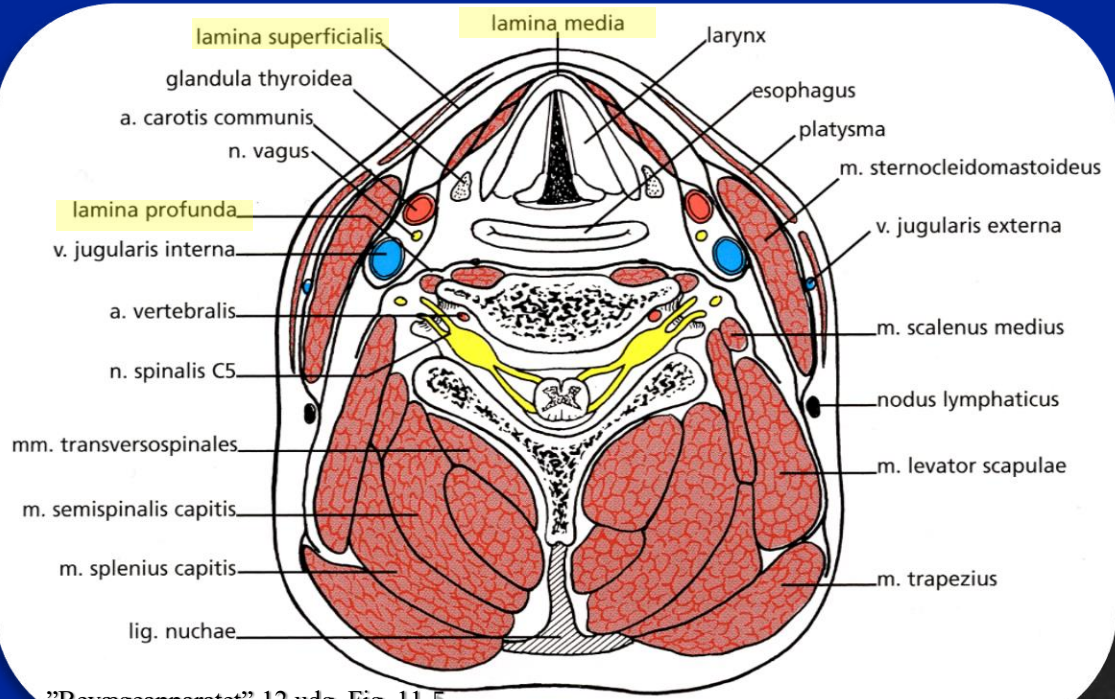


Halsens blødddele og Thorax 1

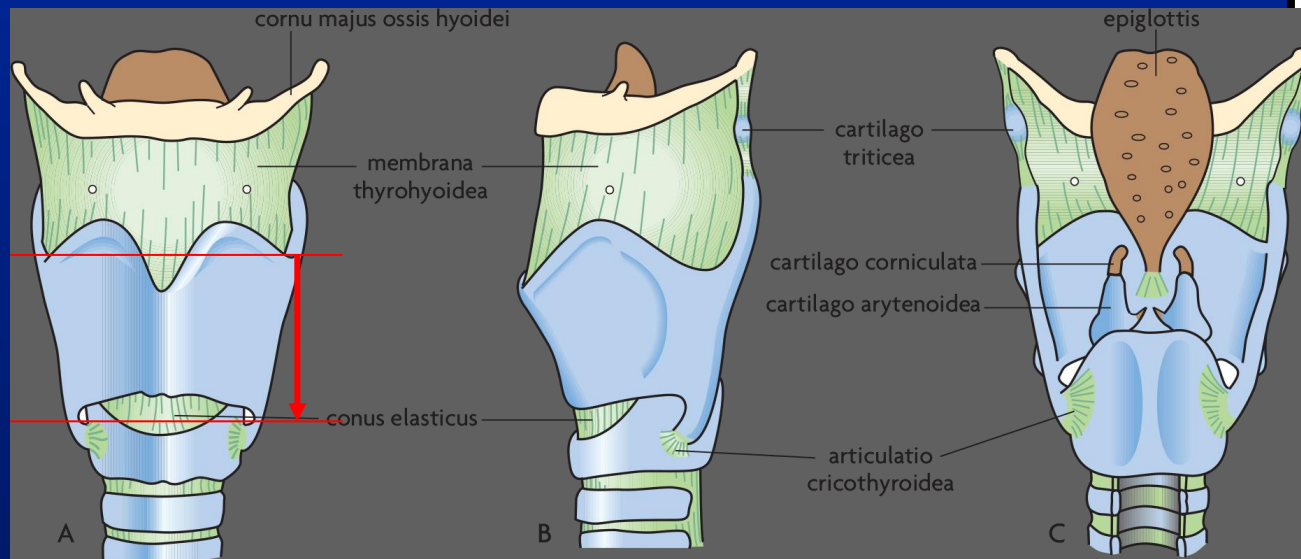
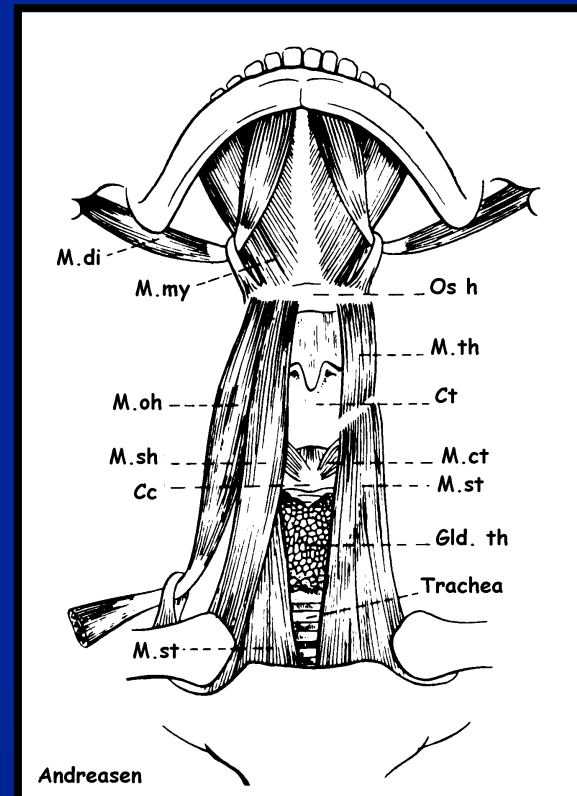
Michel Bach Hellfritzsch



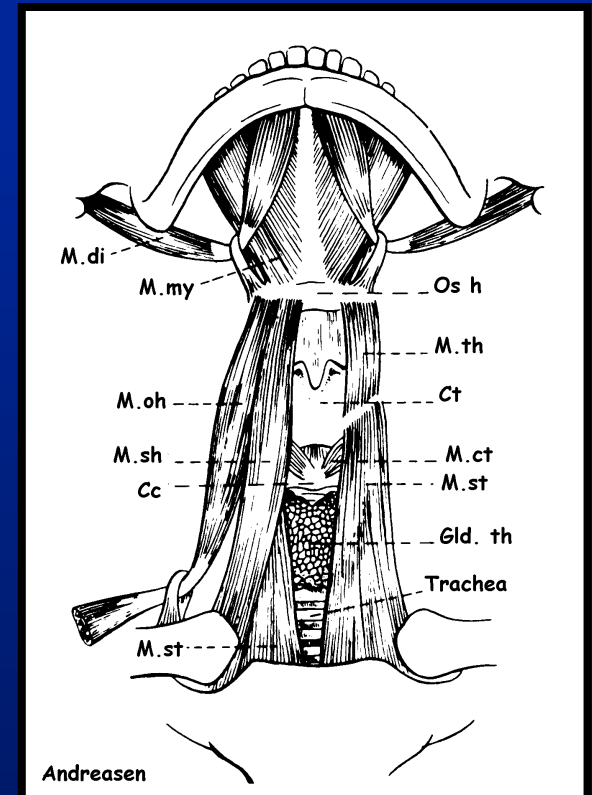
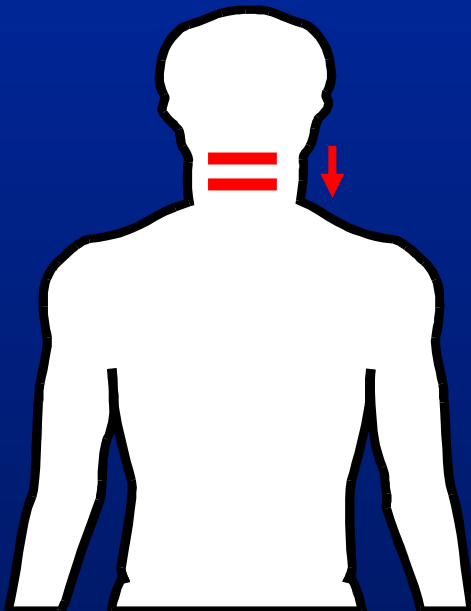
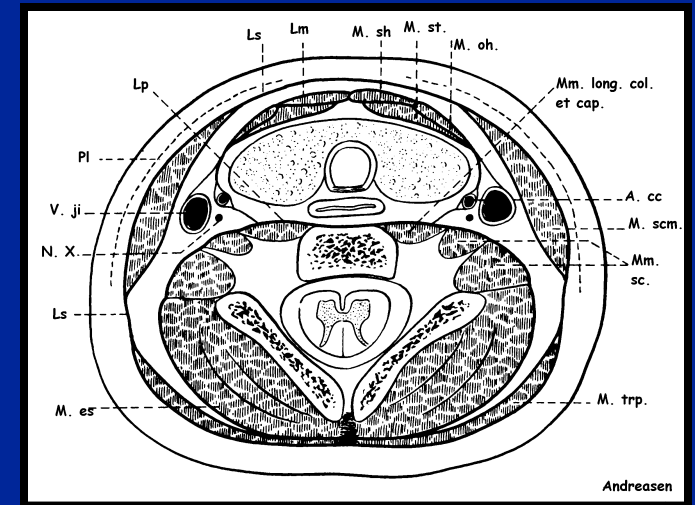
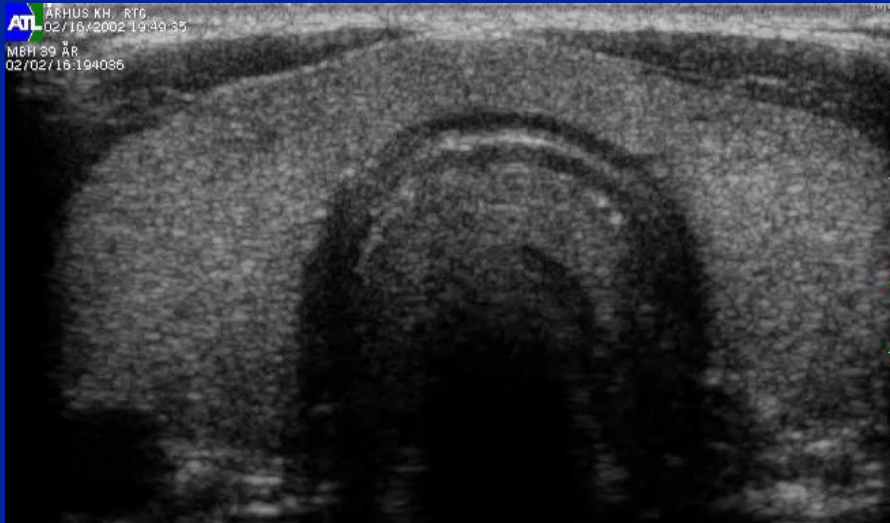


"Bevægeapparatet" 12.udg. Fig. 11-5

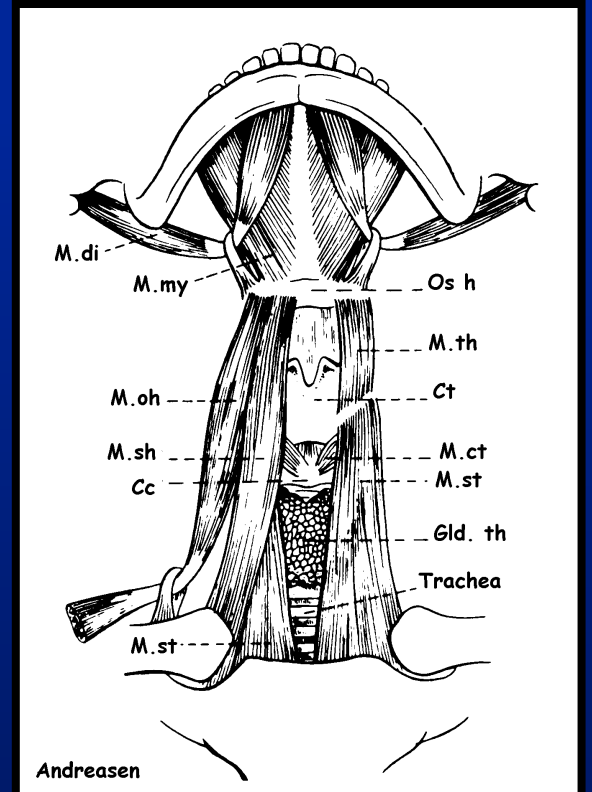
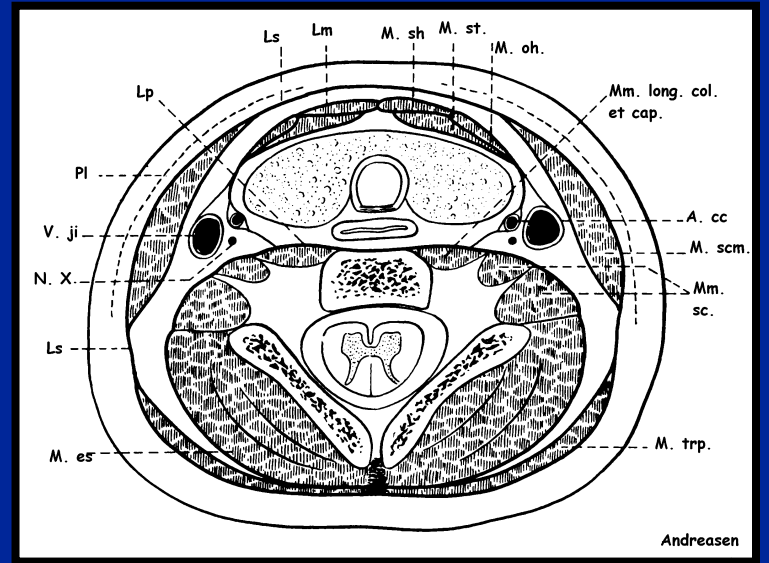
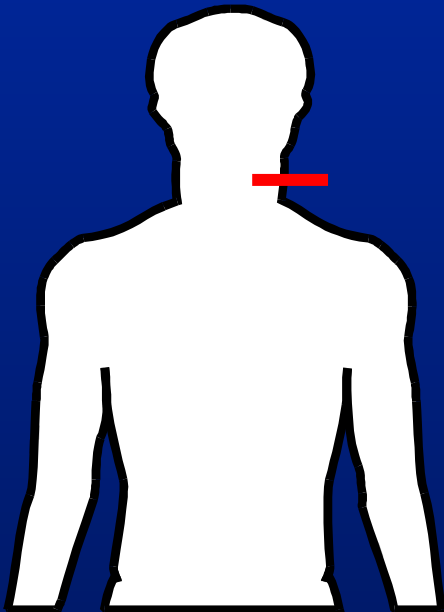




HOVEDETS, HALSENS OG DE INDRE
ORGANERS ANATOMI



ARHUS KH. RTG
 10/16/2002 17:49:32
 SBH 9 År
 02/10/16.174614



Pharynx - Svælget



Rtg.

