D.PHARM • FIRST YEAR

Human Anatomy & Physiology

CHAPTER 8

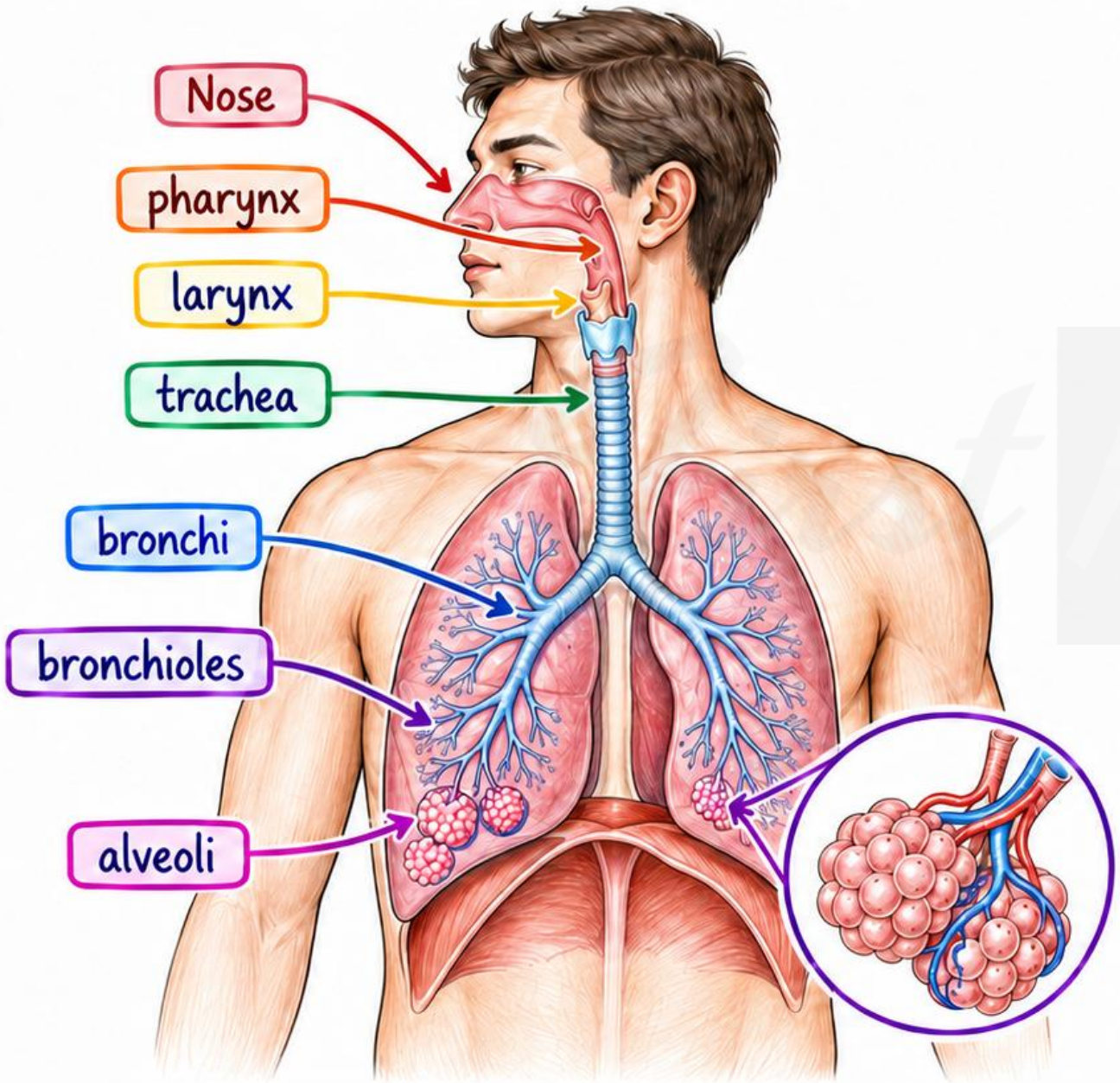
Respiratory System



ENGLISH CHAPTER NOTES

DIPLOMA IN PHARMACY

RESPIRATORY SYSTEM OVERVIEW



MAIN ROLE

The respiratory system brings oxygen into the body and removes carbon dioxide.

AIRWAY ROUTE

Nose → pharynx → larynx → trachea → bronchi → bronchioles → alveoli.

