________________________

a. ________ Fluid is injected and withdrawn from the bronchial tubes
b. ________ Growing and testing contents of sputum for bacterial analysis
c. ________ Hereditary disease that causes accumulation of mucus in the respiratory tract
d. ________ Gases are measured in the blood
e. ________ Airway is opened; breathing is restored; circulation restored by external cardiac compression
f. ________ Chronic bronchitis and emphysema are examples
g. ________ Visual examination of the bronchi
h. ________ Group of signs and symptoms of respiratory failure
i. ________ Gas that is expelled in expiration
j. ________ Mask and machine help to avoid obstructive sleep apnea

B. On the line provided, give meanings for the following abbreviations, then write each abbreviation next to its explanation below:

1. CXR _____________________________________________________________
2. CTPA _____________________________________________________________
3. DOE _____________________________________________________________
4. DPT _____________________________________________________________
5. FVC _____________________________________________________________
6. ICU _____________________________________________________________
Chapter 12 ■ ABBREVIATIONS QUIZ

7. MDI: Device used to deliver aerosolized medication to patients
8. NSCLC: Major type of malignancy originating in the lung
9. O₂: Gas that is inhaled and absorbed through alveoli into the bloodstream
10. OSA: Inability to breathe during sleep because of blockage in the airway

C. On the line provided, give meanings for the following abbreviations, then write each abbreviation next to its explanation below:

1. PE: Mechanical ventilator setting
2. PEEP: Spirometer is used for these tests
3. PFTs: Type of lung cancer; “oat cell” cancer
4. PND: Visual examination of the chest using special video assistance
5. PPD: Difficulty in breathing
6. SCLC: Substance used in test for tuberculosis
7. SOB: Infectious lung disease caused by bacilli
8. TB: Clot or other material lodges in vessels of the lung
9. URI: Respiratory disease that originates in the throat, larynx, or trachea
10. VATS: Sudden attack of difficult breathing at night
A. Select from the following anatomical structures to complete the sentences below:

- alveoli
- bronchi
- cilia
- epiglottis
- hilum
- larynx
- mediastinum
- palatine tonsils
- paranasal sinuses
- parietal pleura

1. Branches of the windpipe that lead into the lungs are the _________________________________
2. The region between the lungs in the chest cavity is the ___________________________________
3. Collections of lymph tissue in the oropharynx are the ____________________________________
4. Air sacs of the lung are called ______________________________________________________
5. The outer fold of pleura lying closest to the ribs is called __________________________________
6. Thin hairs attached to the mucous membrane lining the respiratory tract are ____________________________________________________
7. The voice box is called the ___________________________________________________________
8. Middle region where bronchi, blood vessels, and nerves enter and exit lungs is the ___________________________________________________
9. Air-containing cavities in the bones around the nose are the _______________________________
10. The lid-like piece of cartilage that covers the voice box is the _______________________________

B. Complete the following sentences:

11. The gas produced by cells and exhaled through the lungs is called ___________________________
12. Divisions of the lungs are called ______________________________________________________
13. The essential cells of the lung that perform its main function are the pulmonary _______________________________
14. Breathing in air is called ____________________________________________________________

C. Give meanings for the following medical terms:

15. bronchiectasis ______________________________________________________________________
16. anosmia ____________________________________________________________________________
17. phrenic _____________________________________________________________________________
18. pneumothorax ________________________________________________________________________
D. Complete the medical terms for the following respiratory symptoms:

19. excessive carbon dioxide in the blood: hyper ____________________________
20. spitting up blood: hemo ____________________________
21. hoarseness; voice impairment: dys ____________________________
22. breathing is possible only in an upright position: ____________________________ pnea
23. nosebleed: epi ____________________________

E. Give meanings for the following medical terms:

24. purulent ____________________________
25. rales ____________________________
26. auscultation ____________________________
27. pulmonary infarction ____________________________

