

# **Cough: Acute vs Chronic**

## **Real-Time Live Broadcast**

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**This Presentation is Approved for  
1 CRCE Credit Hour**

# Learning Objectives

- **Define Acute vs Chronic Cough**
- **Identify causes for each**
- **Describe symptom alleviation**
- **Discuss patient education and counseling**

# Cough Prevalence

A close-up photograph of a man with dark, wavy hair and glasses, wearing a purple shirt. He is shown in profile, coughing into a white tissue held in both hands. The background is a solid blue color.

- **Common – millions of clinic visits**
- **Cough may be chief complaint**

# Cough Reflex



- **Stimulation**
- **Transmission**
  - **Afferent**
- **Response**
  - **Efferent**

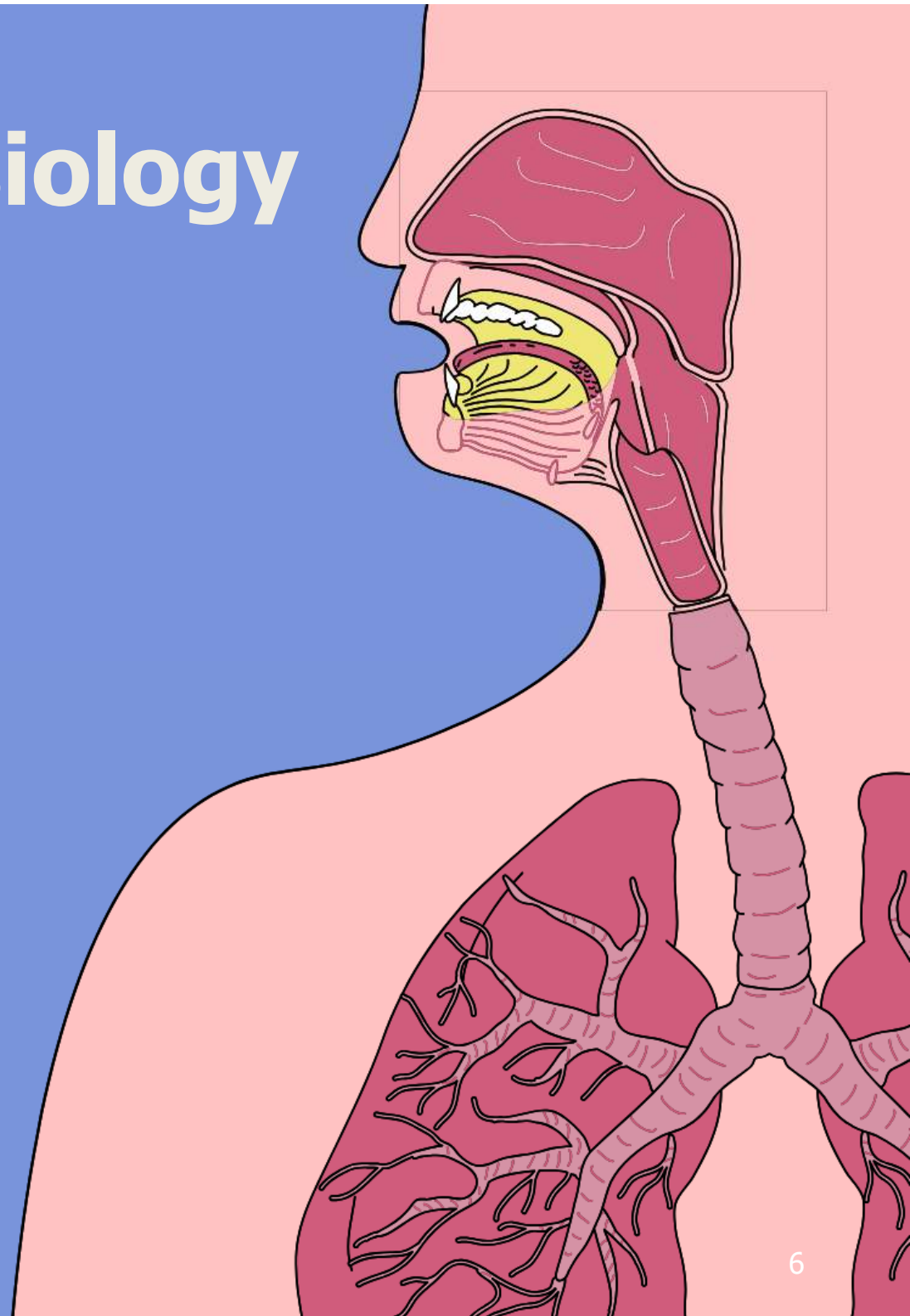
# Socioeconomic



- **Disrupts sleep**
- **Chest pain**
- **Hoarseness**
- **Vomiting**
- **Urinary leakage**
- **Missed work**
- **Healthcare visits**