CONDUCTING AIRWAYS

Move air and help filter, warm and humidify it.

GAS-EXCHANGE REGION

Alveoli provide thin surfaces where gases move between air and blood.

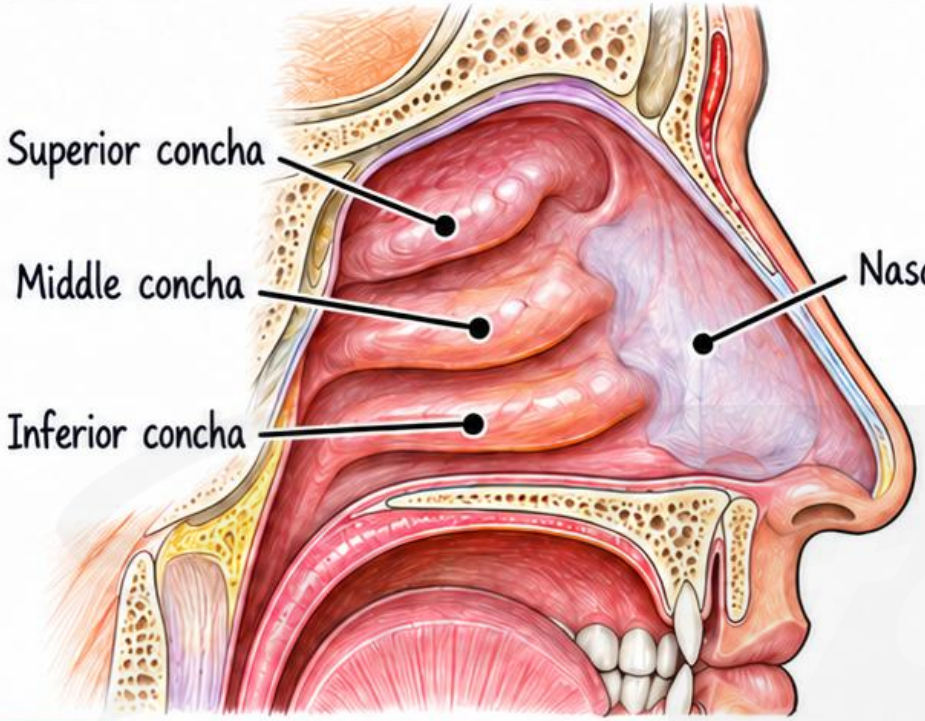
WORKING TOGETHER

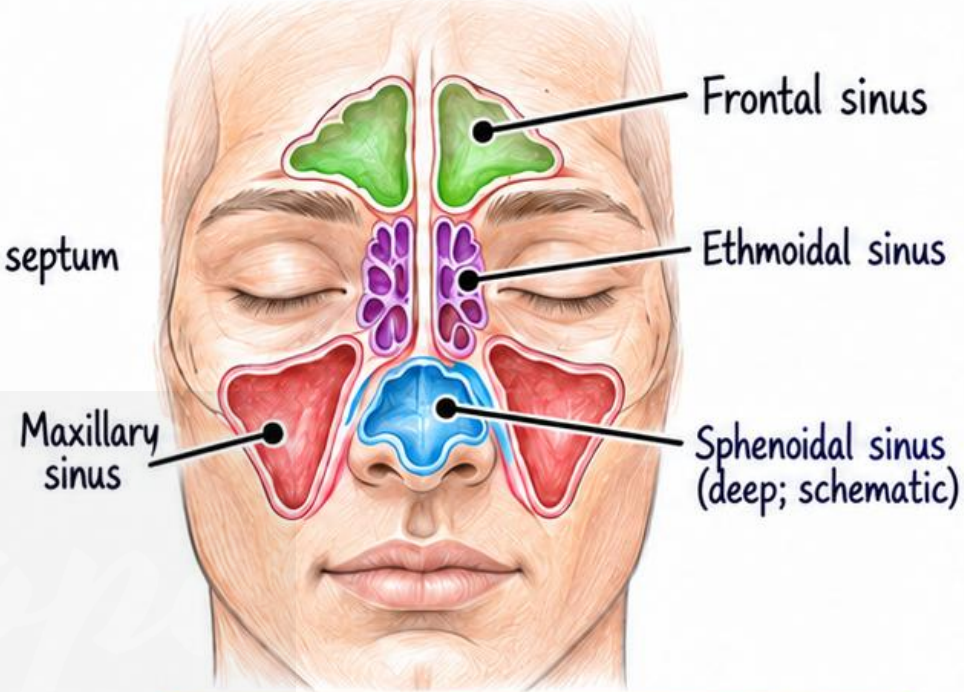
Respiratory muscles ventilate the lungs; circulation transports gases between lungs and tissues.

