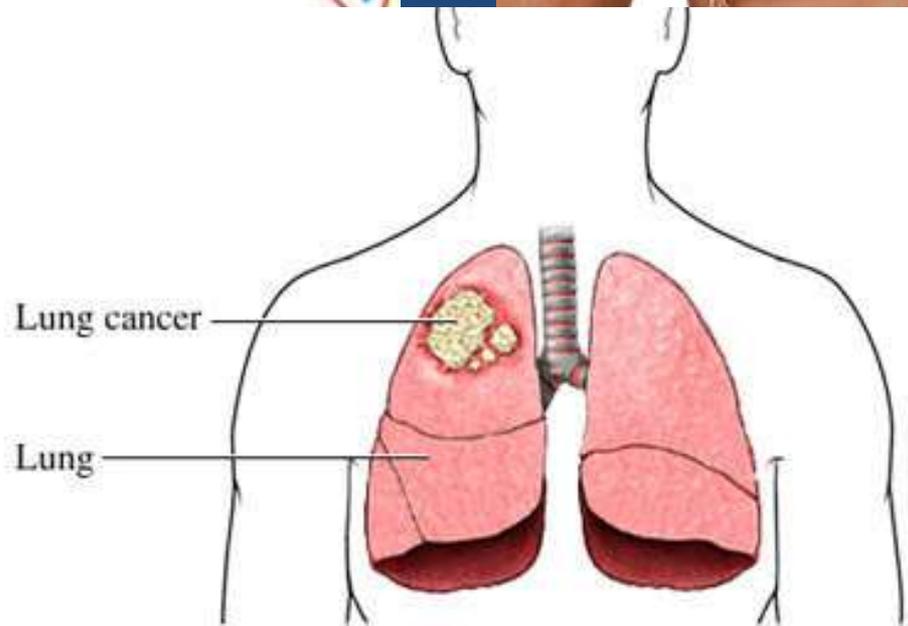
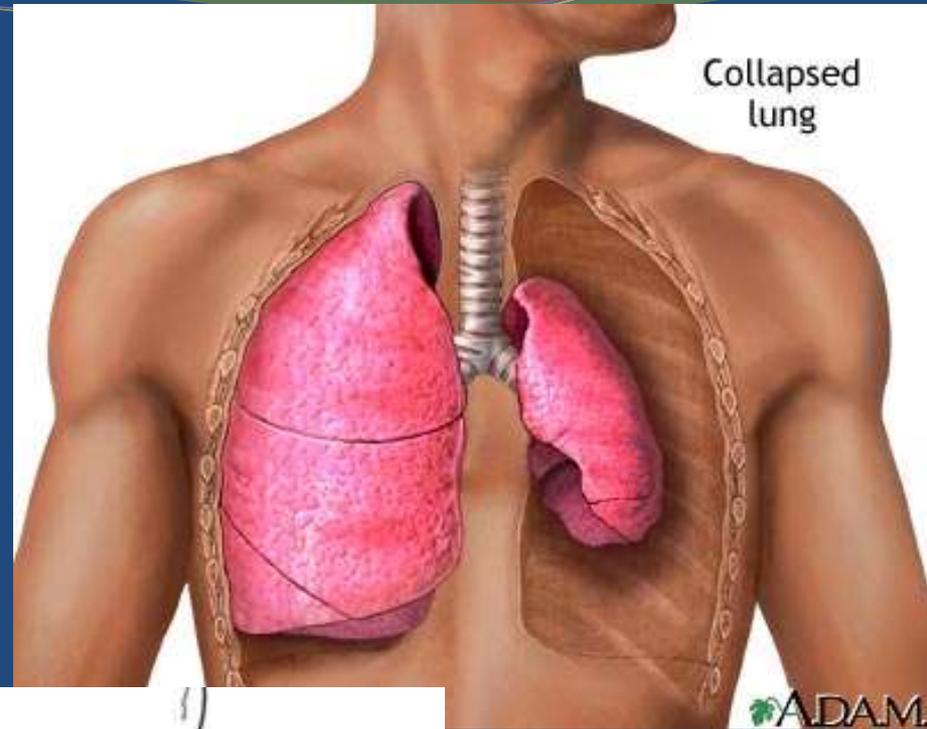
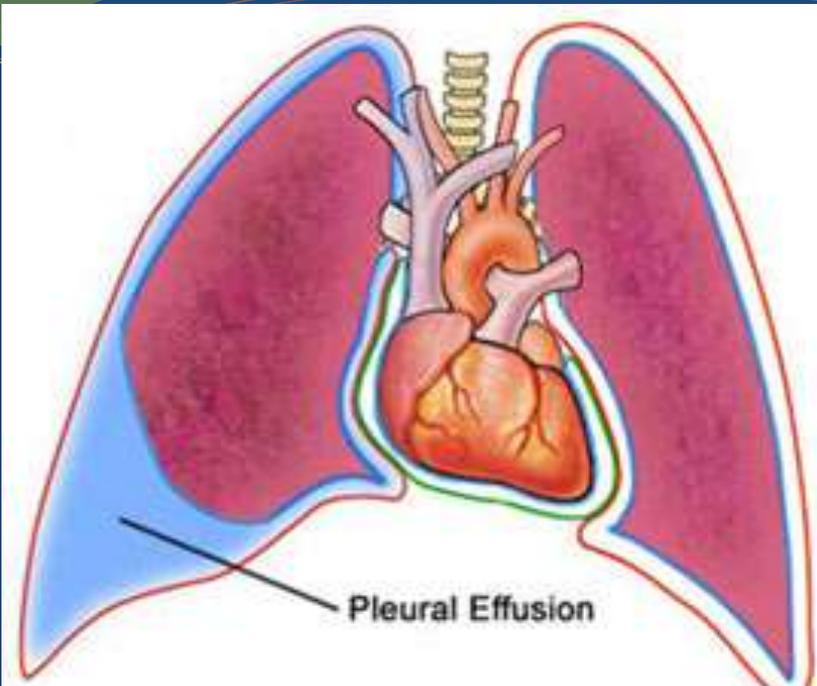


