

**Chronic obstructive
pulmonary disease
(COPD)
&
Bronchiectasis**

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COPD

– Out lines

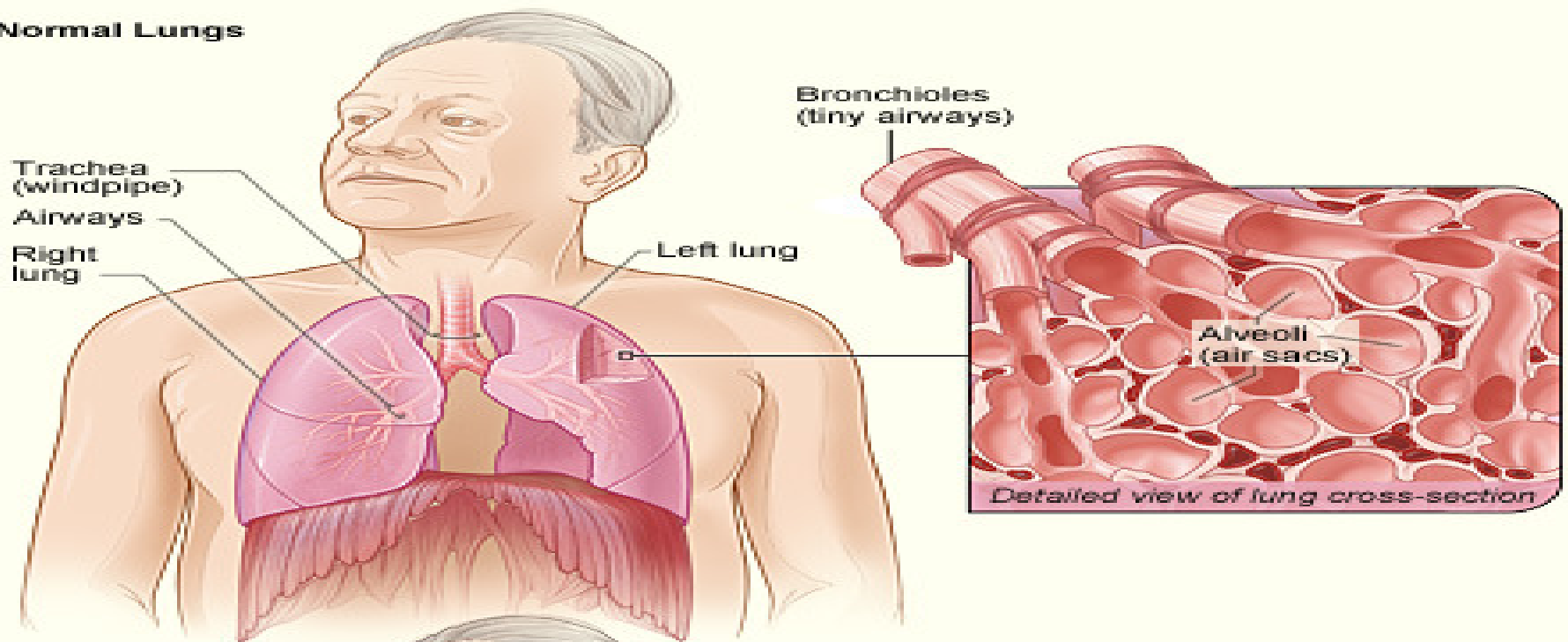
- What is the COPD?
- Overview
- Causes of COPD
- Symptoms of COPD
- What's the difference between COPD and asthma?
- Diagnostic tests needed for COPD
- Medical management of COPD
- Preventive measures
- Nursing intervention
- Outlook and Prognosis

