

CH 22  
RESPIRATION

## STUDY GUIDE

### ▶ Testing Your Recall

- common cause, and
- The nasal cavity is divided by the nasal septum into right and left
    - nares.
    - vestibules.
    - fossae.
    - choanae.
    - conchae.
  - The intrinsic laryngeal muscles regulate speech by rotating
    - the extrinsic laryngeal muscles.
    - the corniculate cartilages.
    - the arytenoid cartilages.
    - the hyoid bone.
    - the vocal cords.
  - The largest air passages that engage in gas exchange with the blood are
    - the respiratory bronchioles.
    - the terminal bronchioles.
    - the primary bronchi.
    - the alveolar ducts.
    - the alveoli.
  - Respiratory arrest would most likely result from a tumor of the
    - pons.
    - midbrain.
    - thalamus.
    - cerebellum.
    - medulla oblongata.
  - Which of these values would normally be the highest?
    - tidal volume
    - inspiratory reserve volume
    - expiratory reserve volume
    - residual volume
    - vital capacity
  - The \_\_\_\_\_ protects the lungs from injury by excessive inspiration.
    - pleura
    - rib cage
    - inflation reflex
    - Haldane effect
    - Bohr effect
  - According to \_\_\_\_\_, the warming of air as it is inhaled helps to inflate the lungs.
    - Boyle's law
    - Charles's law
    - Dalton's law
    - the Bohr effect
    - the Haldane effect
  - Poor blood circulation causes \_\_\_\_\_ hypoxia.
    - ischemic
    - histotoxic
    - hemolytic
    - anemic
    - hypoxemic
  - Most of the CO<sub>2</sub> that diffuses from the blood into an alveolus comes from
    - dissolved gas.
    - carbaminohemoglobin.
    - carboxyhemoglobin.
    - carbonic acid.
    - expired air.
  - The duration of an inspiration is set by
    - the pneumotaxic center.
    - the phrenic nerves.
    - the vagus nerves.
    - the I neurons.
    - the E neurons.
  - The superior opening into the larynx is guarded by a tissue flap called the \_\_\_\_\_.
    - epiglottis
    - aryepiglottic fold
    - pharynx
    - uvula
    - epipharynx
  - Within each lung, the airway forms a branching complex called the \_\_\_\_\_.
    - bronchus
    - bronchiole
    - terminal bronchiole
    - respiratory tree
    - terminal bronchiole
  - The great alveolar cells secrete a phospholipid-protein mixture called \_\_\_\_\_.
    - surfactant
    - phospholipid
    - protein
    - phospholipid-protein
    - phospholipid-protein mixture
  - Intrapulmonary pressure must be lower than \_\_\_\_\_ pressure for inspiration to occur.
    - atmospheric
    - intrapulmonary
    - intra-alveolar
    - intra-arterial
    - intra-venous
  - \_\_\_\_\_ disorders reduce the speed of airflow through the airway.
    - asthma
    - emphysema
    - chronic bronchitis
    - respiratory distress syndrome
    - respiratory failure
  - Some inhaled air does not participate in gas exchange because it fills the \_\_\_\_\_ of the respiratory tract.
    - anatomical dead space
    - physiological dead space
    - alveolar dead space
    - respiratory dead space
    - ventilatory dead space
  - Inspiration depends on the ease of pulmonary inflation, called \_\_\_\_\_, whereas expiration depends on \_\_\_\_\_, which causes pulmonary recoil.
    - compliance; resistance
    - resistance; compliance
    - elasticity; resistance
    - resistance; elasticity
    - compliance; elasticity
  - Inspiration is caused by the firing of I neurons in the \_\_\_\_\_ of the medulla oblongata.
    - ventral horn
    - reticular formation
    - ventral respiratory group
    - ventral respiratory group
    - ventral respiratory group
  - The matching of airflow to blood flow in any region of the lung is called \_\_\_\_\_.
    - ventilation-perfusion ratio
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    - ventilation-perfusion ratio
    - ventilation-perfusion ratio
  - A blood pH > 7.45 is called \_\_\_\_\_ and can be caused by a CO<sub>2</sub> deficiency called \_\_\_\_\_.
    - respiratory alkalosis; hyperventilation
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