F. Match the following terms with their descriptions:

<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>asbestosis</td>
<td>chronic bronchitis</td>
</tr>
<tr>
<td>asthma</td>
<td>cystic fibrosis</td>
</tr>
<tr>
<td>atelectasis</td>
<td>emphysema</td>
</tr>
<tr>
<td>bronchogenic carcinoma</td>
<td>pertussis</td>
</tr>
<tr>
<td>28. Hyperinflation of air sacs with destruction of alveolar walls</td>
<td>____________________________</td>
</tr>
<tr>
<td>29. Inflammation of tubes leading from the trachea (over a long period of time)</td>
<td>____________________________</td>
</tr>
<tr>
<td>30. Spasm and narrowing of bronchi leading to airway obstruction</td>
<td>____________________________</td>
</tr>
<tr>
<td>31. Lung or portion of a lung is collapsed</td>
<td>____________________________</td>
</tr>
<tr>
<td>32. Malignant neoplasm originating in a bronchus</td>
<td>____________________________</td>
</tr>
<tr>
<td>33. Whooping cough; bacterial infection of the pharynx</td>
<td>____________________________</td>
</tr>
<tr>
<td>34. Inherited disease of exocrine glands leading to airway obstruction</td>
<td>____________________________</td>
</tr>
<tr>
<td>35. Type of pneumoconiosis; dust particles are inhaled</td>
<td>____________________________</td>
</tr>
</tbody>
</table>

G. Give meanings for the following medical terms:

36. adenoid hypertrophy ____________________________
37. tachypnea ____________________________
38. pleurodynia ____________________________
39. pulmonary embolism ____________________________
40. pulmonary edema ____________________________
41. pulmonary abscess ____________________________
H. Match the clinical procedure or abbreviation with its description:

<table>
<thead>
<tr>
<th>Procedure/Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>bronchioalveolar lavage</td>
<td>lung scan (V/Q)</td>
</tr>
<tr>
<td>CT pulmonary angiography</td>
<td>thoracentesis</td>
</tr>
<tr>
<td>endotracheal intubation</td>
<td>tracheostomy</td>
</tr>
</tbody>
</table>

42. Tube is placed through the mouth into the trachea to establish an airway ________________________________

43. Radioactive material is injected or inhaled and images are recorded ________________________________

44. After contrast is injected into blood vessels of the lungs, computerized tomographic x-rays are taken ________________________________

45. Opening into the trachea through the neck to establish an airway ________________________________

46. Chest wall is punctured with a needle to obtain fluid from the pleural space ________________________________

47. Fluid is injected into the bronchi and then removed for examination ________________________________

I. Give meanings for the following abbreviations:

48. COPD____________________________________________________________________________

49. PFT____________________________________________________________________________

50. URI____________________________________________________________________________
Chapter Twelve

DICTATION AND COMPREHENSION QUIZ: VOCABULARY AND TERMINOLOGY

Name: _______________________

A. Dictation of Terms

1. ____________________________________ 11.  ______________________________________
2. ____________________________________ 12.  ______________________________________
3. ____________________________________ 13.  ______________________________________
4. ____________________________________ 14.  ______________________________________
5. ____________________________________ 15.  ______________________________________
6. ____________________________________ 16.  ______________________________________
7. ____________________________________ 17.  ______________________________________
8. ____________________________________ 18.  ______________________________________
9. ____________________________________ 19.  ______________________________________
10. ____________________________________ 20.  ______________________________________

B. Comprehension of Terms: Match number of the above term with its meaning below.

1. Condition of increased carbon dioxide in the blood
2. Space in the chest between the lungs
3. Essential tissue of the lung
4. Surgical repair of the nose
5. Drug that opens up (widens) the bronchial tubes
6. Spitting up blood
7. Instrument to measure breathing
8. Incision of the chest
9. Inflammation of the flap of cartilage over the windpipe
10. Pertaining to the throat
11. Resection of a lung
12. Inflammation of the small bronchial tubes
13. Pertaining to the voice box
14. Inflammation of the membrane lining the lungs
15. Widening of bronchial tubes
16. Difficult, painful breathing
17. Absence of a sense of smell
18. Pus in the chest (between the membranes around the lung)
19. Incision of the windpipe
20. Muscle that aids in breathing and is located between the chest and the abdomen
Chapter Twelve

DICTATION AND COMPREHENSION QUIZ: PATHOLOGY

Name: ______________________________

A. Dictation of Terms

1. ____________________________________
2. ____________________________________
3. ____________________________________
4. ____________________________________
5. ____________________________________
6. ____________________________________
7. ____________________________________
8. ____________________________________
9. ____________________________________
10. ____________________________________

11. ____________________________________
12. ____________________________________
13. ____________________________________
14. ____________________________________
15. ____________________________________
16. ____________________________________
17. ____________________________________
18. ____________________________________
19. ____________________________________
20. ____________________________________