NASAL CAVITY AND PARANASAL SINUSES

NASAL CAVITY

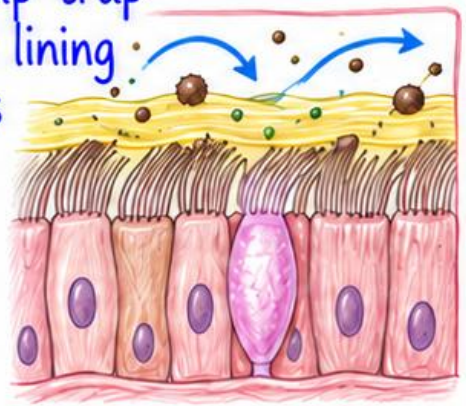
The nasal septum separates right and left cavities. Conchae increase contact between air and the mucosal surface.





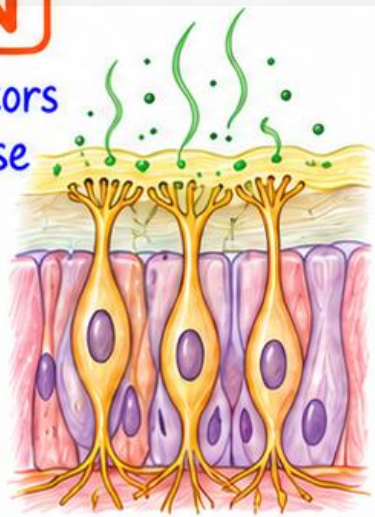
AIR CONDITIONING

Mucus and hairs help trap particles. The nasal lining warms and moistens inspired air.



OLFACTION

Olfactory receptors support the sense of smell.