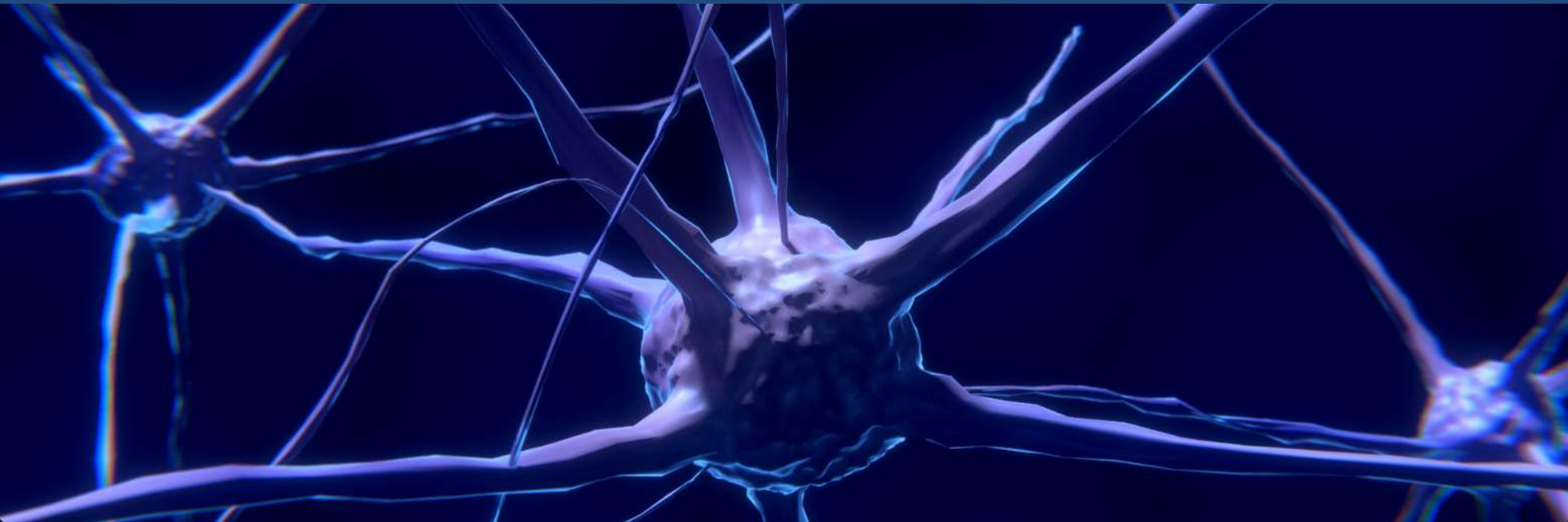
# Physiology

- **Phases**
  - **Inspiratory**
  - **Compression**
  - **Expulsive**



# Neural Pathway

- **Afferent pathway**
- **Central processing**
- **Efferent pathway**
- **Integrated reflex**



# Cough Duration

- **Acute : < 3 weeks**
- **Subacute : 3-8 weeks**
- **Chronic: > 8 weeks**

2025 . OCTOBER

MON	TUE	WED	THU	FRI	SAT	SUN
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

# Location

- **Upper airway**
- **Lower airway**
- **Cardiac**
- **GI**
- **Psychological**

# Clinical Approach

- **History & Physical**
- **Acute**
  - **Infectious**
- **Chronic**
  - **Underlying airway**
  - **Reflux**
  - **Systemic disorder**
- **Red flags**
  - **Fever > 3 days**
  - **Hemoptysis**
  - **Weight loss**
  - **Dyspnea**
  - **Abnormal CXR**



# Classification

- **Acute**
  - **Self-limiting**
  - **Avoid ABX**
- **Chronic**
  - **Treat UACS**
  - **Asthma**
  - **Gerd**
- **Review Meds**
  - **ACE Inhibitors**
- **Smoking cessation**

# Self-Limiting Cough

- **Duration : < 3 weeks**
- **Common causes**
  - **URI**
  - **Tracheobronchitis**
  - **Irritants**
- **Course**
- **Management**



# Chronic Cough

- **UACS**
- **Asthma**
- **GERD**
- **Ace Inhibitors**
- **COPD**
- **Bronchiectasis**
- **Lung CA**
- **ILD**