B. Comprehension of Terms: Match the number of the above term with its meaning below.

- Pertaining to containing pus
- Escape of fluid into the pleural cavity
- Visual examination of the voice box
- Adenocarcinoma and small cell carcinoma are examples
- Musical sounds heard during expiration
- Whooping cough
- Swelling and fluid in alveoli and bronchioles
- Spasm and narrowing of bronchi leading to airway obstruction
- Creation of an opening into the windpipe
- Coal dust accumulation in the lungs
- Malignant tumor arising in the pleura
- Collapsed lung
- Infectious disease of the lungs; caused by bacilli
- Nosebleed
- Strained, high-pitched noisy breathing
- Listening to sounds within the body
- Surgical puncture to remove fluid from the chest (pleural cavity)
- Hyperinflation of alveoli with damage to alveolar walls; type of COPD
- Pertaining to a sudden occurrence
- Injecting and retrieving fluid from the bronchial tubes
A. Circle the term that is spelled correctly and write its meaning in the space provided.

1. epiglottis  ______________________________ epiglottus ______________________________
2. diaphrame  ______________________________ diaphragm ______________________________
3. ascultation ______________________________ auscultation ______________________________
4. astmah  ______________________________ asthma ______________________________
5. emphysema ______________________________ emphyzema ______________________________
6. cilia  ______________________________ cili ______________________________
7. traychea  ______________________________ trachea ______________________________
8. plural ______________________________ plural ______________________________
9. pneuemonia ______________________________ pneumonia ______________________________
10. alveoli  ______________________________ alveroli ______________________________

B. Circle the term that is spelled correctly. The meaning of each term is given.

11. Incision of the chest ......................... thorocotomy thorecotomy thoracotomy
12. Collapsed lung ......................... atelactasis atelectasis atelelectisis
13. Rod-shaped bacteria ................. bacilli basilli basceilli
14. Collection of pus ......................... abess absecess abscess
15. Surgical repair of the nose .............. rhinoplasty rrhinoplasty rinoplasty
16. Removal of the tonsils .................. tonsilectomy tonselectomy tonsillectomy
17. Whoopling cough ......................... pertusis pertussis partussus
18. Visual examination of the voice box .......... larnygoscopy larnygoscope laryngoscopy
19. Pain of the pleura (chest wall) ............. phrenodynia frenodynia phrenodinia
20. Incision of the windpipe .................. trachiotomy tracheotomy tracheotomy
Chapter Twelve

PRONUNCIATION QUIZ

Name: ______________________________

A. Underline the accented syllable in the following terms:

1. dyspnea 4. rhinoplasty 7. bronchoscopy 10. tonsillectomy
2. bacilli 5. pleural effusion 8. expectoration
3. larynx 6. adenoids 9. hypoxia

B. Match the term in Column I with its meaning in Column II:

<table>
<thead>
<tr>
<th>Column I</th>
<th>Column II</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. mediastinum</td>
<td>A. Throat</td>
</tr>
<tr>
<td>2. empyema</td>
<td>B. Collection of fluid in tissues</td>
</tr>
<tr>
<td>3. auscultation</td>
<td>C. Membranes surrounding the lungs</td>
</tr>
<tr>
<td>4. edema</td>
<td>D. Central cavity between the lungs in the chest</td>
</tr>
<tr>
<td>5. atelectasis</td>
<td>E. The windpipe</td>
</tr>
<tr>
<td>6. pleura</td>
<td>F. Condition of imperfect lung expansion; collapsed lung</td>
</tr>
<tr>
<td>7. pharynx</td>
<td>G. Thin hairs attached to the lining of the respiratory tract</td>
</tr>
<tr>
<td>8. trachea</td>
<td>H. Pus in the pleural cavity</td>
</tr>
<tr>
<td>9. cilia</td>
<td>I. Listening to the sounds in the chest</td>
</tr>
<tr>
<td>10. diphtheria</td>
<td>J. Infectious disease of the throat and upper respiratory tract; caused by bacteria</td>
</tr>
</tbody>
</table>

