Breathe Easy:
An Asthma Refresher

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Disclosures

- I may discuss off-label use of medications
  - Esp inhaled corticosteroids
- I may use brand names of medications
  - Apologize in advance, its often easier
- No relevant financial disclosures
  - Work for Cooper
  - Work for Weisman
- I may ‘advertise’ my asthma rehabilitation program briefly.

Ground Rules

- Remember, I CAN'T See you
- Like in KG, I will check for understanding after every sub-topic
- Let me know if I'm
  - Too loud/soft
  - Too fast/slow
  - Too confusing
  - Too boring
  - Too annoying

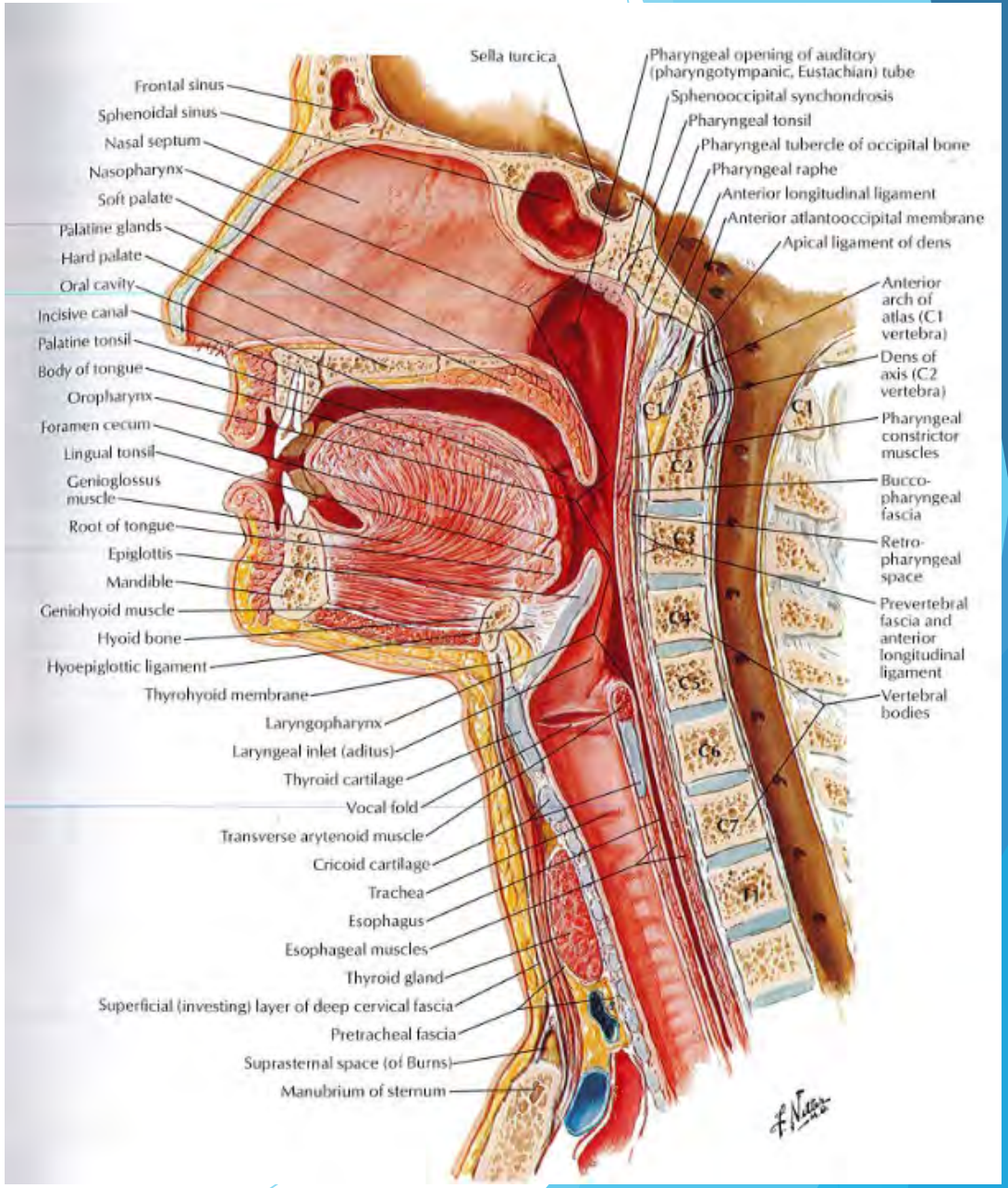
Goals

- Review Relevant Lung Anatomy
- Review common asthma medications & their mechanism of action

By Request

- Discuss interaction of Covid & Asthma
- Discuss utility of inhalation spacing devices
- Discuss pros & cons of nebulizers vs inhalers.