PENGANTAR PEMERIKSAAN FISIK PARU

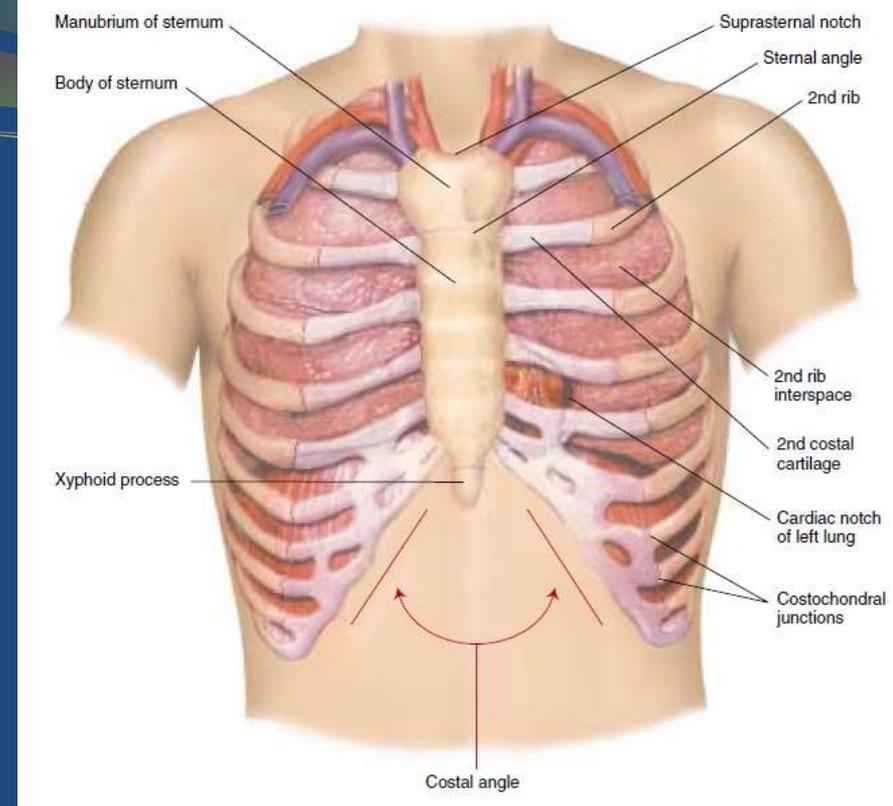
LUSITO

Bagian penyakit dalam FK/RS Sultan Agung
Semarang

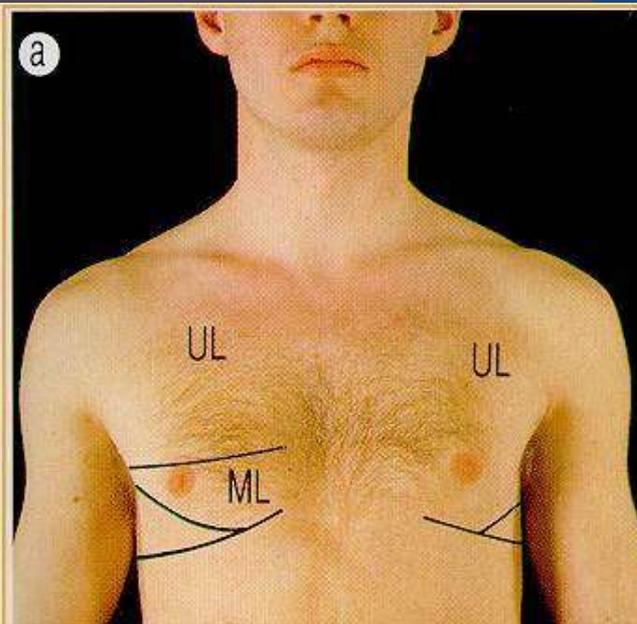
2015



THORAKS

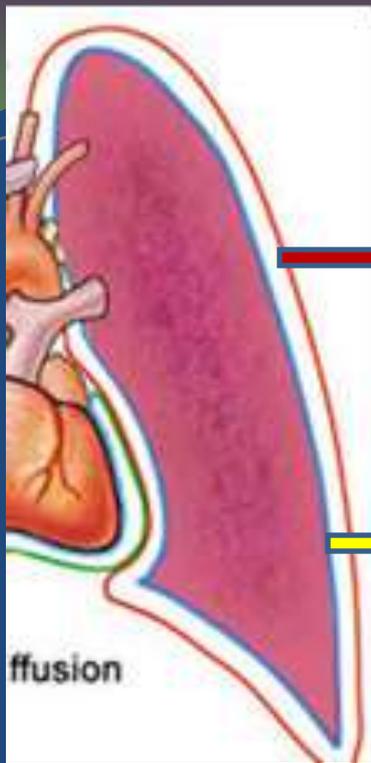


1. Dinding thoraks
2. Pleura
3. Rongga pleura
4. Saluran nafas
5. Jaringan paru



1. Dinding thoraks

- kulit, subkutis, otot, tulang, pembuluh darah, syaraf
- Penghalang bising/suara paru
- Sumber bising : krepitasi subkutis