C. Complete the following terms using the definitions given:

1. dys__________________________ Difficult breathing
2. hemo________________________ Spitting up blood
3. ______________________itis Inflammation of a small bronchial tube
4. ______________________osis Abnormal condition of dust in the lung
5. ______________________otomy Incision of the windpipe
6. par__________________________ Essential cells of an organ
7. pleuro______________________ Pain of the pleura (chest wall)
8. ______________________itis Inflammation of the nose and throat
9. em__________________________ Lung disease marked by distention or swelling of the alveoli
10. ______________________ pnea Breathing is easier in an upright position
Label the diagram below using the following terms:

- Adenoids
- Alveoli
- Bronchi
- Capillary
- Diaphragm
- Epiglottis
- Erythrocytes
- Esophagus
- Laryngopharynx
- Larynx
- Lung
- Mediastinum
- Nasal cavity
- Nasopharynx
- Nose
- Oropharynx
- Palatine tonsils
- Paranasal sinuses
- Parietal pleura
- Terminal bronchiole
- Trachea
- Visceral pleura

1. Thyroid cartilage
2. Glottis and vocal cords
3. Heart
4. Right
5. Left
6. Base of the lung
7. Hilum of the lung
8. Apex of the lung
9. Alveolus
10. Exchange of gases between an alveolus and a lung capillary

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A. Give meanings for the following combining forms:

1. adenoid/o ________________________
2. alveol/o ________________________
3. bronch/o _______________________
4. bronchiol/o _____________________
5. pulmon/o _______________________
6. nas/o ____________________________
7. or/o _____________________________
8. ox/o _____________________________
9. pector/o _________________________
10. orth/o ___________________________

B. Give combining forms for the following meanings:

1. voice box _________________________
2. throat _____________________________
3. blue ______________________________
4. voice ______________________________
5. diaphragm ___________________________
6. dust ______________________________
7. pus _______________________________
8. complete __________________________
9. windpipe __________________________
10. tonsils ____________________________
C. Give meanings for the following suffixes and prefixes:

1. -centesis ________________________ 6. -ptysis __________________________
2. -osmia ____________________________ 7. brady- _________________________
3. -pnea _____________________________ 8. per- __________________________
4. -stenosis _________________________ 9. hypo- _________________________
5. -ectasis __________________________ 10. para- _________________________
Chapter Twelve
MEDICAL SCRAMBLE

Name: ______________________________

Unscramble the letters to form respiratory system–related terms from the clues. Use the letters in
the squares to complete the bonus term.

1. *Clue:* Flap of cartilage above the trachea

   __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ ____
Chapter Twelve
CROSSWORD PUZZLE

Name: ______________________________

Fill in the crossword puzzle below using the clues listed underneath it.

Across Clues
1. Abnormal condition caused by dust in the lungs.
5. Lid-like piece of cartilage that covers the larynx.
6. Phon/o means sound or _______.
9. Collapsed lung; or incomplete expansion of lung.
11. Thin hairs attached to the mucous membranes.
13. An infectious disease caused by bacilli and treated with INH (isoniazid).
14. Tel/o means _______, as in atelectasis.
15. Listening to sounds within the body.

Down Clues
2. Air is trapped in lungs, and bronchioles are plugged with mucus; a type of COPD.
3. Breathing in.
4. Smallest branches of the bronchi.
7. Acute inflammation and infection of the lung caused by bacteria (pneumococci), viruses, or fungi.
8. Muscle separating the chest and abdomen.
10. Collection of lymph tissue in the nasopharynx.
12. Rhin/o means ________.
13. Windpipe.
Questions for the Case Report on page 485 of the text

1. What did the initial chest x-ray show? .................................................
   A. Collapsed lung
   B. Shallow respirations
   C. Pleurodynia
   D. Collection of fluid between the pleura

2. What term indicates that the condition was caused by fractured ribs? ...................................................
   A. Secondary
   B. Comatose
   C. Heroin
   D. Effusion

3. What procedure was used to relieve the condition? ...................................................
   A. Chest x-ray
   B. Thoracotomy and tube insertion
   C. Paracentesis
   D. Pericardiocentesis

4. What is the lesson from this case report? ...................................................
   A. Get a chest x-ray immediately upon entering the ER
   B. Removal of fluid from the pleural space showed no blood was present
   C. Be sure that a chest x-ray is read correctly
   D. Be careful when injecting heroin
PATHOLOGY REPORT

Date: November 16, 2014  Pathology No. 450231
Patient: Carolyn Jones  Room No. 422
Physician: Howard T. Waxman, MD  Hospital No. 550330
Specimen: Biopsy of left bronchus

GROSS DESCRIPTION: The specimen consisted of a very tiny, wispy portion of soft whitish pink tissue measuring 3 × 2 × 1 mm in toto. The entire specimen is submitted.

