



Internal Medicine: Respiratory System

GENERAL EXAMINATION OF A PATIENT

Aims of the meeting

- ▣ TO WIDEN YOUR MEDICAL VOCABULARY ABOUT RESPIRATORY SYSTEM
- ▣ TO FORM A PRESENTATION OF PHYSICAL EXAMINATION
- ▣ TO SOLVE A LITTLE PROBLEM

Structure of Respiratory tract

Upper respiratory tract

Nasal cavity

Pharynx

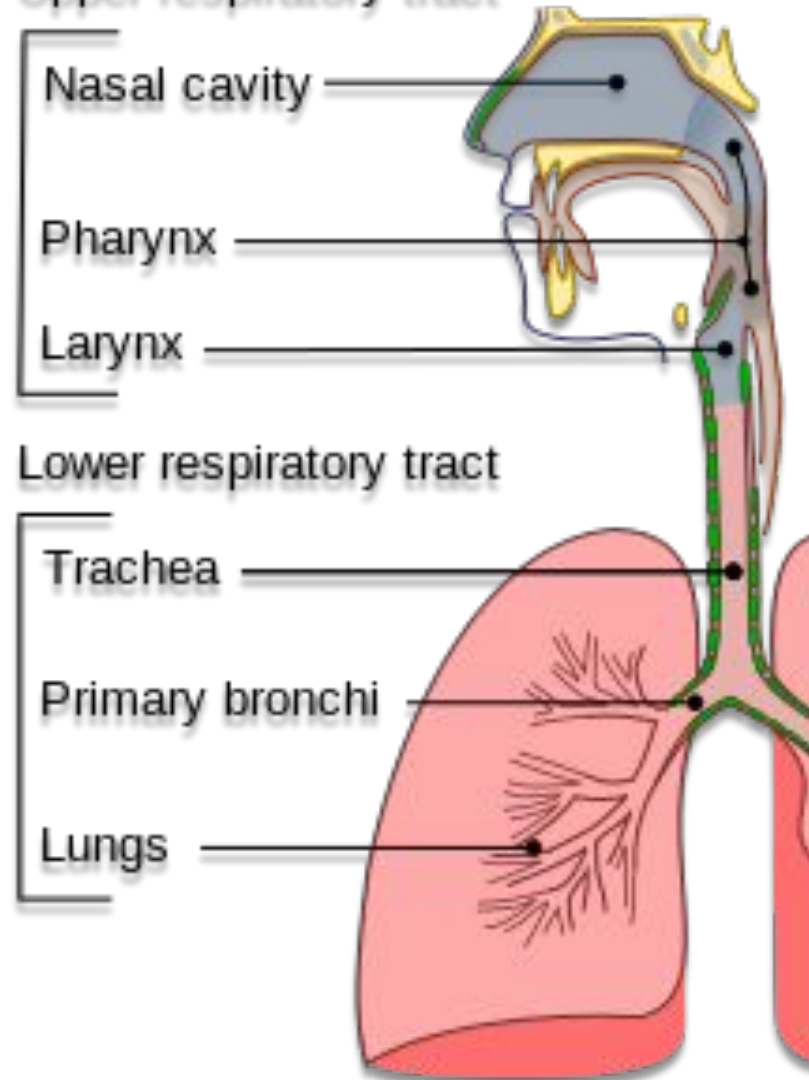
Larynx

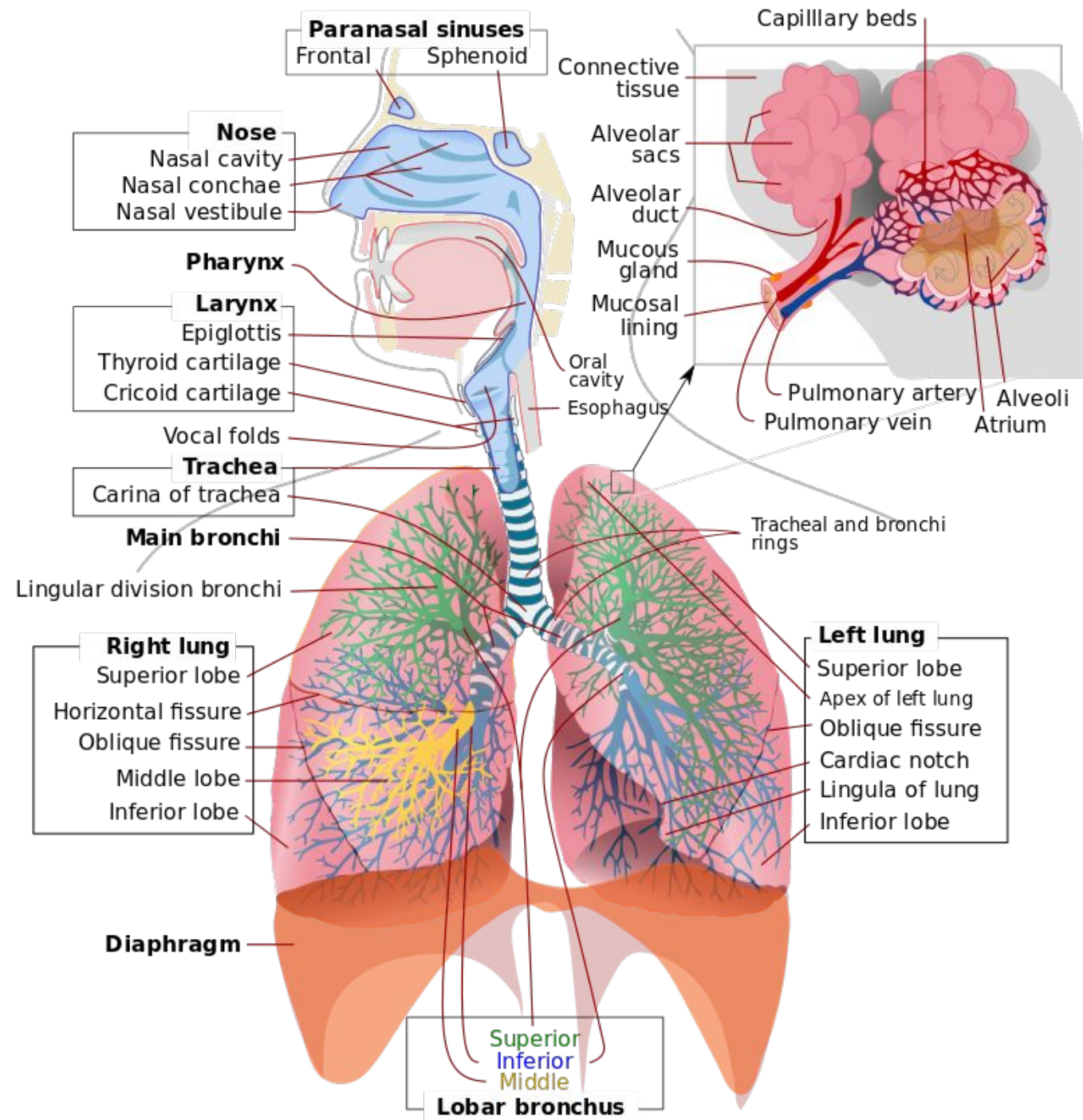
Lower respiratory tract

Trachea

Primary bronchi

Lungs







Approach to the patient with Disease of the Respiratory System

Clinical presentation

History taking (risk factors):

- ▶ Smoking history (the number of years of smoking, the number of packs per day; if the patient no longer smokes – the interval; since smoking cessation)
- ▶ Inhaled dust (pneumoconiosis, such as asbestosis, silicosis, etc.)
- ▶ Inhaled organic antigen (especially from molds and animals)
- ▶ Contacts with individuals with known respiratory infections (especially tuberculosis)
- ▶ Residence in an area with endemic pathogens (histoplasmosis, blastomycosis)

Clinical presentation

- ▶ **Dyspnea**

- acute (laryngeal edema, acute asthma)
- subacute (asthma, chronic bronchitis)
- chronic (chronic obstructive lung disease, chronic cardiac disease)

- ▶ **Hemoptysis**

- inflammatory
- neoplastic

- ▶ **Chest pain** (in case of the parietal pleura involvement)

- ▶ **Cough** (as normal physiological reflex or due to underlying cause)

Clinical presentation

Cough

Respiratory tract infection (common cold, acute bronchitis, pneumonia, pertussis, tuberculosis)

Reactive airway disease (asthma, chronic bronchitis, smoker's cough)

Gastroesophageal reflex (cause of GERD)

Air pollution (tobacco smoke, irritant gases, dampness in a home)

Foreign body (including swallowing difficulties)

Psychogenic cough (as habit or 'tic-cough')

