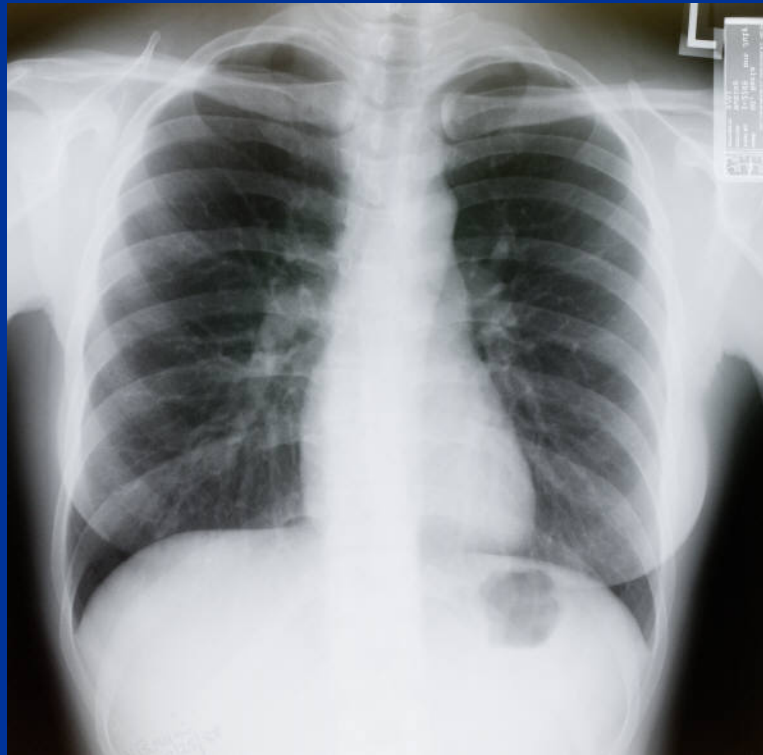
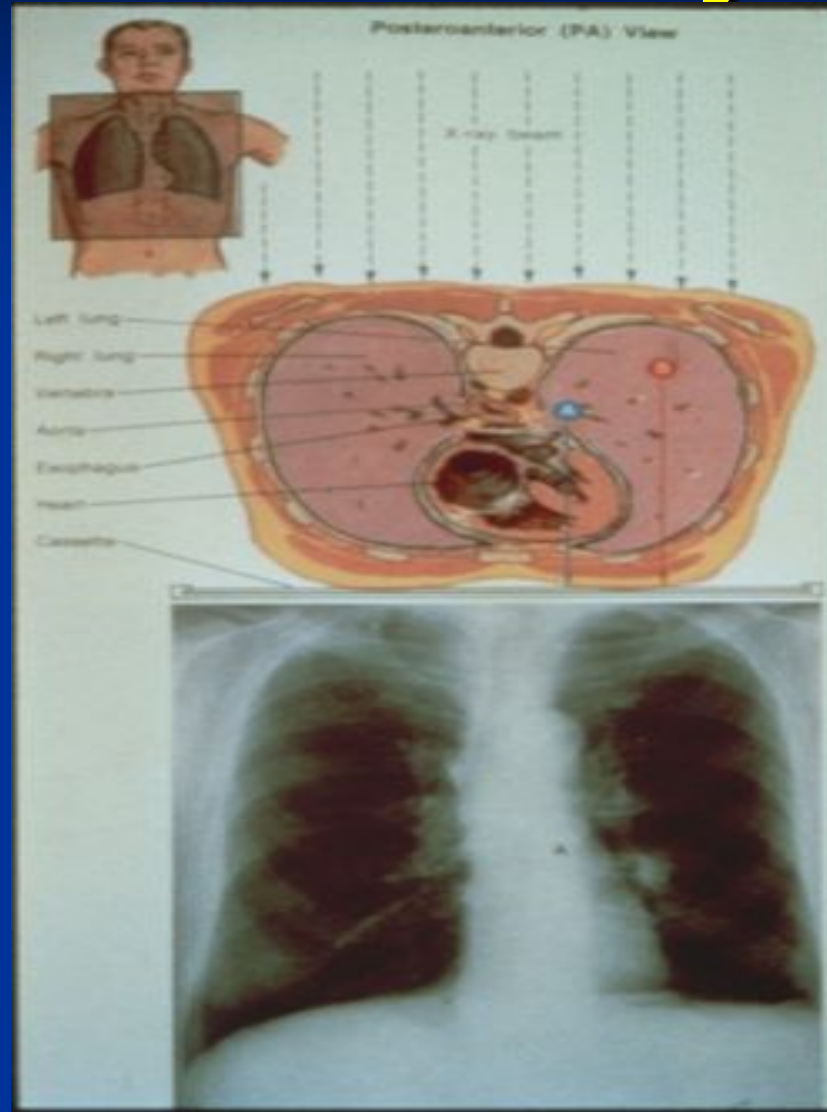