MICROSCOPIC DESCRIPTION: The sections of the bronchial biopsy show approximately half of the mucosa to be composed of pseudostratified, ciliated, respiratory-type epithelium, and the second half to be composed of respiratory epithelium that has undergone squamous metaplasia. There is one small area of cells that has become detached from the mucosa, which is composed of rather pleomorphic and hyperchromatic cells with loss of polarity. This small area of tissue would be classified as the squamous carcinoma. However, I see no evidence of (the) infiltration through the basement membrane in this section. Additional tissue may show more extensive involvement with the carcinoma.

DIAGNOSIS: Small fragment of squamous carcinoma without evidence of infiltration into the underlying submucosa, left bronchus, biopsy (see description).

Pathologist
Mark M. Mosley, MD

New Terms:

- hyperchromatic: Pertaining to cells that stain intensely (chrom/o = color)
- loss of polarity: Cells lose normal sense of organization (characteristic of malignancy)
- pleomorphic: Pertaining to cells with many (ple/o = more) different shapes and form characteristic of malignancy
- pseudostratified: Type of layered epithelium in which nuclei of adjacent cells are at different levels.
- squamous metaplasia: Reversible conversion of normal cells into another, less specialized cell type. Often, these cells can transform into cancerous cells.
### Multiple Choice Quiz

<p>| | | | | | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>22.</td>
<td>D</td>
<td>25.</td>
<td>C</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Vocabulary Quiz

**A**
1. cilia
2. base of the lung
3. bronchi
4. adenoids
5. apex of the lung
6. expiration
7. bronchioles
8. diaphragm
9. alveolus
10. epiglottis

**B**
1. laryngitis
2. mediastinoscopy
3. laryngospasm
4. cyanosis
5. paranasal sinuses
6. lobectomy
7. laryngeal
8. orthopnea
9. expectoration
10. hypoxia

**C**
1. pleurodynia
2. dysphonia
3. pharyngeal
4. rhinorrhea
5. phrenic nerve
6. pneumonectomy
7. pneumothorax
8. pleural effusion
9. pulmonary
10. rhinoplasty

### Terminology Quiz

**A**
1. alveolar
2. bronchiectasis
3. adenoid hypertrophy
4. bronchiolitis
5. bronchospasm
6. pneumoconiosis
7. adenoidectomy
8. bronchopleural fistula
9. hypercapnia
10. epiglottitis

### Pathology Quiz

**A**
1. sputum
2. wheezes
3. percussion
4. rhonchi
5. rales
6. pleural rub
7. auscultation
8. stridor

**B**
1. epistaxis
2. croup
3. bronchiectasis
4. cystic fibrosis
5. asthma
6. atelectasis
7. chronic bronchitis
8. diphtheria
9. pertussis
10. emphysema

**C**
1. pleurisy
2. sarcoidosis
3. pulmonary embolism
4. tuberculosis
5. pneumonia
6. lung cancer
7. pulmonary edema
8. pneumoconiosis
9. pulmonary abscess
10. pulmonary fibrosis
11. pleural effusion
12. mesothelioma

**D**
1. cor pulmonale
2. purulent
3. pneumothorax
4. paroxysmal
5. bacilli
6. silicosis
7. infiltrate
8. chronic obstructive pulmonary disease
9. anthracosis
10. hydrothorax
11. asbestosis
12. palliative
13. pulmonary infarction
14. exudate

Clinical Procedures Quiz

A
1. laryngoscopy
2. V/Q scan
3. MRI of the chest
4. CT scan
5. bronchoscopy
6. PET scan of the lung
7. lung biopsy
8. endotracheal intubation
9. chest x-ray
10. CT angiography

B
1. mediastinoscopy
2. tuberculin tests
3. thoracotomy
4. tube thoracostomy
5. thoracentesis
6. pulmonary function tests
7. thoracoscopy
8. tracheostomy

Abbreviations Quiz

A
1. arterial blood gases
2. acute respiratory distress syndrome
3. bronchoalveolar lavage
4. bronchoscopy
5. cystic fibrosis
6. carbon dioxide
7. chronic obstructive pulmonary disease
8. continuous positive airway pressure
9. cardiopulmonary resuscitation
10. culture and sensitivity testing