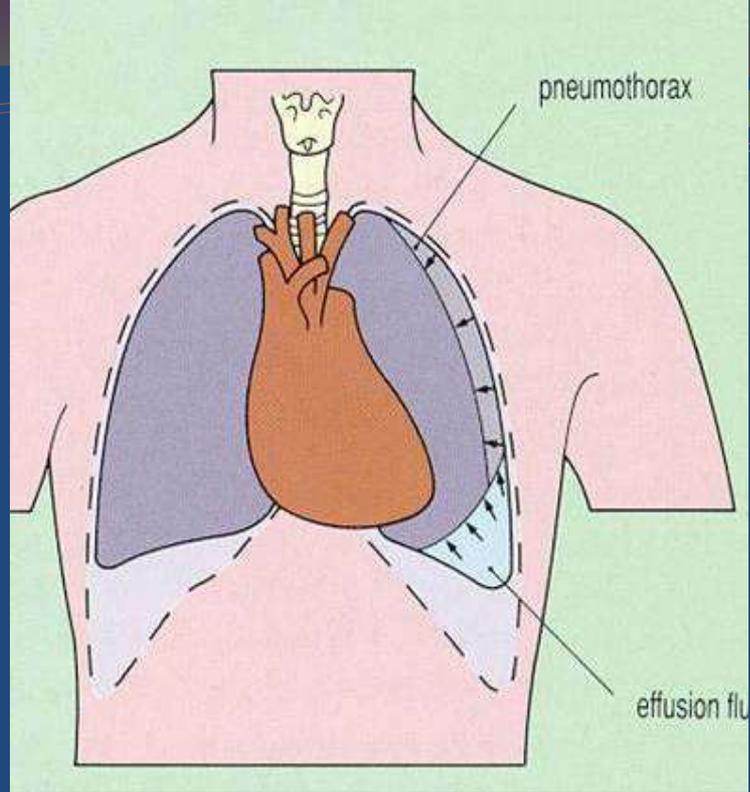


Pleura parietalis

Pleura viseralis

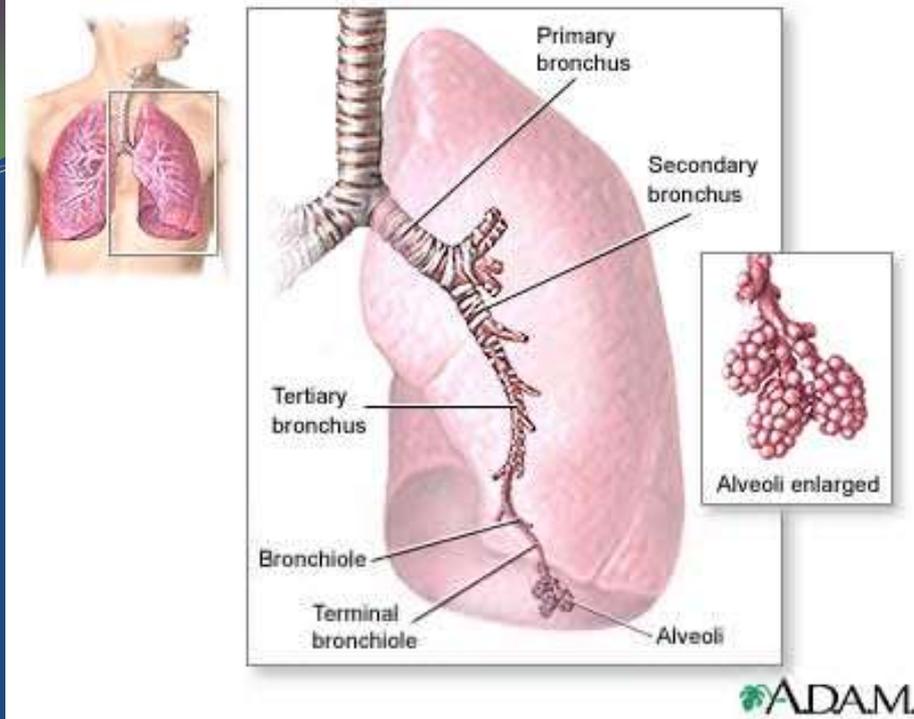
2. Pleura

- Normal tidak mempengaruhi pemeriksaan fisik
- Schwarte/penebalan : menghambat pengembangan paru, penghalang bising/suara paru
- Sumber bising : bising gesek pleura



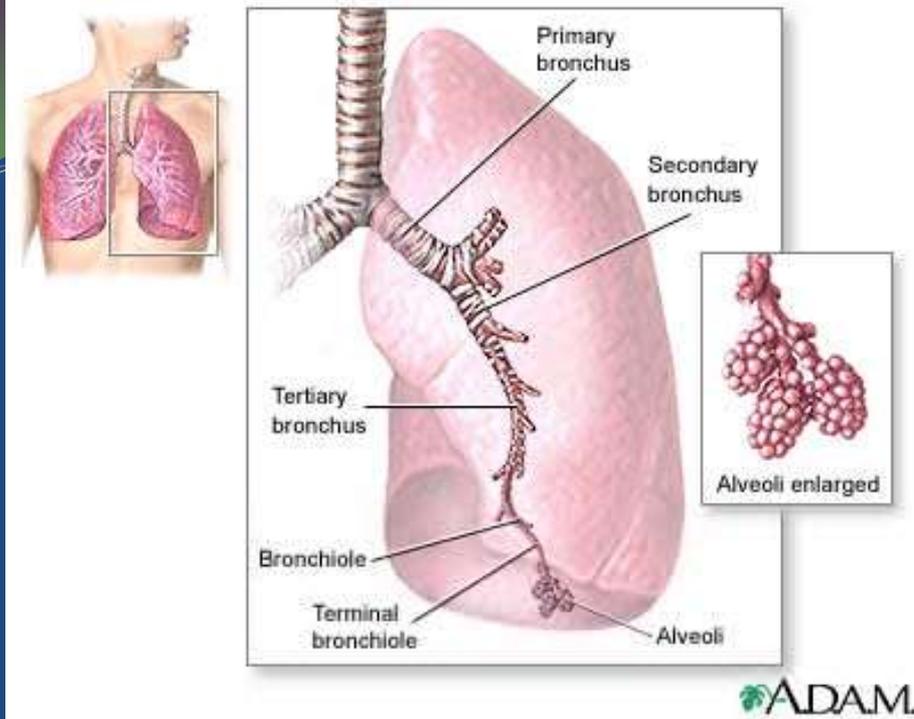
3. Rongga pleura

- Normal tidak mempengaruhi pemeriksaan fisik
- Penghalang bising : bila terisi cairan, udara, jaringan padat
- Sumber bising : succussio hipokrates



4. Saluaran pernafasan

- Trakhea-bronkiolus terminalis
- Sumber bising :
 - bising trachea, bising broncial
 - Wheezing, Ronkhus , Amforik