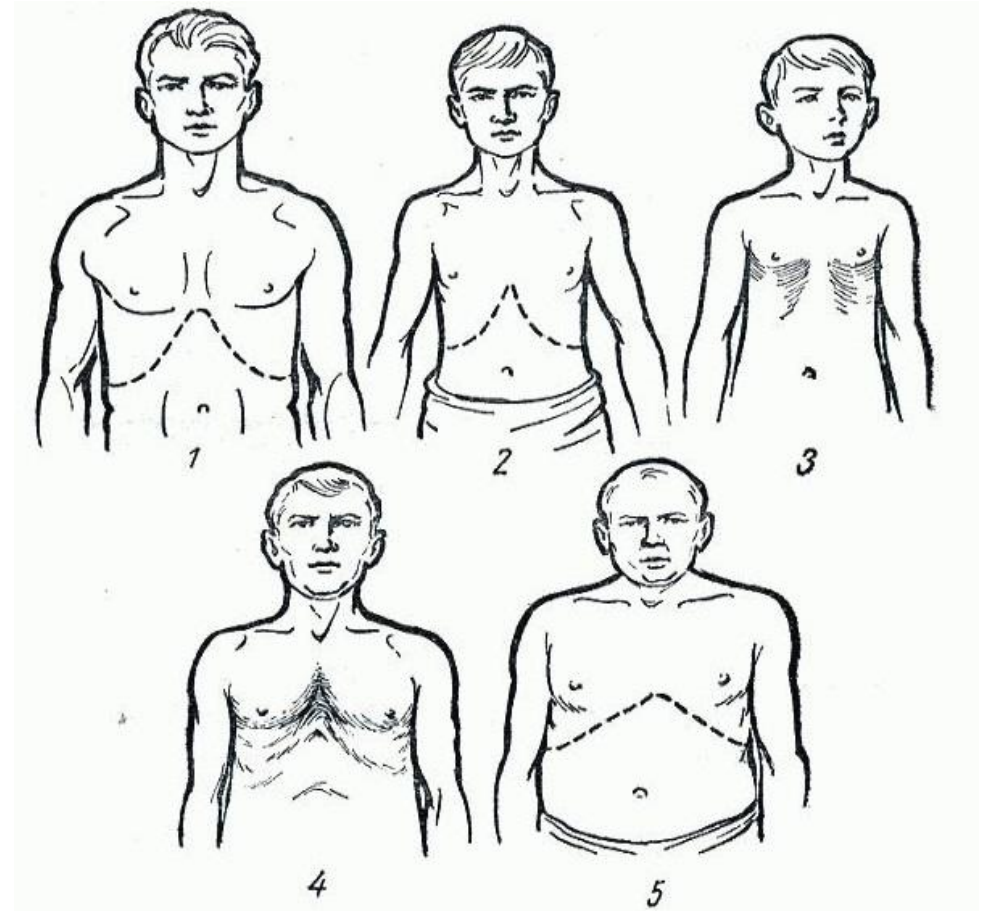
Physical Examination

Inspection

- ▶ Rate and pattern of breathing
- ▶ Depth and symmetry of lung expansion

What can you detect?

- ▶ Rapid breathing
- ▶ Labored breathing
- ▶ Associated with the use of accessory muscles
- ▶ Asymmetric expansion
- ▶ Visible abnormalities of the thoracic cage



Physical Examination

Palpation

- ▶ Symmetry of lung expansion
- ▶ Vibration: - decrease/absent (liquid, endobronchial obstruction)
- increase (pulmonary consolidation)
- ▶ Tenderness (costochondritis, rib fracture)

Percussion

- ▶ Resonant (normal sound of air contain structures as lung)
- ▶ Dull (sound of consolidated lung)
- ▶ Hyperresonant (emphysema or air in the pleural space)