B
1. MDI
2. DPT
3. OSA
4. O
5. CXR
6. FVC
7. NSCLC
8. ICU
9. DO

C
1. pulmonary embolism
2. positive end-expiratory pressure
3. pulmonary function tests
4. paroxysmal nocturnal dyspnea
5. purified protein derivative
6. small cell lung cancer
7. shortness of breath
8. tuberculosis
9. upper respiratory infection
10. video-assisted thoracic surgery

Exercise Quiz

A
1. bronchi
2. mediastinum
3. palatine tonsils
4. alveoli
5. parietal pleura
6. cilia
7. larynx
8. hilum
9. paranasal sinuses
10. epiglottis

B
11. carbon dioxide
12. lobes
13. parenchyma
14. inspiration

C
15. dilation of bronchi
16. lack of sense of smell
17. pertaining to the diaphragm
18. collection of air in the pleural space (chest)

D
19. hypercapnia
20. hemoptysis
21. dysphonia
22. orthopnea
23. epistaxis

E
24. pus-filled
25. abnormal crackling sounds during inspiration
26. listening with a stethoscope
27. dead tissue in the lung

F
28. emphysema
29. chronic bronchitis
30. asthma
31. atelectasis
32. bronchogenic carcinoma
33. pertussis
34. cystic fibrosis
35. asbestosis

G
36. enlargement of adenoids
37. rapid breathing
38. pain in the chest wall (pleura)
39. blood clot suddenly blocks a vessel in the lungs
40. swelling, collection of fluid in the lungs
41. collection of pus (infection in the lungs)

H
42. endotracheal intubation
43. lung scan (V/Q)
44. CT pulmonary angiography
45. tracheostomy
46. thoracentesis
47. bronchoalveolar lavage

I
48. chronic obstructive pulmonary disease
49. pulmonary function test
50. upper respiratory infection
Dictation and Comprehension Quiz: Vocabulary

A
1. anosmia
2. bronchiectasis
3. bronchiolitis
4. bronchodilator
5. diaphragm
6. dyspnea
7. epiglottis
8. hemoptysis
9. hypercapnia
10. laryngeal
11. mediastinum
12. pharyngeal
13. pleuritis
14. pneumonectomy
15. pulmonary parenchyma
16. pyothorax
17. rhinoplasty
18. spirometer
19. thoracotomy
20. tracheotomy

B
9. Condition of increased carbon dioxide in the blood
11. Space in the chest between the lungs
15. Essential tissue of the lung
17. Surgical repair of the nose
4. Drug that opens up (widens) the bronchial tubes
8. Spitting up blood
18. Instrument to measure breathing
19. Incision of the chest
7. Inflammation of the flap of cartilage over the windpipe
12. Pertaining to the throat
14. Resection of a lung
3. Inflammation of the small bronchial tubes
10. Pertaining to the voice box
13. Inflammation of the membrane lining the lungs
2. Widening of bronchial tubes
6. Difficult, painful breathing
1. Absence of a sense of smell
16. Pus in the chest (between the membranes around the lung)
20. Incision of the windpipe
5. Muscle that aids in breathing and is located between the chest and the abdomen

Dictation and Comprehension Quiz: Pathology

A
1. anthracosis
2. asthma
3. atelectasis
4. auscultation
5. bronchoalveolar lavage
6. bronchogenic carcinoma
7. emphysema
8. epistaxis
9. laryngoscopy
10. mesothelioma
11. paroxysmal
12. pertussis
13. pleural effusion
14. pulmonary edema
15. purulent
16. stridor
17. thoracentesis
18. tracheostomy
19. tuberculosis
20. wheezes

B
15. Pertaining to containing pus
13. Escape of fluid into the pleural cavity
9. Visual examination of the voice box
6. Adenocarcinoma and small cell carcinoma are examples
20. Continuous high-pitched whistling sounds
12. Whooping cough
14. Swelling and fluid in alveoli and bronchioles
2. Spasm and narrowing of bronchi leading to airway obstruction
18. Creation of an opening into the windpipe
1. Coal dust accumulation in the lungs
10. Malignant tumor arising in the pleura
3. Collapsed lung
19. Infectious disease of the lungs; caused by bacilli
8. Nosebleed
16. Strained, high-pitched noisy breathing
4. Listening to sounds within the body
7. Hyperinflation of alveoli with damage to alveolar walls; type of COPD