Pharynx

- Pars nasalis pharyngis:

Fra basis cranii til den bløde gane.

- Pars oralis pharyngis:

Fra den bløde gane til overkanten af strubelåget

- Pars laryngea pharyngis:

Fra overkanten af strubelåget til et plan gennem underkanten af cartilago cricoidea.



Rtg.



MR T1



Rtg.

Pharynx

- Pars nasalis pharyngis:

Fra basis cranii til den bløde gane.



Pharynx

- Pars oralis pharyngis:

Fra den bløde gane til overkanten af strubelåget.



Pharynx

- Pars laryngea pharyngis:

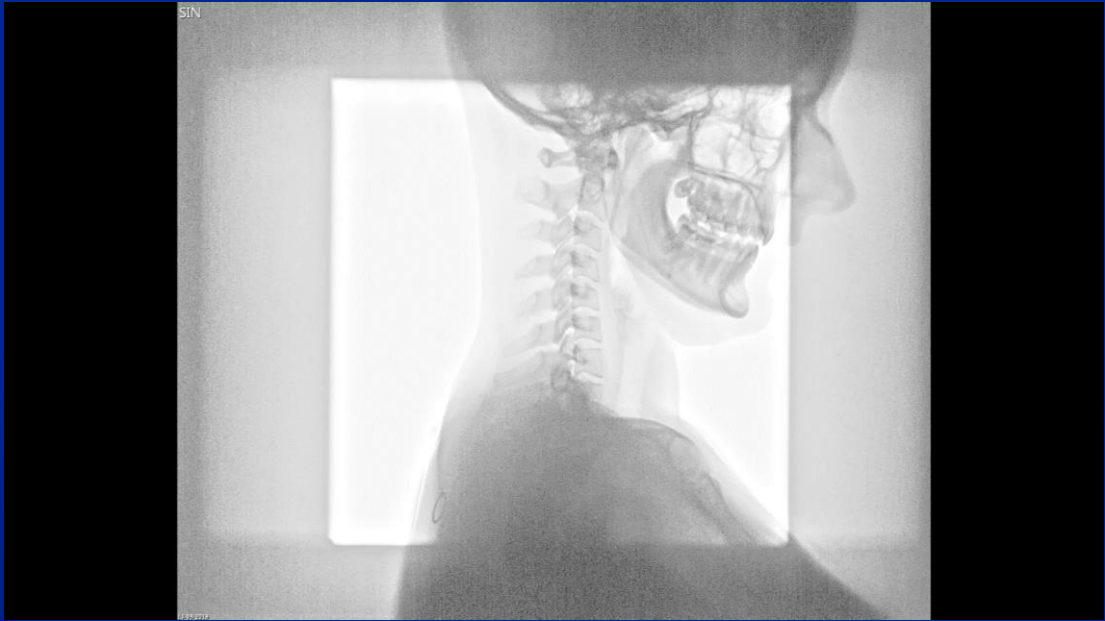
Fra overkanten af epiglottis til et plan gennem underkanten af cartilago cricoidea.



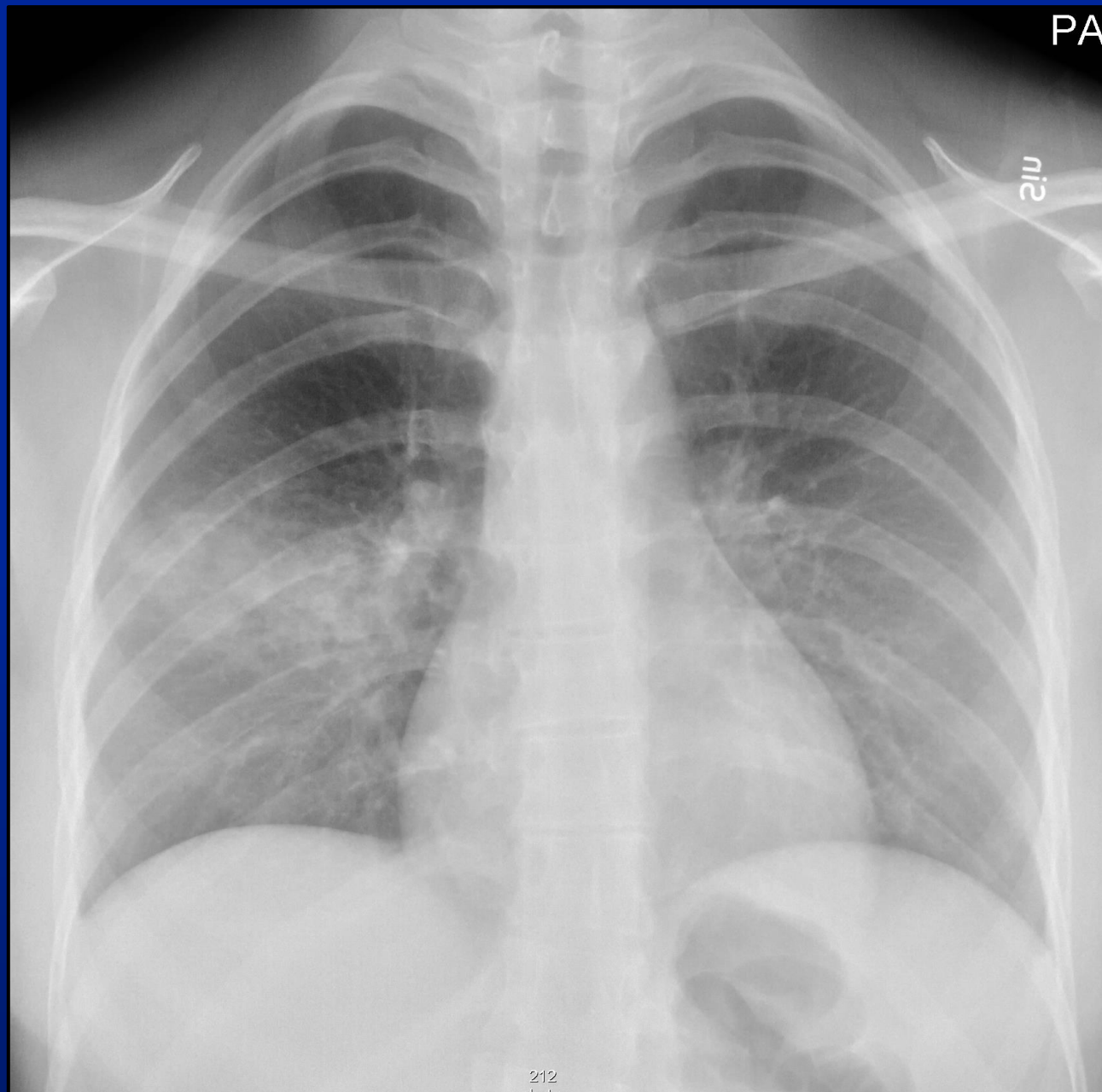


- 1) Rhinopharynx
- 2) Oropharynx
- 3) Laryngopharynx
- 4) Palatum molle
- 5) Vallecula epiglottica
- 6) Epiglottis
- 7) Cartilago thyroidea*
- 8) Cartilago cricoidea*
- 9) Os hyoideum

* Bemærk at brusk normalt ikke kan ses på røntgenbilleder, da det har samme røntgentæthed som bløddelsvæv i øvrigt (fraregnet fedtvæv!). Imidlertid kommer der med årene forkalkning/ossifikation i bruskvævet som i dette tilfælde, hvorfor brusken bliver "synlig".

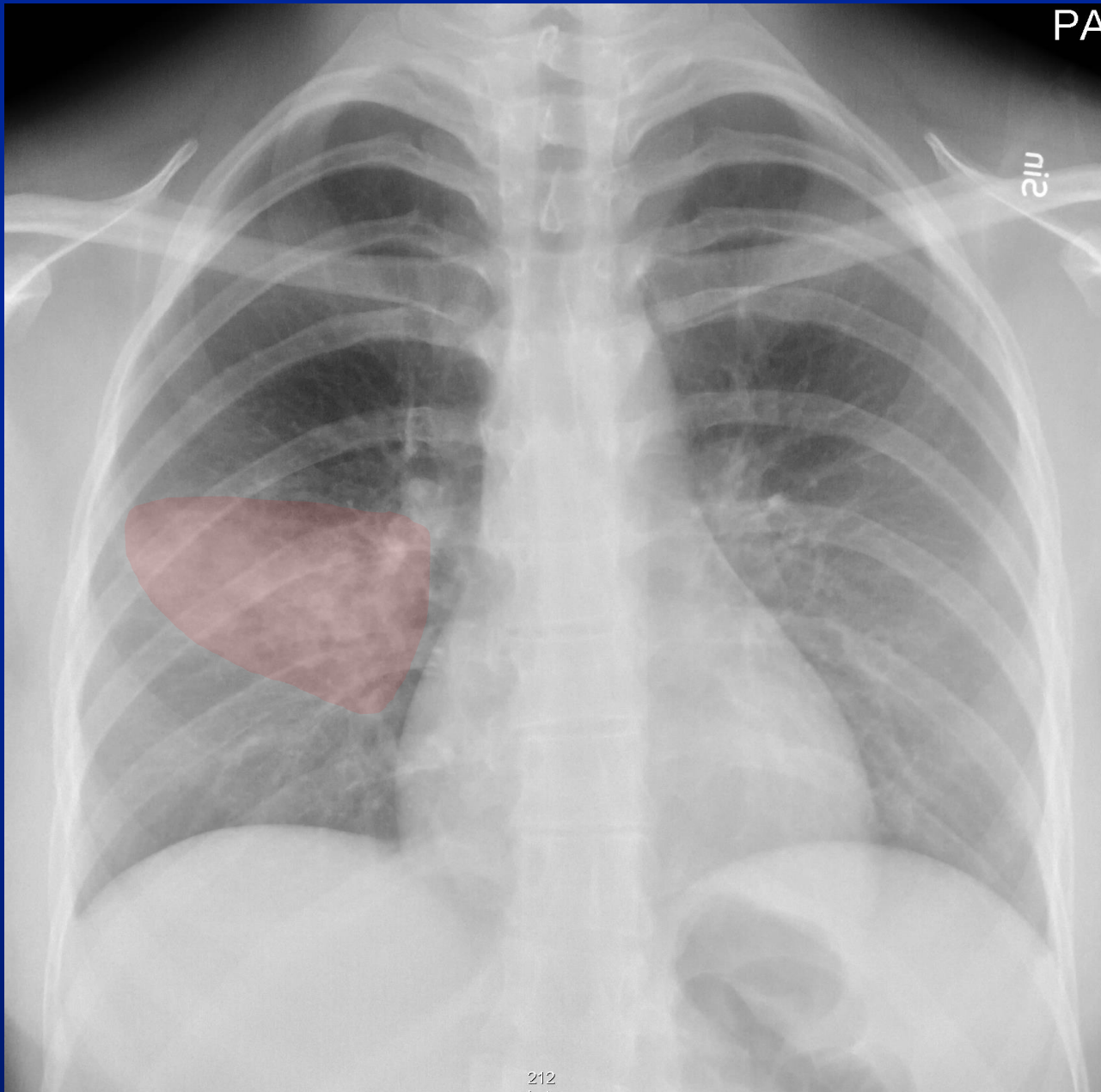


Thorax



Rtg. af thorax PA

Yngre kvinde med
feber og hoste

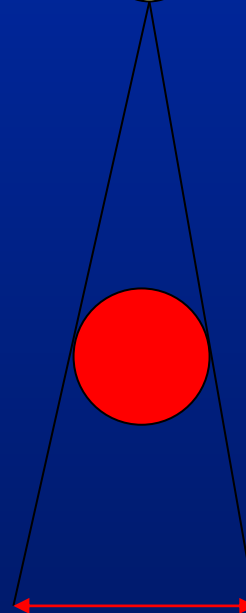
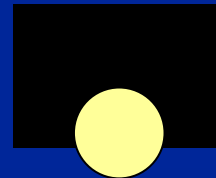
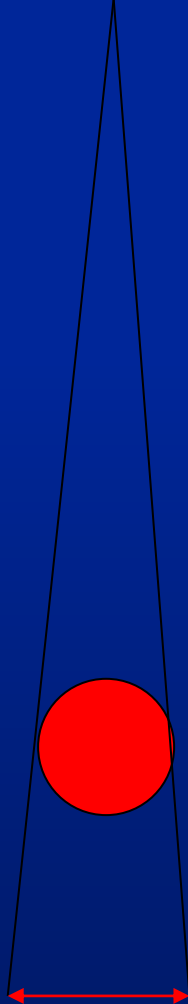
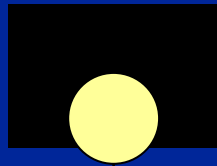


Rtg. af thorax PA

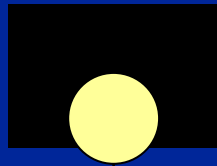
Yngre kvinde med
pneumonisk
infiltrat i højre
lunge
(lungebetændelse)

