Upper Respiratory
external nares (nostrils)
nasal cavity
nasal septum
Perpendicular plate
vomer bone
The nose leads to the pharynx through this pair of openings creating a pathway for air to reach the lungs.
Nasal conchae

Thin scroll-shaped bony structures that force air over a large surface area for rapid warming and filtering
Paranasal sinuses
ethmoid

Contains 3-18 small air spaces or “cells” inside ethmoid bone
frontal
maxillary
sphenoid
hard palate
pharynx

Throat: extends from internal nares down to the larynx
Posterior to nasal cavity and extends to the plane of the soft palate
oropharynx

Posterior to oral cavity and extends from soft palate to the level of the hyoid bone
laryngopharynx

Begins at the level of the hyoid bone and connects the esophagus with the larynx (voice box)
larynx
epiglottis
thyroid cartilage
arytenoid cartilage
corniculate cartilage
cricoid cartilage
Vocal cords

False vocal cord

True vocal cord
glottis (opening)
trachea
carina

One of the most sensitive areas for triggering a cough reflex
respiratory tree

Begins at the trachea and ends at the terminal bronchioles

- Trachea
  - Primary Bronchi
  - Secondary Bronchi
  - Tertiary Bronchi
  - Bronchioles
    - Terminal Bronchioles
primary bronchi
secondary (lobar) bronchi
tertiary (segmental) bronchi
intralobular bronchiole
terminal bronchiole
respiratory bronchiole
alveolar duct
alveolar sac
alveoli
lungs
lobes
Right lung

- 3 lobes
Left lung

- 2 lobes
RESPIRATORY MUSCLES

KNOW the muscle involved in normal and forced ventilation
INSPIRATORY MUSCLES
diaphragm
external intercostal
sternocleidomastoid
pectoralis minor
scalenes
EXPIRATORY MUSCLES
internal intercostals
rectus abdominis
external oblique
internal oblique
Transverse abdominis
parietal pleura

- Outer membrane
- Contacts ribs
visceral pleura

- Inner membrane
- Covers lung
- Like cellophane
pleural cavity

- Space between