Relevant Anatomy of the Lung



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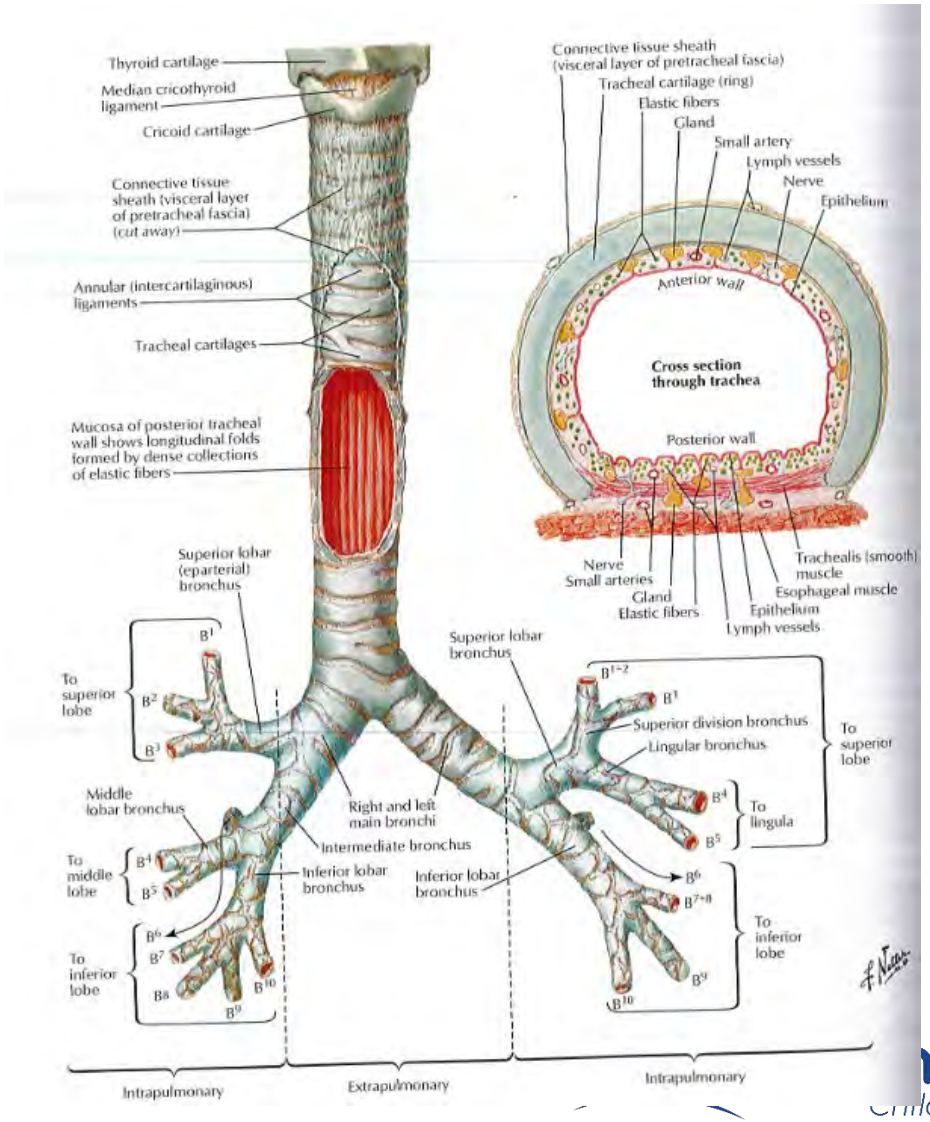
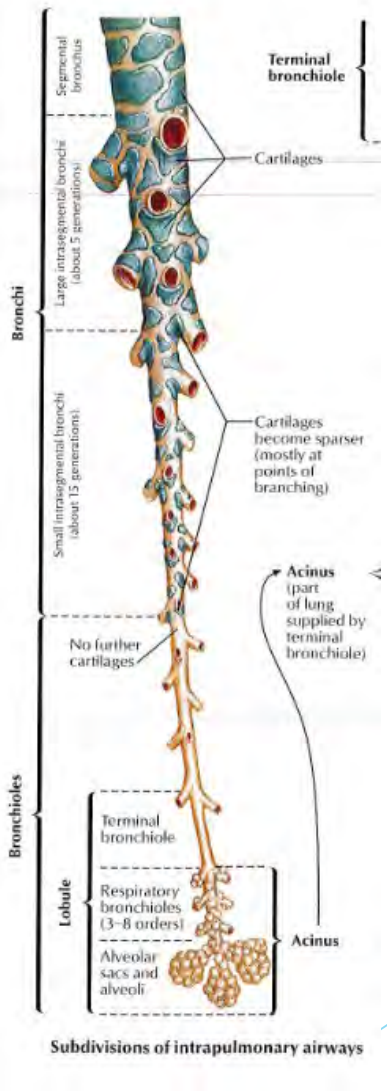
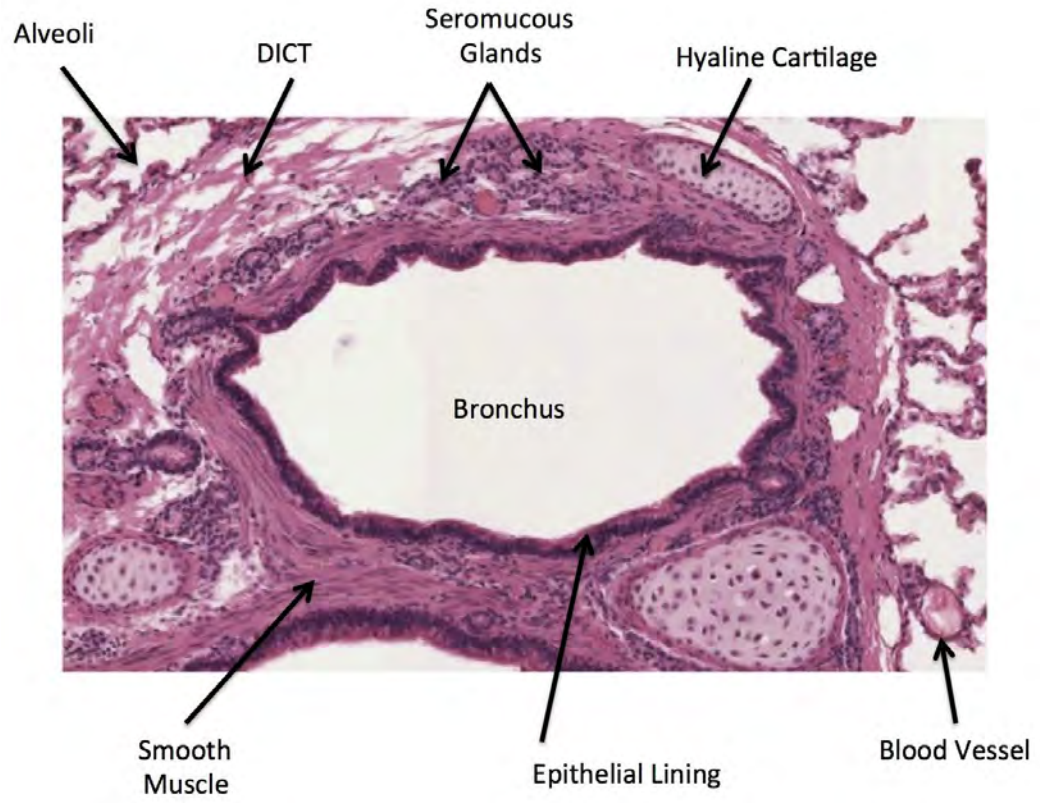