Physical Examination

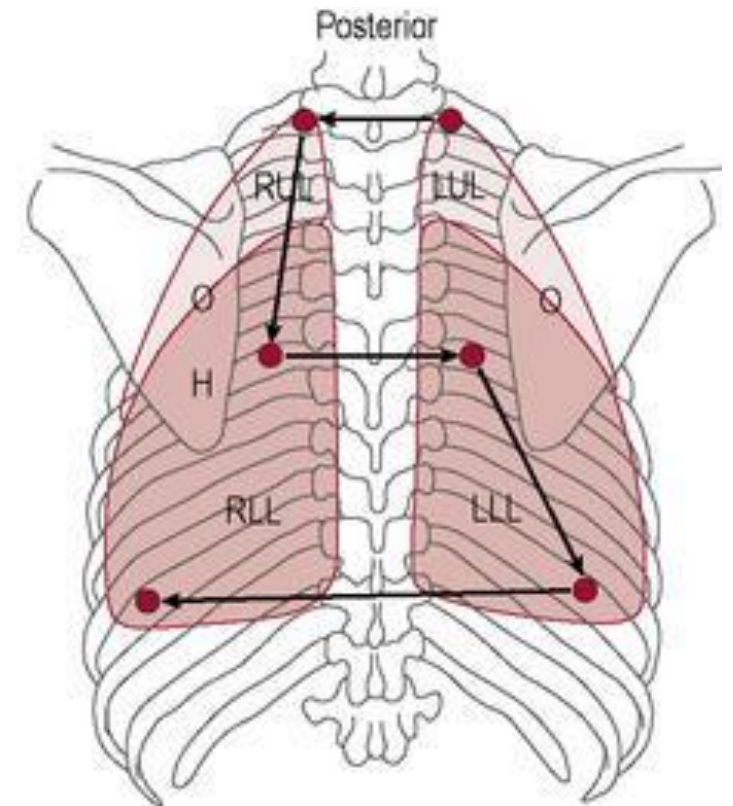
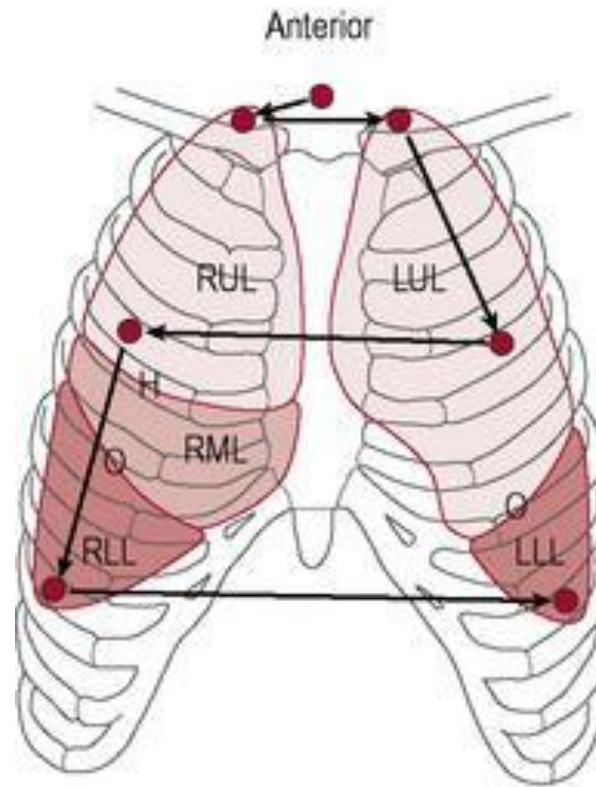
Auscultation

Normal breath sound

- ▶ Vesicular breath sound

Extra sound (abnormal)

- ▶ Bronchial breath sound
- ▶ Crackles (≈crepitation)
- ▶ Wheezes (the same as sibilant rhonchi)
- ▶ Pleural friction rub



Physical Examination

| Name | Continuous/discontinuous | inspiratory/expiratory | Associated conditions |
|-------------------------|--------------------------|----------------------------|-------------------------------------------------------------|
| Wheeze or rhonchi | continuous | expiratory or inspiratory | asthma, chronic obstructive pulmonary disease, foreign body |
| Stridor | continuous | mostly inspiratory | epiglottitis, foreign body, laryngeal oedema |
| Pleural friction rub | discontinuous | expiratory and inspiratory | inflammation of pleura, lung tumors |
| Crackles (crepitations) | discontinuous | inspiratory | pneumonia, pulmonary edema, tuberculosis, bronchitis |

Imaging studies

Routine radiography (posteroanterior and lateral views)

- ▶ A localized region of opacification involving the pulmonary parenchyma
- ▶ Radiolucency (with a cyst/bulla, or emphysema)



Imaging studies

Other methods

- ▶ CT
- ▶ MRI
- ▶ PET
- ▶ Scintigraphy imaging
- ▶ Pulmonary angiography
- ▶ Ultrasound