Thorax – principper for optagelsen

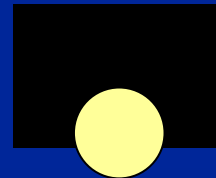
Geometrisk forstørrelse



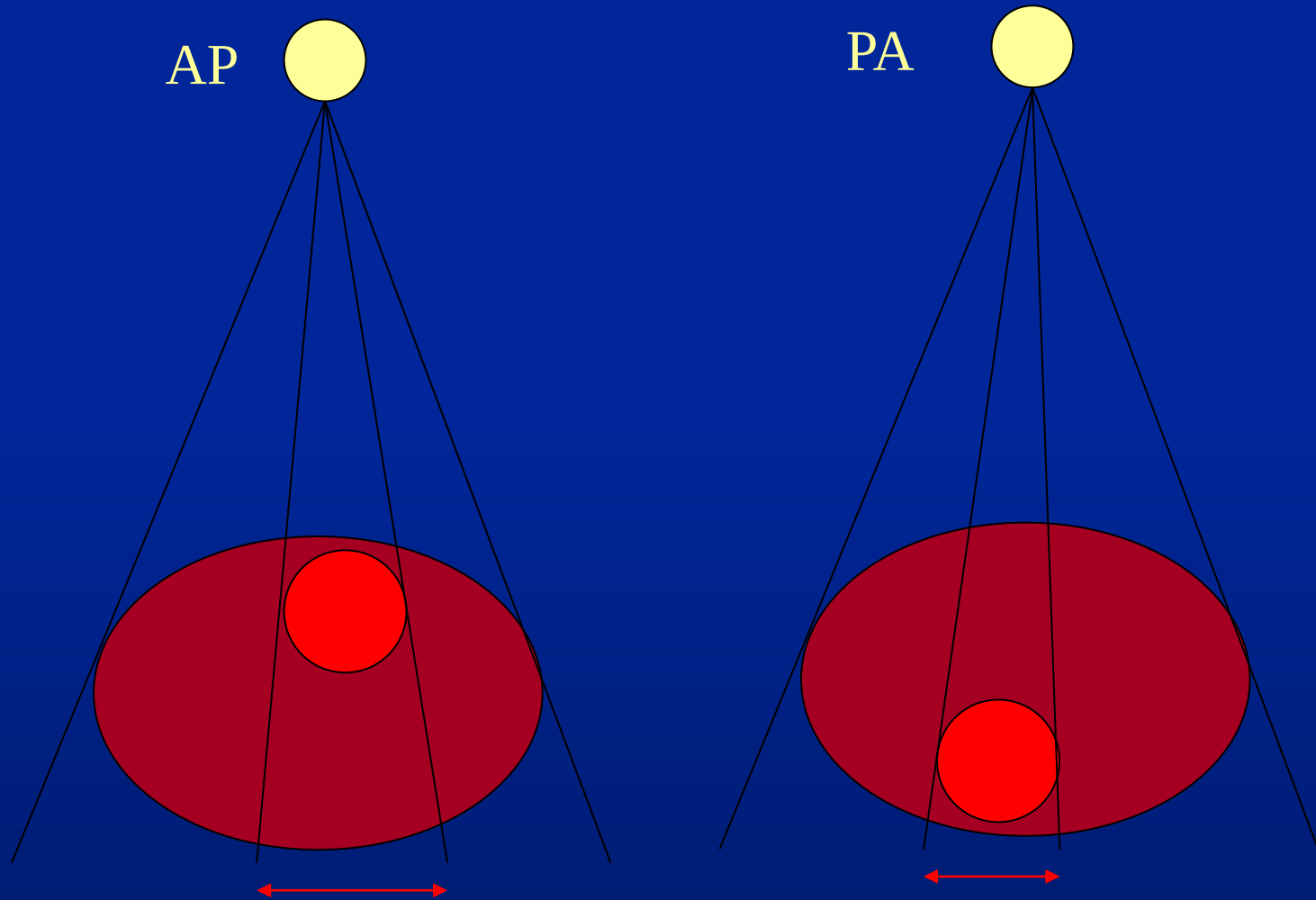
Geometrisk forstørrelse



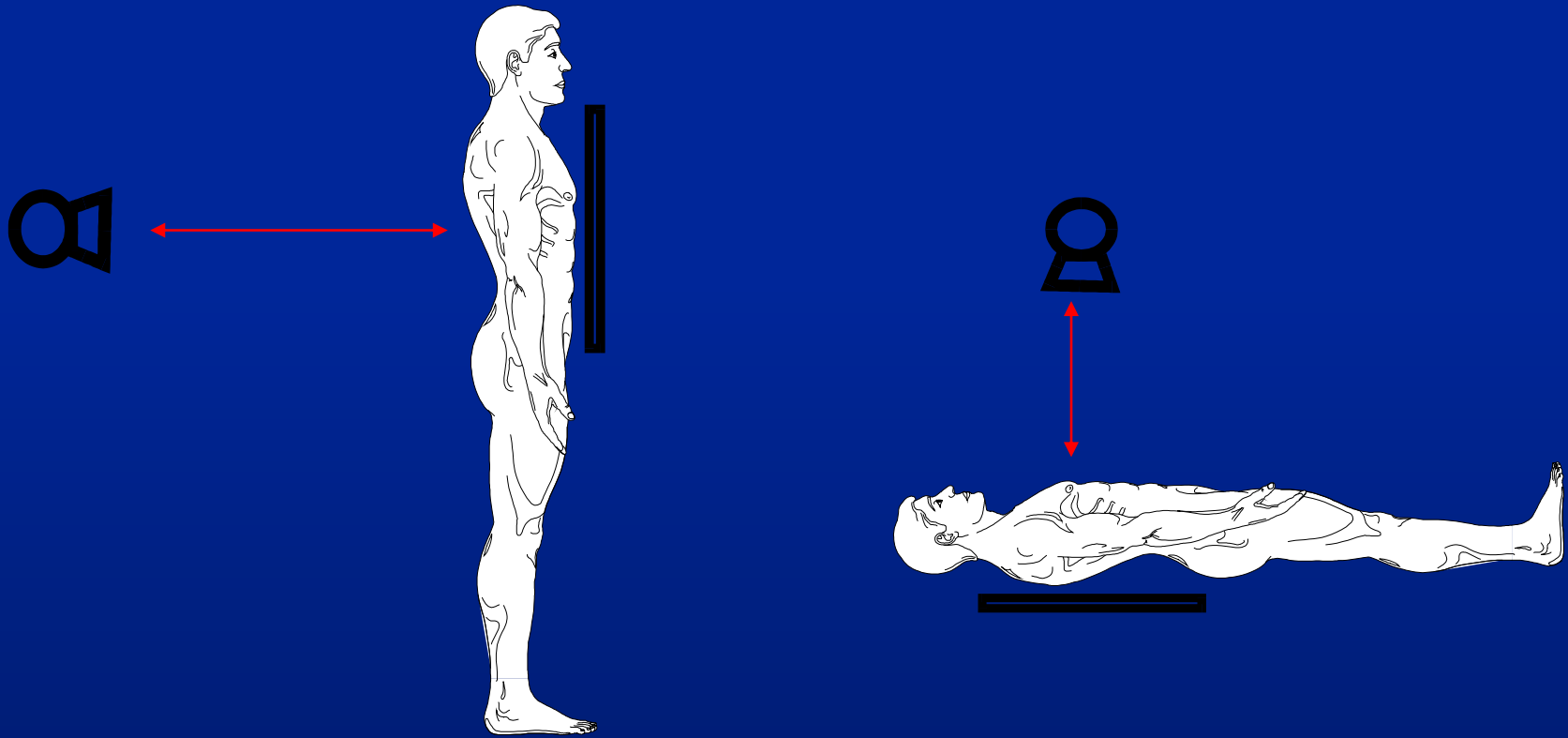
Jo større afstand der er mellem lyskilden (røntgenrøret) og objektet der belyses, jo mindre bliver forstørrelsen af den skygge (røntgenbillede) der dannes. Den forstørrelse der bliver, kaldes den geometriske forstørrelse



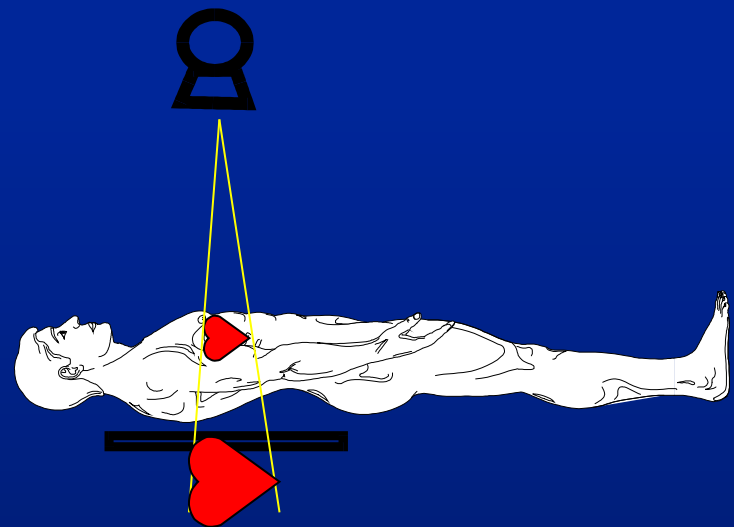
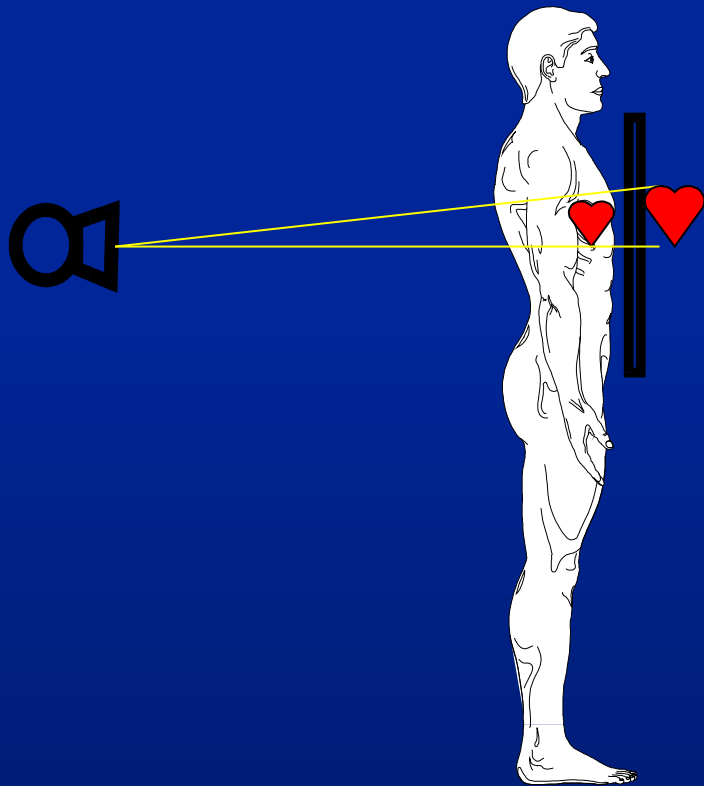
Geometrisk forstørrelse

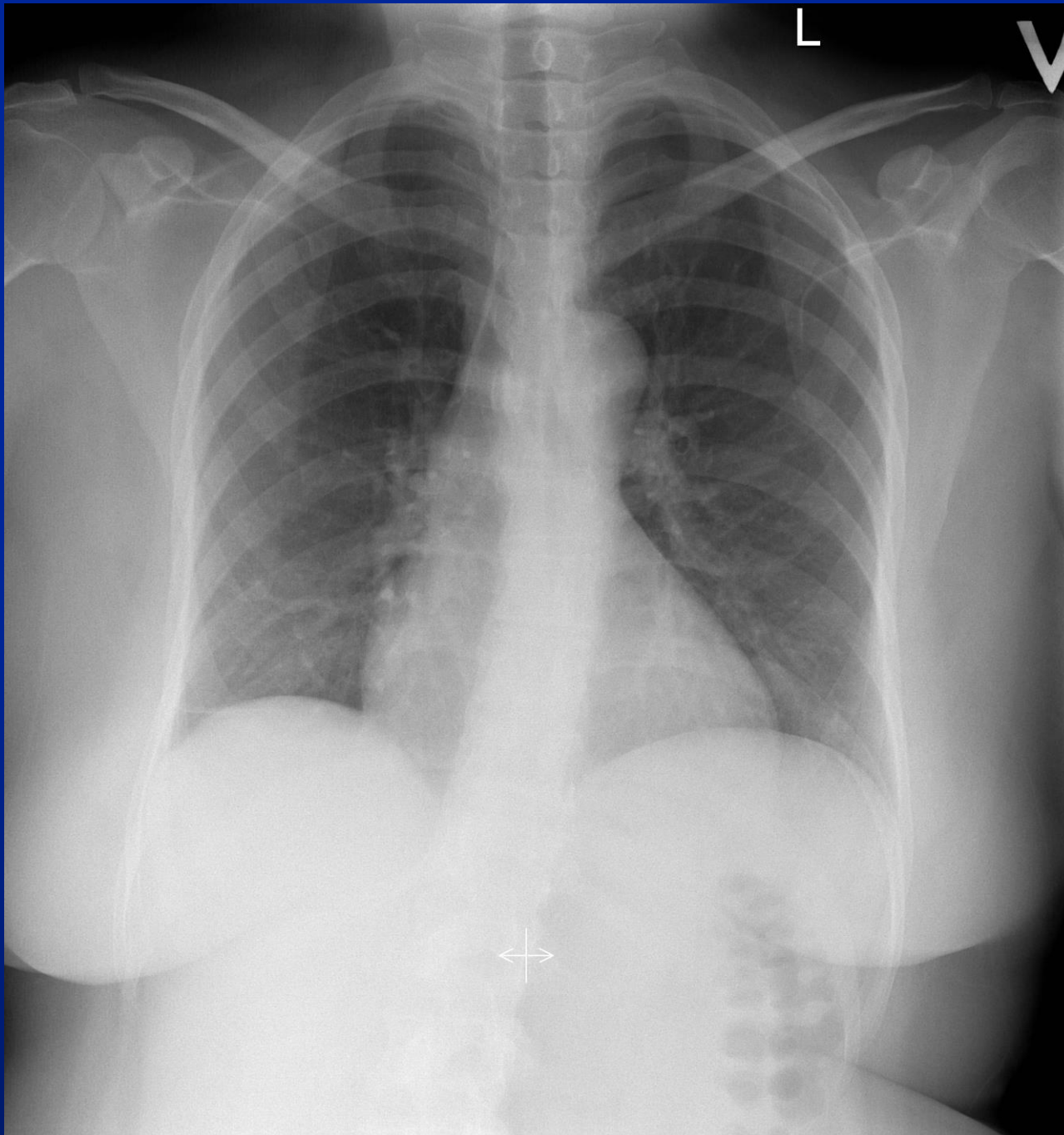


Røntgenoptagelse af thorax: PA og AP optagelser (Stående/liggende)