Subdivisions of intrapulmonary airways

Relevant Microscopy of the Lung



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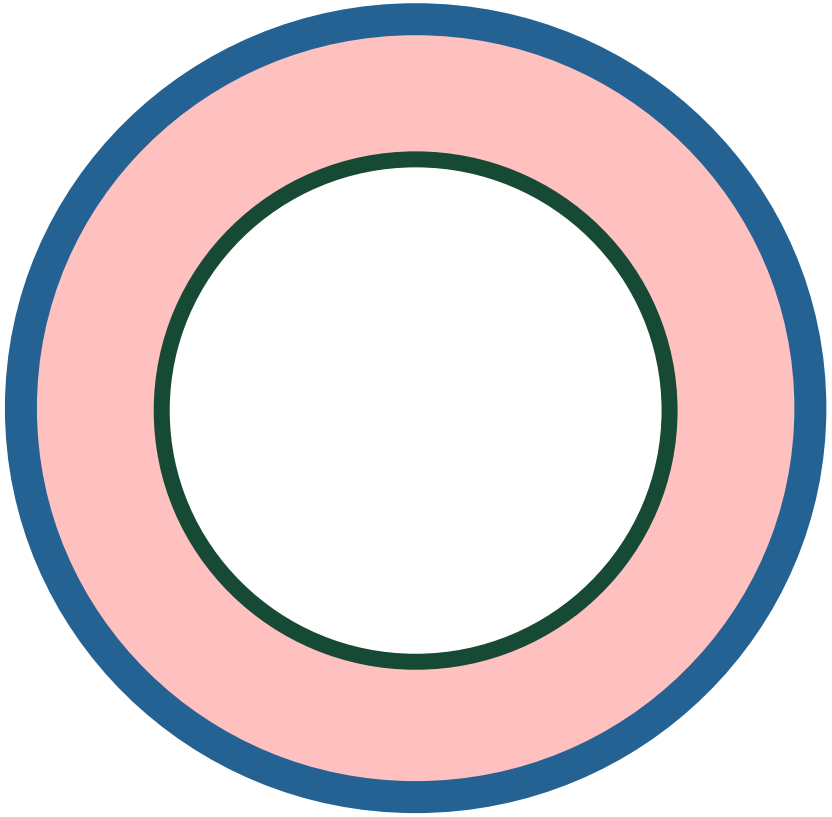
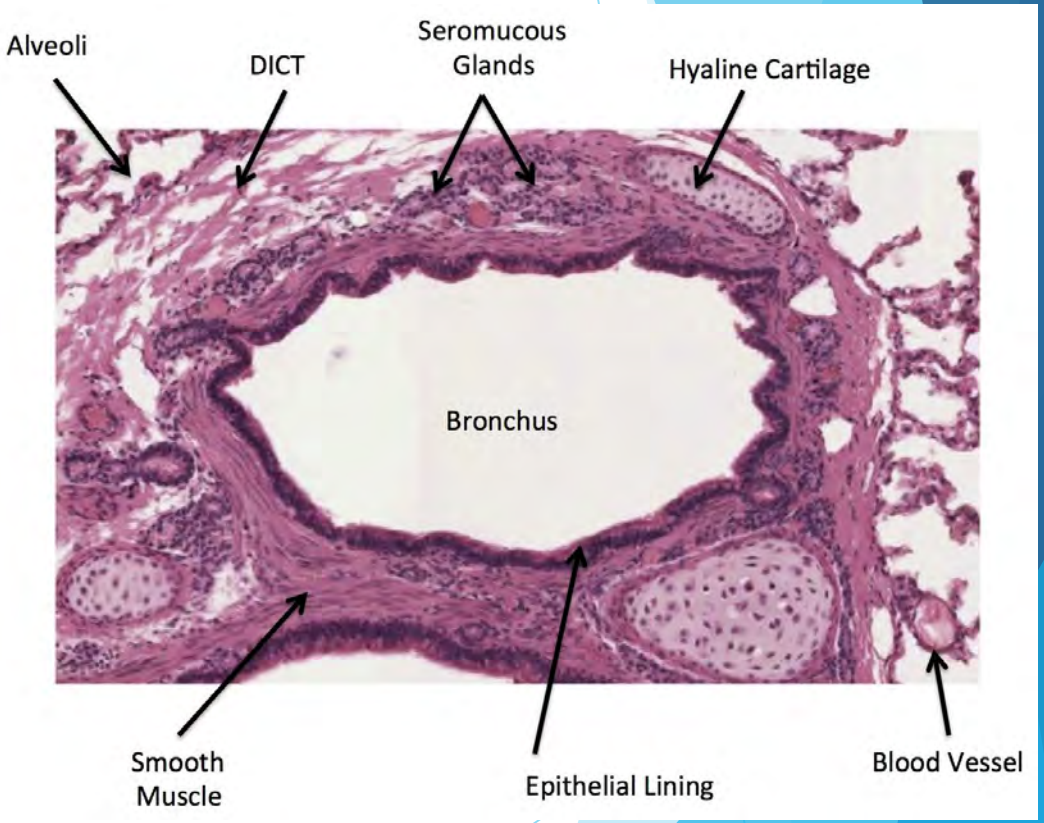
Relevant Microscopy of the Lung (Cartoon)





