

Biology 47 – Human Anatomy

West Valley College - Norris

Lecture Outline – Respiratory System

I. Definitions

- A. Ventilation
- B. Respiration
 - cellular
 - systemic

II. Function (= physiology)

- A. Ventilation
- B. Gas Exchange

III. Respiratory System Functional Anatomy

- A. Conduction Zone (dead air space)
 - 1. Transmission
 - 2. Air Treatment
 - filtration
 - warming
 - humidifying
- B. Respiratory Zone (gas exchange membrane)

IV. Conduction Zone Anatomy

A. Upper Respiratory System

- 1. Nasal Cavities
 - a. Nasal Turbinates (conchae)
 - b. Olfactory Epithelium
 - c. Paranasal Sinuses
- 2. Pharynx
 - a. Nasopharynx
 - b. Oropharynx
 - c. Laryngopharynx

B. Lower Respiratory System

- 1. Larynx.
 - a. Cartilages of the Larynx
 - i. Thyroid Cartilage - aka “Adams apple”
 - ii. Cricoid Cartilage
 - iii. Epiglottis
 - b. Hyoid Bone
 - c. Vocal Folds (vocal cords)
 - i. True Vocal Cords
 - ii. False Vocal Cords (vestibular folds)

2. Trachea
3. Primary Bronchi
4. Secondary Bronchi ...

V. Lungs

A. General Anatomy

B. Airways

1. Bronchioles
2. Terminal Bronchioles

C. Respiratory Zone

1. Respiratory Bronchioles
2. Alveolar Ducts
3. Alveolar Sacs
4. Alveoli

VII. Additional Key Terms

alveoli	atelectasis	apnea	embolism	eupnea	hypercapnea
hyperoxia	hyperpnea	hyperventilation		hypocapnea	hypopnea