COPD

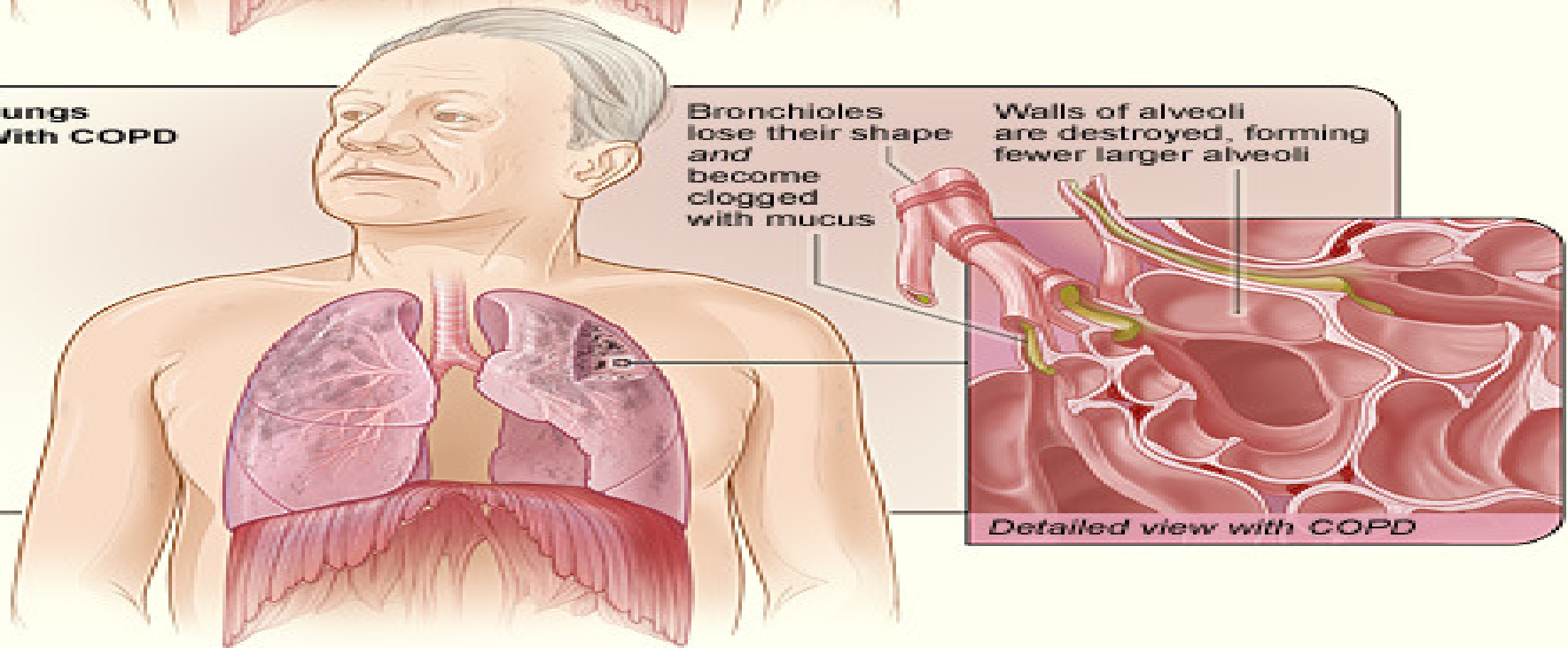
Chronic obstructive pulmonary disease (COPD) refers to a group of lung diseases that block airflow and make breathing difficult