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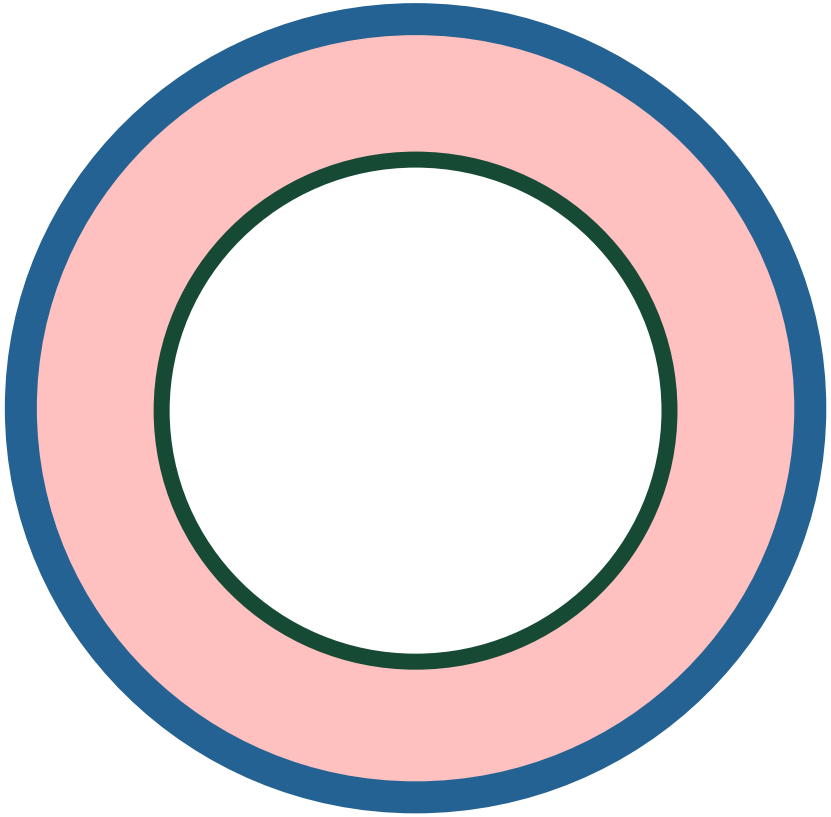
Medication Action Targets

LIVE DRAW

LIVE DRAW



Medication Types:

- Beta-Agonists
- Corticosteroids, Inhaled & Systemic
- Muscarinic Agents
- Leukotriene Receptor Antagonist
- Biologics

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Inhalers Vs Nebulizers

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Inhalers vs Nebulizers

Inhalers

- Easily Portable
- No electricity needed

Nebulizer

- Medicine Cheap
  - At target, 60 vials $10
  - However, upfront cost of nebulizer machine
- LESS technique dependent

Why Inhalation Spacing Devices?

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Why Inhalation Spacing Devices?

LIVE DRAW

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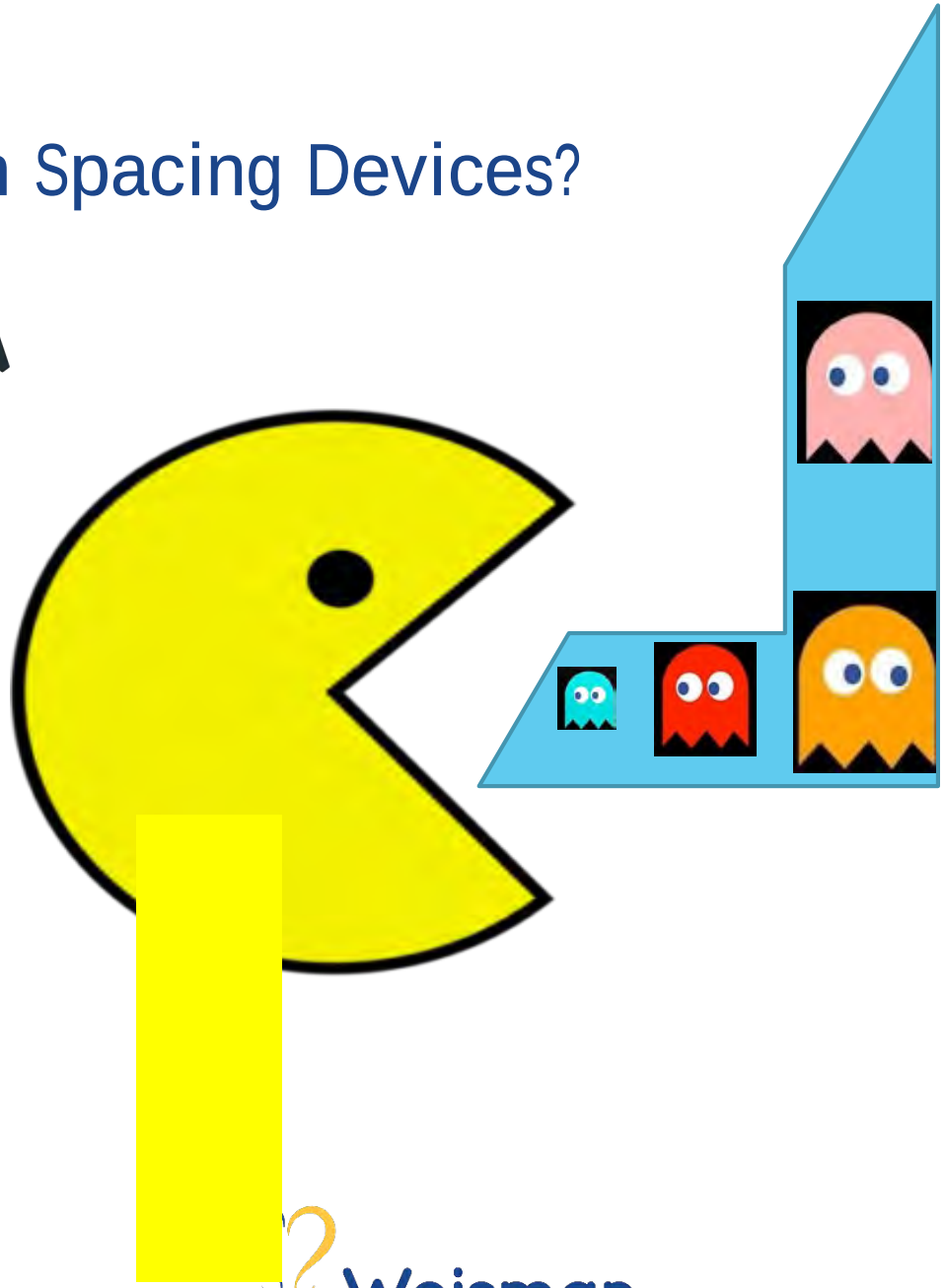