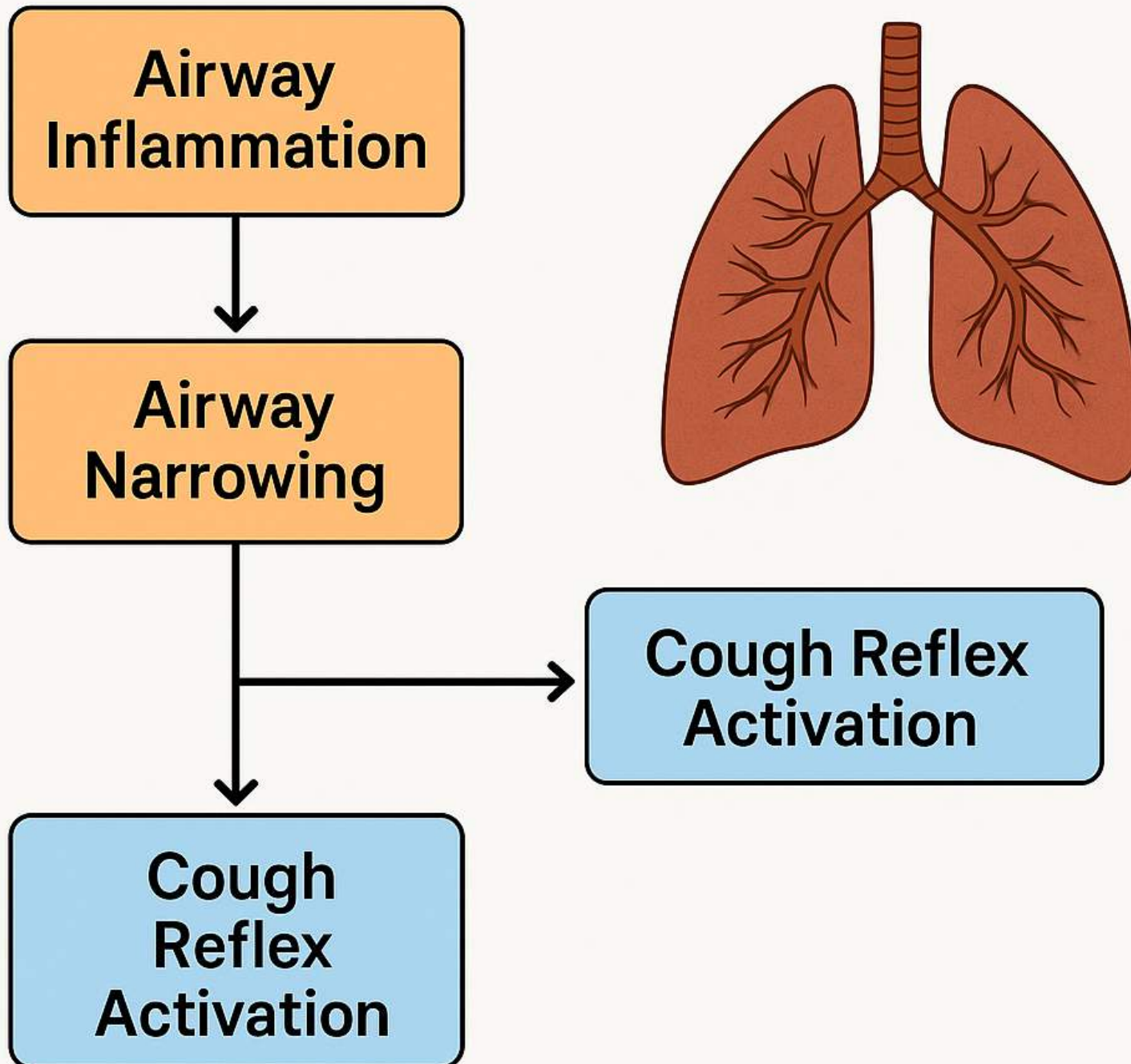


# Chronic Cough / UACS

- **Cause**
- **Triggers**
- **Signs & Symptoms**
- **Treatment**
  
- **Top 3 Reasons:**
  - **UACS**
  - **Asthma**
  - **GERD**

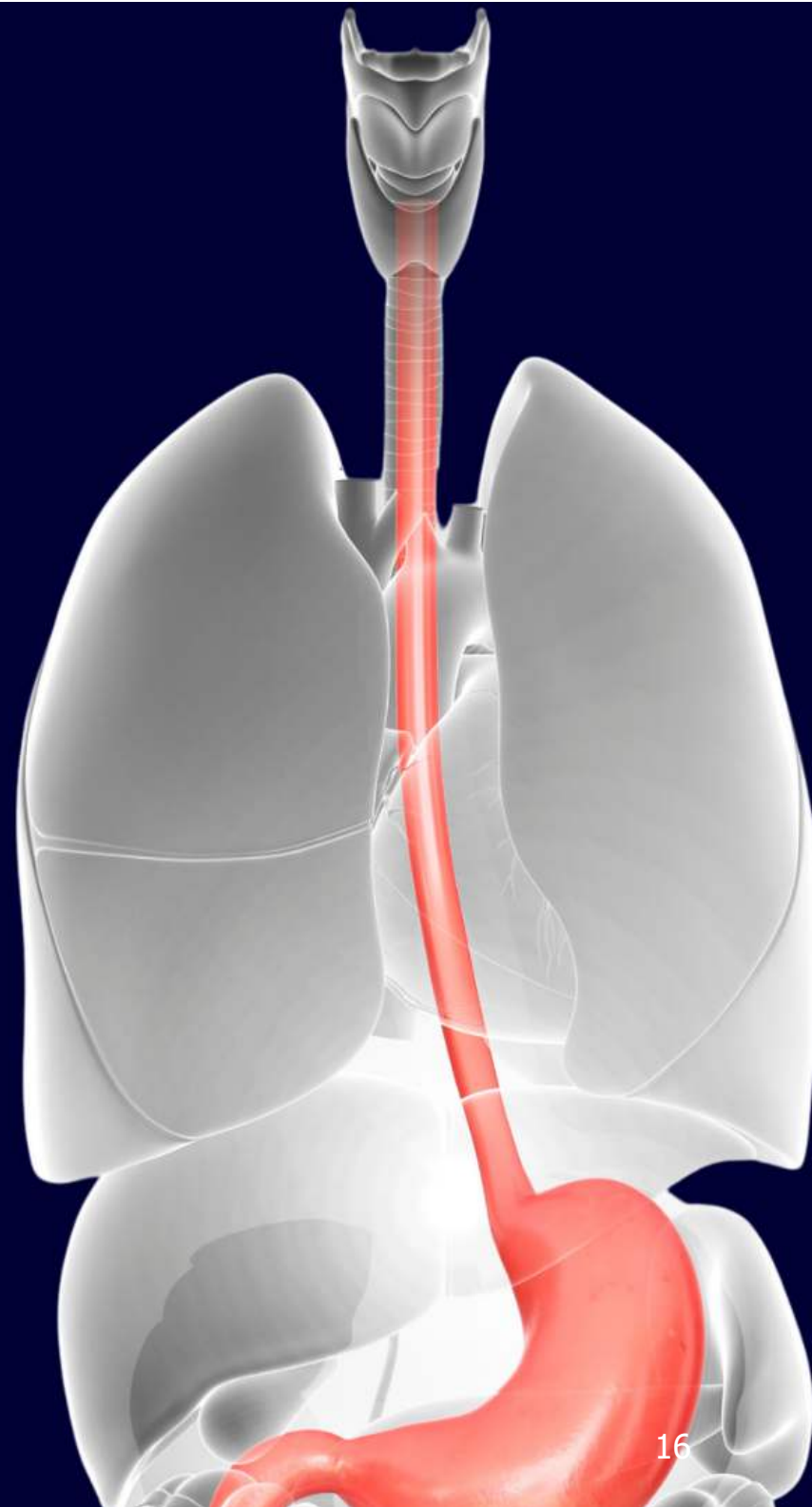


# Asthma-Related Cough

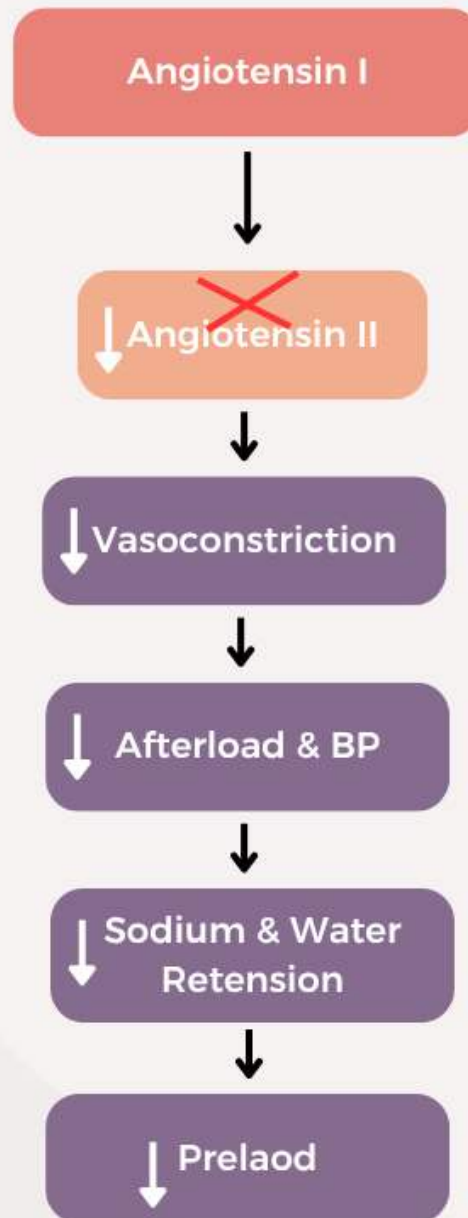


# GERD

- **Gastroesophageal reflux disease**
  - **Direct**
  - **Indirect**
  - **Clues**
  - **Management**



# ACE Inhibitors



# ACE Inhibitors

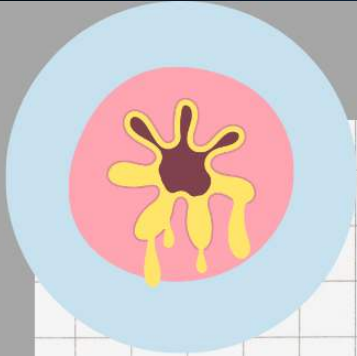