Spelling Quiz

A
1. epiglottis—flap of cartilage over the windpipe
2. diaphragm—muscle between the chest and abdomen
3. auscultation—listening with a stethoscope
4. asthma—spasm and narrowing of bronchi
5. emphysema—hyperinflation of air sacs; destruction of alveoli
6. cilia—tiny hairs in the respiratory tract
7. trachea—windpipe
8. pleural—pertaining to the membrane around the lungs
9. pneumonia—acute inflammation and infection of air sacs
10. alveoli—air sacs

B
11. thoracotomy
12. atelectasis
13. bacilli
14. abscess
15. rhinoplasty
16. tonsillectomy
17. pertussis
18. laryngoscopy
19. phrenodynia
20. tracheotomy

Pronunciation Quiz

A
1. dyspnea
2. bacilli
3. larynx
4. rhinoplasty
5. pleural effusion
6. adenoids
7. bronchoscopy
8. expectoration
9. hypoxia
10. tonsillectomy

B
1. D
2. H
3. I
4. B
5. F
6. C
7. A
8. E
9. G
10. J

_**C**_
1. dyspnea
2. hemoptysis
3. bronchiolitis
4. pneumoconiosis
5. tracheotomy
6. parenchyma
7. pleurodynia
8. nasopharyngitis
9. emphysema
10. orthopnea

**Diagram Quiz**
1. Nose
2. Nasal cavity
3. Paranasal sinuses
4. Nasopharynx
5. Adenoids
6. Oropharynx
7. Palatine tonsils
8. Laryngopharynx
9. Larynx
10. Esophagus
11. Epiglottis
12. Trachea
13. Mediastinum
14. Bronchi
15. Lung
16. Terminal bronchiole
17. Alveoli
18. Capillary
19. Erythrocytes
20. Parietal pleura
21. Visceral pleura
22. Diaphragm

**Review Sheet Quiz**
_A_
1. adenoids
2. alveolus (air sac)
3. bronchial tube
4. bronchiole
5. lung
6. nose
7. mouth
8. oxygen
9. chest
10. straight

_B_
1. laryng/o
2. pharyng/o
3. cyan/o
4. phon/o
5. phren/o
6. con/o
7. py/o
8. tel/o
9. trache/o
10. tonsill/o

_C_
1. surgical puncture to remove fluid
2. smell
3. breathing
4. narrowing, tightening
5. widening, expansion
6. spitting
7. slow
8. through
9. under, below; less than
10. near

**Medical Scramble**
1. EPIGLOTTIS 3. BRONCHIOLE
2. RACILLI 4. ASTHMA
**BONUS TERM:** ATELECTASIS

**Practical Applications**
1. D
2. A
3. B
4. C

**Crossword Puzzle**

**Flow Chart Quiz**
1. Nose (Nares)
2. Nasal cavities and paranasal sinuses
3. Pharynx
4. Larynx
5. Trachea
6. Bronchi
7. Bronchioles
8. Alveoli
9. Lung capillaries (bloodstream)
### Terminology Meaning