Momentum = Mass * Velocity
Force = Mass * Acceleration

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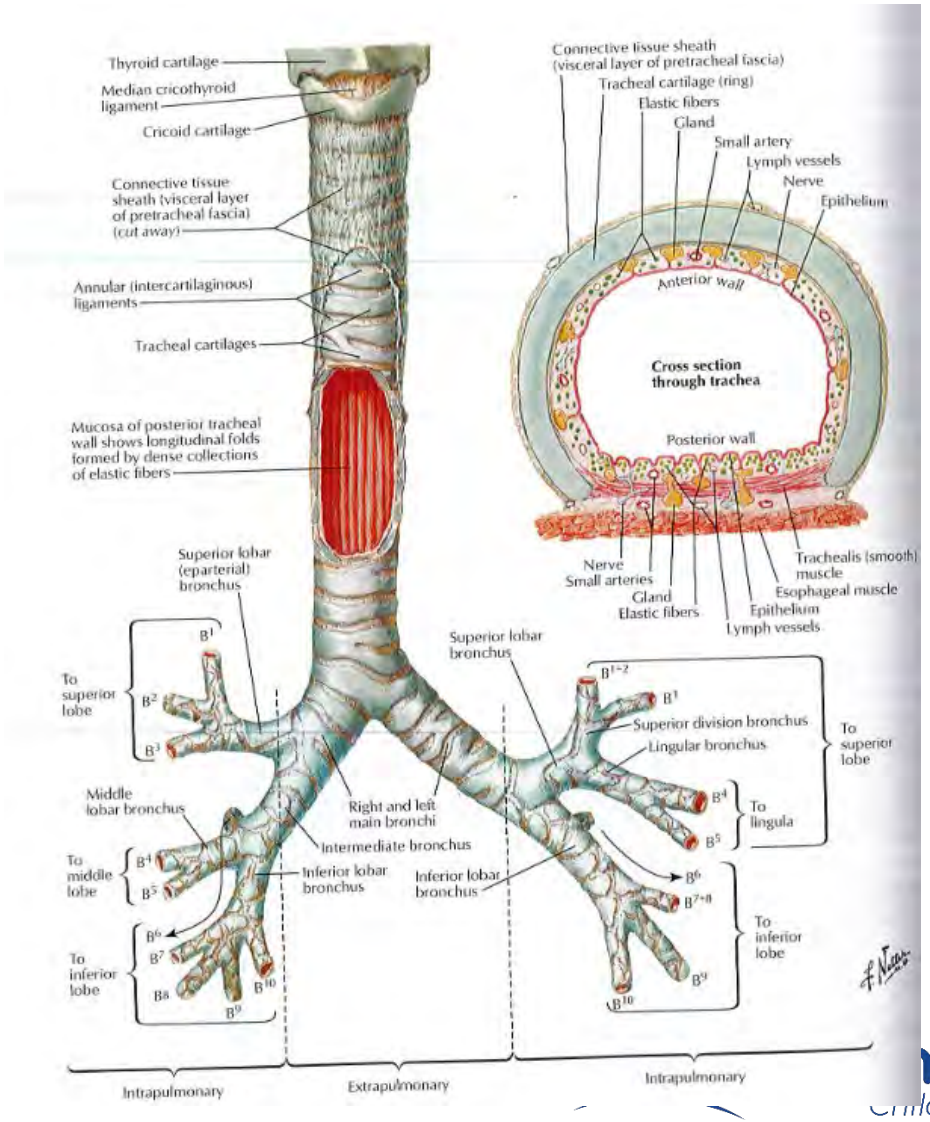
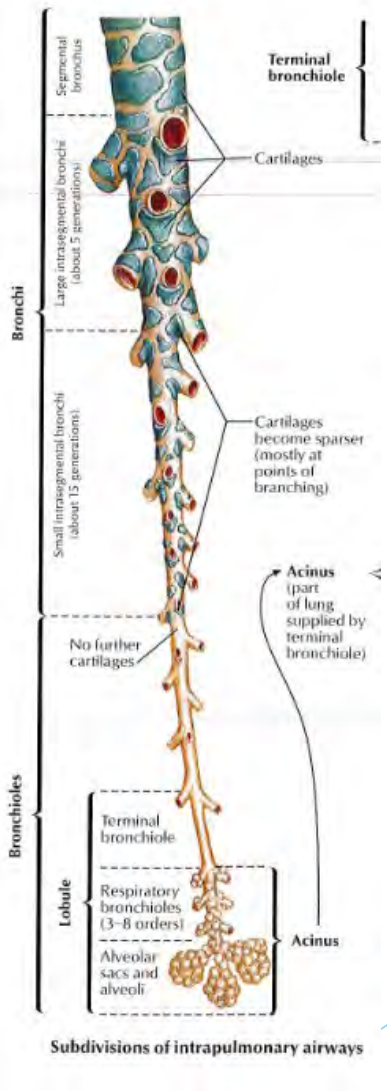
Relevant Anatomy of the Lung