- **High BP**
- **Heart Failure**
- **Post MI**
- **CKD**
- **Left Ventricular Dysfunction / Cardiomyopathy**

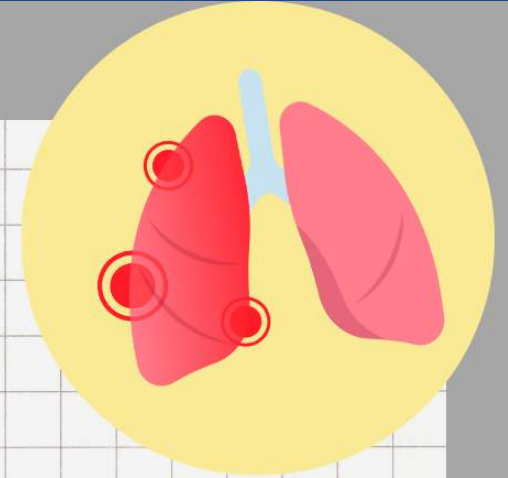
# ACE Inhibitor Cough

- **Blocks angiotensin I → angiotensin II**
- **Prevents breakdown of bradykinin and substance P**
  
- **Lisinopril/Prinivil**
- **Enalapril/Vasotec**
- **Captopril/Capoten**
- **Ramipril/Altace**
- **Benazepril/Lotensin**
- **Quinapril/Accupril**
- **Fosinopril/Monopril**
- **Perindopril/Aceon**
  
