

# *Pulmonary Function Tests*

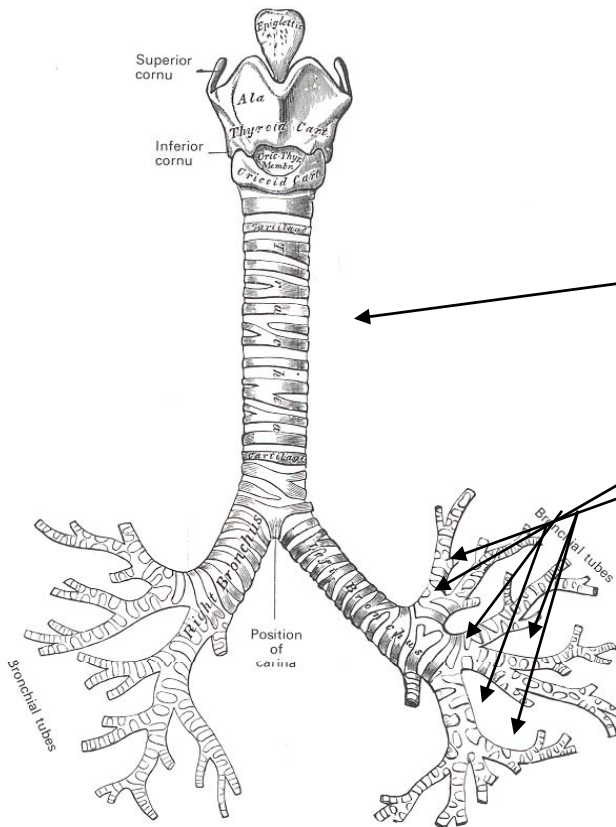
Wanida Paoiin

## Objectives

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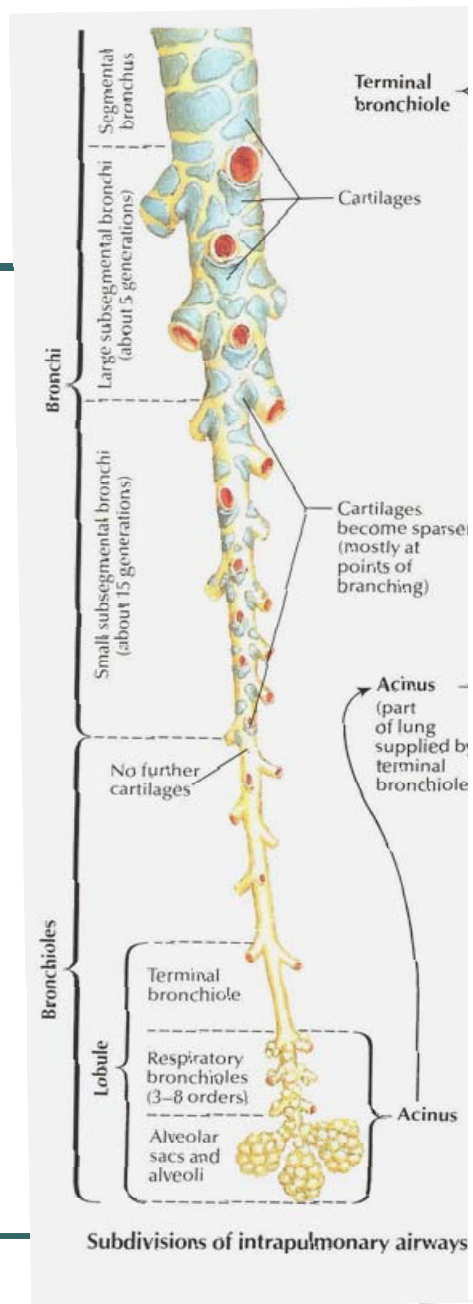
- Review basic pulmonary anatomy and lung volume.
- Indication for PFTs.
- Technique and basic interpretation of spirometry.
- Difference between obstructive and restrictive lung disease.
- Clinically application

# Conducting Airways



- Air travels via laminar flow through the conducting airways:

- trachea,
- lobar bronchi,
- segmental bronchi,
- subsegmental bronchi,
- small bronchi,
- bronchioles, and
- terminal bronchioles.



From Netter  
Atlas of  
Human  
Anatomy,  
 1989

# Gas Exchange

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- Capillaries are wrapped around alveoli.
- Approximately 300 million alveoli
- Alveolar-capillary barrier: 0.3  $\mu\text{m}$  in some places, surface area of 50-100 square meters! (size of a tennis court)



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