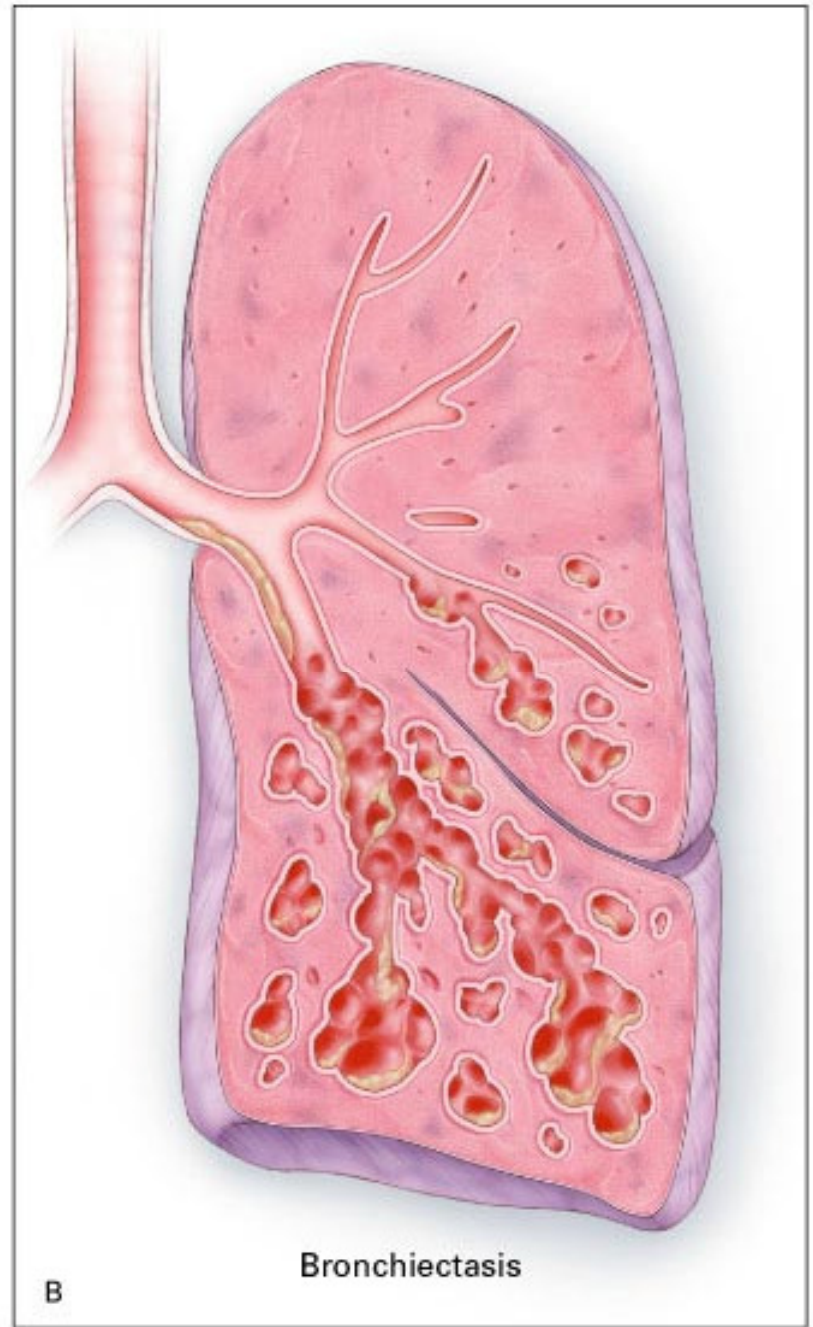
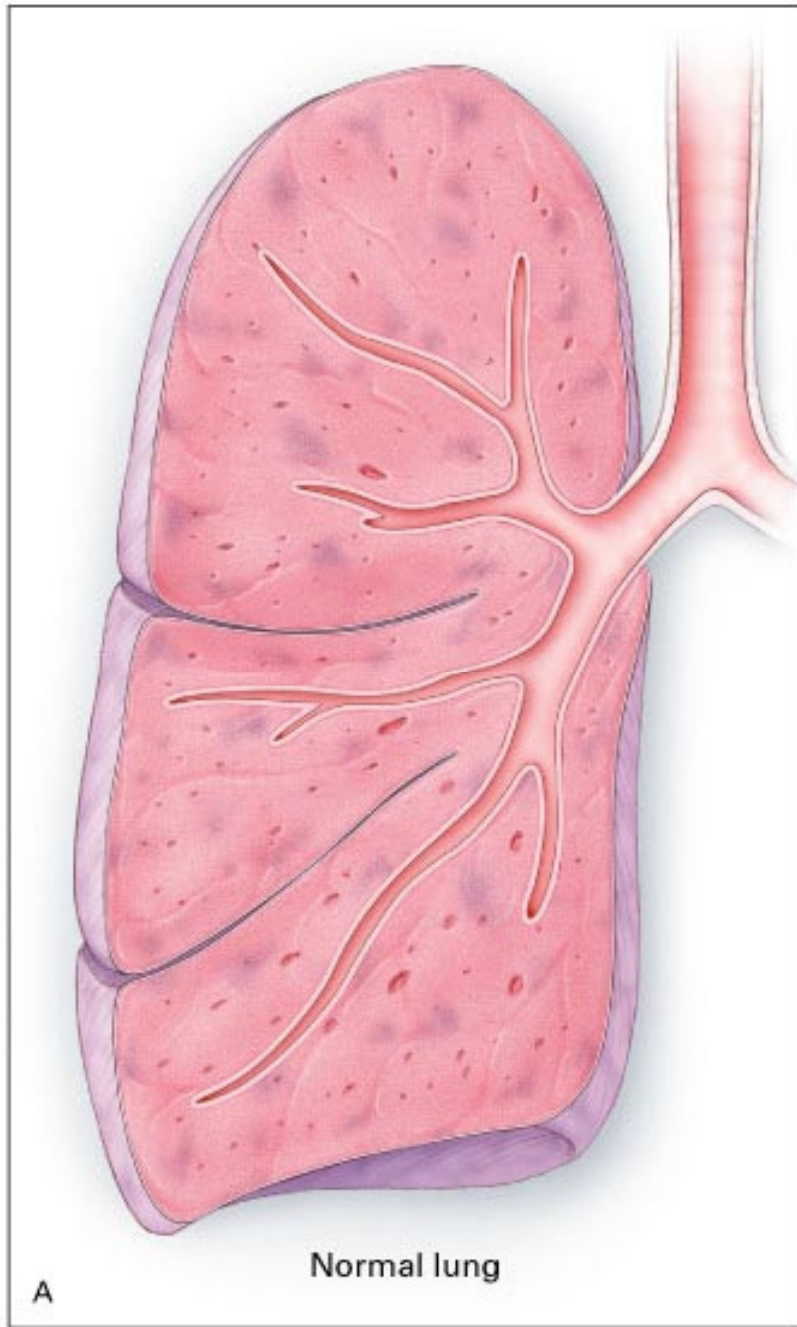
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A Normal Lungs