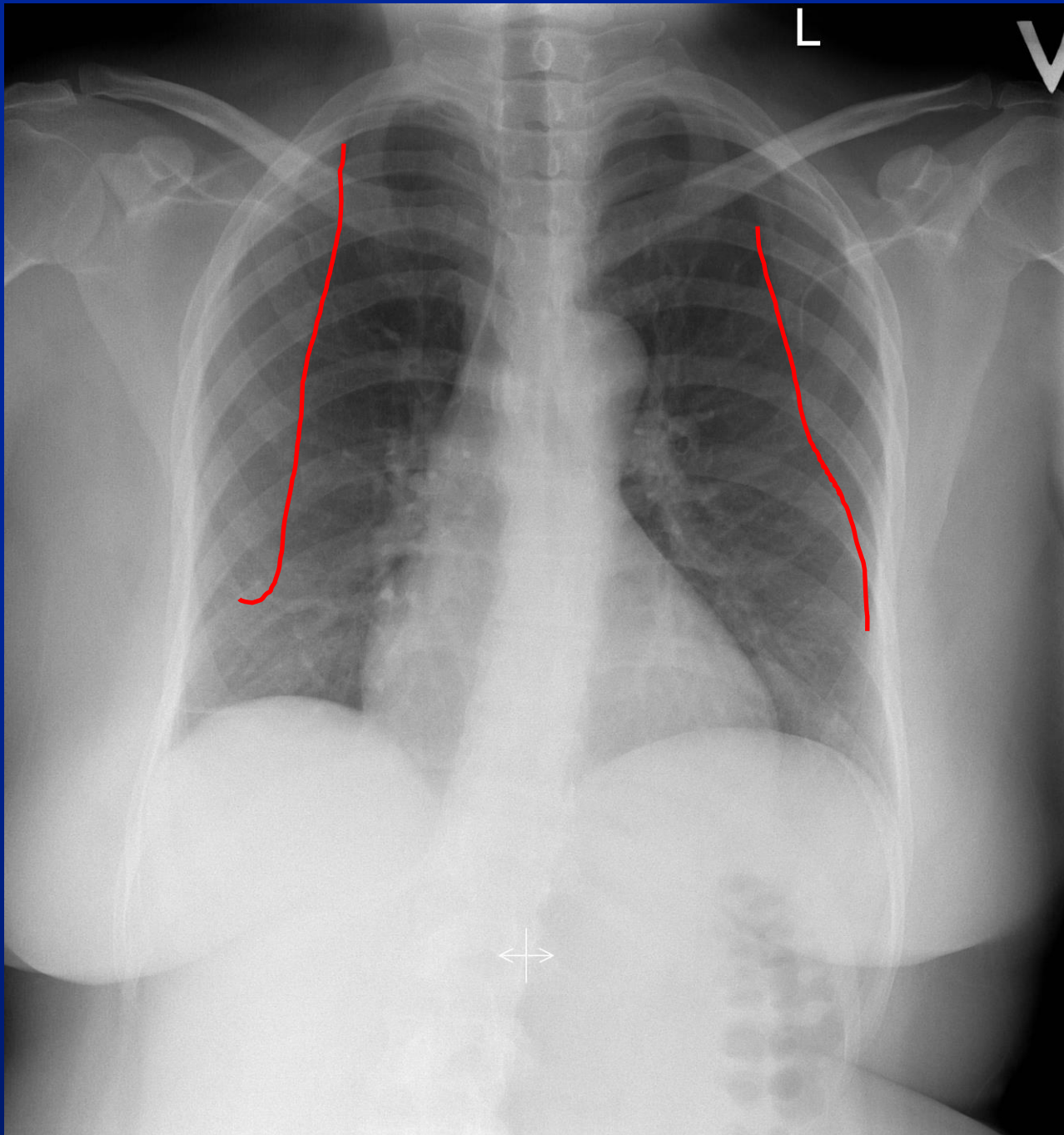


Geometrisk forstørrelse



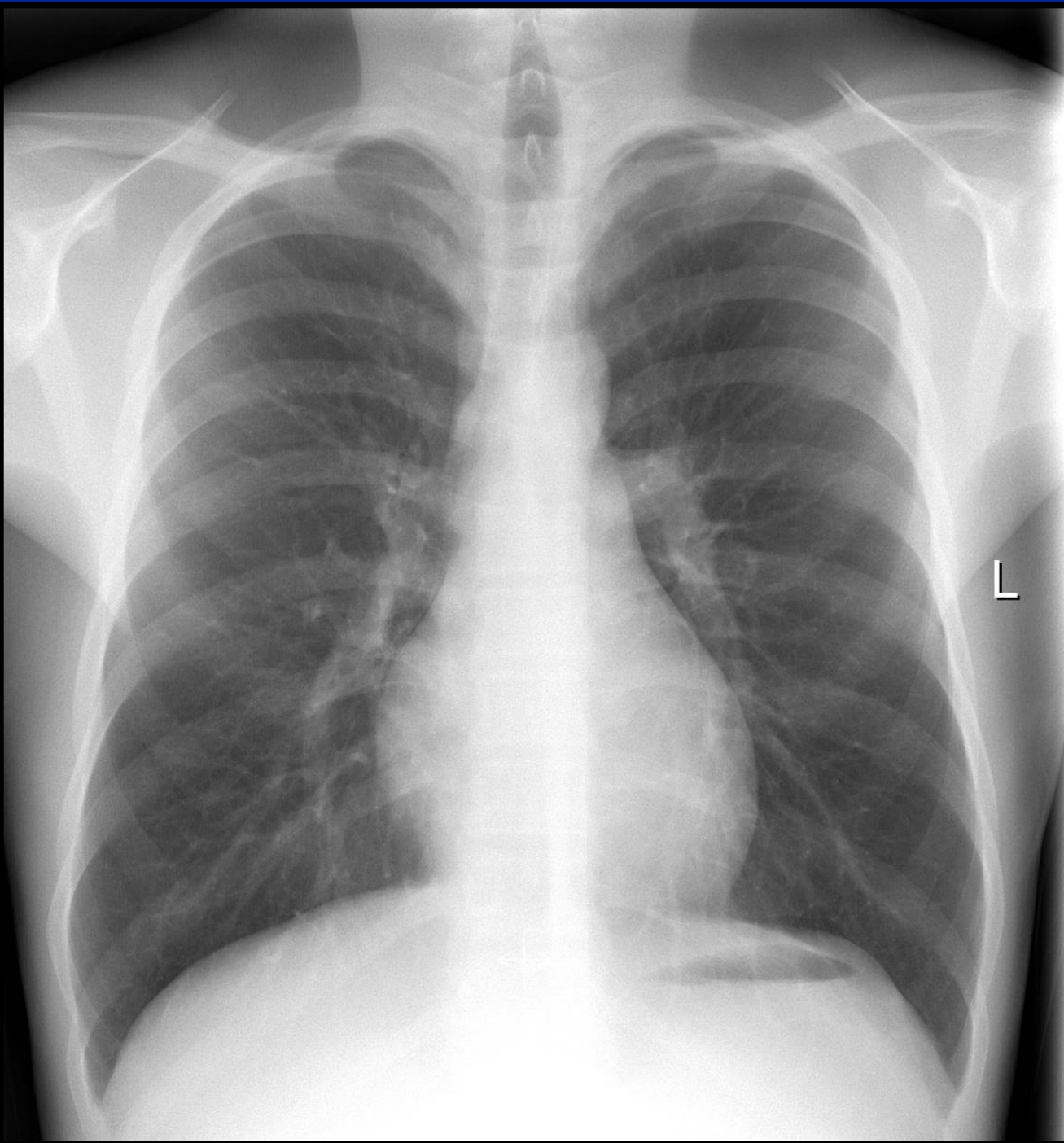


Thorax PA optagelse:
Scapulae.

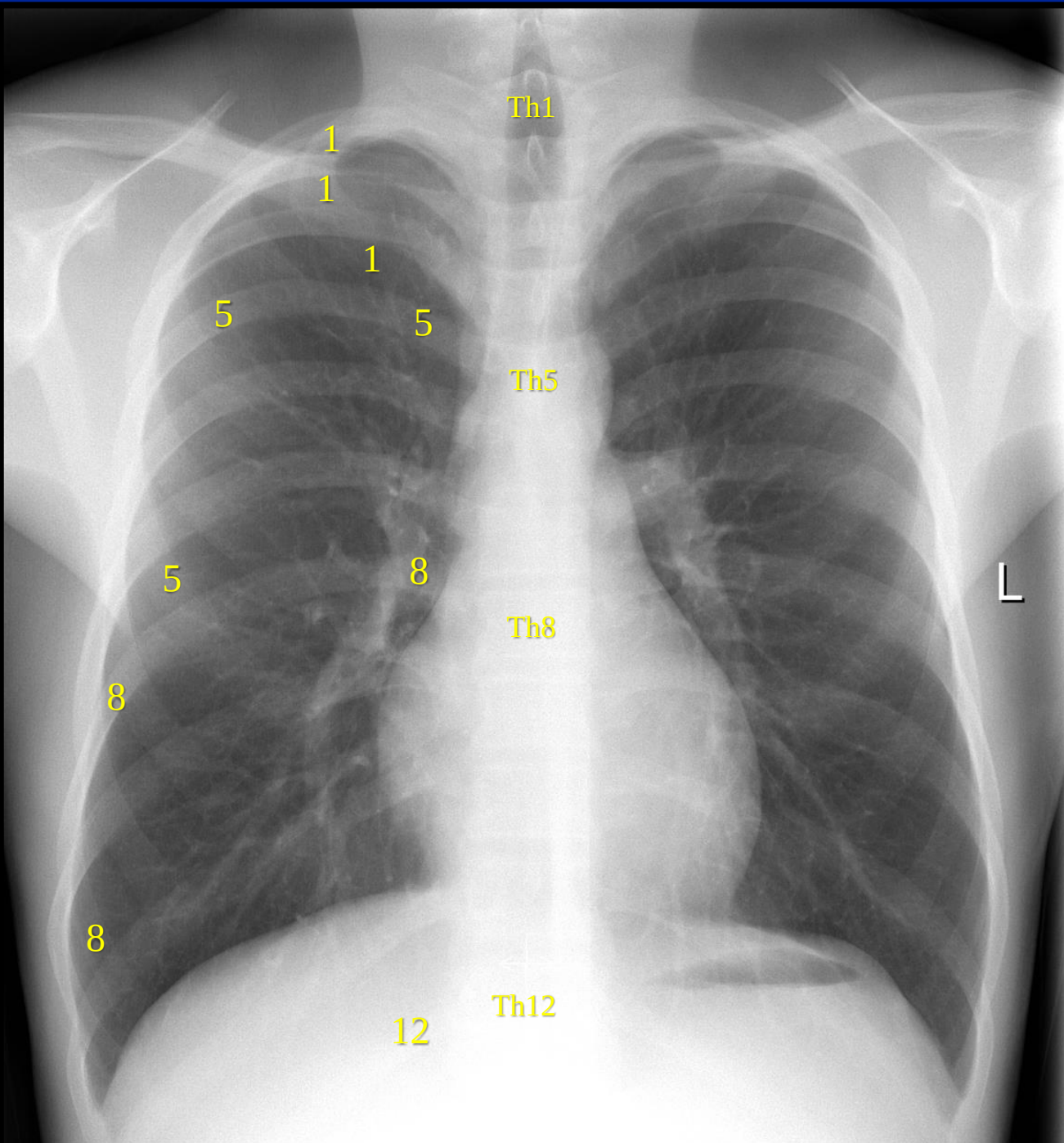


Thorax PA optagelse
På denne optagelse er scapula ikke flyttet ud af lungefelterne. Dette sker vanligvis ved at patienten holder hænderne over hofterne/i flanken, hvorved scapula løftes ud af lungefelterne. Margo mediale scapulae og på højre side også angulus inferior er markeret.

Thorax skelettet

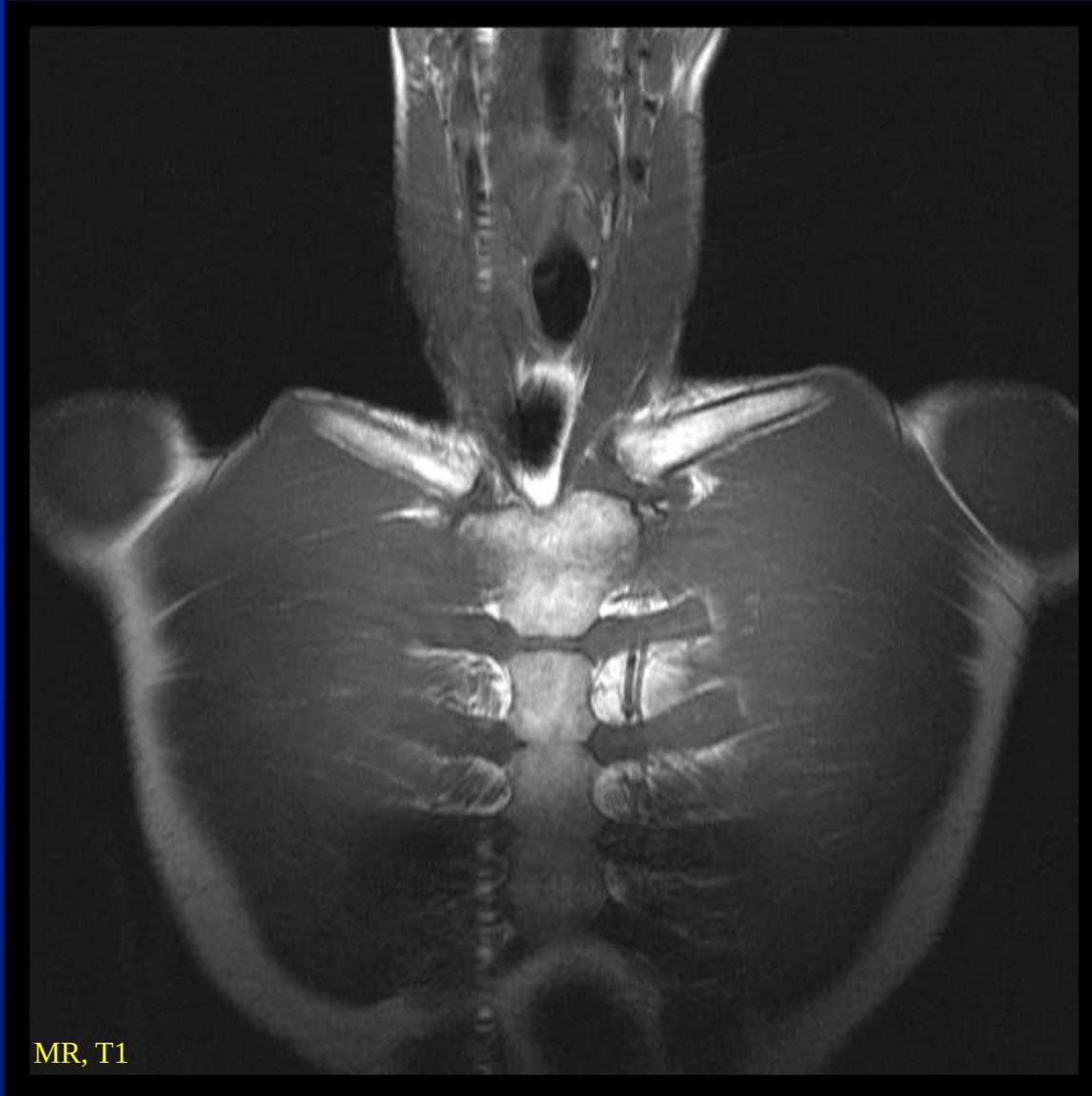


Rtg. af thorax:
PA optagelse

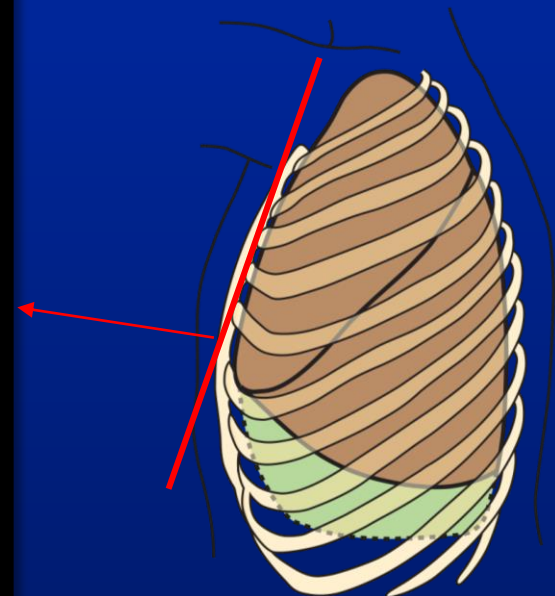
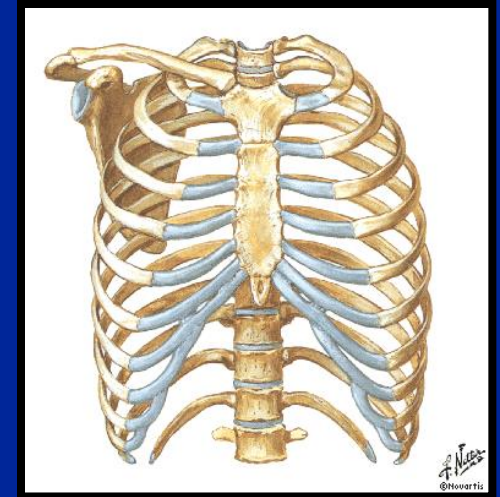


Rtg. af thorax:
PA optagelse med
markering af costa
nummer 1, 5 og 8.
Benyt evt. de
thoracale hvivler
som hjælp til niveau
bestemmelse.