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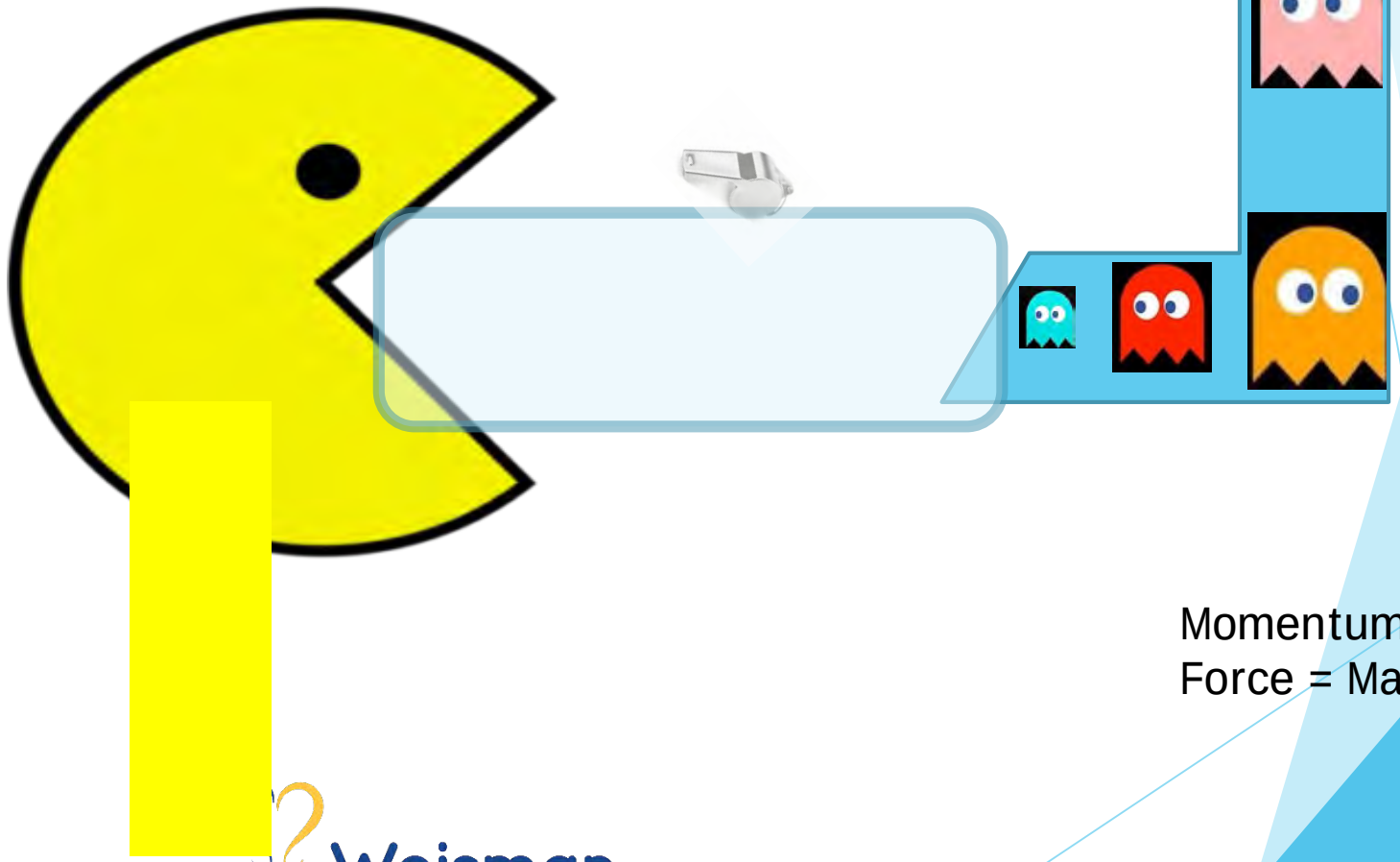

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Covid & Asthma

- Adult World
- 7.8% vs 2.9%

- Pediatric World
- ……..

- Anecdotally, no difference than other viral infections.

Influenza-like illness & In school Albuterol treatments

- Get all primary care physicians to prescribe inhalers!
- https://youtu.be/o0M1lLpOu4U (AbrahamThePharmacist)
- IF you only have a nebulizer available, THEN:

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Influenza-like illness & In school Albuterol treatments

- IF you only have a nebulizer available, THEN:

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Asthma & Sports

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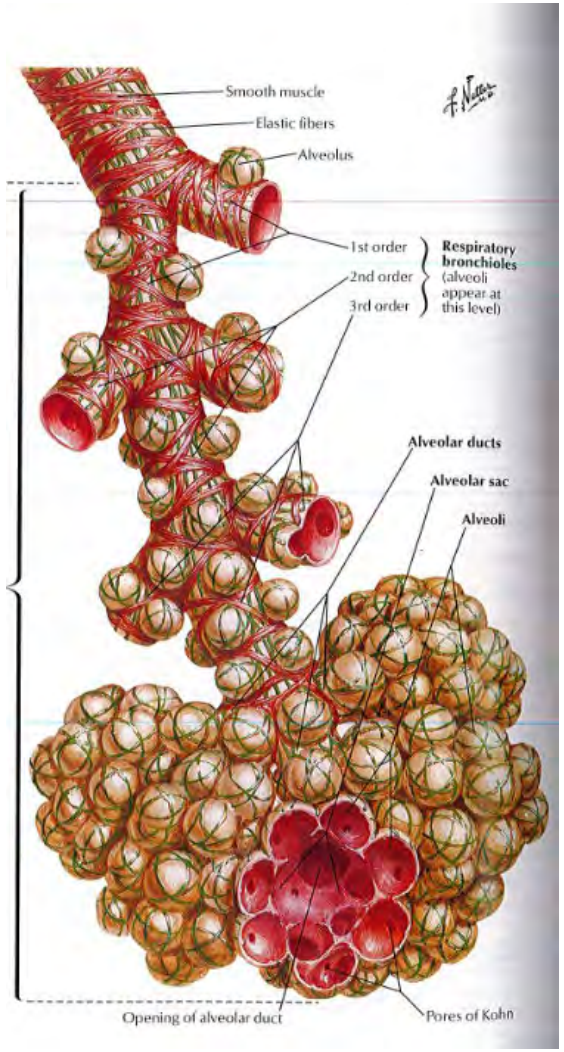
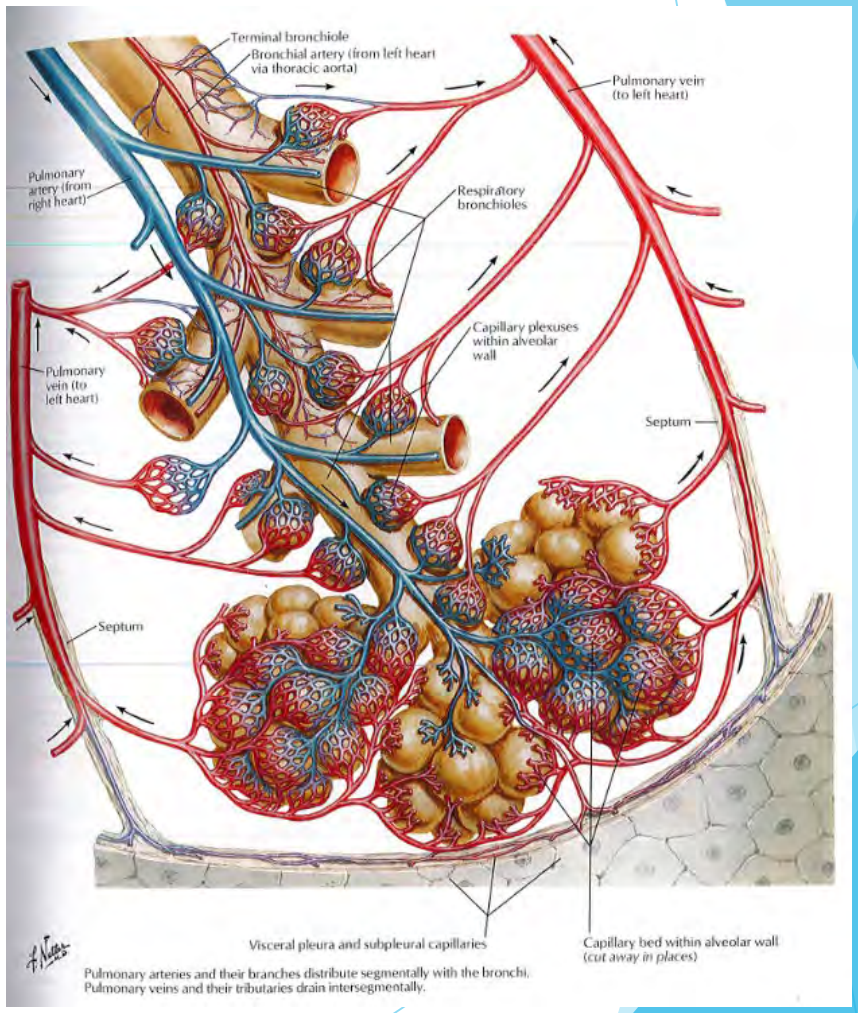
Extra Images