B Lungs With COPD





In COPD

- **Less in and out of the air flow due to**
- **lose their elastic quality.**
- **walls between air sacs are destroyed.**
- **walls of the airways become thick and inflamed.**
- **more mucus than usual.**

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Cause

- Smoking
- Air pollution
- Alpha 1 anti trypsin deficiency
- Immunodeficiency
- genetic (hereditary) risk

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Clinical features

- **Productive Cough**
 - Mucus to Purulent
- **Breathlessness**
- **Fever**
- **Other symptoms of COPD can be more vague**
 - weight loss
 - tiredness

Examination

Inspection / Palpation / Percussion

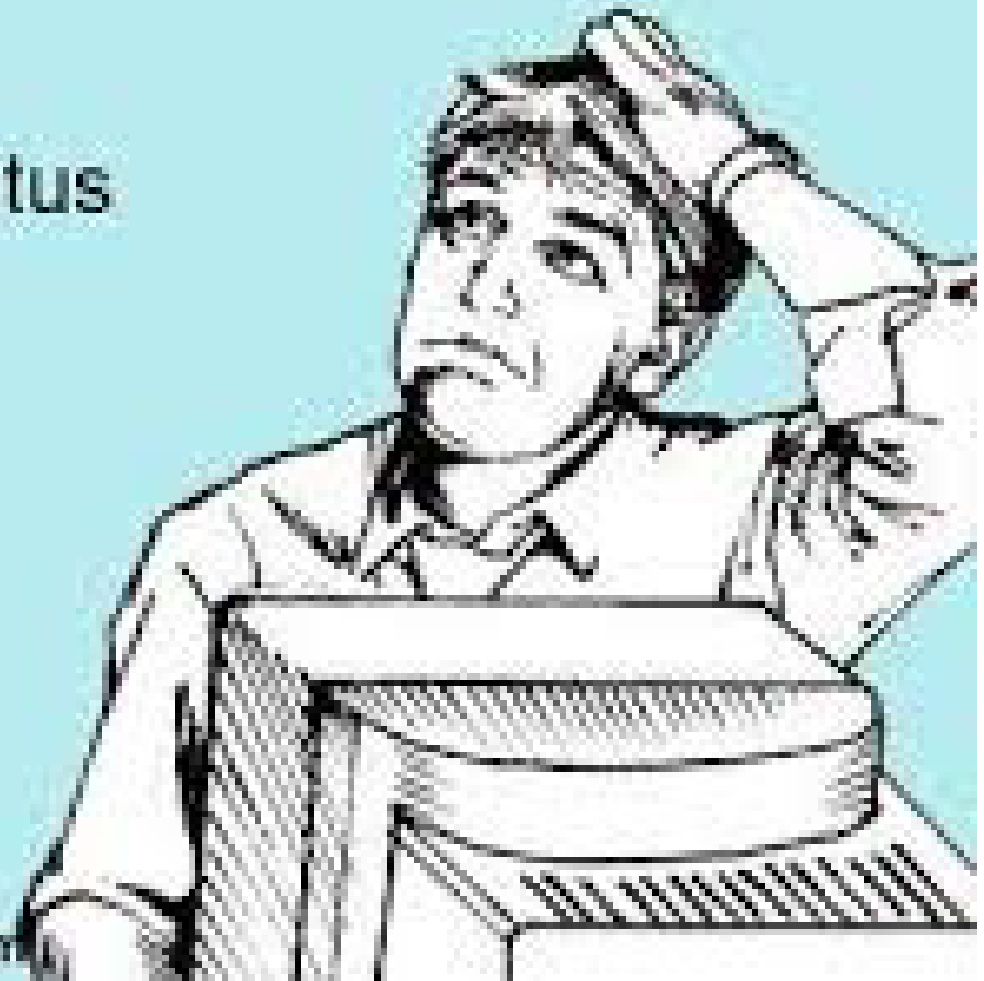
- Barrel chest (Ant-Post diameter increase)
- Tachypnea
- Tachycardia
- Wide intercostal space
- Indrawing of intercostal muscles

