







**Asbestosis CXR 판독
(ILO Classification 요약)**

가톨릭의대 정정임

소음영 (size and shape)

1. Small rounded opacities (diameter up to)
 - p (diameter up to 1.5 mm)
 - q (1.5-3 mm)
 - r (3-10 mm)

2. Small irregular opacities (width up to)
 - s (width up to 1.5 mm)
 - t (1.5-3 mm)
 - u (3-10 mm)

	R	mm	I	
p		- 1.5		s
q		1.5 - 3		t
r		3 - 10		u

Shape and size: 문자 2개를 조합하여

- 모든 opacities가 균일한 size와 shape인 경우 symbol을 2번 반복해서 기록 예) q/q

- 다른 size와 shape을 가지는 경우 가장 우세한 것을 처음에, 다음으로 우세한 것을 2번째로 기록 예) q/t

소음영 (profusion)

Assessment of concentration of opacities

(Comparison with the standard radiographs)

- Category 0- small opacities absent
Less profuse than the lower limit of category 1
- Category 1, 2, 3-increasing profusion by the corresponding standard radiographs.
- 12-point scale of profusion
- Major category above or below is seriously considered as an alternative, this is recorded.
- Category 2/1: profusion of major category 2, but category 1 is seriously considered as an alternative

12-point scale of profusion

0/- 0/0 0/1

1/0 1/1 1/2

2/1 2/2 2/3

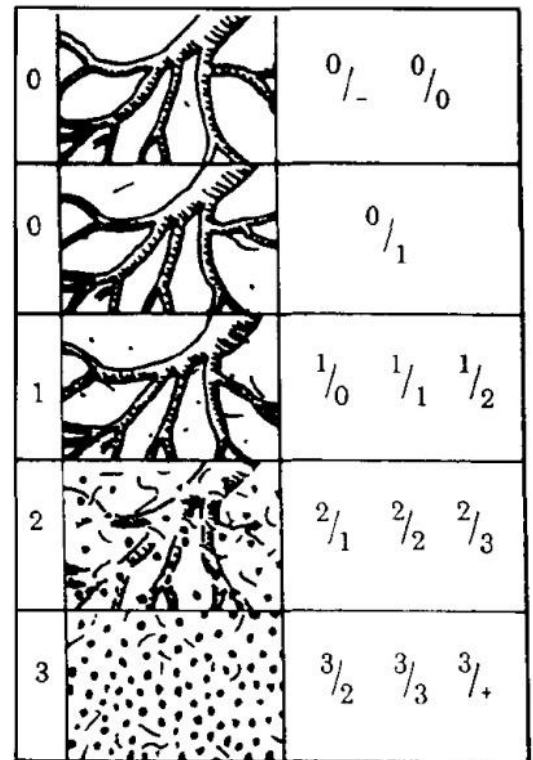
3/2 3/3 3/+

(ILO는 standard film과 비교해서라고

되어있는데 통상 1은 present, not obscure

the lung marking, 2은 partly obscure the

lung marking, 3은 completely obscure the lung marking 으로 구분)