Cartilago costalis.

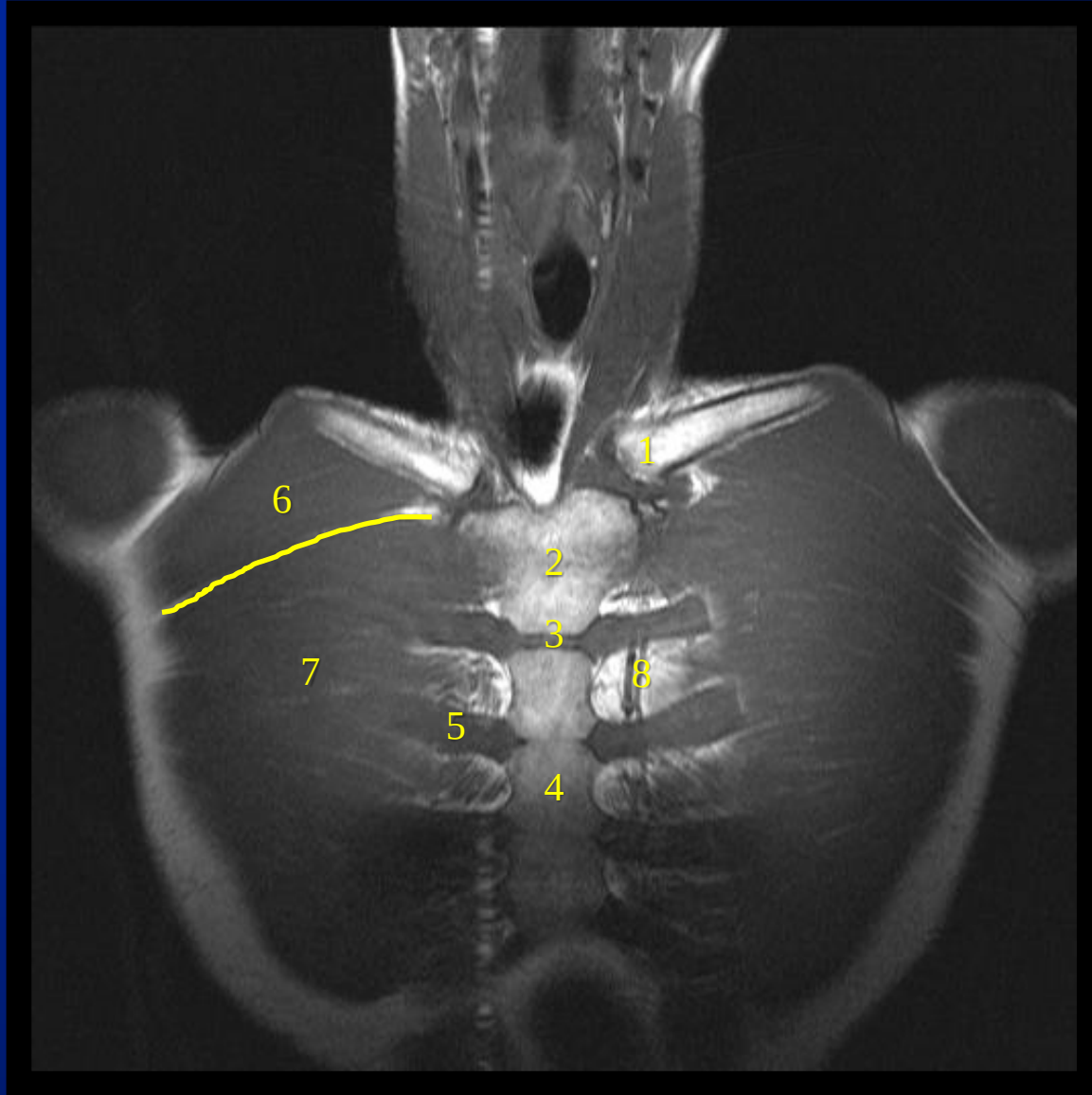


MR, T1

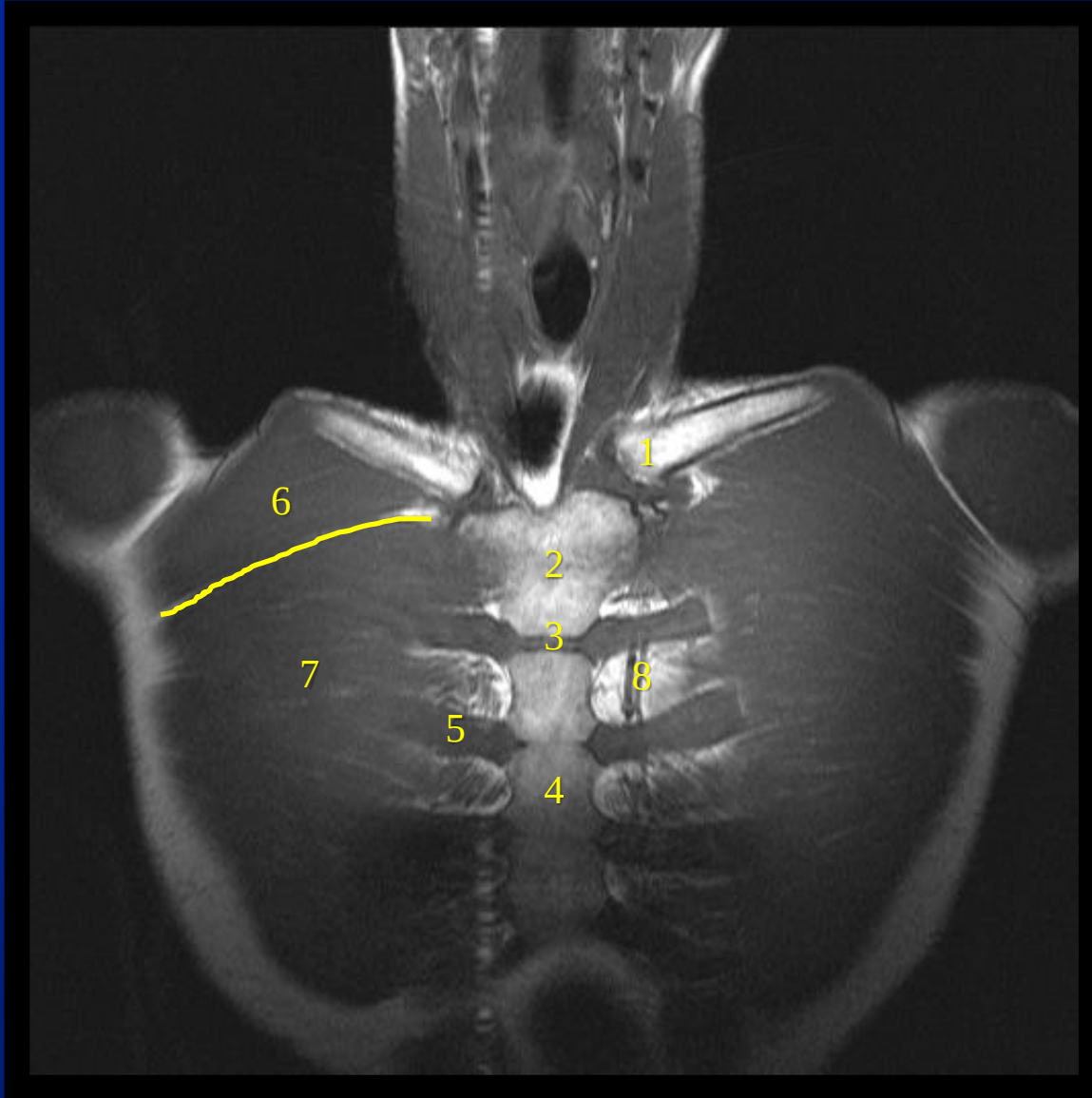


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Cartilago costalis.

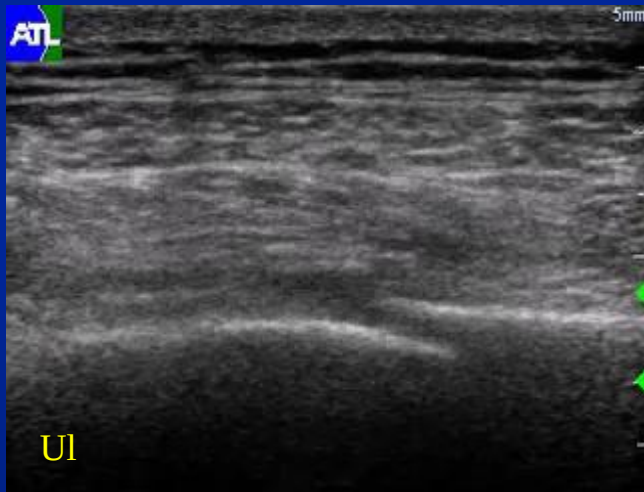


Cartilago costalis.

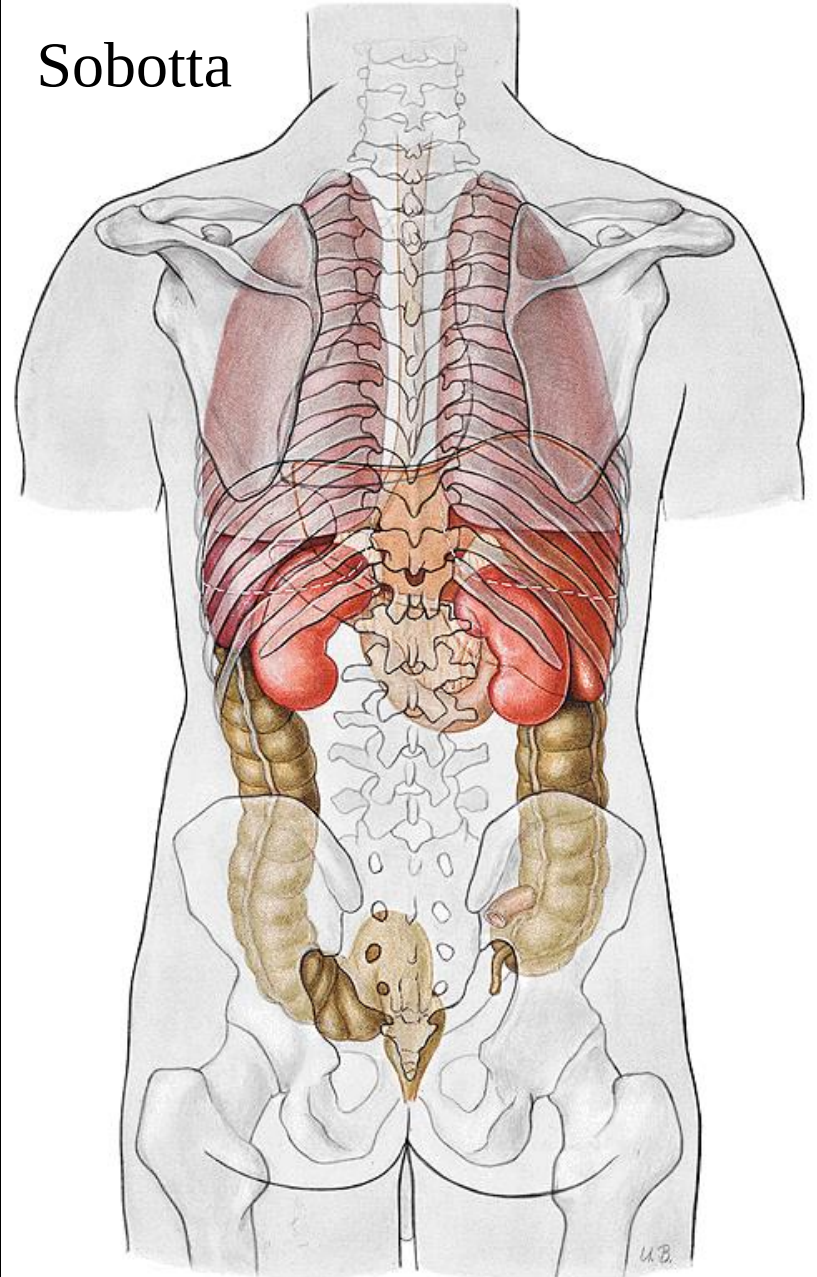


1. Clavicula (extremitas sternalis)
 2. Manubrium sterni
 3. Synchondrosis manubriosternalis
 4. Corpus sterni
 5. Cartilago costalis (3 dx.)
- M. pectoralis major:
6. Pars claviculans
 7. Pars sternocostalis
 8. Vasa thoracica interna