Chest X-rays



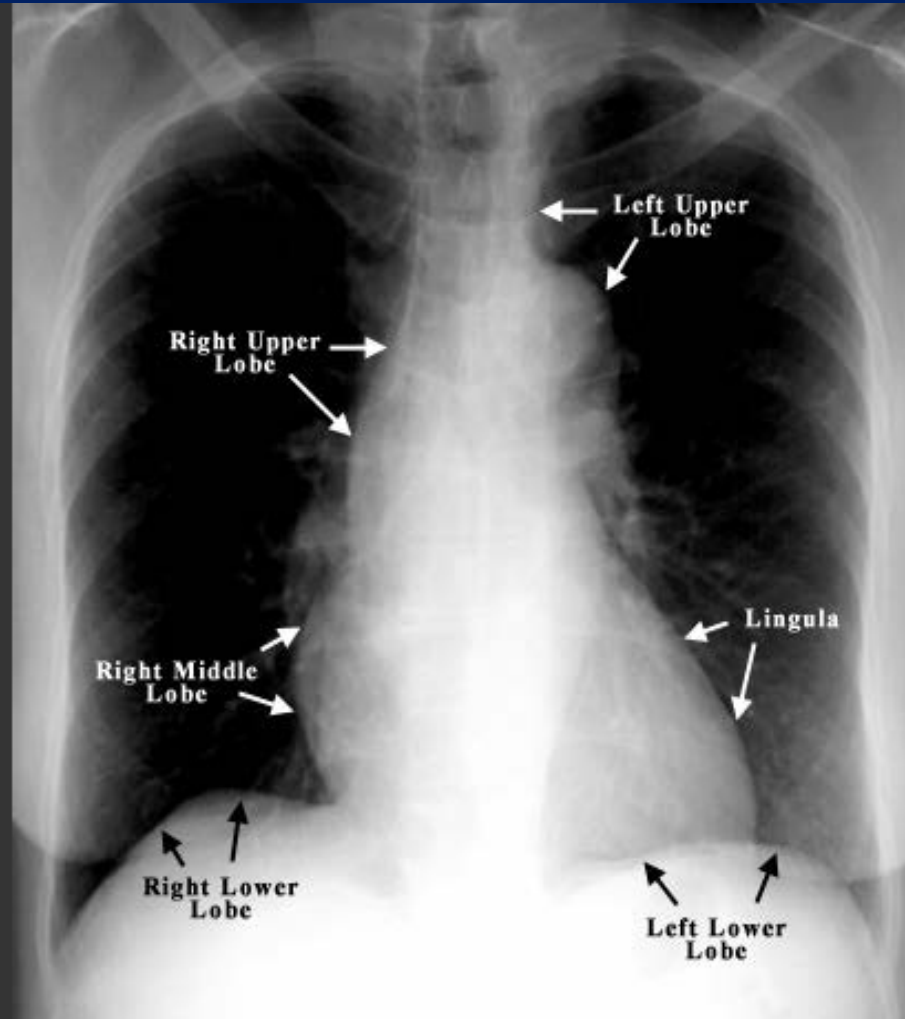
Chest x-ray



Types of Views

- Superimposed images
- PA – posterior-anterior
- Also: AP, lateral, oblique, lordotic
- Lateral decubitus

Introduction to Chest Radiology



This image indicates the locations of each lung margin on chest x-ray.