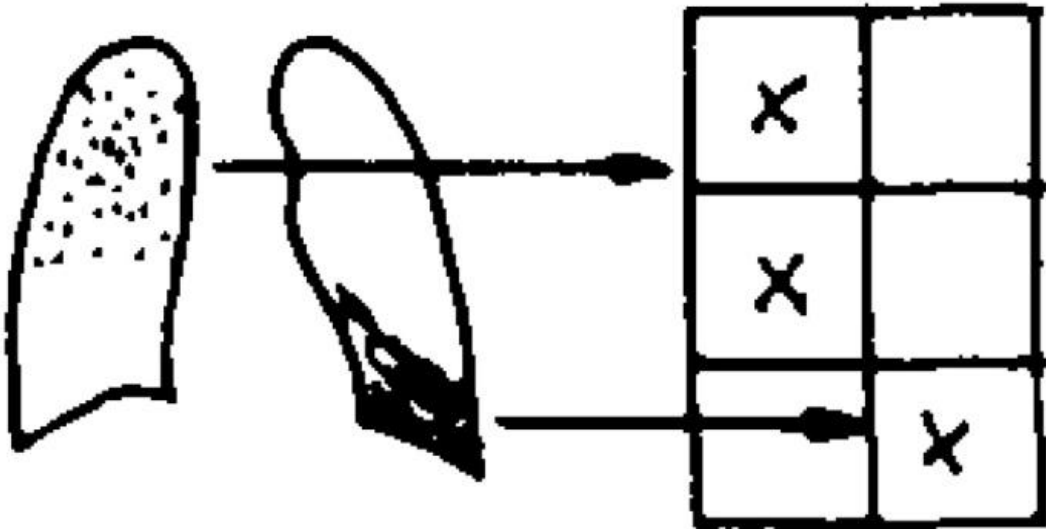
소음영 (Extent)

6 lung zones

1) upper, middle, and lower

2) right and left

3) horizontal lines at $\frac{1}{3}$ & $\frac{2}{3}$ of vertical distance between apicies and diaphragm.



대음영

Abnormal opacities greater than 10mm in diameter

1) Category A

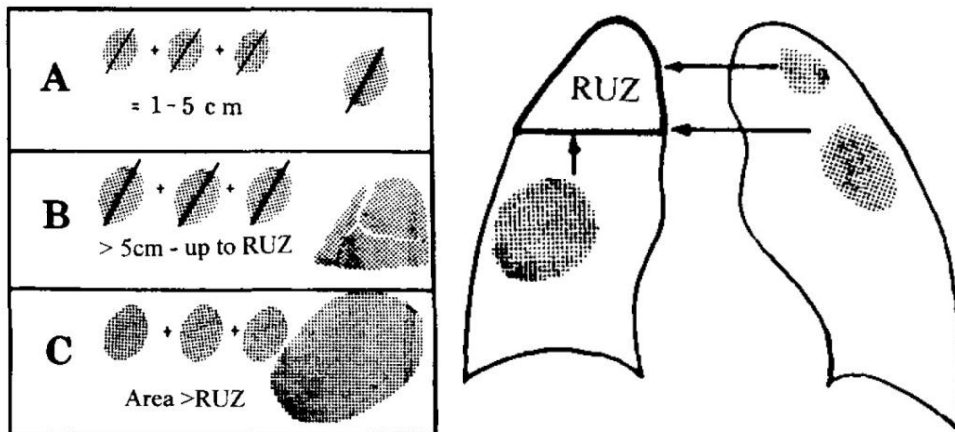
- Single: 10-50mm of greatest diameter
- Several: each greater than 10mm, sum of diameters \leq 50 mm

2) Category B

- More larger or numerous than A
- Combined area \leq right upper zone

3) Category C

- Combined area $>$ the right upper zone



흉막이상 (Pleural Abnormalities)

1. Pleural plaques (localized pleural thickening)

- in-profile or face on/ right or left
- record presence or absence of calcification
- In-profile plaque

minimum width $\geq 3\text{mm}$

- ♦ a : 3-5mm
- ♦ b : 5-10mm
- ♦ c : $\geq 10\text{mm}$

- extent

not recorded for plaques on diaphragm or other sites

only for chest wall plaques

combined for in-profile and face-on plaques

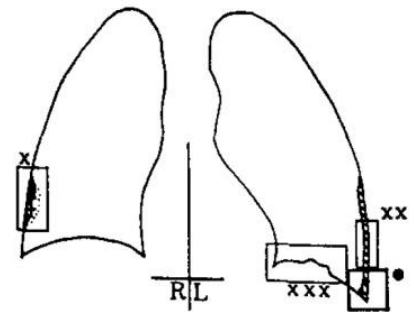
total length of involvement with respect to the projection of the lateral wall