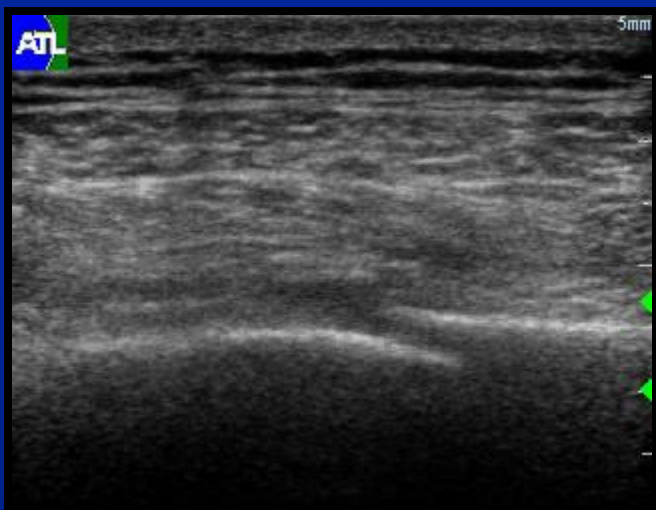
Costa med fraktur



Sobotta

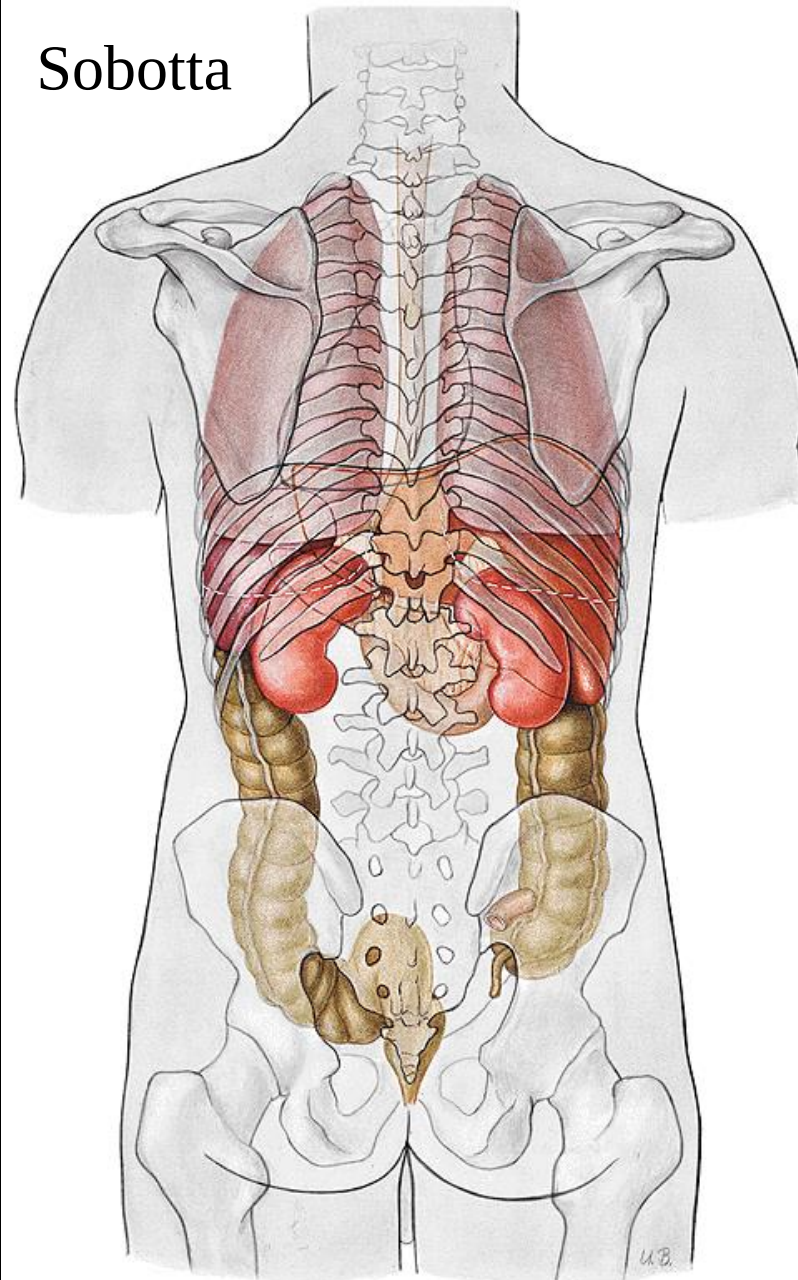


Costa med fraktur

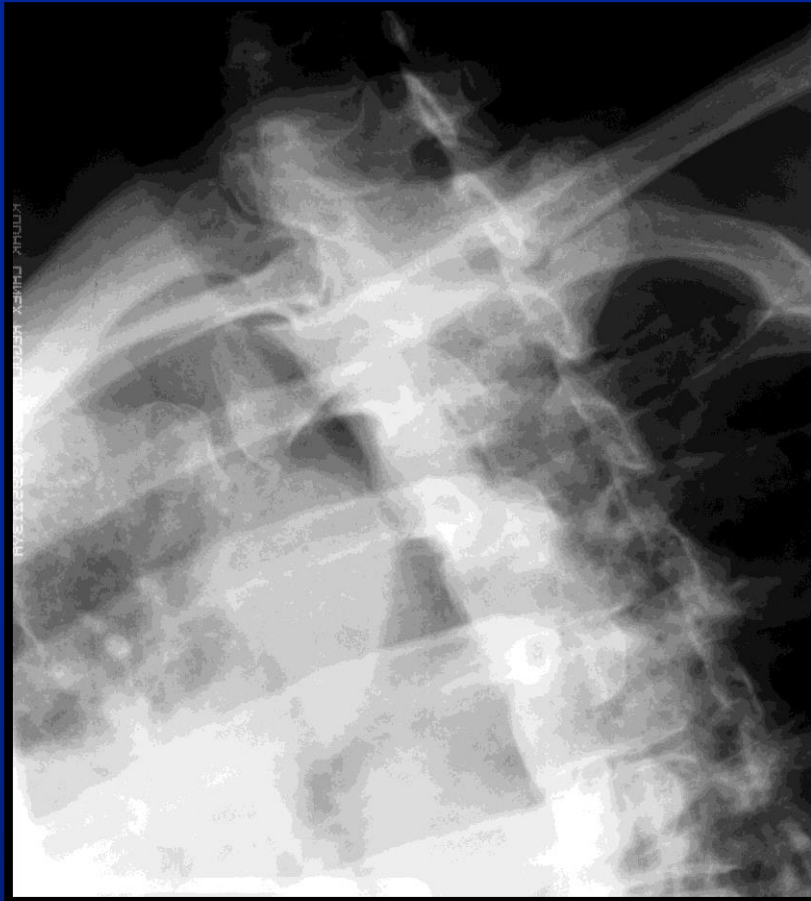


Et brud på et ribben (costafraktur), kan være smertefuldt. Det giver smertelindring, at immobilisere et brud, men dette er selvfølgelig ikke muligt her. Bruddet i sig selv er vanligvis ganske ufarligt, men i selve brud øjeblikket, kan brudenderne stikke dybt ind, og ramme vitale organer i kroppen, eksempelvis punktere lungen, eller lave hul i milten. Der er her tale om tilstande der i værste tilfælde kan blive livstruende. Det er derfor vigtigt at vide hvilket organ, der ligger under et givet costa, og som læge have dette med i sine overvejelser.

Sobotta



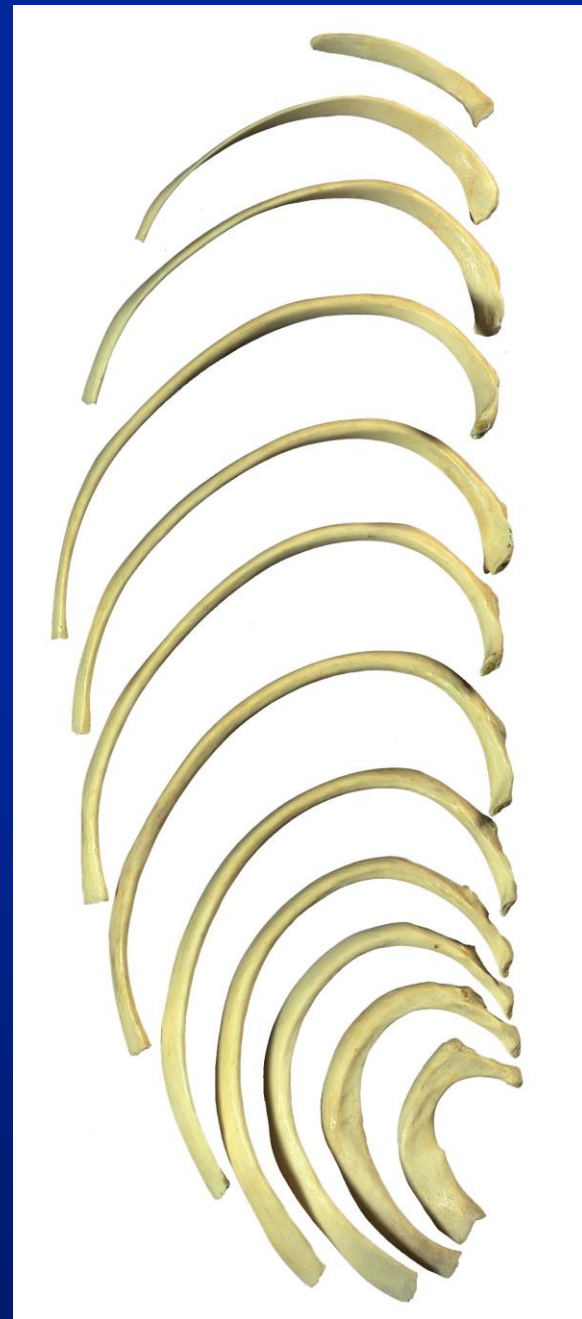
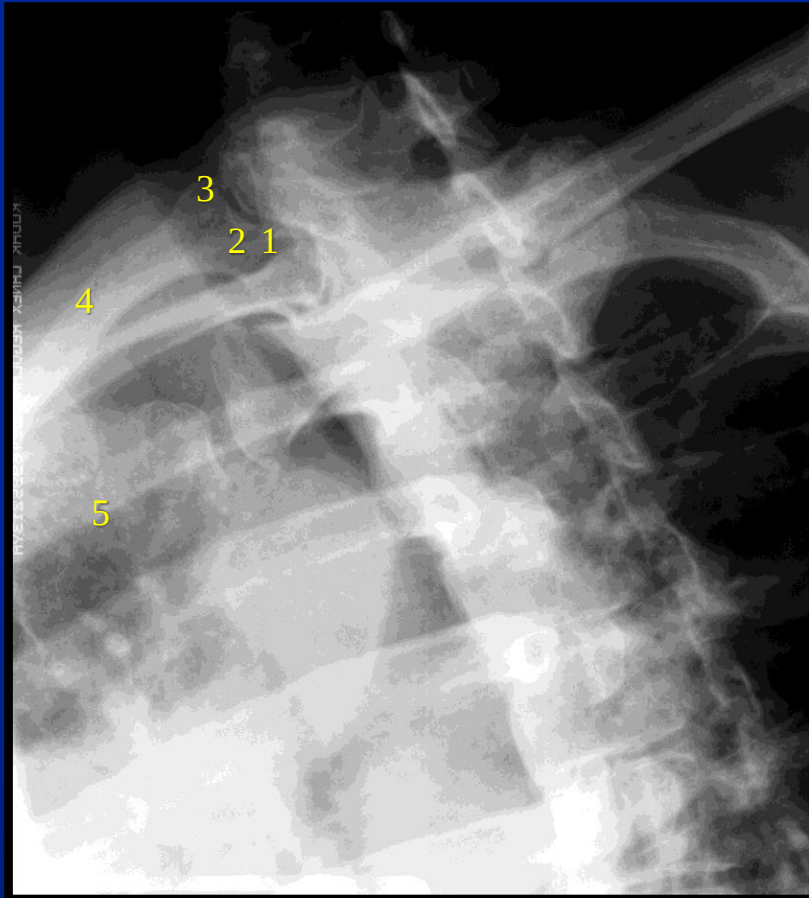
Costa 1 hos 49 årig
kvinde.



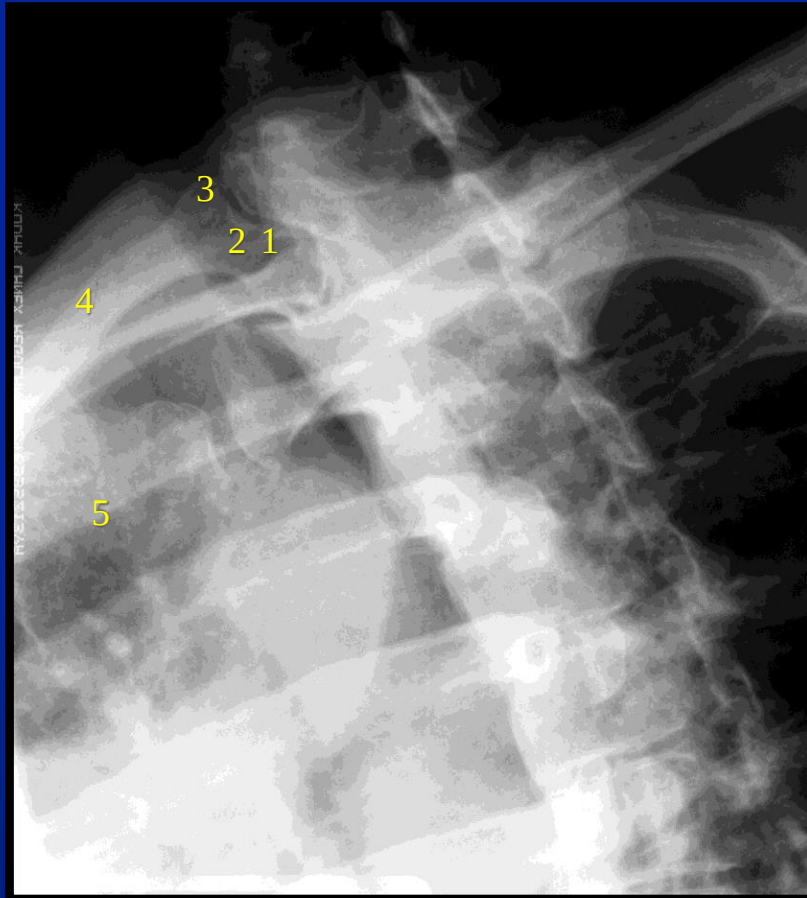
Skrå røntgenoptagelse af øvre columna thoracalis



