## THE RESPIRATORY SYSTEM

=anatomy and physiology=

## **Simplified Reviewer and Notes**

- B. Lower Respiratory Airways:
  - 1. Trachea/ Windpipe
  - 2. Right and Left Mainstem Bronchi
  - 3. Secondary (lobar) bronchi
  - 4. Tertiary (segmental) bronchi
  - 5. Bronchioles and terminal bronchioles
- Nose: filters and humidifies air; aid in phonation; olfaction
  - > Nostrils/ nares: openings of the nose. Each nostril leads to a cavity called vestibule. The hair that lines the vestibule are called the vibrissae. Vibrissae filter foreign object.
  - > The nasal cavity is separated from the oral cavity below by a partition, the <u>palate</u>. Anteriorly, where the palate is supported by bone, is the hard palate. The unsupported posterior part is the soft palate.
  - The nasal cavity is surrounded by a ring of paranasal sinuses.  $\geq$

- - ▶ Four-paired bony cavities; named after their location (frontal,

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Upper Respiratory Air A grade and a speed of the large and the large and a speed of the large and the lar Pharynx/ Throat: funnel-shaped tube that extends from the nose to

- > A common opening between the <u>digestive and respiratory</u>
- Cluster of lymphatic tissues called tonsils are found in the
- Larynx/ Voice box: connects the pharynx and the trachea.
  - > Formed by 8 rigid hyaline cartilage and elastic cartilage (epiglottis)
  - > Thyroid cartilage/ Adam's Apple: the largest of the hyaline cartilage
  - > Epiglottis: protects the superior opening of the larvnx (glottis). When eating, the epiglottis closes (to prevent entering the trachea and prevent aspiration). When speaking, coughing, and breathing, it opens.
  - > Part of the mucus membrane of the larynx forms a pair of 2 folds, called the vocal folds/ cords, which vibrate with expelled air. This ability of the vocal folds (true vocal folds/ cords) to vibrate allows us to speak.
- Trachea/Windpipe: tubular passageway of air
  - > The point at which it divides/ bifurcates is called carina.
  - ▶ It is constructed of 15-20 C-shaped cartilaginous rings separated by fibrous muscular tissue which form the supporting