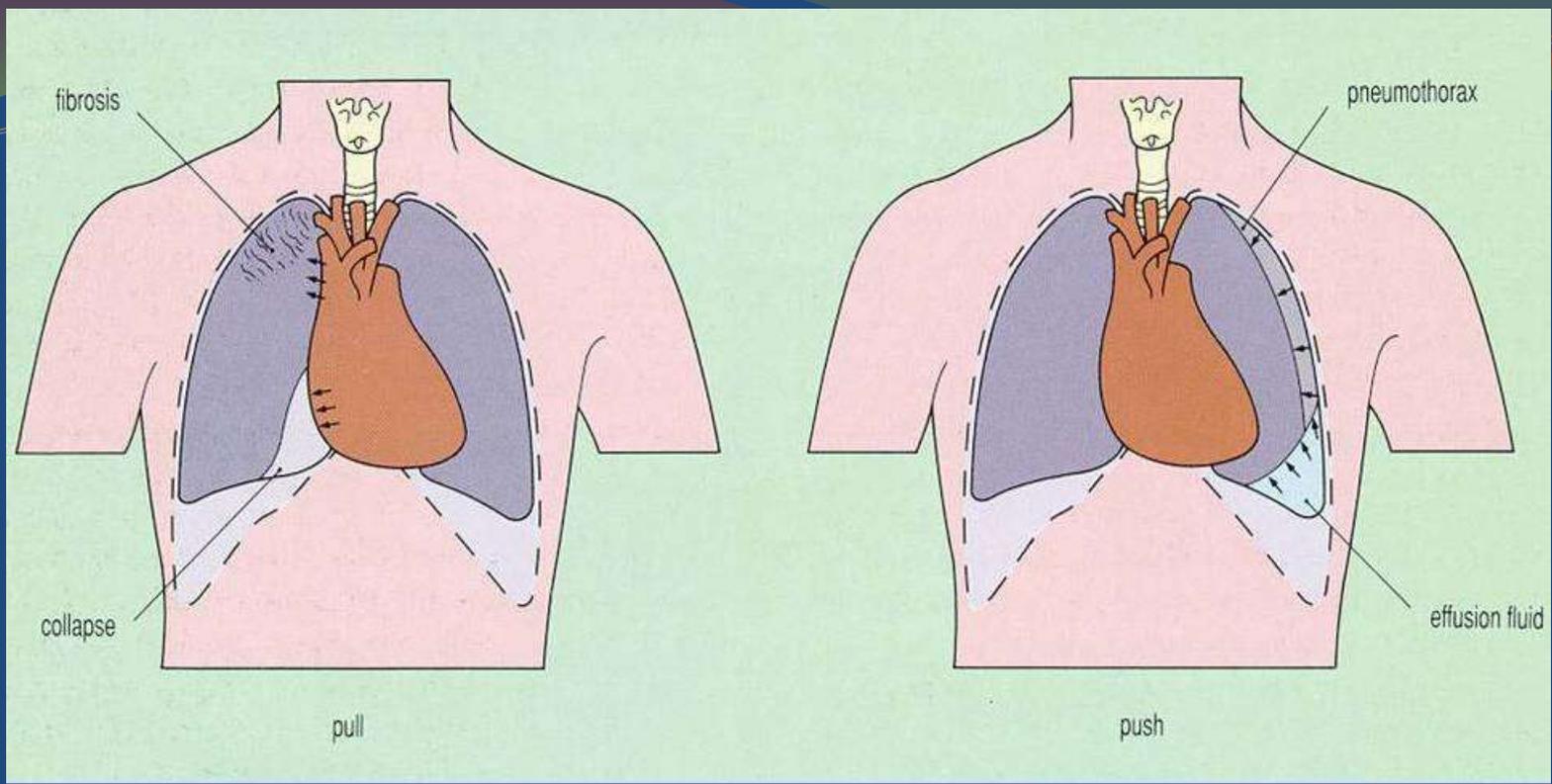


5. Jaringan paru

- Bronchiolus respiratorius- alveolaris
- Sumber bising :
 - bising vesiculer, (suara dasar/pokok)
 - krepitasi, ronkhus halus
- Penghalang bising