Auscultation

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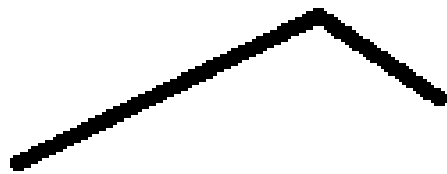
Do you know what TVF means?

Tactile Vocal Fremitus



By AcronymsAndSlang.com

Normal Breath Sound



Vesicular Breath



Broncho-vesicular



Bronchial



Tracheal

Difference between COPD and Asthma

- **In COPD**

- permanent damage .
- narrowed airways fixed
- Chronic symptoms
- Treatment open up the airways limited.
- > 35 years

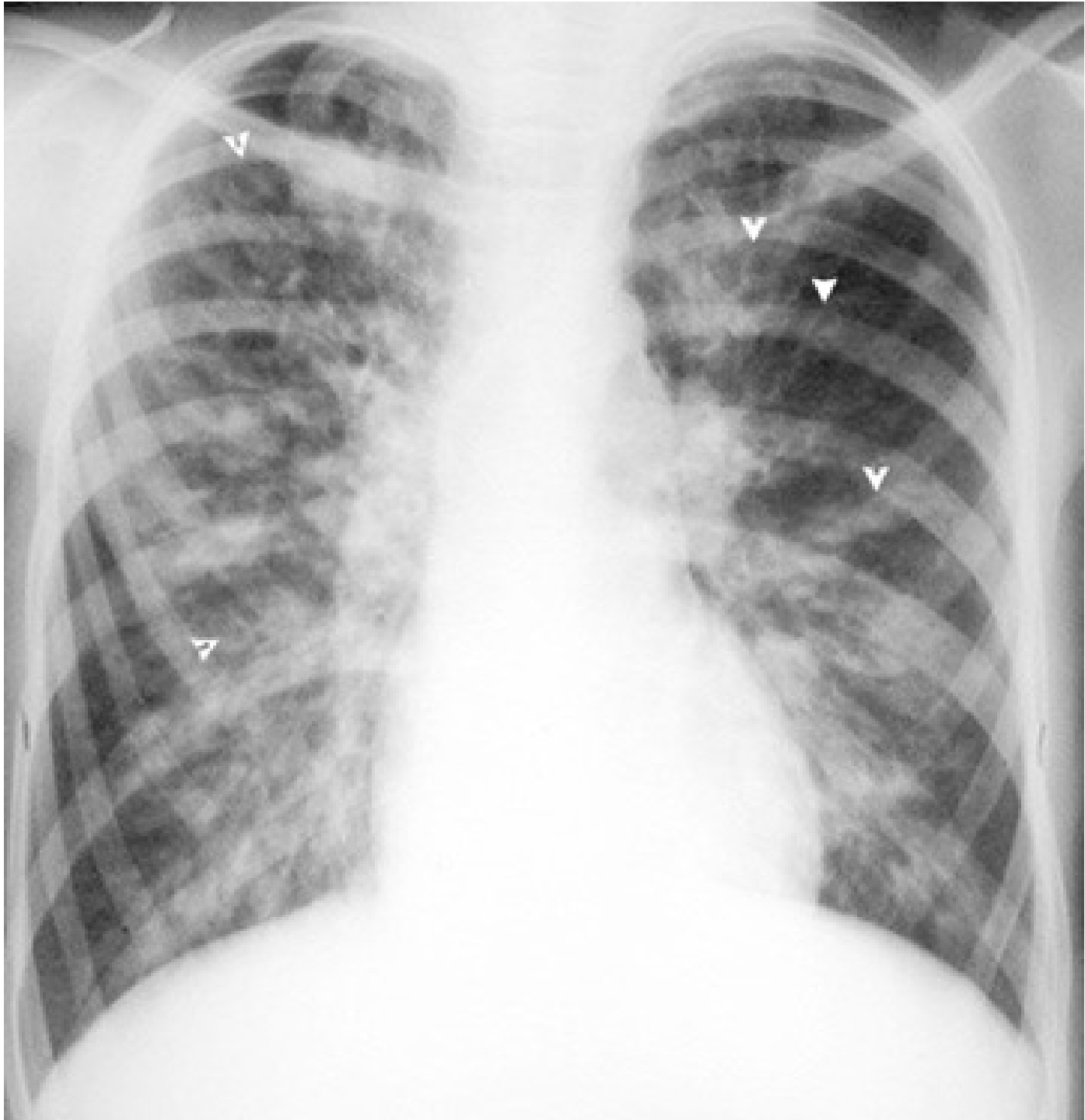
- **In asthma**

- inflammation in the airways
- Acute airways narrowing.
- Acute & intermittent symptoms
- Treatment open up the airways well.
- < 35 years