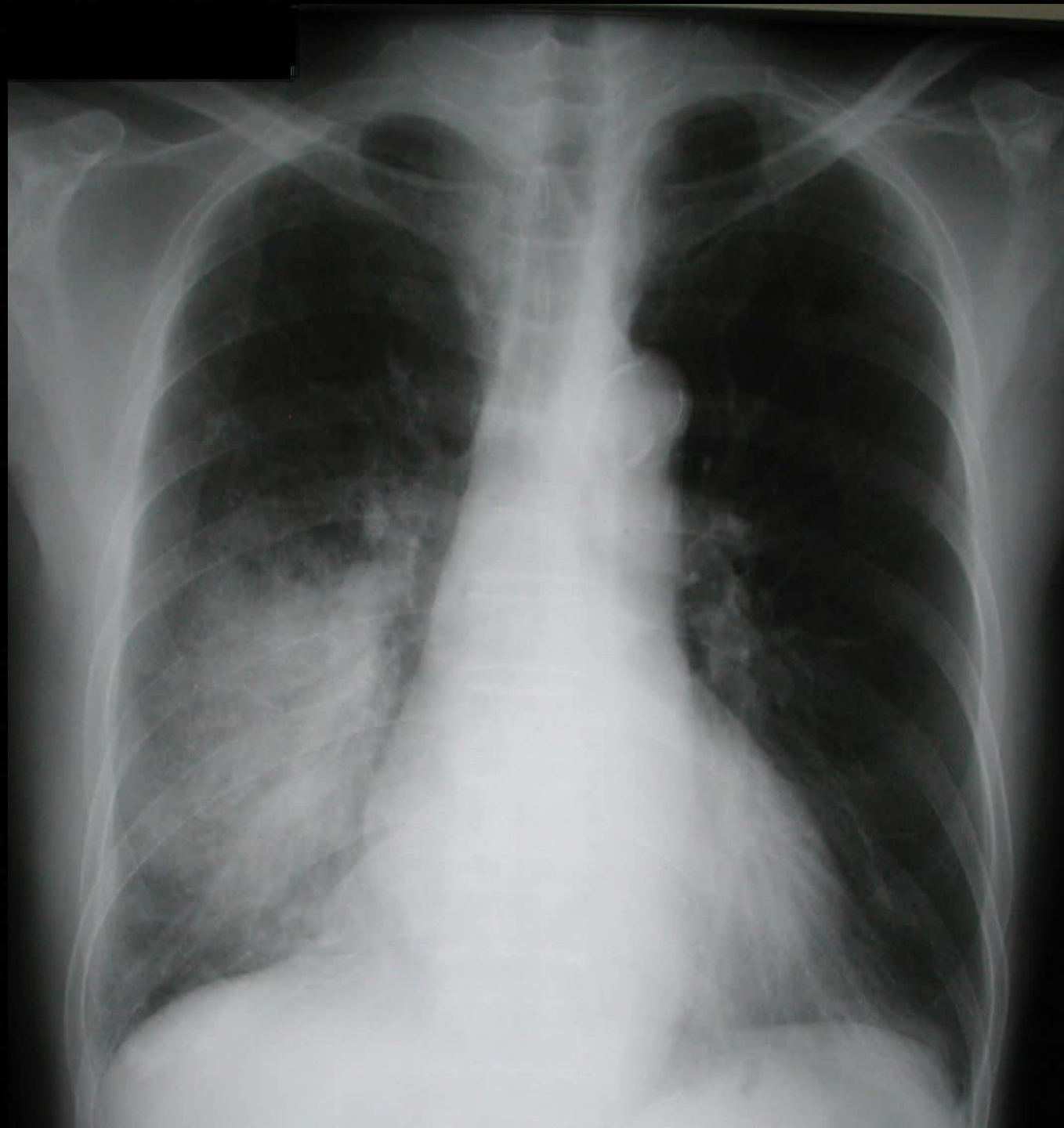
Any questions? Suggestions?

Thank you for your attention!

“It seems to me I
have some
problems... again”

© Clara

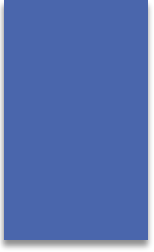




We Were Born to Fly

Hello again
You've been alone awhile
And I can use a friend
Your shades are down
And I've been waiting here for you to come around
And it's not about forgiveness
Cause it's all about the love anyhow

We were born to fly
To reach beyond the sky
To carry on forever after
You and I
You keep my faith alive
With you I'm not afraid
To rise and fall and face disaster
You and I



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