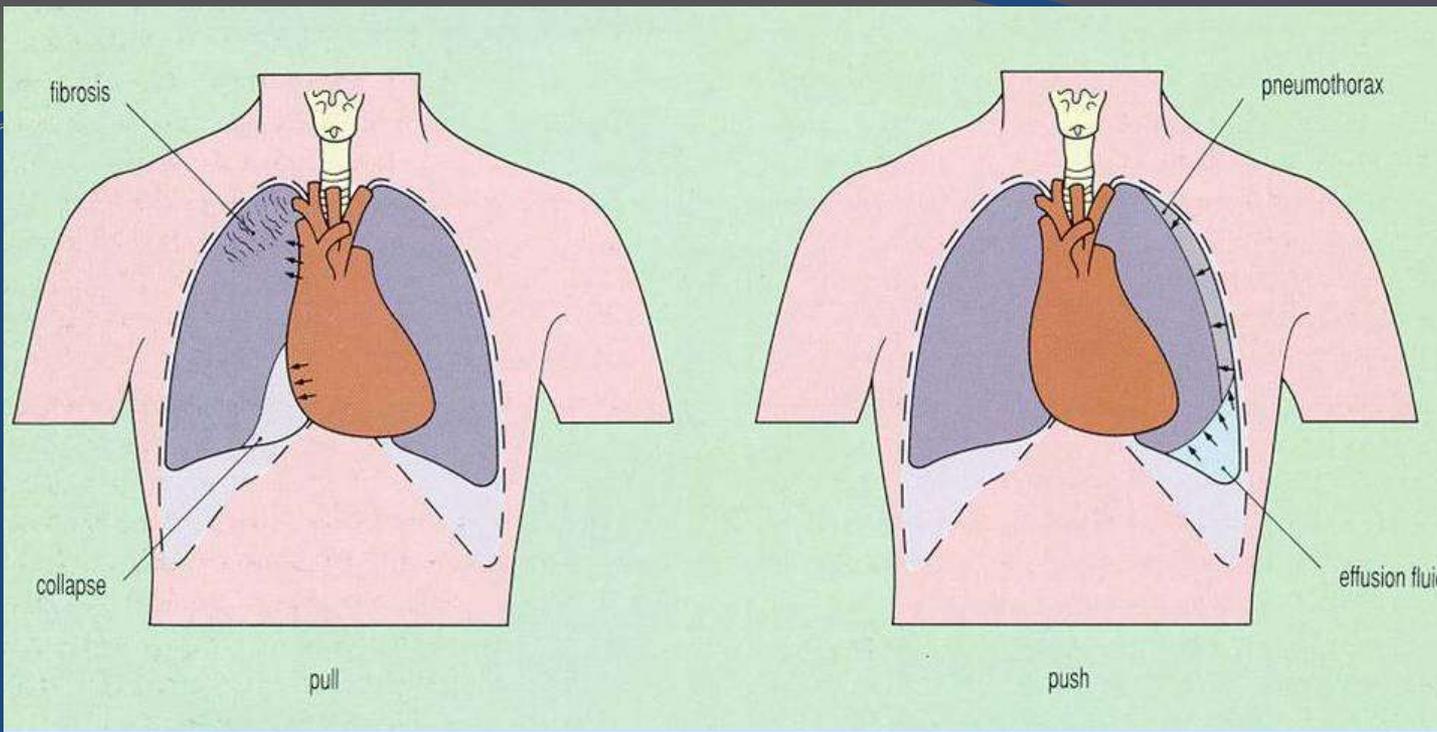
PF Paru berdasar pada

1. Pengembangan alveoli
2. Udara didalam alat pernafasan
3. Arus udara
4. Saluran udara
5. Penghalang



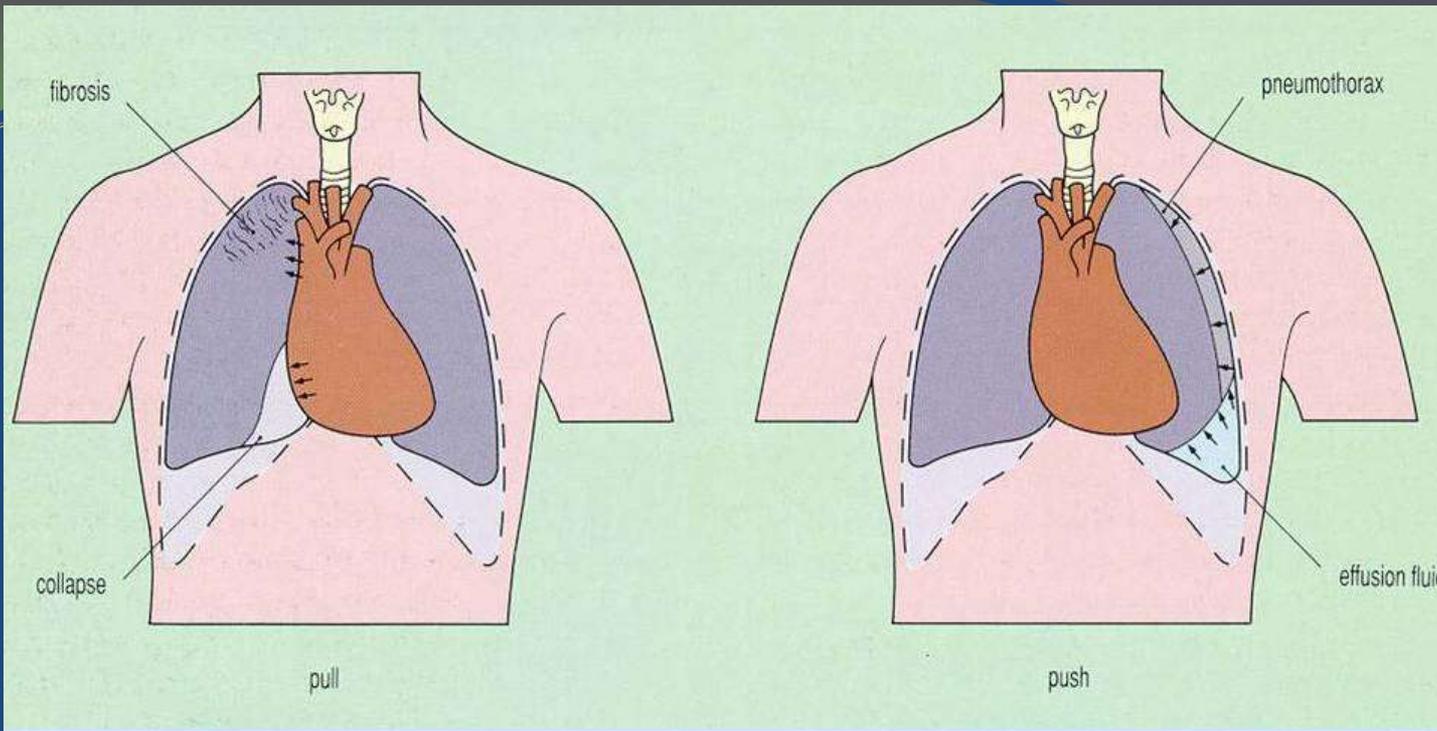
Pengembangan Paru

- Inspeksi:
- Simetris
 - Asimetris
 - Gerakan dinding dada tertinggal



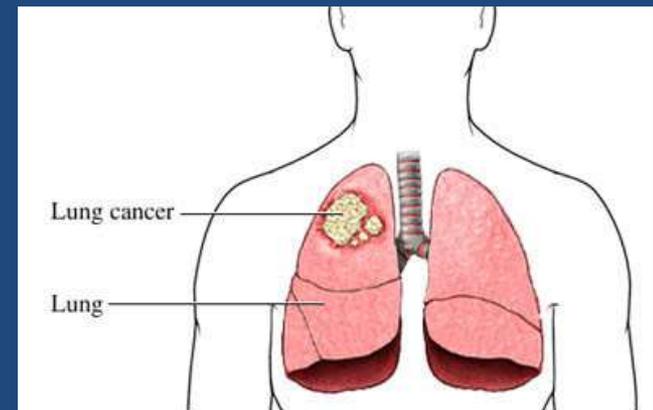