- ♦ 1 : up to 1/4
- ♦ 2 : 1/4-1/2
- ♦ 3 : $>1/2$

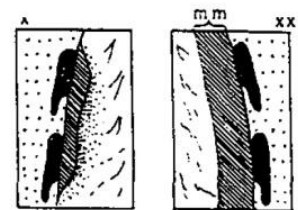
- site

Chest wall, diaphragm, and other sites (mediastinal pleura in the paraspinal location or pericardium) 을 따로 기술, right or left, calcification 도 기록

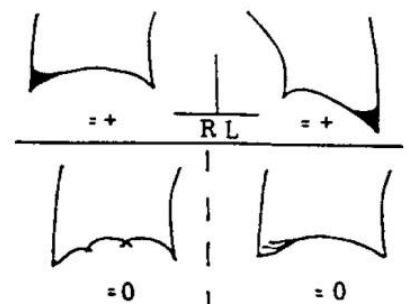
Pleural abnormalities - (localized and diffuse pleural thickening):



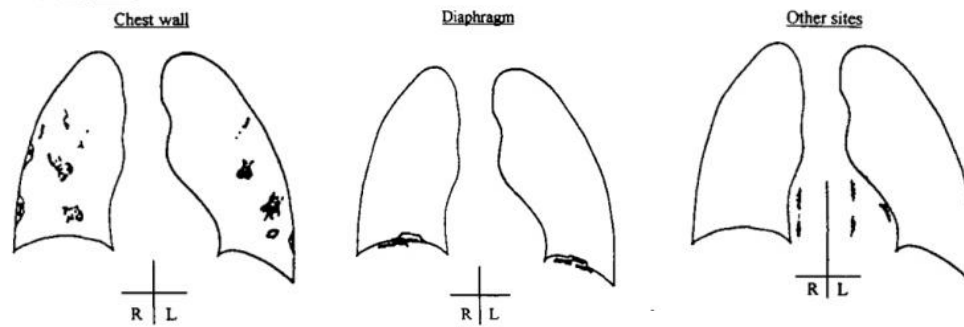
Extent:	Width:
0 = 0	a = 3-5 mm
1 = up to 1/4	b = 5-10 mm
2 = 1/4 - 1/2	c = > 10 mm
3 > 1/2	See Text!



Costophrenic angle:



Pleural calcification:



2. Costophrenic angle obliteration

- ◆ Costophrenic angle 의 obliteration 만 있을 때, lateral CPA 와 mediastinal CPA 모두 포함
- ◆ 만일 CPA blunting 이 lateral chest wall 의 pleural thickening 과 연결된다면 diffuse pleural thickening 으로 분류해야 함

3. Diffuse pleural thickening

- ◆ CPA obliteration 과 같이 있거나 연결되는 lateral chest wall pleural thickening 이 있을때
- ◆ Chest wall pleural thickening 의 width 기록양식이나 전체 extent 의 기록양식은 localized pleural thickening 과 동일
- ◆ Apical pleural thickening 은 흔히 보이는 소견으로 diffuse pleural thickening 의 일부로 기록하지 말아야 한다.

CT 촬영대상

- ♦ Lung: Asbestosis 의증 이상
- ♦ Pleural plaque: >b, >2
- ♦ Diaphragmatic pleural plaque (+)
- ♦ Lung or pleural mass

참고 website

1. Pneumoconiosis (chest X-ray)

<http://www.breader.com/diagram-teaching-files/index.html>

<http://www.chestx-ray.com/BReader/BReading.html>

2. NIOSH (National Institute for Occupational Safety and Health)

<http://www.cdc.gov/niosh/topics/chestradiography/ilo.html>

3. Guidelines for the use of the ILO International Classification of Radiographs of Pneumoconiosis

http://www.ilo.org/public/libdoc/ilo/2002/102B09_423_engl.pdf