Mediastinum

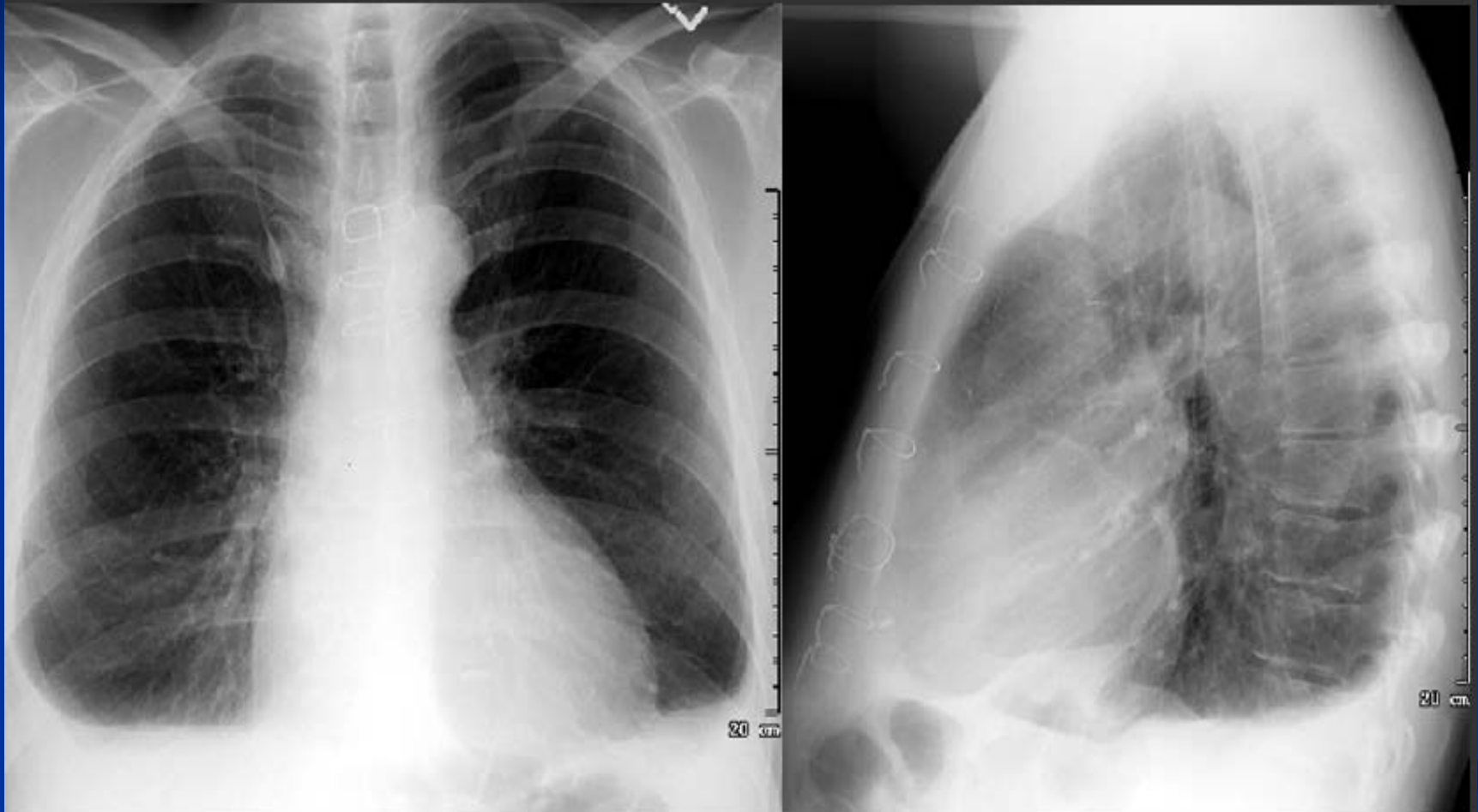
- Thymus
- Heart
- Trachea
- Esophagus
- Aorta
- Lymph nodes
- Anterior – sternum
- Posterior – vertebrae

Opacities, Infiltrates



The basic diagnostic instance is to detect an abnormality. In both of the cases above, there is an abnormal opacity. It is most useful to state the diagnostic findings as specifically as possible. Then try to put these together and construct a useful differential diagnosis using the clinical information to order it.