- **Angiotensin II Blockers (ARB)**
  - **Lasertan**
  - **Valsartan**





# COPD



1

**Chronic Airway Inflammation**

2

**Mucus Hypersecretion**

3

**Impaired Mucociliary  
Clearance**

4

**Airway  
Remodeling**

5

**Defensive  
Mechanism**

# COPD TREATMENT

1

**Optimize Management**

2

**Airway Clearance**

3

**Treat Causes**

4

**Cough Agents**

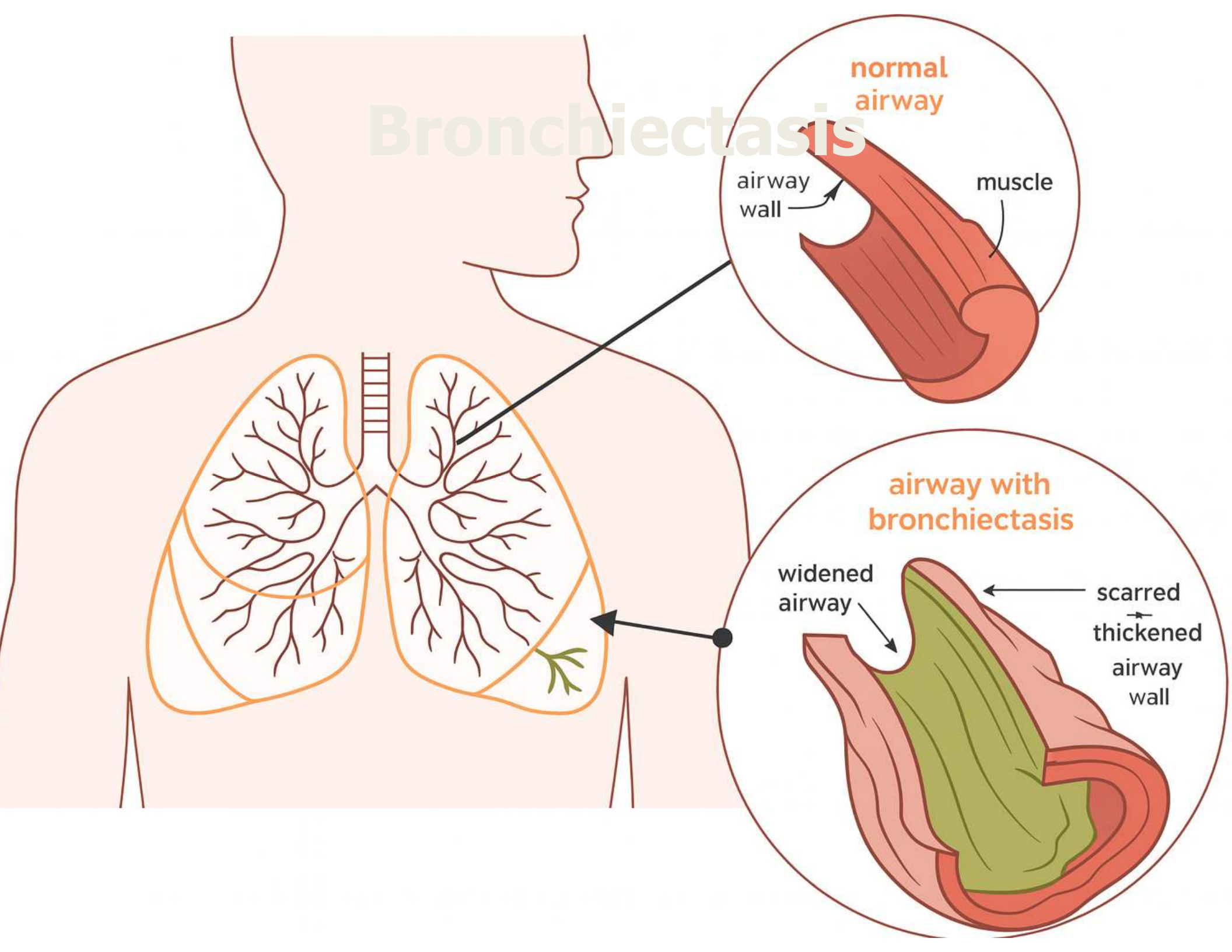
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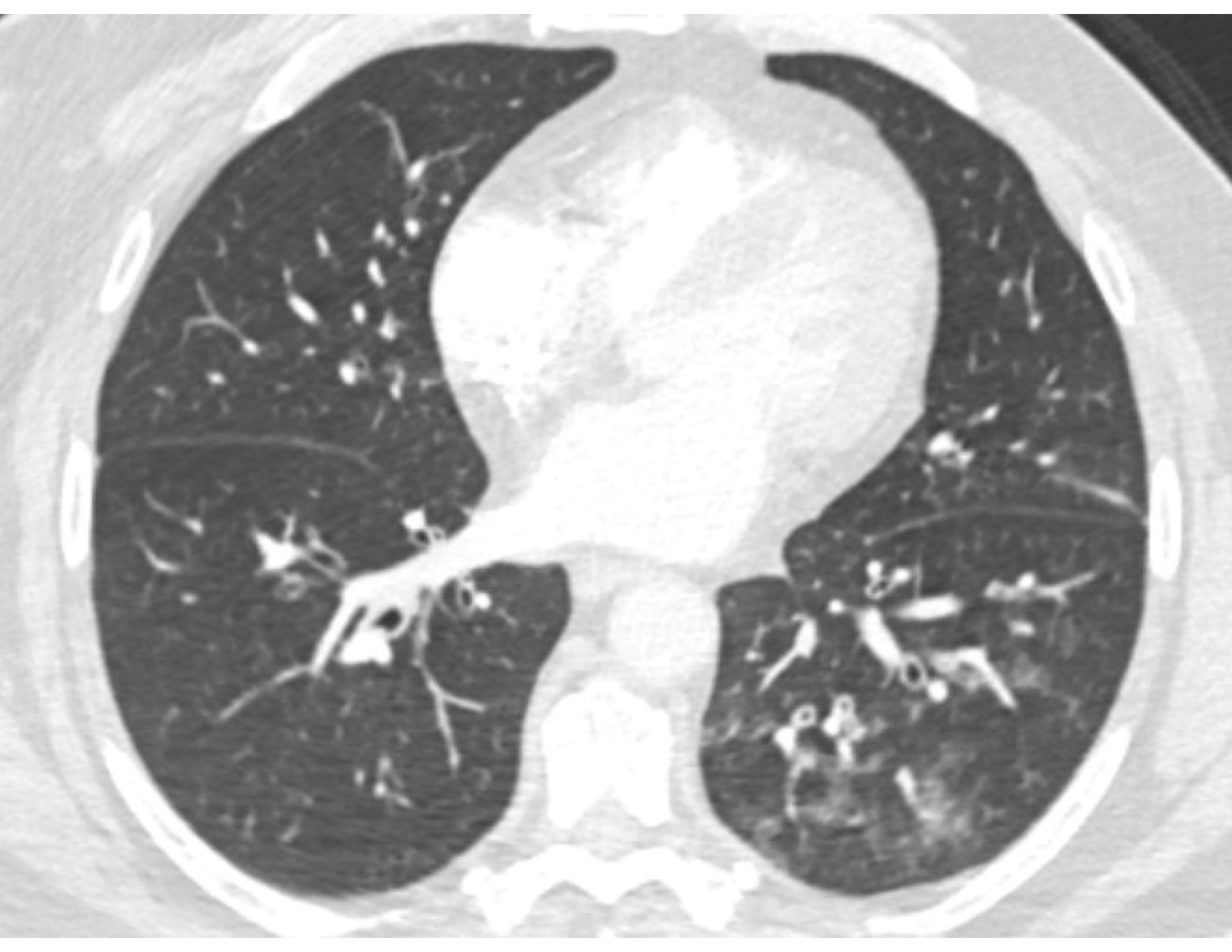
**Avoid Triggers**