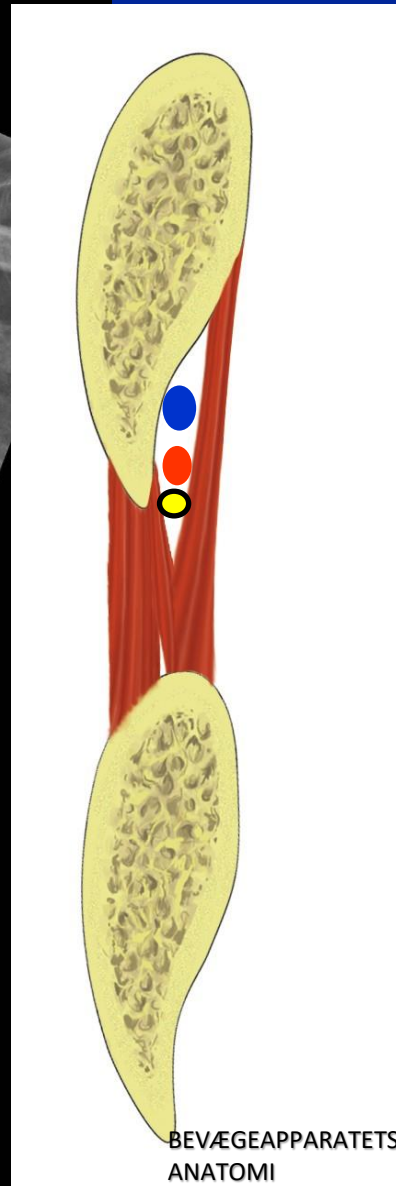
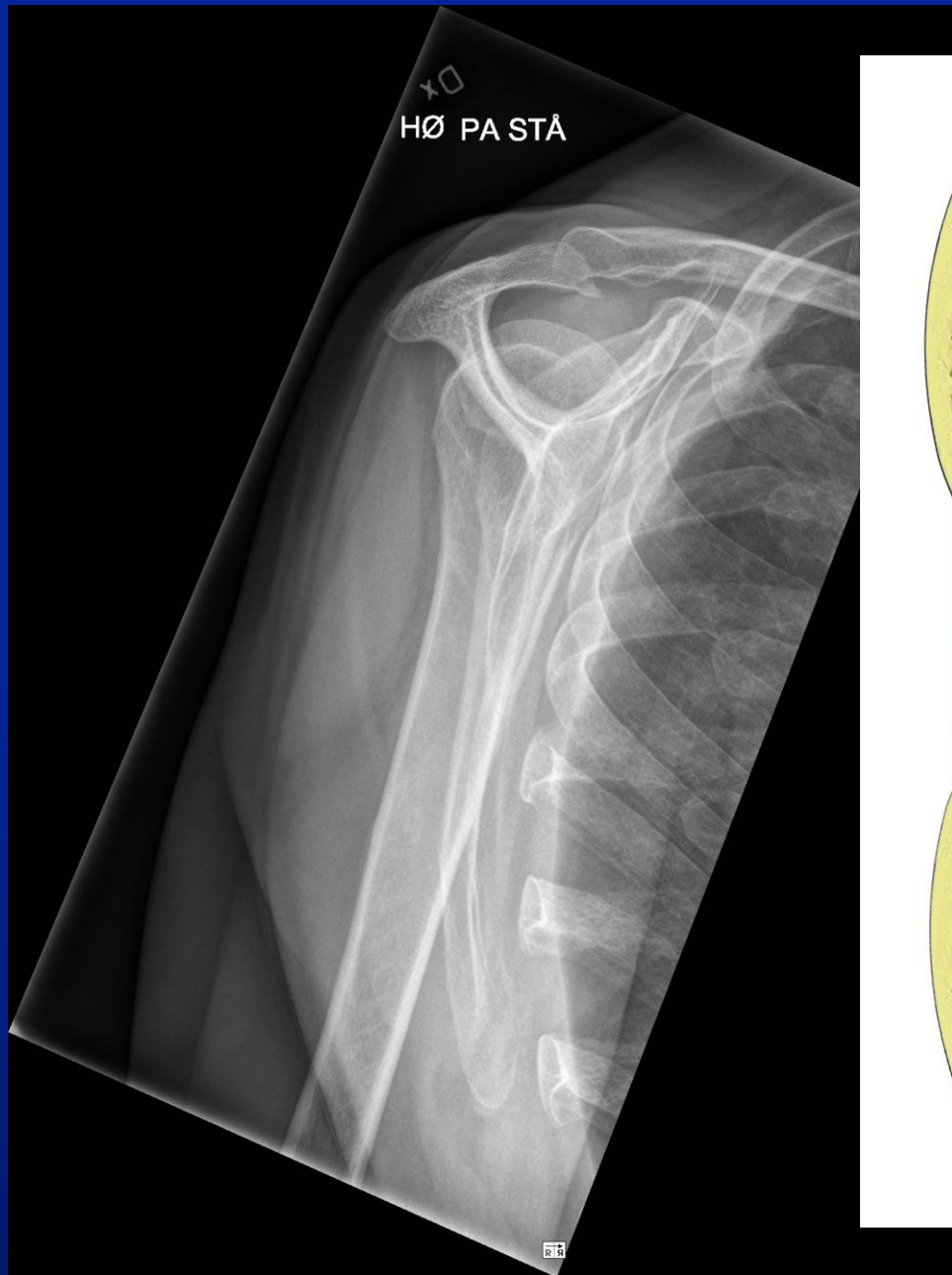
Costa 1 hos 49 årig
kvinde.



Costa 1 hos 49 årig
kvinde.

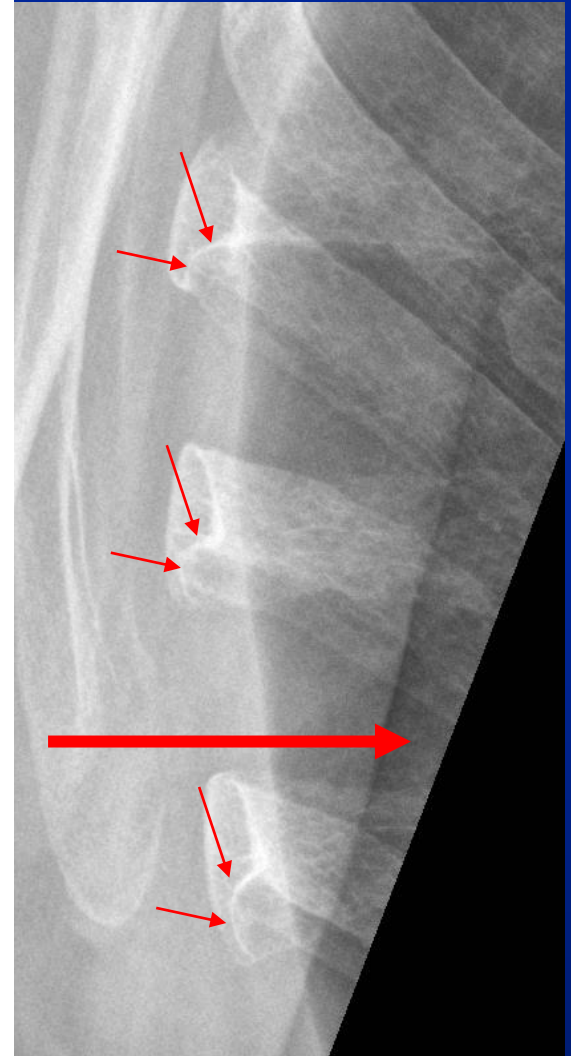
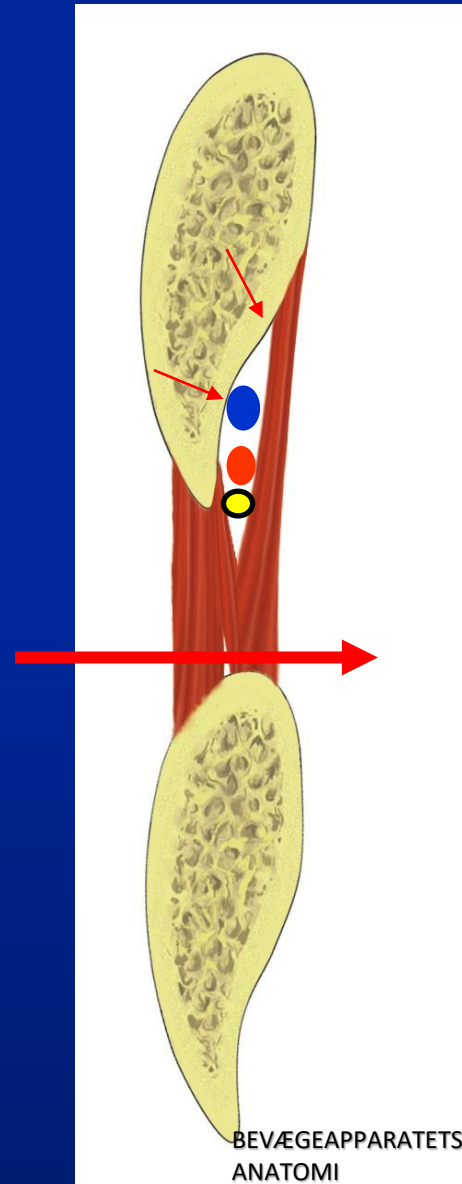


- 1) Caput costae I
- 2) Collum costae I
- 3) Tuberculum costae I
- 4) Corpus costae I
- 5) Manubrium sterni

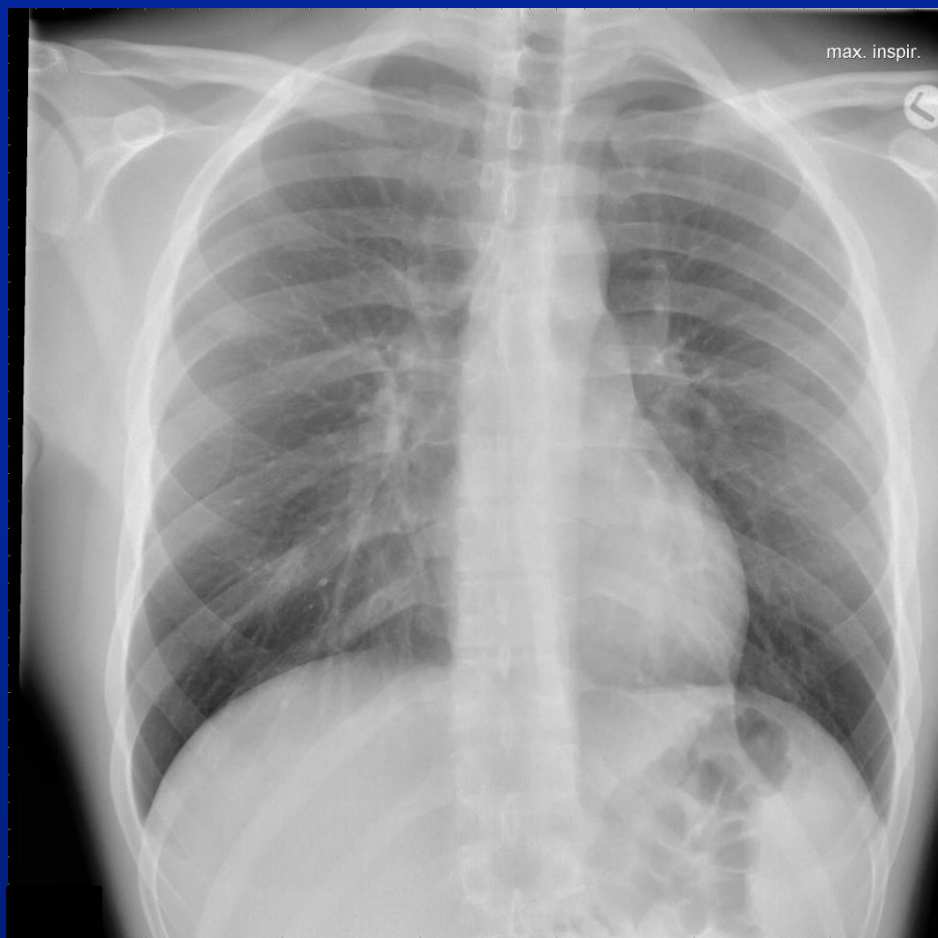


På en Y-optagelse af højre skulder, er stråleretningen lige tangentielt på costae, således at der opnås godt indblik til sulcus costae.

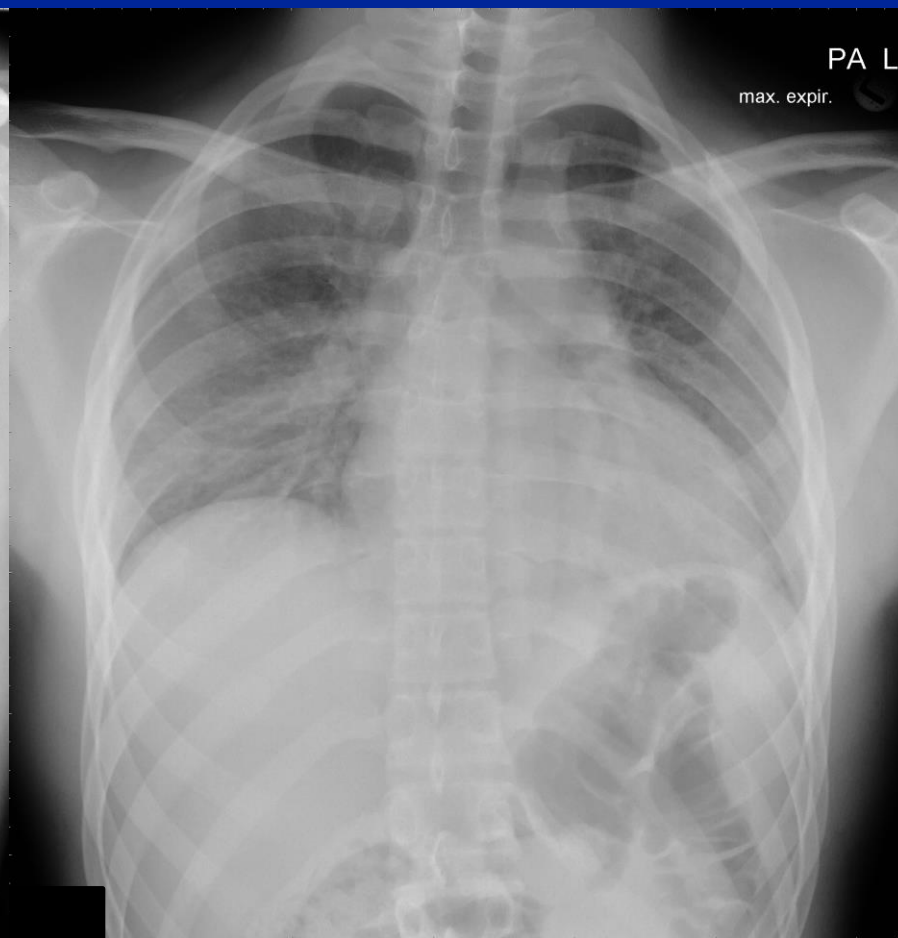
På den skematiske tegning ses endvidere placeringen af intercostal kar og nerver. Det fremgår heraf tydeligt, hvorfor man ved indstik intercostalt, f.eks. i forbindelse med anlæggelse af et pleuradræn, skal stikke langs overkanten af underliggende costa.