Effusions



PA and lateral film of a patient with bilateral pleural effusions.
Note the concave menisci blunting both posterior costophrenic angles.

Chest X-ray Terms

- **Nodule** – discrete opacity (usually small)
- **Granuloma** – nodule due to inflammation (e.g. past infection or foreign body/antigen); Can become fibrosed/calcified
- **Caseating/Non** – Cells necrotic/not; TB/sarcoid-CBD
- **Calcified Granuloma** – usually benign
- **Bulla** – bubble, round, hollow air filled cavity
- **Bleb** – bulla on pleura
- **Atelectasis** – area of collapsed lung
- **Reticular** – criss-crossing lines
- **Honeycombing** – fibrous walled cysts – e.g. asbestosis
- **Ground glass** - refers to the presence of increased hazy opacity within the lungs - CBD

International Labour Organization (ILO) Classification Pneumoconiosis Pulmonary medicine

- ILO Classification – System for recording abnormalities in Chest X-Rays resulting from the inhalation of dusts.
(Pneumoconioses)

ILO Classification

- Standardizes
- Quantifies
- “B” Readers - certified

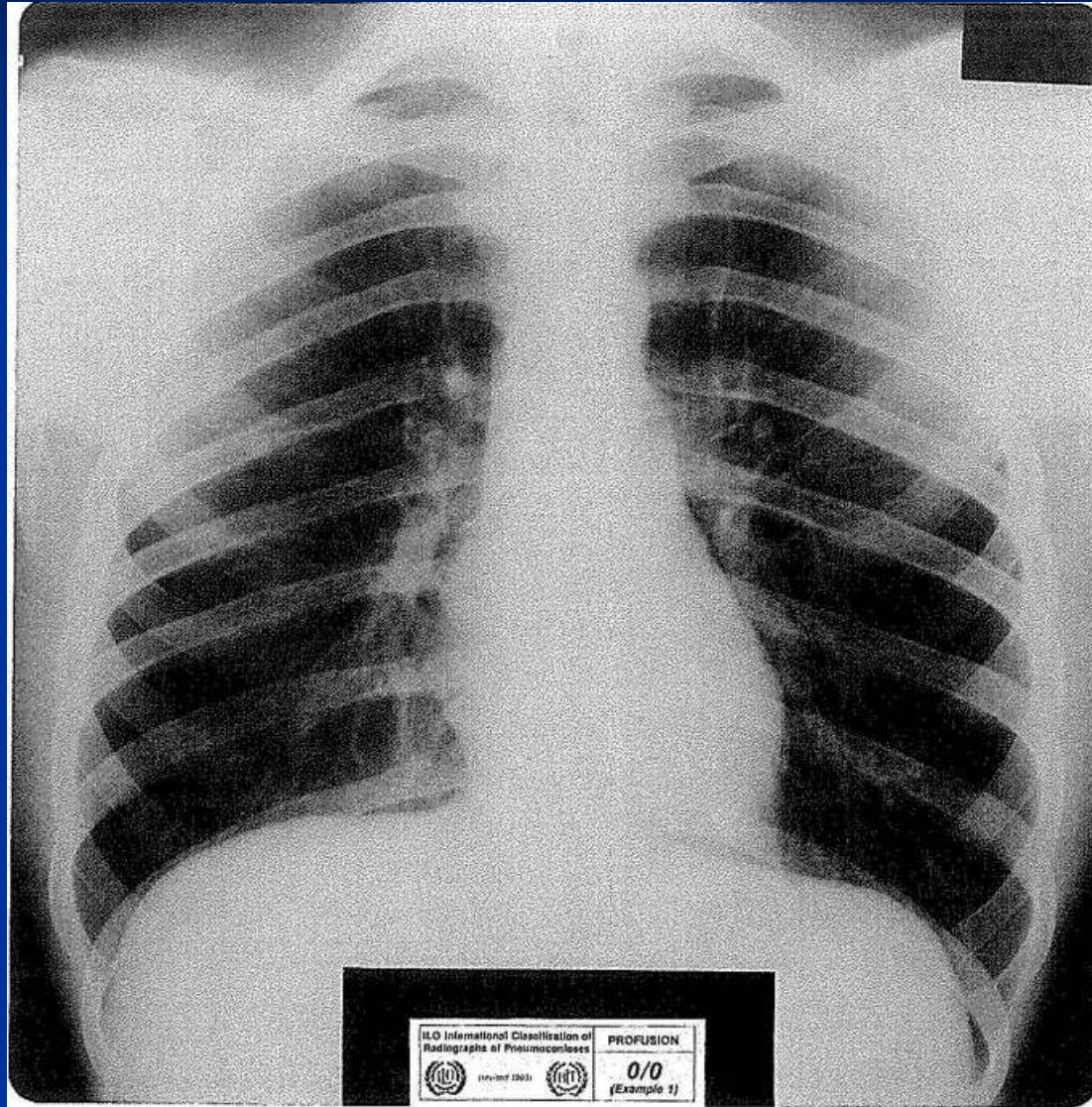
ILO Classification

- Quality – Contrast
- Parenchyma
- Pleura

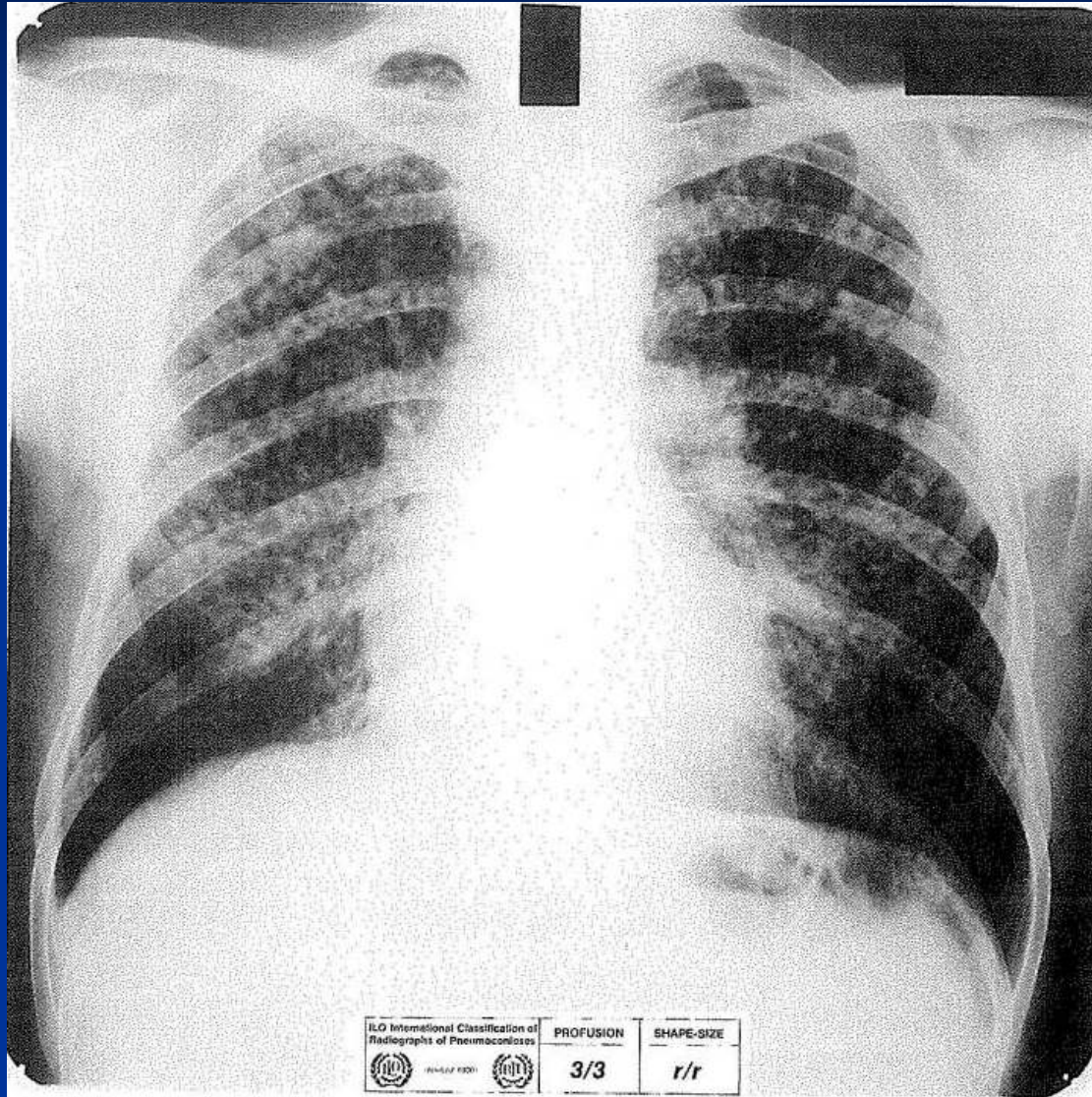
“Profusion”