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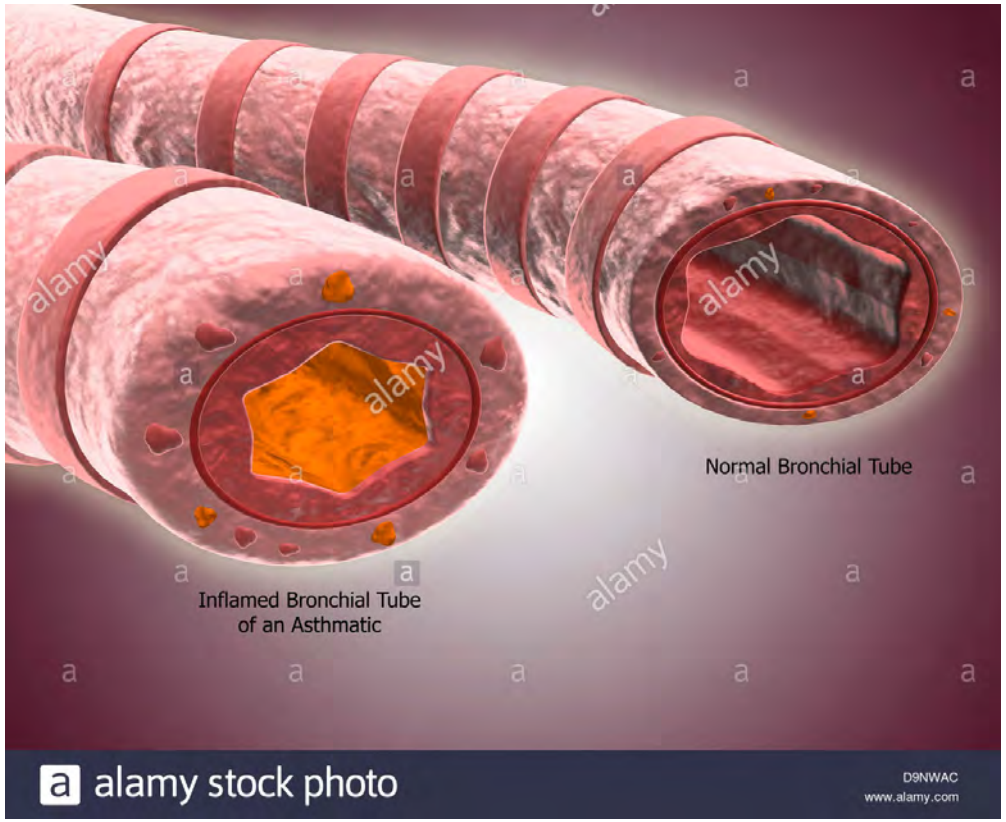
Extra Slides