Penghalang

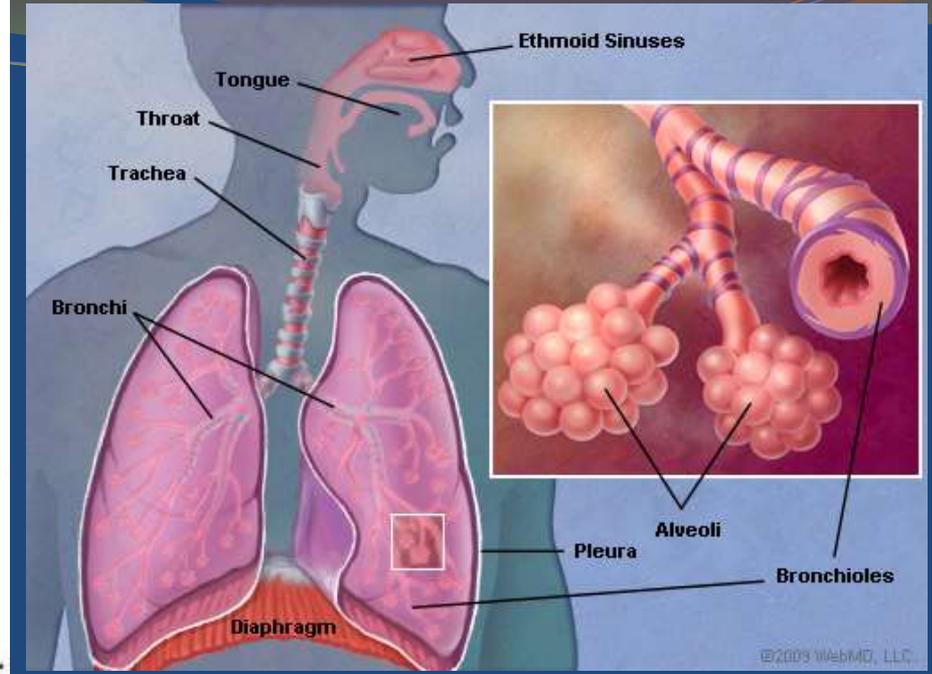
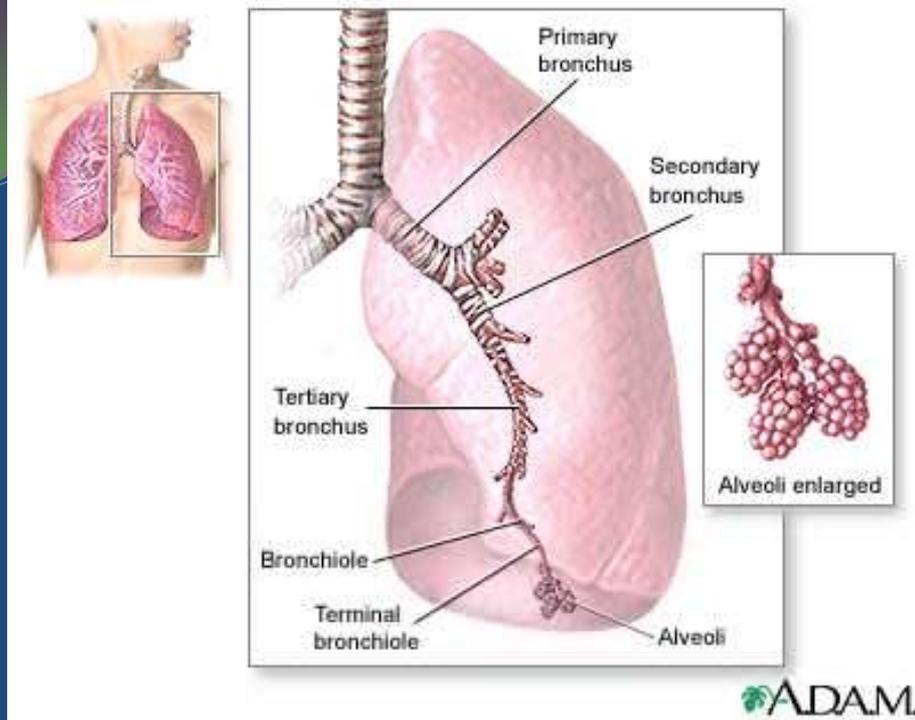
- Palpasi :
- Fremitus normal
 - Fremitus mengeras
 - Fremitus melemah



Udara didalam alat pernafasan

- Perkusi :
- bising ketok sonor
 - bising ketok hipersosnor
 - bising ketok redup
 - bising ketok pekak