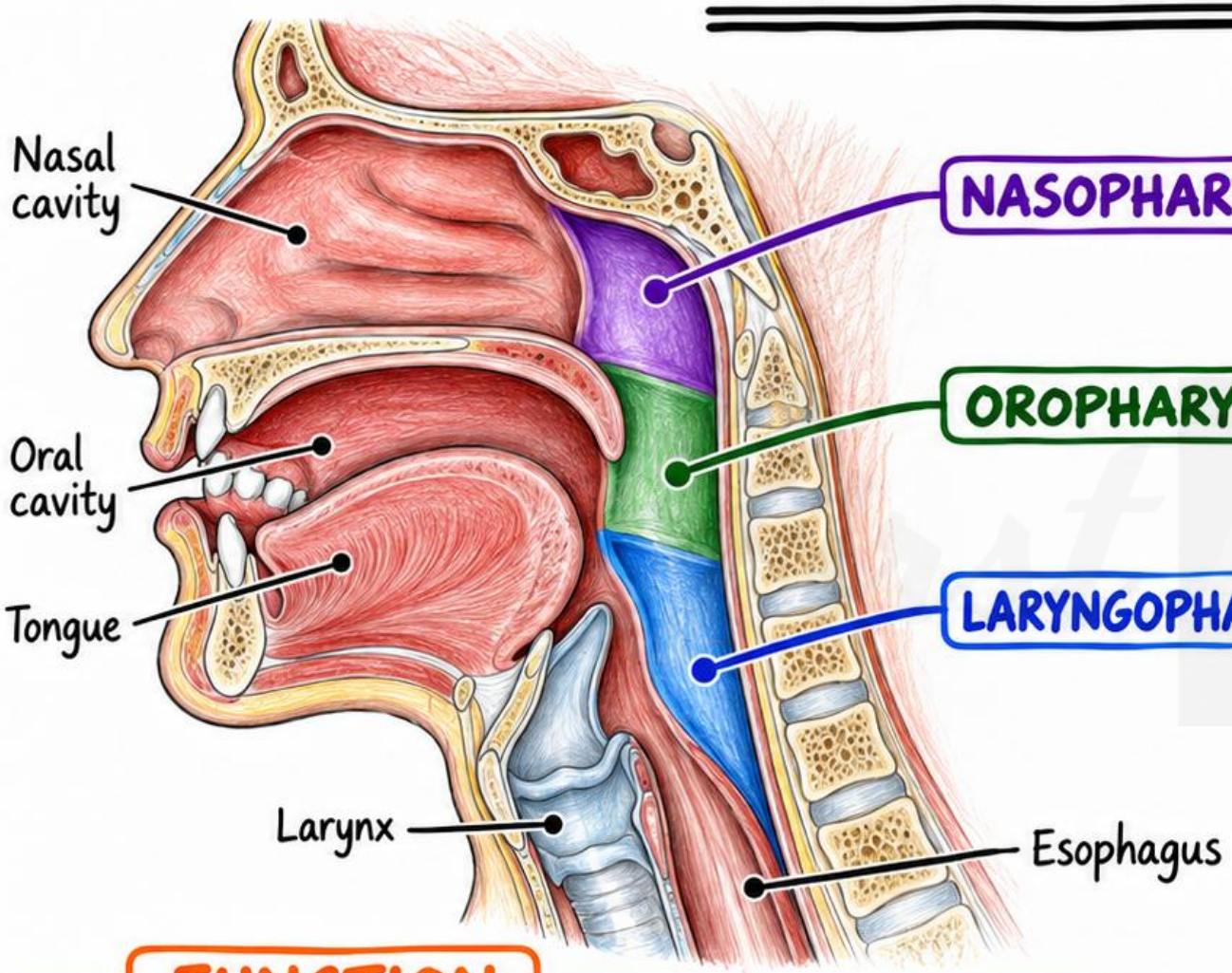
PARANASAL SINUSES

Frontal, maxillary, ethmoidal and sphenoidal sinuses communicate with the nasal region.

FUNCTIONS

Contribute to voice resonance and reduce skull weight.

PHARYNX



NASOPHARYNX

Behind the nasal cavity. Contains the pharyngeal tonsil and openings of the auditory tubes.

OROPHARYNX

Behind the oral cavity; a shared passage for air and swallowed material.

LARYNGOPHARYNX

The lower region, leading toward the larynx and esophagus.