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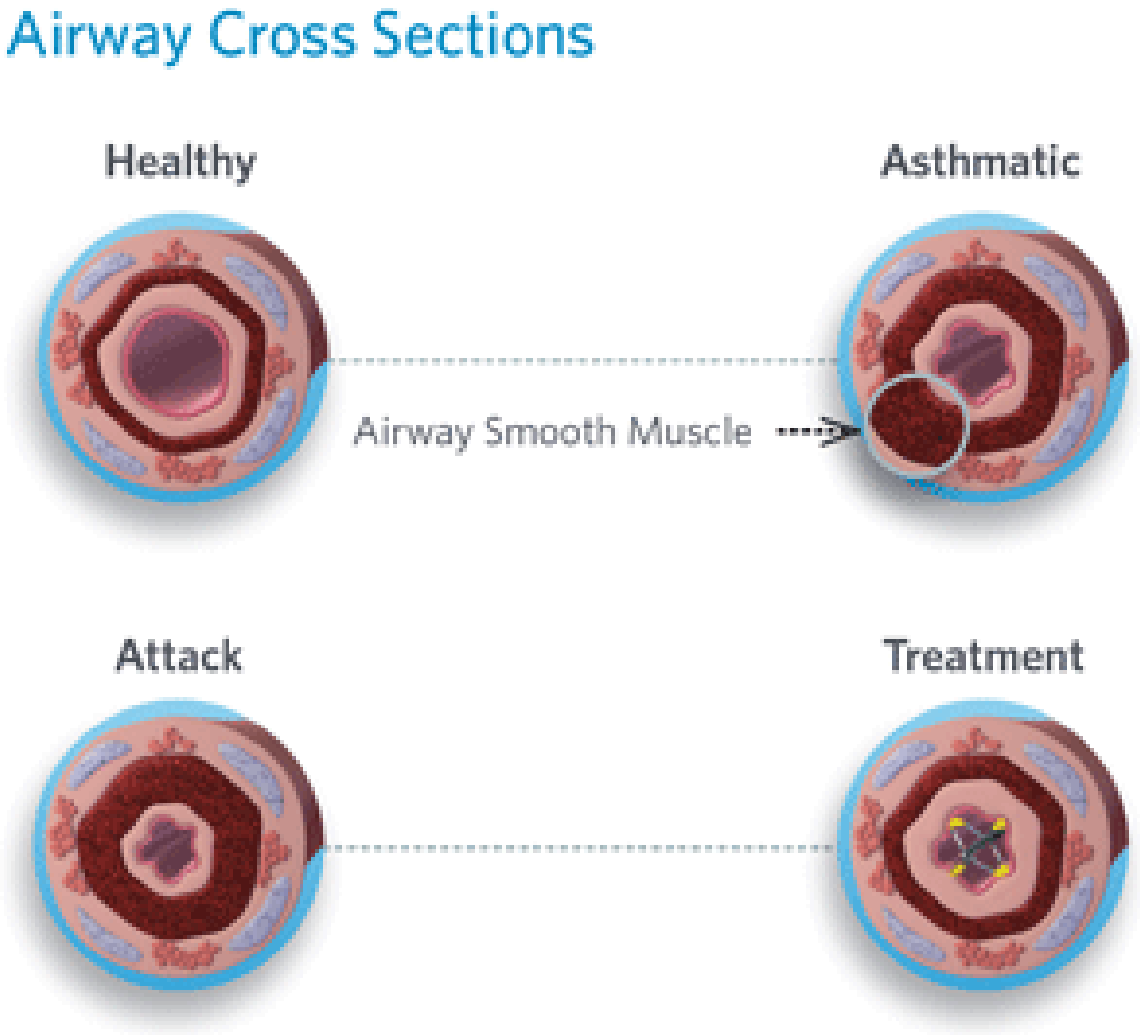

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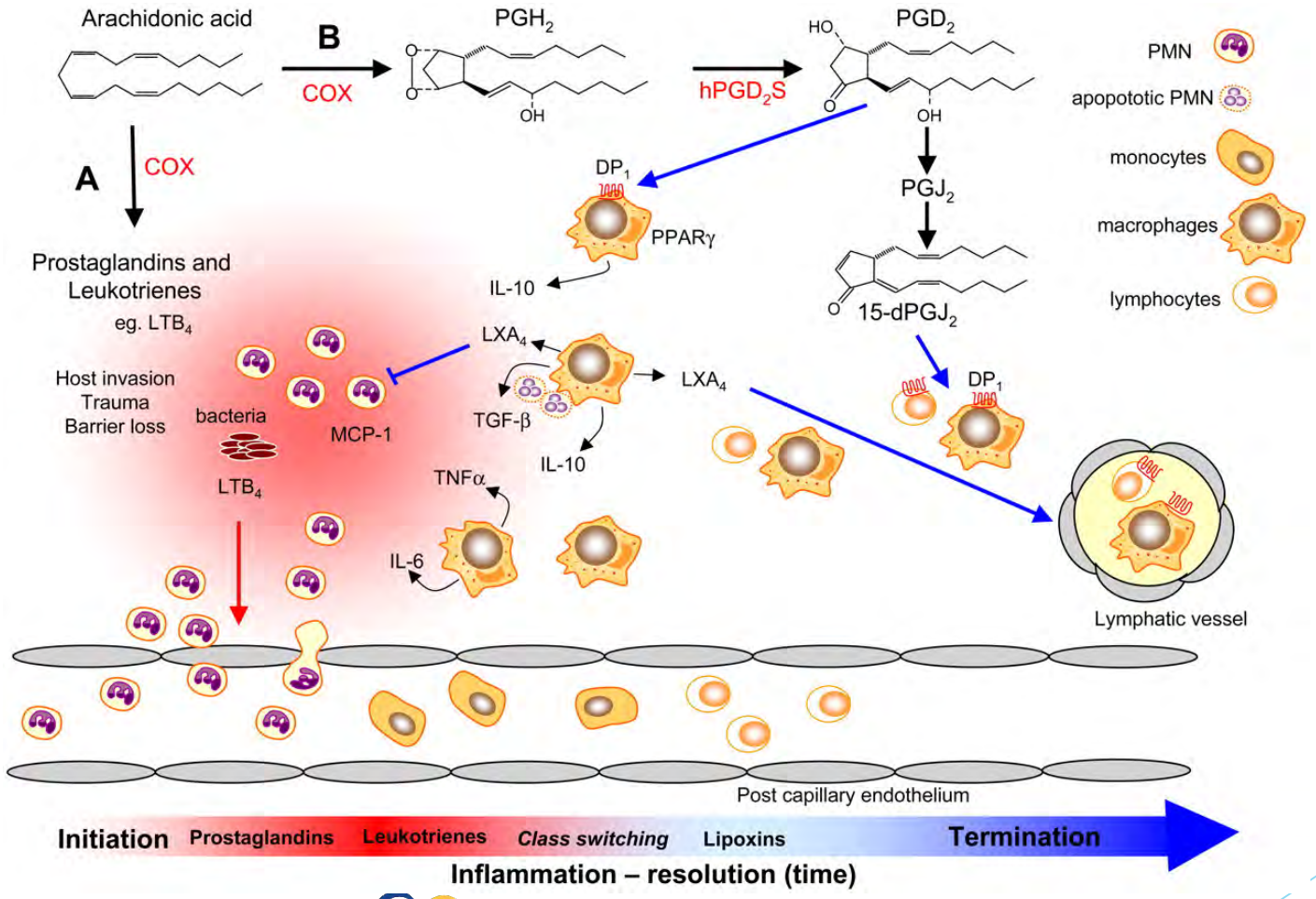

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