

## Lecture quiz 3 breakdown: Ch 11 – respiratory physiology

25 questions **Updated 6/17/25**

1 on conduction zone (oral & nasal cavities, pharynx, trachea, primary, secondary, tertiary, and terminal bronchiole) versus respiratory zone (respiratory bronchioles and alveoli sacs)

1 on alveolar cells (Type 1 versus Type 2)

6 on respiratory vocab (eupnea, dyspnea, apnea, surface tension, surfactant, compliance, recoil, hyperventilation, hypoventilation, minute ventilation) **Include knowing things that can affect surface tension, surfactant, compliance, and recoil.**

9 on respiratory disorders [**IRDS, ARDS**, pulmonary fibrosis (**and different things that can cause fibrosis**), pneumothorax, pneumonia, non-obstructive atelectasis and obstructive atelectasis, COPD, emphysema, asthma, cystic fibrosis, sarcoidosis, silicosis, anthracosis, mesothelioma]

2 on mechanism of respiration & Boyle's Law

> respiratory muscles (diaphragm), thoracic volume, lung volume, & intrapulmonary pressure]

3 on control of respiration, and regulation of respiratory acidosis & alkalosis.

> voluntary – primary motor cortex.

> Involuntary involves the chemoreceptors and medulla respiratory center.

> **respiratory acidosis sensed by chemoreceptors (aortic arch & carotid arteries), signal medulla's respiratory center, causes increases minute ventilation to bring blood pH back up to normal**

> **Respiratory alkalosis sensed by same chemoreceptors, signal medulla's respiratory center to decrease minute ventilation to bring blood pH back down to normal.**

2 on lung vocab (parietal pleura, visceral pleura, intrapleural space)

2 on hemoglobin disorders (carbon monoxide and carboxyhemoglobin, nitrate and methemoglobin, neonatal jaundice and hyperbilirubinemia, and sickle cell disease)

1 on gas exchange of blood vessels and body tissue, or between alveolar sacs and blood vessels based on pressure of O<sub>2</sub> and CO<sub>2</sub> (e.g. PO<sub>2</sub> and PCO<sub>2</sub>, where the "P" stands for gas pressure).