#### Combining Forms

<table>
<thead>
<tr>
<th>Terminology</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>adenoidectomy</td>
<td>Removal of adenoids.</td>
</tr>
<tr>
<td>adenoid hypertrophy</td>
<td>Excessive development (enlargement) of adenoids.</td>
</tr>
<tr>
<td>alveolar</td>
<td>Pertaining to an alveolus.</td>
</tr>
<tr>
<td>bronchospasm</td>
<td>Involuntary contraction of muscles in the walls of bronchial tubes.</td>
</tr>
<tr>
<td>bronchiectasis</td>
<td>Dilatation of bronchial tubes.</td>
</tr>
<tr>
<td>bronchodilator</td>
<td>A substance (chemical or drug) that widens bronchial tubes to make breathing easier.</td>
</tr>
<tr>
<td>bronchopleural</td>
<td>Pertaining to a bronchial tube and pleura or pleural cavity.</td>
</tr>
<tr>
<td>bronchiolitis</td>
<td>Inflammation of bronchioles.</td>
</tr>
<tr>
<td>hypercapnia</td>
<td>Excessive carbon dioxide in the blood.</td>
</tr>
<tr>
<td>pneumoconiosis</td>
<td>Abnormal condition of dust in the lungs.</td>
</tr>
<tr>
<td>cyanosis</td>
<td>Condition of bluish coloration of skin caused by decreased oxygen in the blood.</td>
</tr>
<tr>
<td>epiglottitis</td>
<td>Inflammation of the epiglottis.</td>
</tr>
<tr>
<td>laryngeal</td>
<td>Pertaining to the larynx.</td>
</tr>
<tr>
<td>laryngospasm</td>
<td>Contraction of the muscles of the larynx.</td>
</tr>
<tr>
<td>laryngitis</td>
<td>Inflammation of the voice box.</td>
</tr>
<tr>
<td>lobectomy</td>
<td>Removal of a lobe (of the lung).</td>
</tr>
<tr>
<td>mediastinoscopy</td>
<td>Visual examination of the mediastinum.</td>
</tr>
<tr>
<td>paranasal sinuses</td>
<td>Pertaining to spaces in the skull that are near, alongside, the nose and nasal cavities.</td>
</tr>
<tr>
<td>nasogastric intubation</td>
<td>Tube placed from the nose into the stomach.</td>
</tr>
<tr>
<td>orthopnea</td>
<td>Breathing discomfort in any position but erect, sitting, or standing straight.</td>
</tr>
<tr>
<td>hypoxia</td>
<td>Deficiency of oxygen (anoxia) due to decreased oxygen in blood.</td>
</tr>
<tr>
<td>expectoration</td>
<td>Expulsion of material (mucus or phlegm).</td>
</tr>
<tr>
<td>pharyngeal</td>
<td>Pertaining to the throat.</td>
</tr>
<tr>
<td>dysphonia</td>
<td>Difficult (abnormal) voice; hoarseness or any voice impairment.</td>
</tr>
<tr>
<td>phrenic nerve</td>
<td>Nerve carrying messages from the brain to the diaphragm.</td>
</tr>
<tr>
<td>pleurodynia</td>
<td>Pain associated with inflammation of irritation of pleura (or pain from intercostal muscles).</td>
</tr>
<tr>
<td>pleural effusion</td>
<td>Fluid collects in the pleural cavity (space).</td>
</tr>
<tr>
<td>pneumothorax</td>
<td>Air within the pleural cavity surrounding the lungs.</td>
</tr>
<tr>
<td>pneumonectomy</td>
<td>Removal of a lung.</td>
</tr>
<tr>
<td>pulmonary</td>
<td>Pertaining to lungs.</td>
</tr>
<tr>
<td>rhinoplasty</td>
<td>Surgical repair of the nose.</td>
</tr>
<tr>
<td>rhinorrhea</td>
<td>Discharge from the nose.</td>
</tr>
<tr>
<td>sinusitis</td>
<td>Inflammation of sinuses.</td>
</tr>
<tr>
<td>spirometer</td>
<td>Instrument to measure breathing (the air taken into and exhaled from the lungs).</td>
</tr>
<tr>
<td>expiration</td>
<td>The expulsion of air from the lungs.</td>
</tr>
<tr>
<td>respiration</td>
<td>Breathing (inspiration and expiration).</td>
</tr>
<tr>
<td>atelectasis</td>
<td>Incomplete expansion of a lung (collapsed lung).</td>
</tr>
<tr>
<td>thoracotomy</td>
<td>Incision of the chest.</td>
</tr>
<tr>
<td>thoracic</td>
<td>Pertaining to the chest.</td>
</tr>
</tbody>
</table>

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tonsillectomy  Removal of tonsils.
tracheotomy  Incision of the trachea.
tracheal stenosis  Pertaining to narrowing of the trachea.

Suffixes

empyema  Pus in the pleural cavity.
anosmia  Absence of the sense of smell.
apnea  Stoppage of breathing.
dyspnea  Difficult breathing.
hyperpnea  Increase in depth of breathing.
tachypnea  Increase in rate of breathing; shallow respirations.
hemoptysis  Spitting up blood.
asphyxia  Decrease in the amount of oxygen and increase in amount of carbon dioxide in the blood leading to absence of pulse.
hemothorax  Blood in the pleural cavity; seen in pneumonia, tuberculosis, or carcinoma.
pyothorax  Pus in the pleural cavity (empyema of the chest).