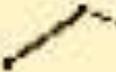


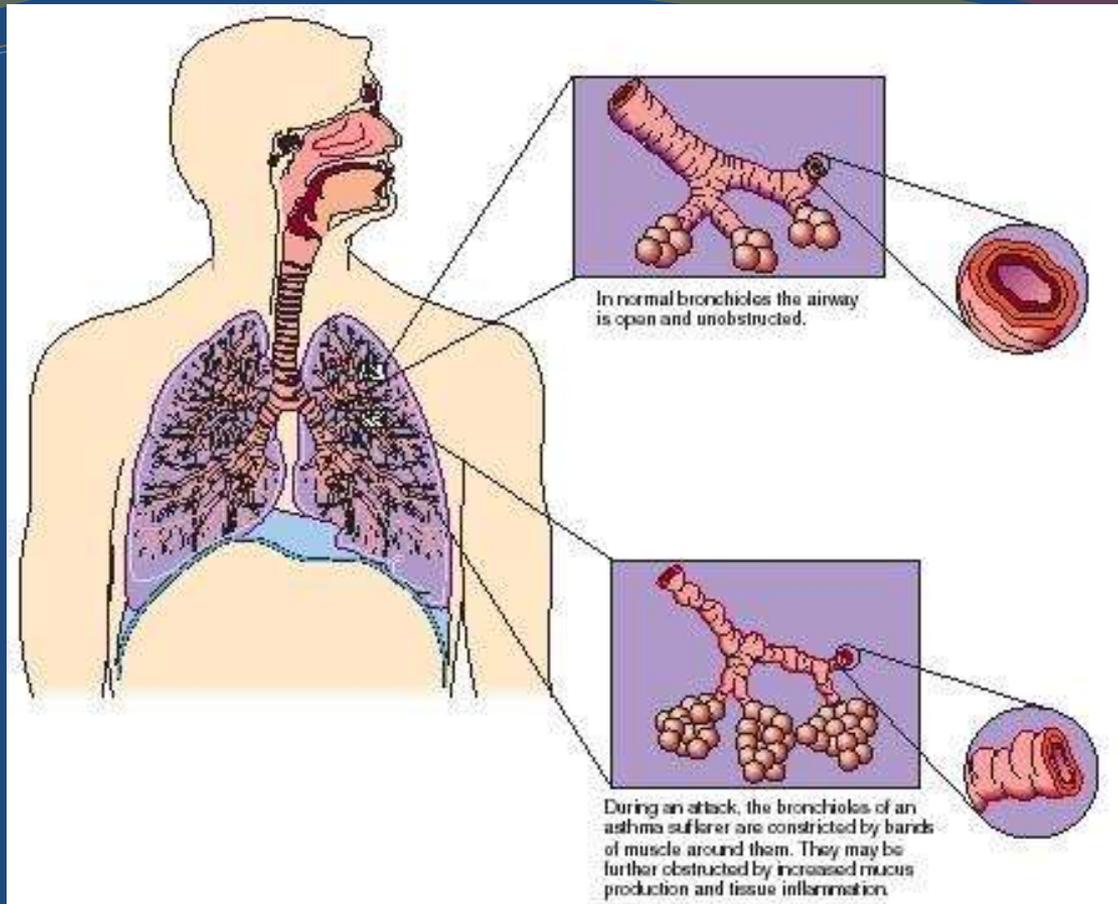


Arus udara

- Auskultasi :
- bising tracheal
 - bising bronchial
 - bising vesikuler

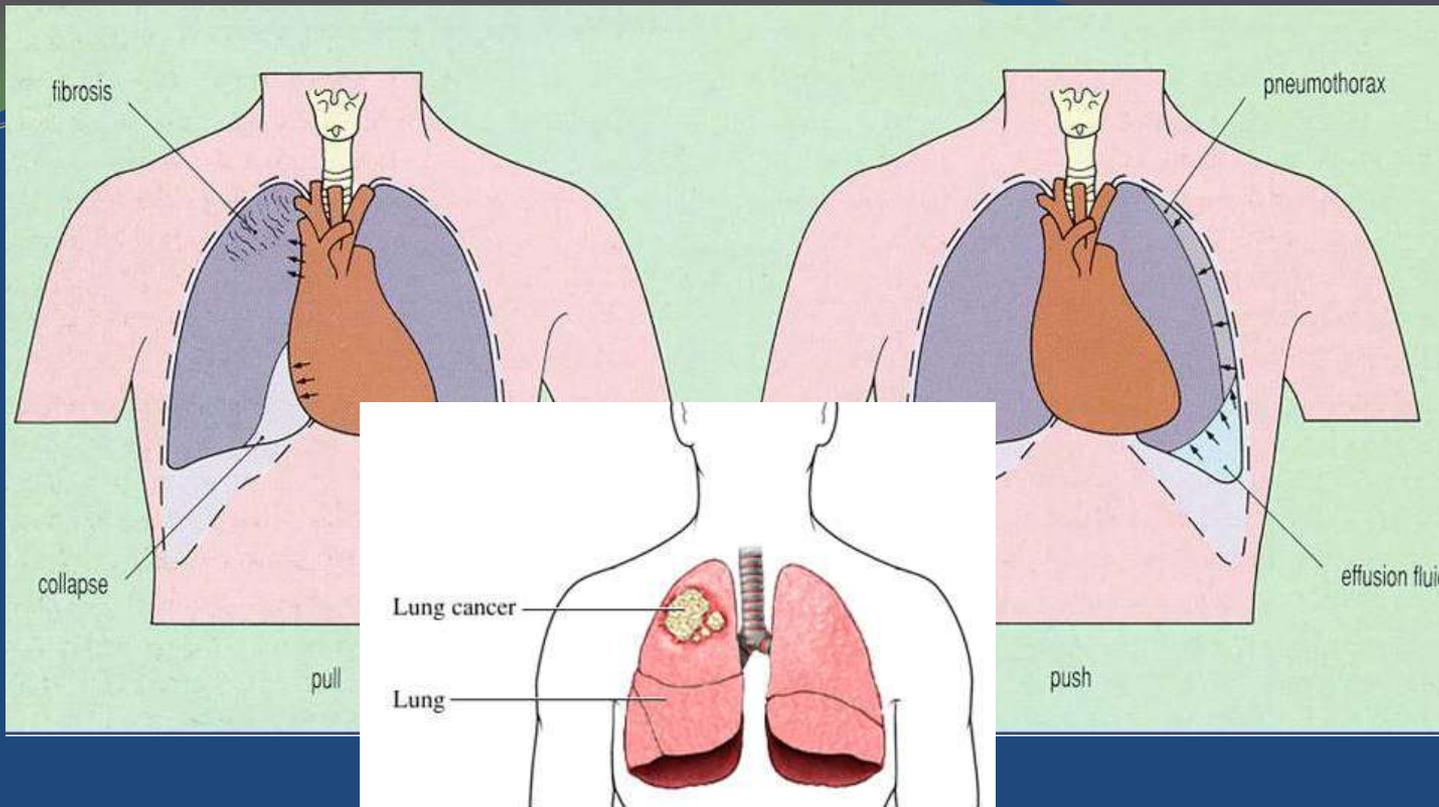
Characteristics of Breath Sounds

	Duration of Sounds	Intensity of Expiratory Sound	Pitch of Expiratory Sound	Locations Where Heard Normally
Vesicular* 	Inspiratory sounds last longer than expiratory ones.	Soft	Relatively low	Over most of both lungs
Broncho-vesicular 	Inspiratory and expiratory sounds are about equal.	Intermediate	Intermediate	Often in the 1st and 2nd interspaces anteriorly and between the scapulae
Bronchial 	Expiratory sounds last longer than inspiratory ones.	Loud	Relatively high	Over the manubrium, if heard at all
Tracheal 	Inspiratory and expiratory sounds are about equal.	Very loud	Relatively high	Over the trachea in the neck