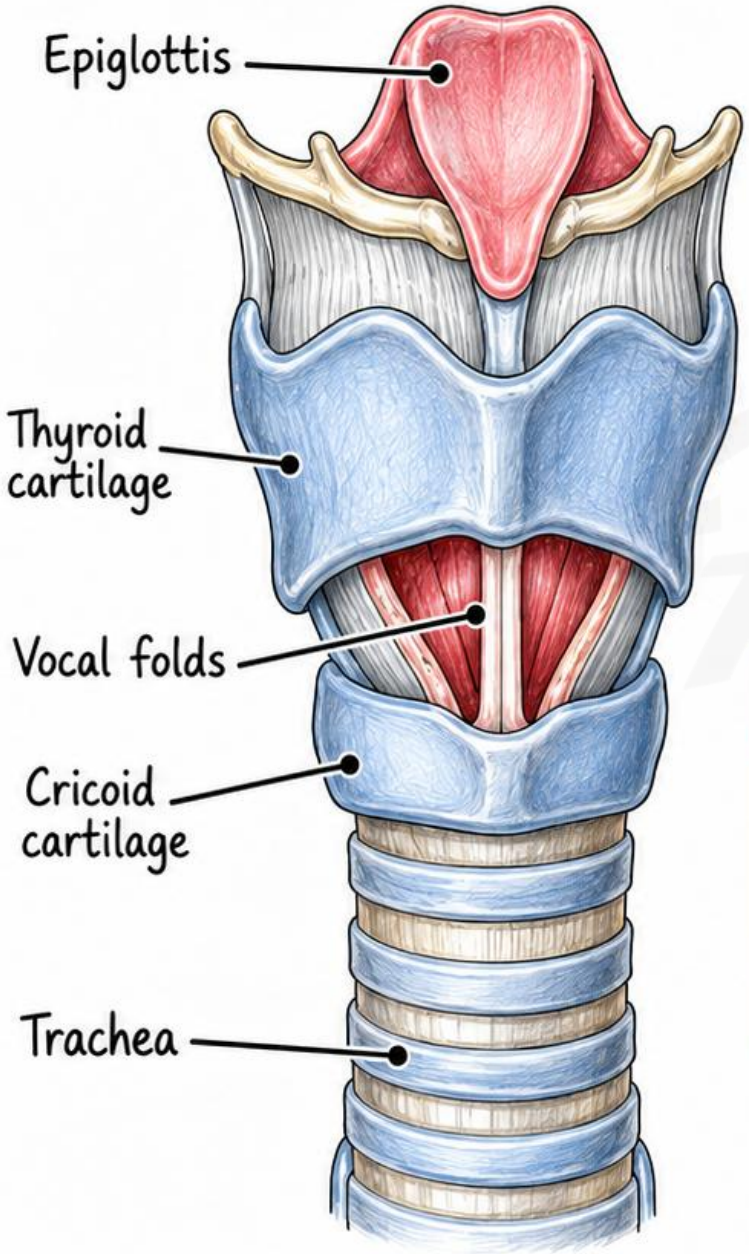
FUNCTION

Carries air toward the larynx and participates in swallowing.

ROUTE SEPARATION

Air enters the larynx; swallowed food is directed toward the esophagus.

LARYNX AND TRACHEA

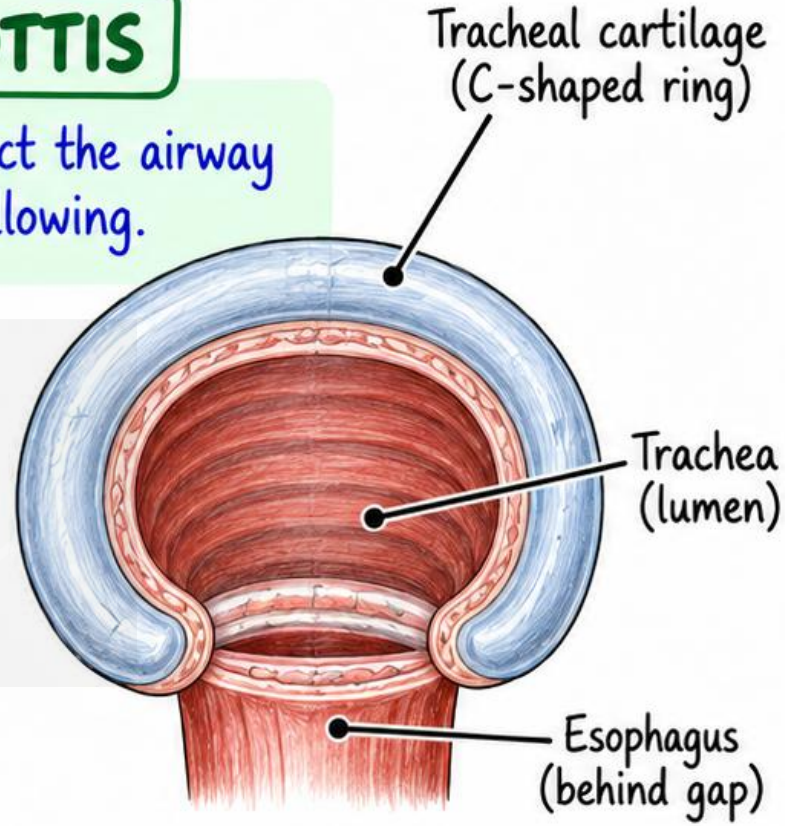


LARYNX

The voice box links pharynx and trachea. Thyroid and cricoid cartilages support it; vocal folds produce sound.

EPIGLOTTIS

Helps protect the airway during swallowing.



FUNCTIONAL LINK

The larynx protects and voices; the trachea conducts air toward the bronchi.

TRACHEA

An air passage supported by C-shaped cartilage rings.

MUCOCILIARY CLEARANCE

Mucus traps particles and cilia move material toward the pharynx.

First Hope

FREE PREVIEW

Click here to visit our website

PHARMACY PREMIUM NOTES

Complete subject and semesters are available on FirstHope app only.

Scan or click here

Click here to get the app >

Available on Google Play

JOIN THE FIRSTHOPE COMMUNITY

Join our Telegram channel

Click here to join Telegram >

Scan or click here

@FirstHopeNotes

Instagram

@firsthope.official

Click here to follow >

YouTube channel

FirstHope-Pharmacy / Live streams

Click here to watch >

WhatsApp channel

Follow FirstHope on WhatsApp

Click here to join >

FirstHope website

firsthope.co.in

Click here to visit >

B.Pharm / D.Pharm / M.Pharm / Pharm.D

Preview notes. Complete subjects and semesters in the FirstHope app.