- Categories 0, 1, 2, 3 (4 levels)
- 12-point scale (continuous scale)
- 0/- 0/0 0/1 1/0 1/1 1/2 2/1 2/2 2/3 3/2 3/3 3/+
- shape, size, location
- s,t,u, (irregular) p,q,r (regular)
- 1/0 presumptive but not unequivocal

ILO Chest x-ray 0/0



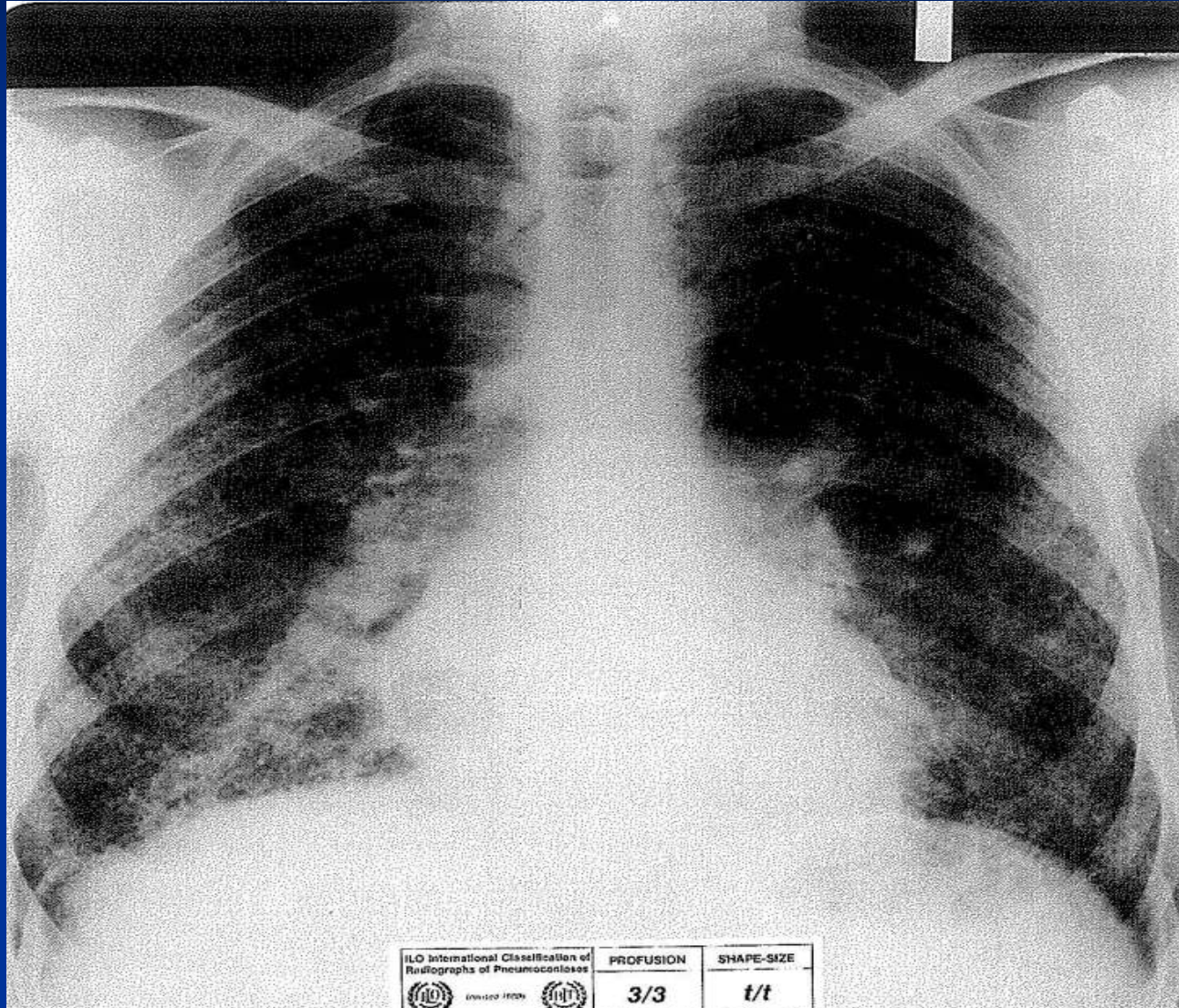
ILO 3/3 r/r



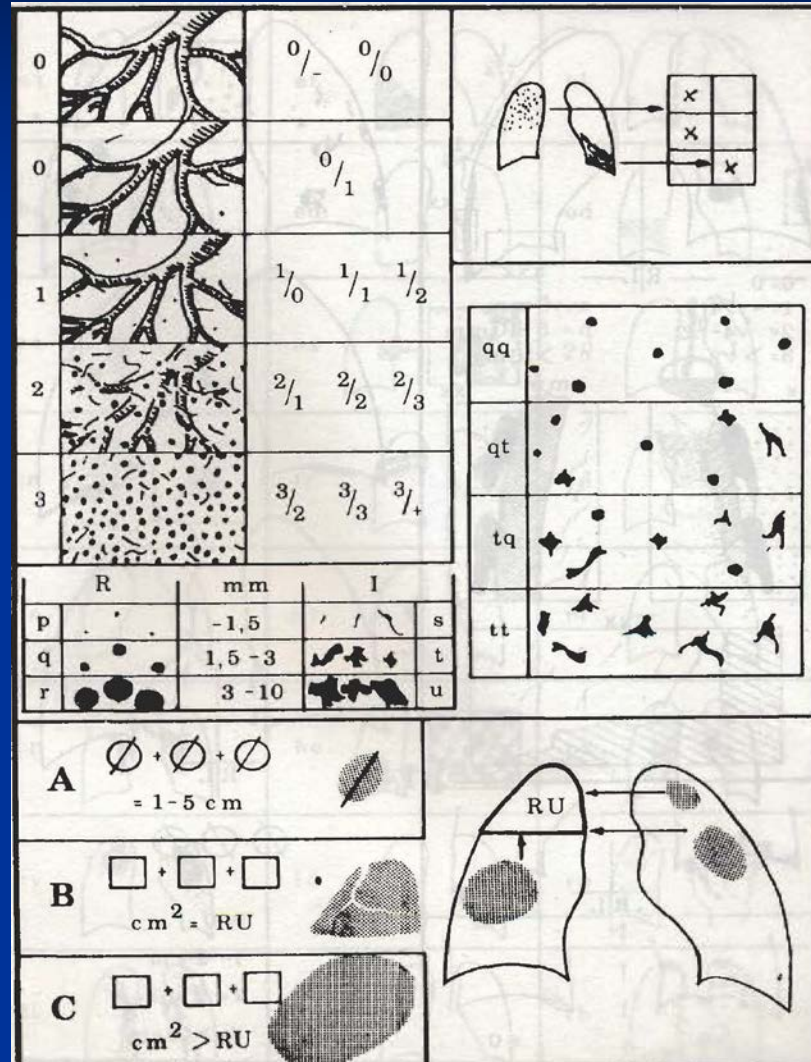
Chest X-Ray Interpretation is an inexact science

- Inter-reader variability
- Intra-reader variability

ILO 3/3 t/t



ILO Summary



What We have Covered

- The general findings in a normal chest x-ray.
- Some common chest x-ray findings.
- The basis for the International Labor Office (ILO) classification.
- What a 1/0 B reading means.
- What organs/structures are in the mediastinum.
- How to recognize normal from grossly abnormal chest x-rays.

Questions