6

**Reassess**

# Bronchiectasis



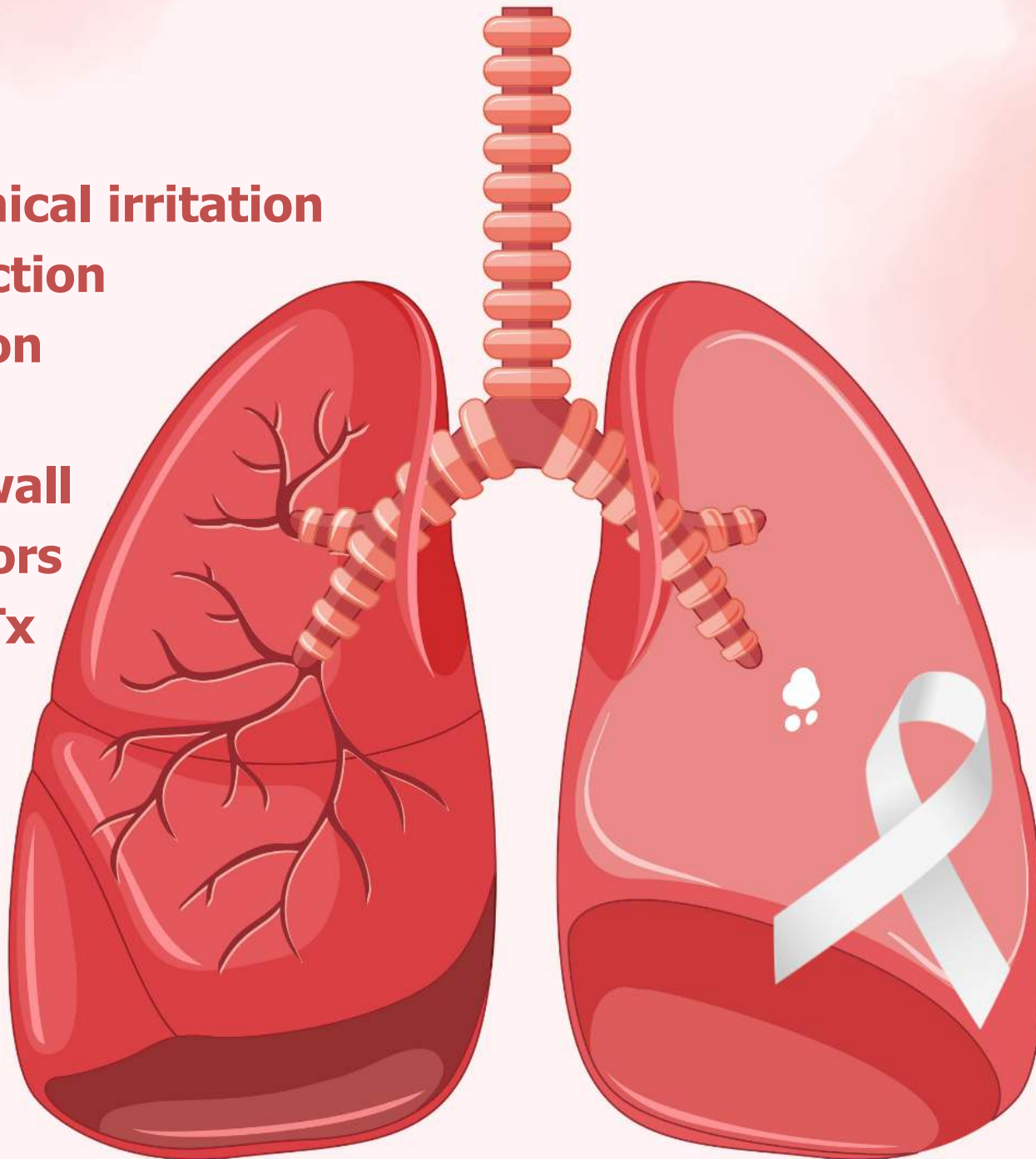


# Bronchiectasis Treatments

- **Airway Clearance**
- **Medications**
- **Manage underlying cause**
- **Vaccines**
- **Smoking cessation**
- **Surgery**