Saluran udara

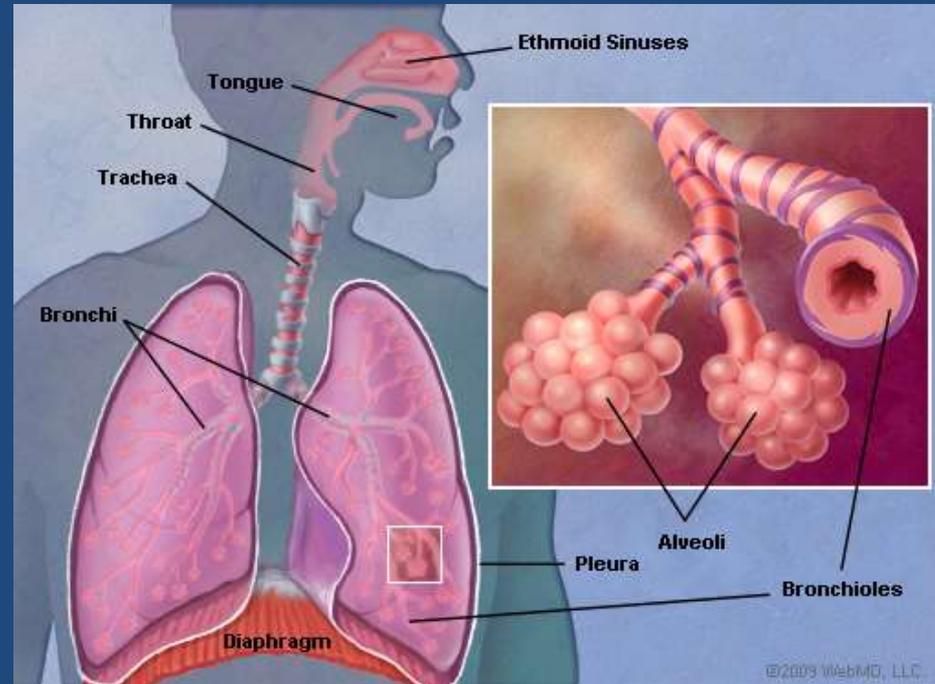
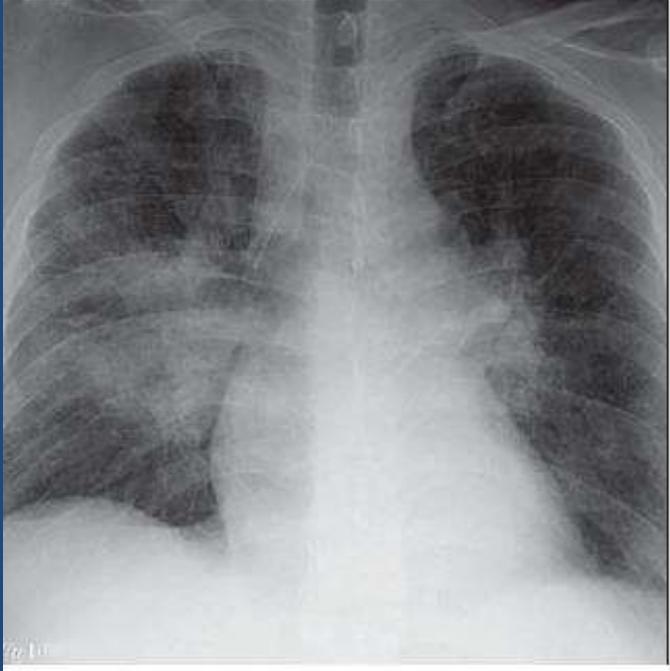
- Penyempitan :
 - bising diperkeras
 - wheezing



Penghalang

- Auskultasi :
- Suara nafas menurun
 - Suara nafas menghilang

Infiltrat paru/konsolidasi



Infiltrat paru media penghantar suara yang baik

- Auskultasi :
- Suara nafas mengeras
 - Suara nafas bronkial
 - Ronki basah

Pemeriksaan fisik pada kelainan paru

Kelainan	Inspeksi	Palpasi	Perkusi	Auskultasi
Asma br./ Emfisema	Simetris Hprinflasi Ics >	Ekspansi ↓ Fremitus ↓	Hprsonor Dfrgma ↓	Wheezing (+) Ekspirasi pjg
Konsolidasi	Btk tetap Grk nps ↓	Grk nps ↓ Fremitus ↑	Redup	Bronkial Ronki (+) Brfoni (+)
Efusi pleura	Asimetris Grk nps ↓ Ics >	Pendo- rongan Grk nps ↓ Fremitus ↓	Redup	Suara nps ↓ sp tdk terde- ngar

Pemeriksaan fisik pada kelainan paru

Kelainan	Inspeksi	Palpasi	Perkusi	Auskultasi
Pneumotoraks	Asimetris Grk nps ↓ Ics >	Pendorongan Grk nps ↓ Fremitus ↓	Hiper sonor	Suara nps ↓ sp tdk terdengar
Atelektasis	Asimetris Grk nps ↓	Penarikan Grk nps ↓ Fremitus ↓	Redup	Suara nps ↓ sp tdk terdengar
Fibrosis	Asimetris Grk nps ↓ Ics <	Penarikan Grk nps ↓ Fremitus ↑	Redup	Suara nps ↓ Ronki (+)