Investigation

- **Routine Blood Investigation**
- **Sample of sputum**
- **Chest x-ray**
- **High-resolution CT (HRCT scan)**
- **Pulmonary function test (spirometry)**
- **Arterial blood gases test**
- **Pulse oximeter**

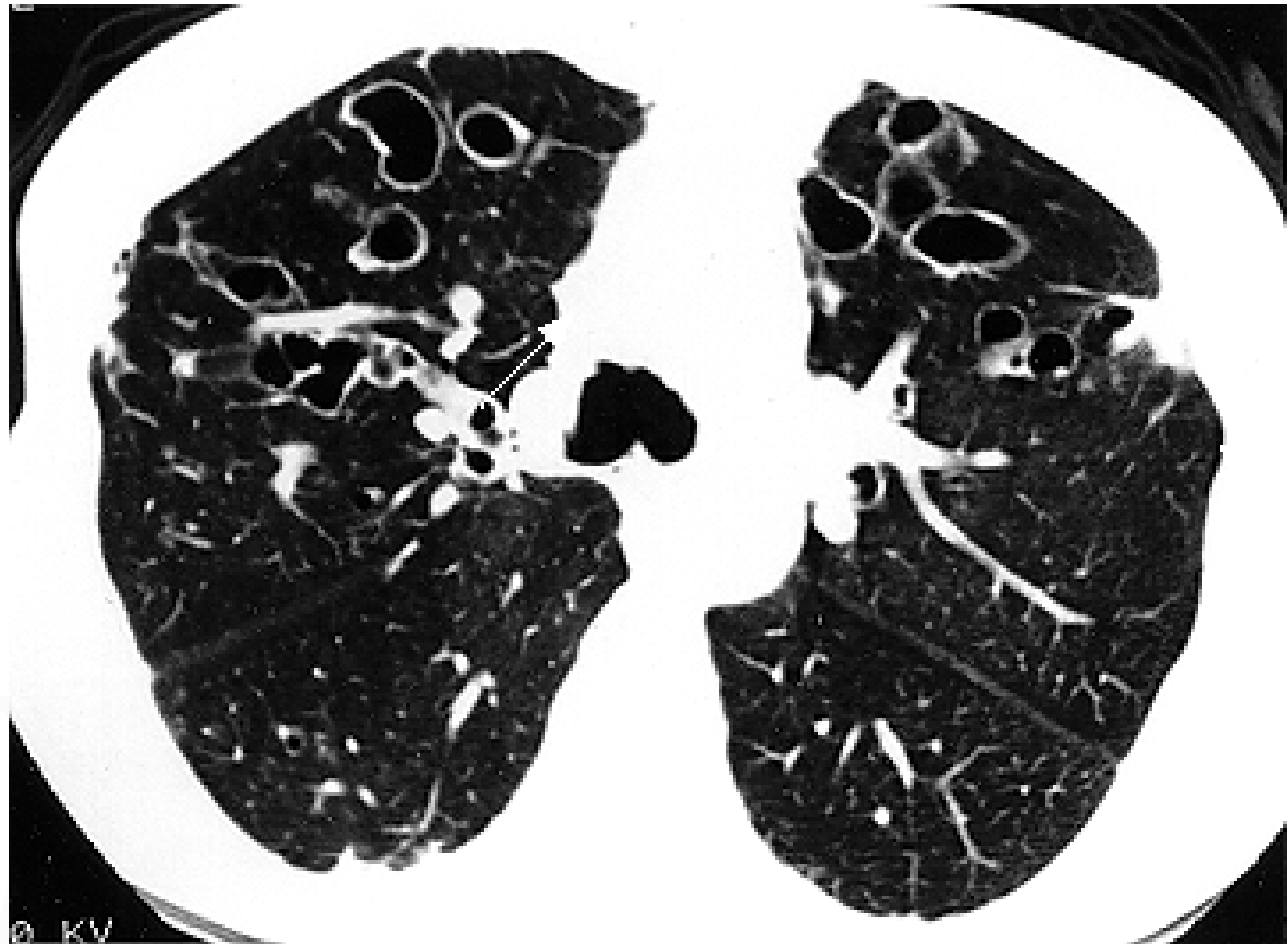




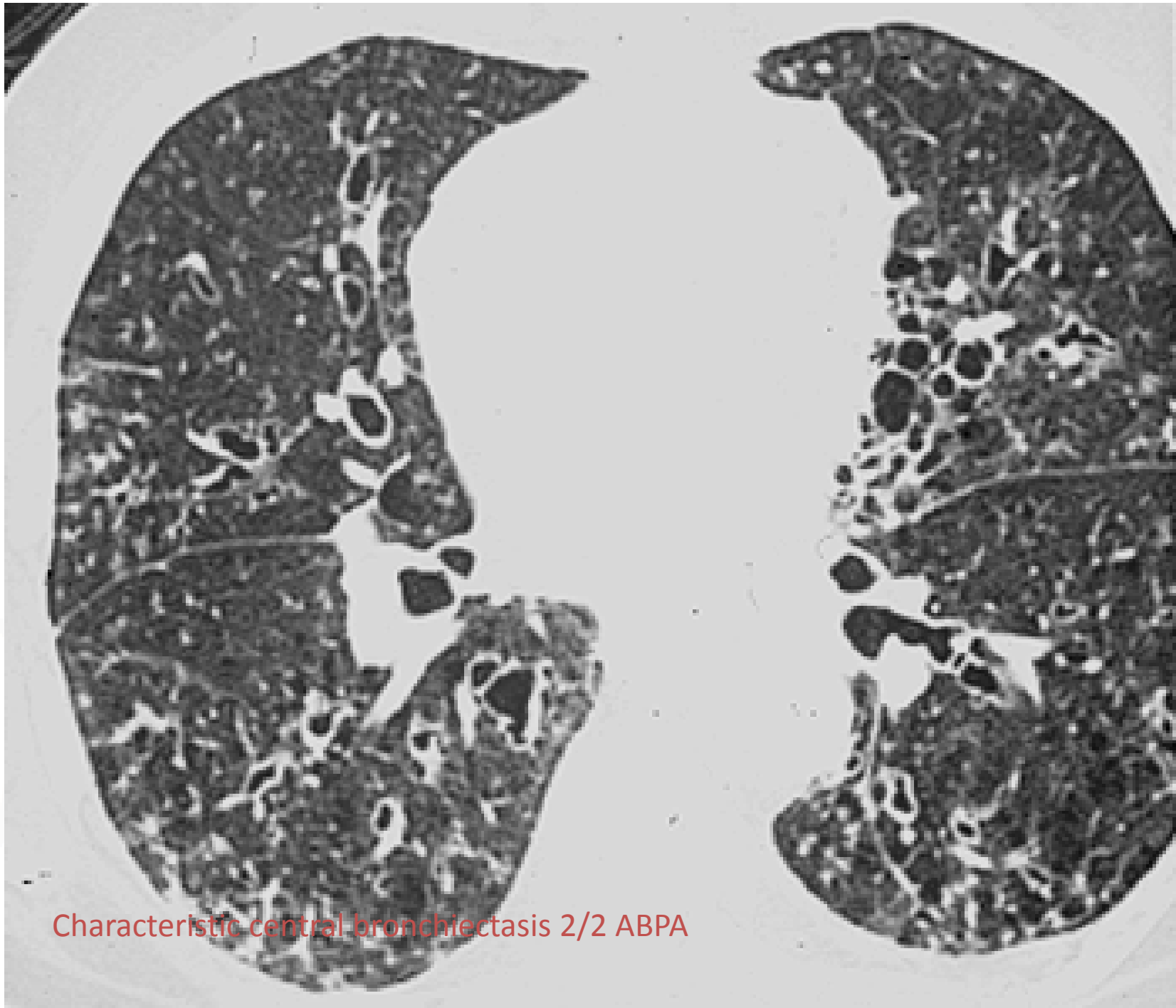
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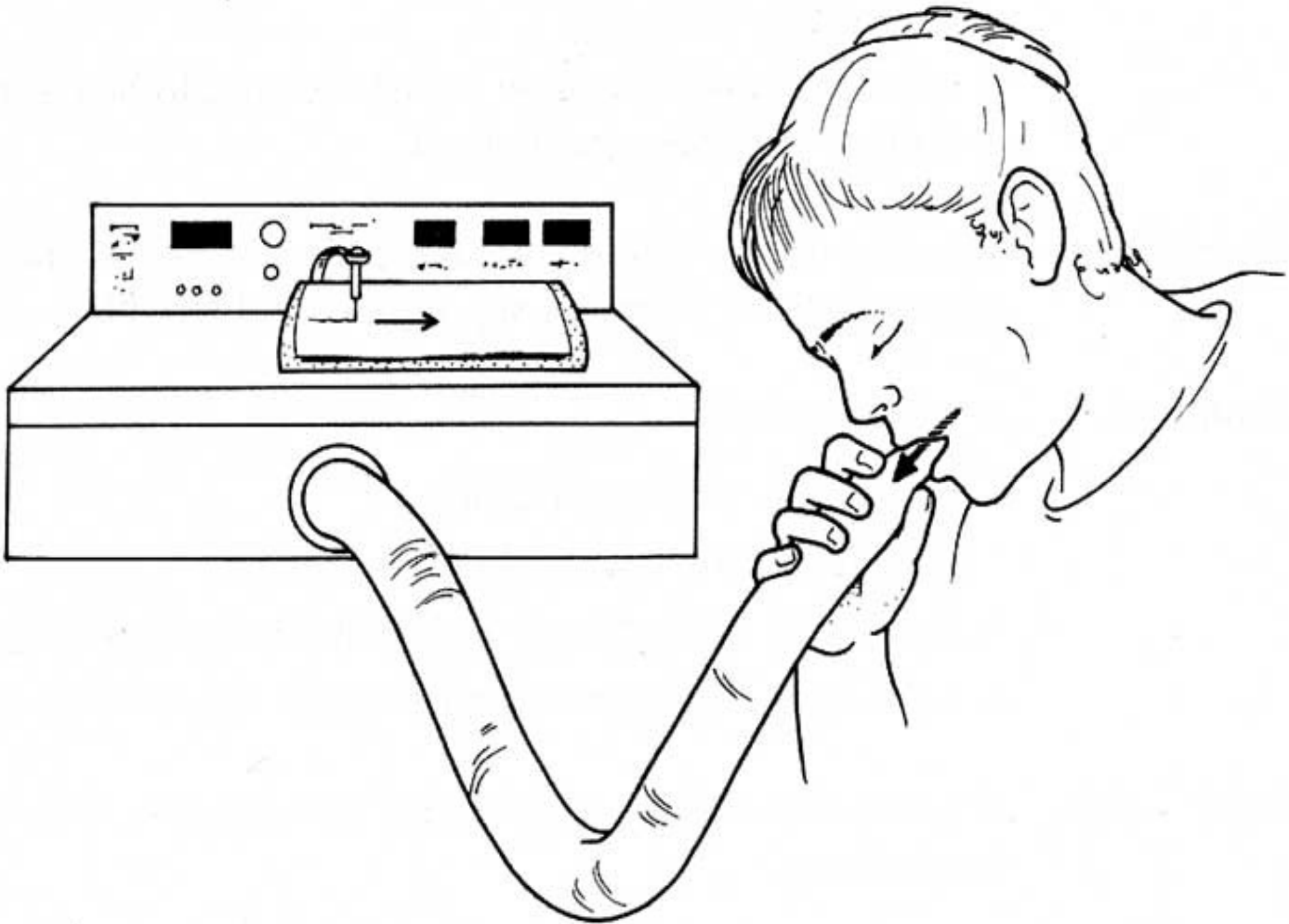




Bronchiectasis with marked airway dilatation
HRCT shows clustering of markedly dilated airways in both upper lobes (arrows). Courtesy of Alan Barker, MD.



Characteristic central bronchiectasis 2/2 ABPA



Medical management

- Antibiotics
 - Cephalosporins
 - fluoroquinolones
 - Macrolides
- Bronchodilators
 - Aminophylline
 - Adrenaline
 - Ipratropium bromide
- Anti-inflammatory
 - Steroid – Glucocorticoid
- Oxygen –
 - In acute episode , in limited amount only
- Chest physiotherapy and postural drainage
- Ventilatory support if Respiratory failure

COPD

Preventive measures

- To prevent irritation and infection of the airways, instruct the patient to:
- Avoid exposure to cigarette
- Avoid exposure to dusts and powders.
- Avoid use of aerosol sprays.
- Avoid exposure to cold and high humidity.
- Immunization against influenza & pneumococci

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