# Lung Cancer

- **Mechanical irritation**
- **Obstruction**
- **Infection**
- **Reflex**
- **Chest wall**
- **Mediators**
- **Post - Tx**



# ILD

- **Inflammation**
- **Reduce lung compliance**
- **Airway remodeling**
- **Neural hypersensitivity**

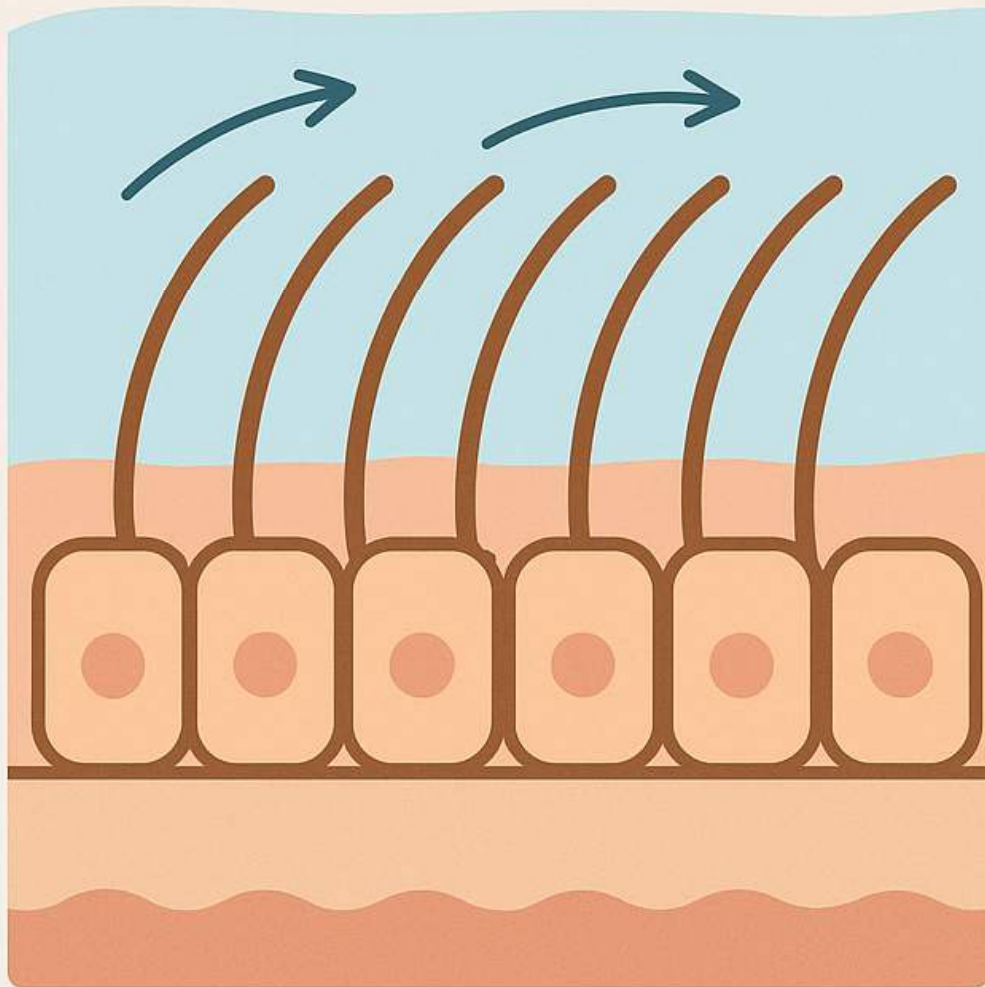
# Cardiac Cough



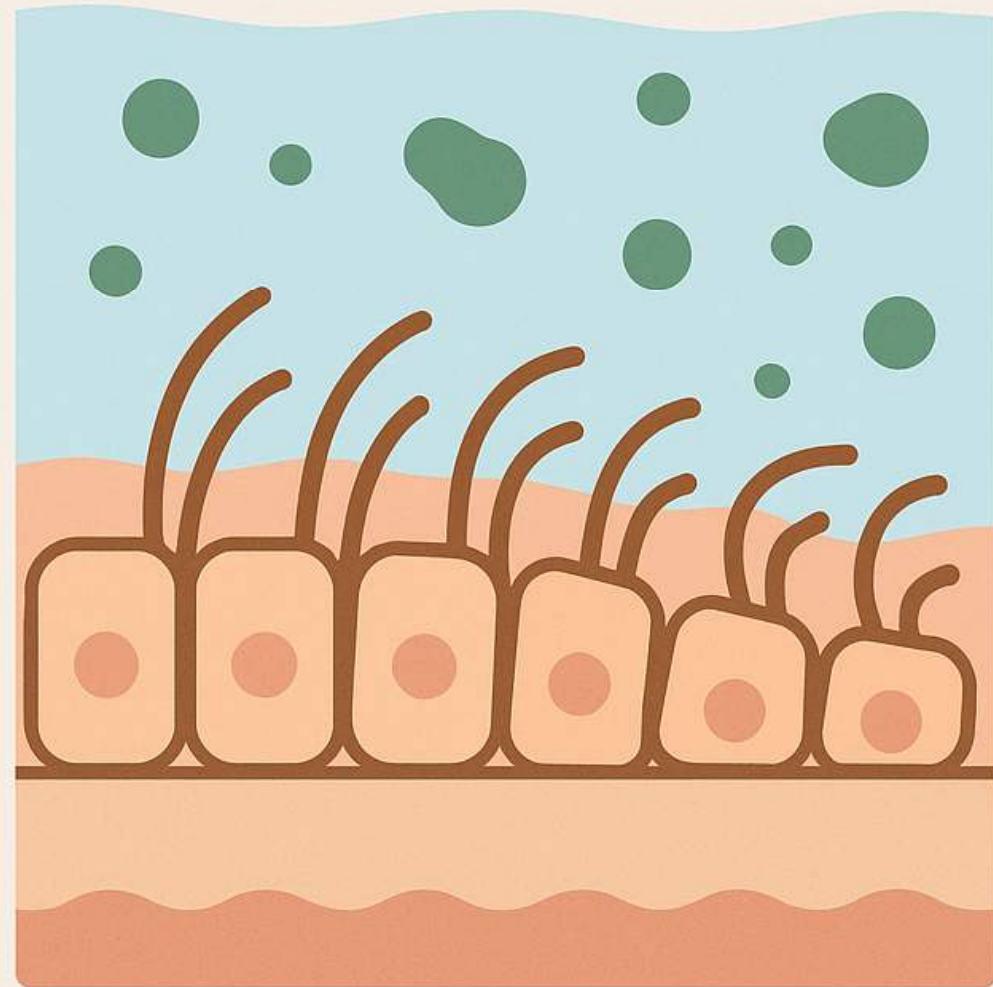
- **Left heart Failure**
- **Mitral valve pathology**

# CILIARY DYSKINESIA

**NORMAL CILIA**



**IMPAIRED CILIA**

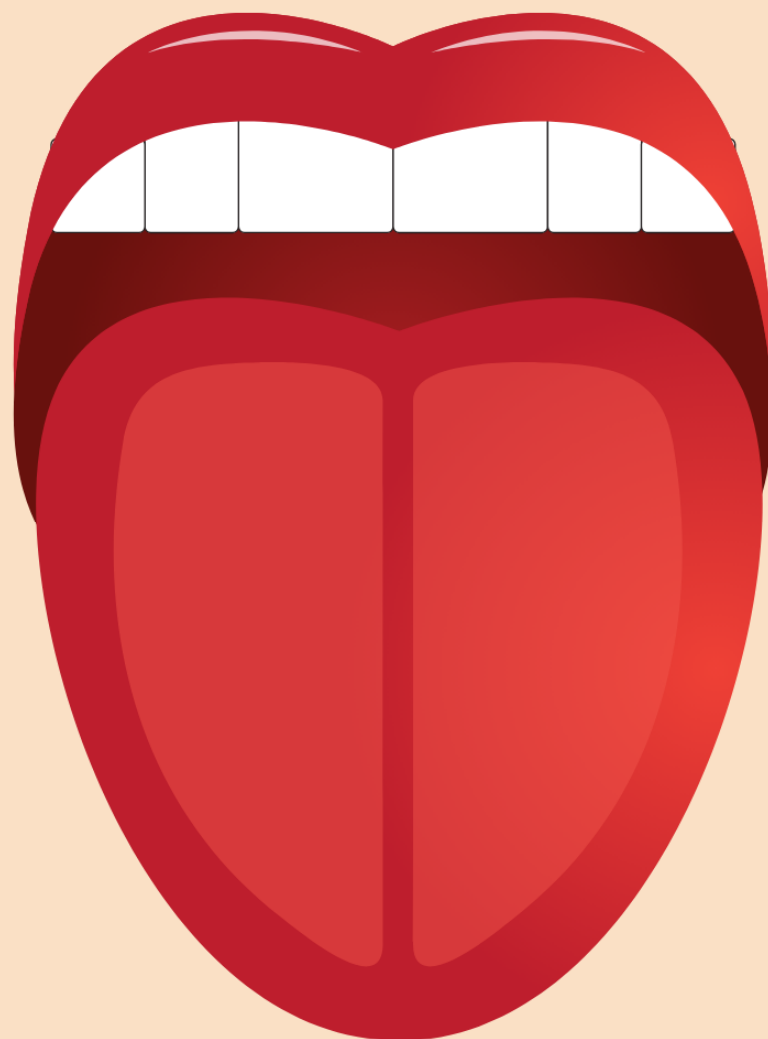


# Psychogenic

- **Somatic**
- **Tic Cough - habit**



# ASPIRATION



# COUGHING UP BLOOD





*Smoking*

**CESSATION**



# Summary & Review

- **Cough duration**
- **Cough Location**
- **UACS**
- **Asthma**
- **GERD**
- **Ace Inhibitors**
- **Bronchiectasis**
- **Lung cancer**
- **ILD**
- **Cardiac**
- **Ciliary dyskinesia**
- **Psychogenic**
- **Aspiration**
- **Hemoptysis**
- **Smoking cessation**
- **Patient education**

**The End**

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