Brystkassens bevægelser

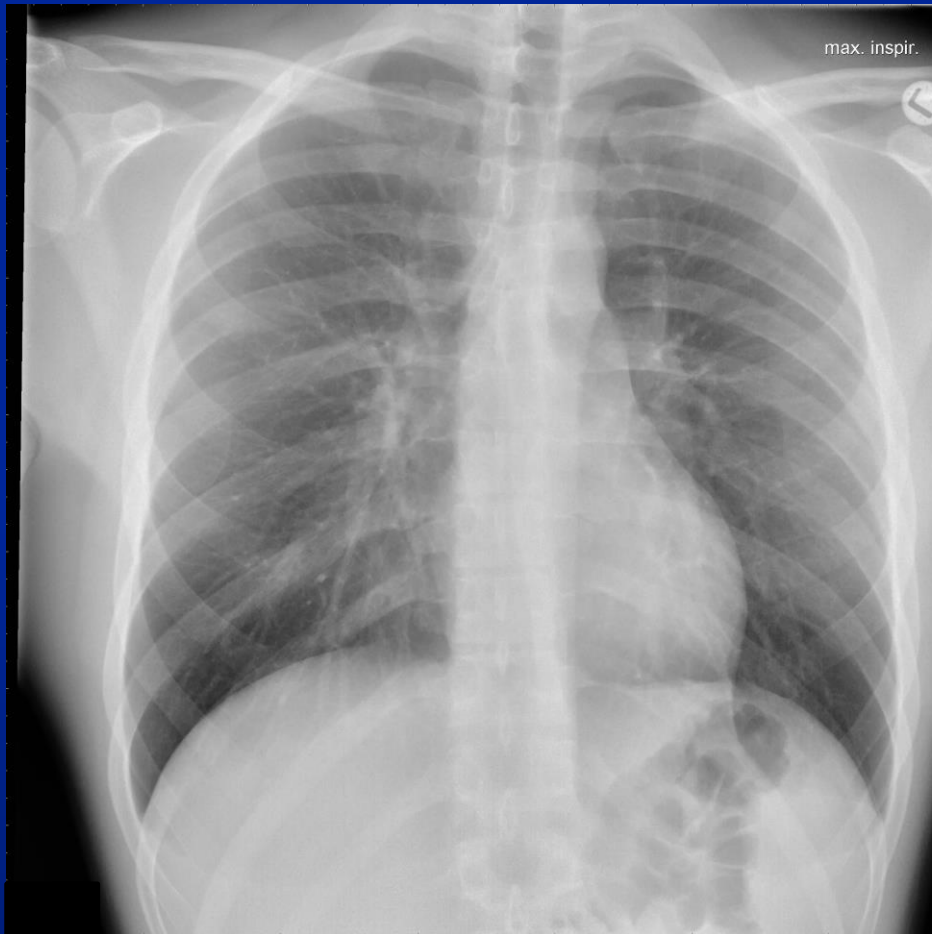


Maksimal inspiration

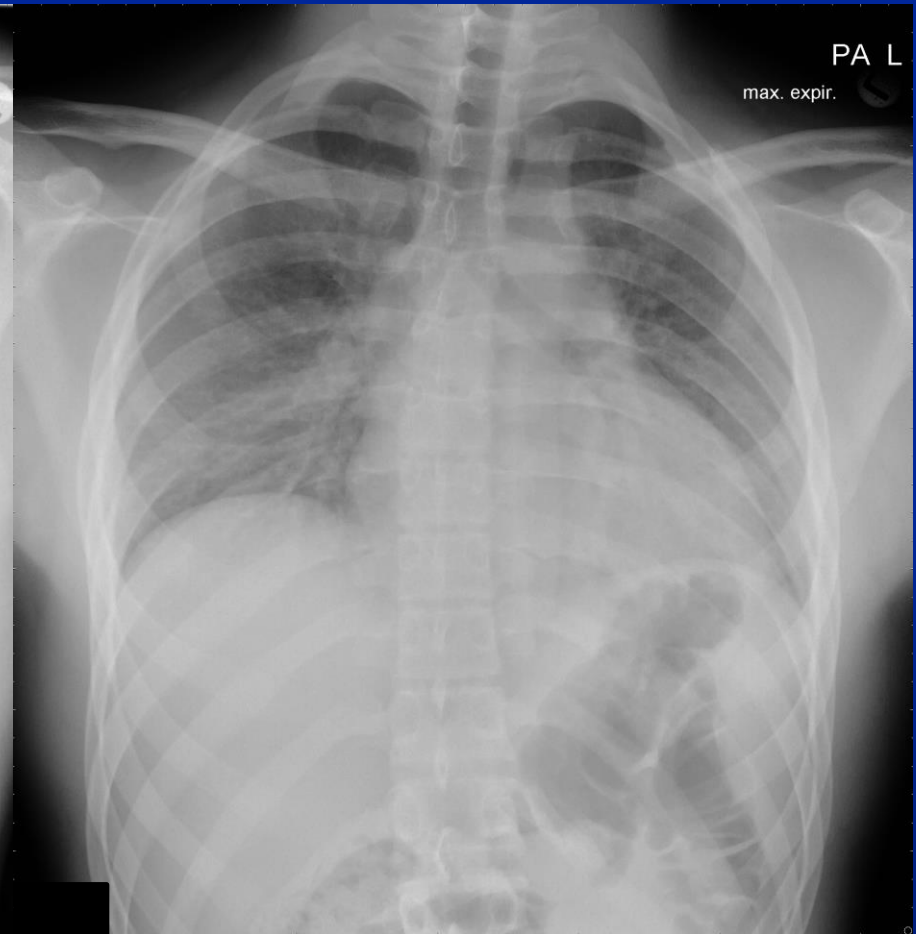


Maksimal ekspiration

Røntgenoptagelse af thorax PA i henholdsvis maksimal inspiration og expiration. Det fremgår tydeligt af de to undersøgelser, hvorfor det er vigtigt, at man altid benytter samme inspirationsfase, hvis man f.eks. måler hjertets bredde. Dette gøres altid på en stående PA optagelse i maksimal inspiration.



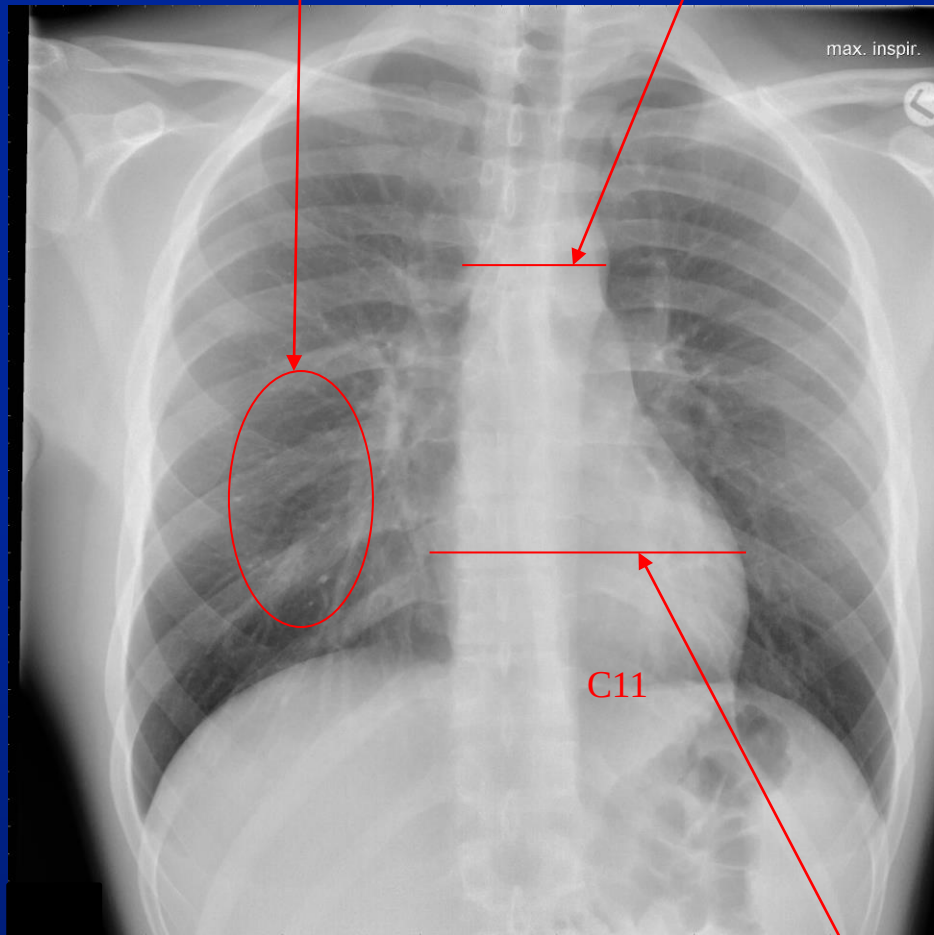
Maksimal inspiration



Maksimal expiration

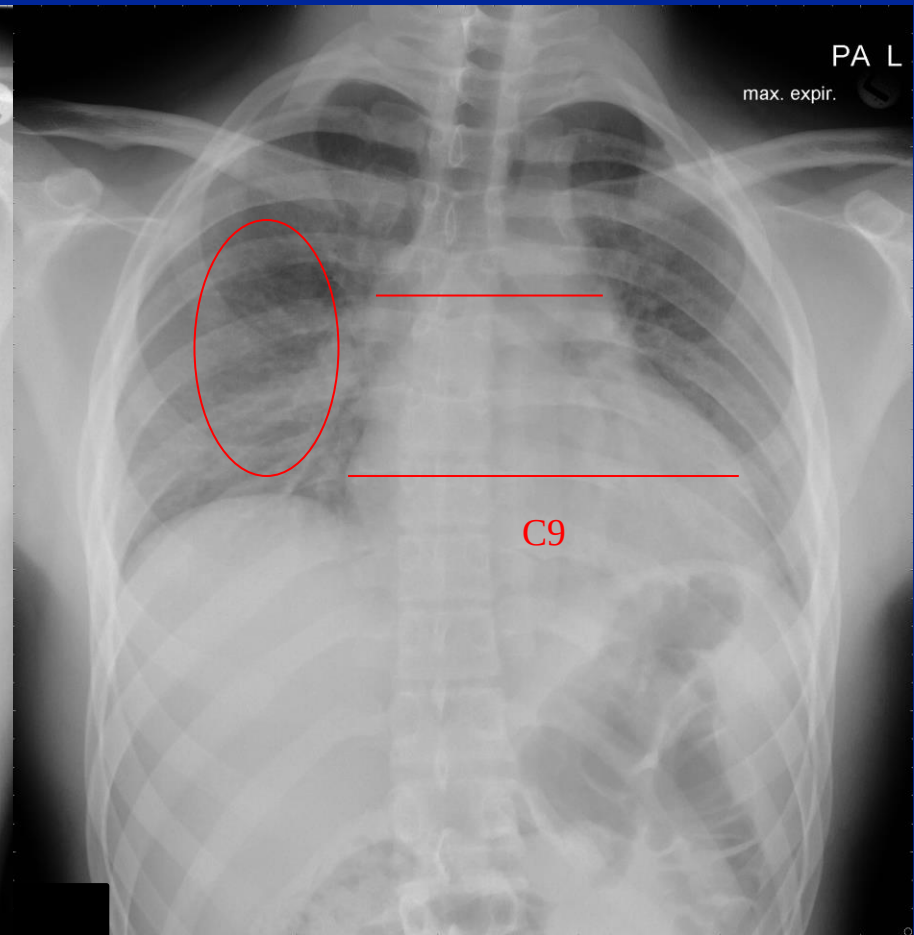
Vurdering af lungekartegning

Mediastinalbredde



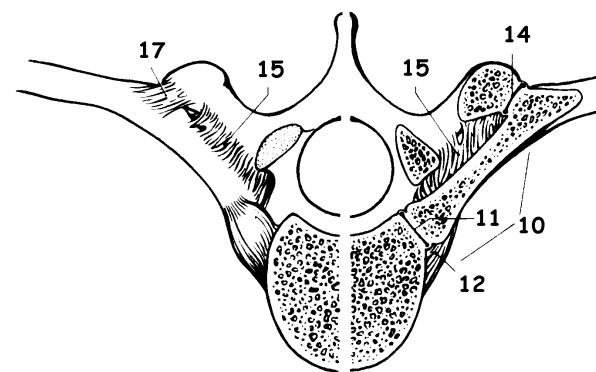
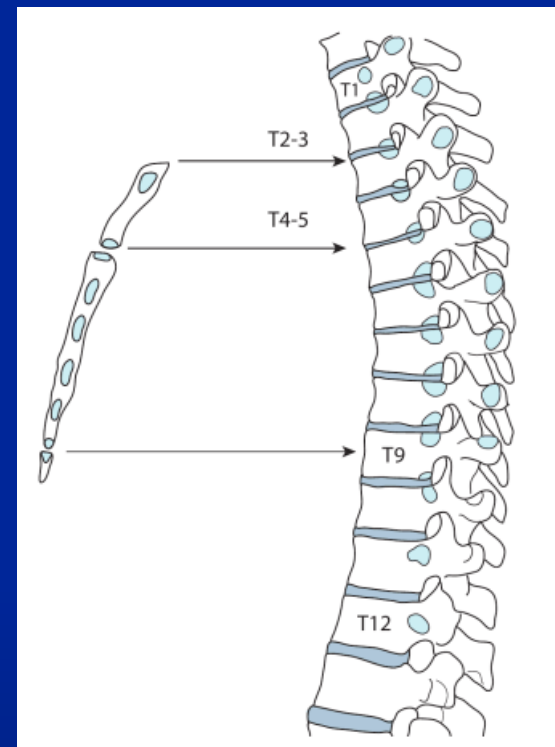
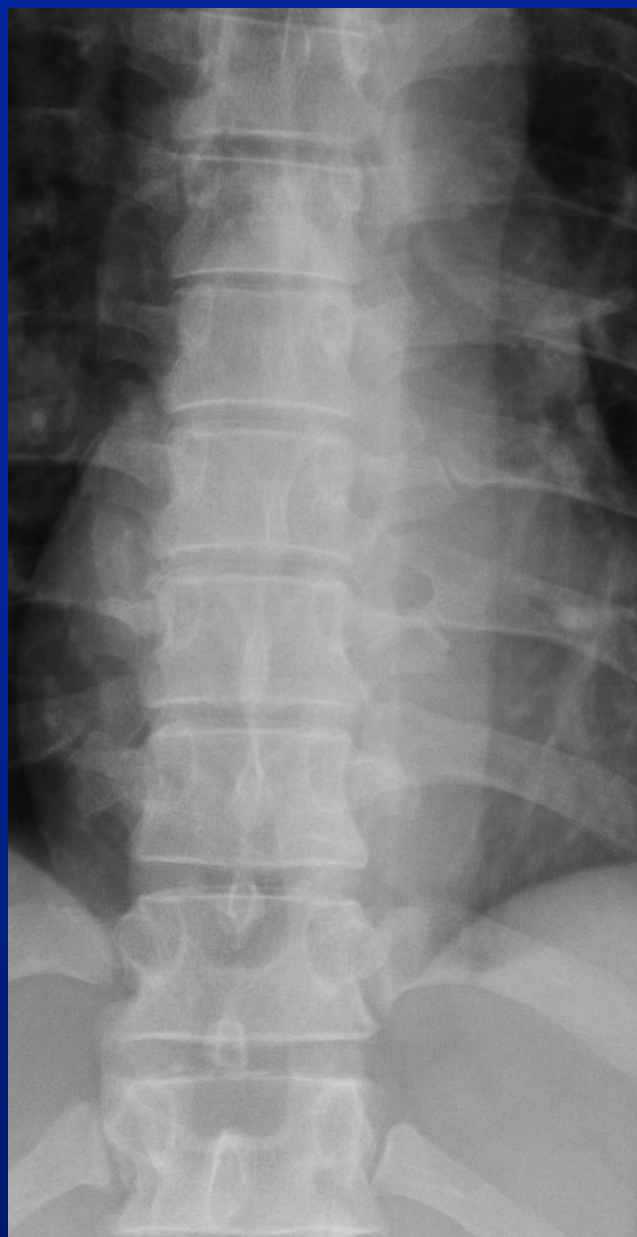
Maksimal inspiration

Hjertebredde



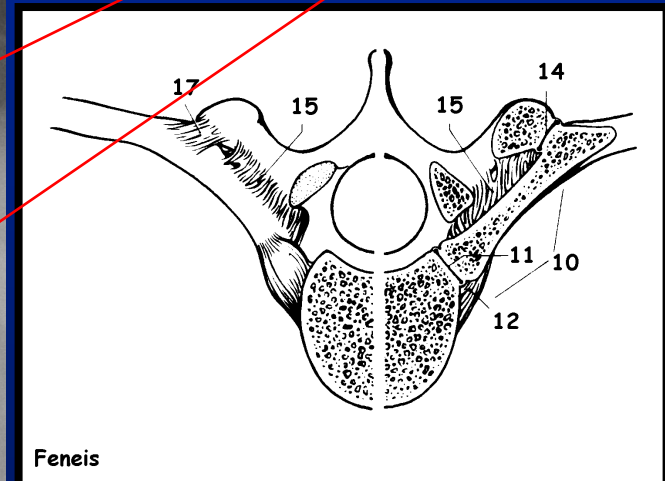
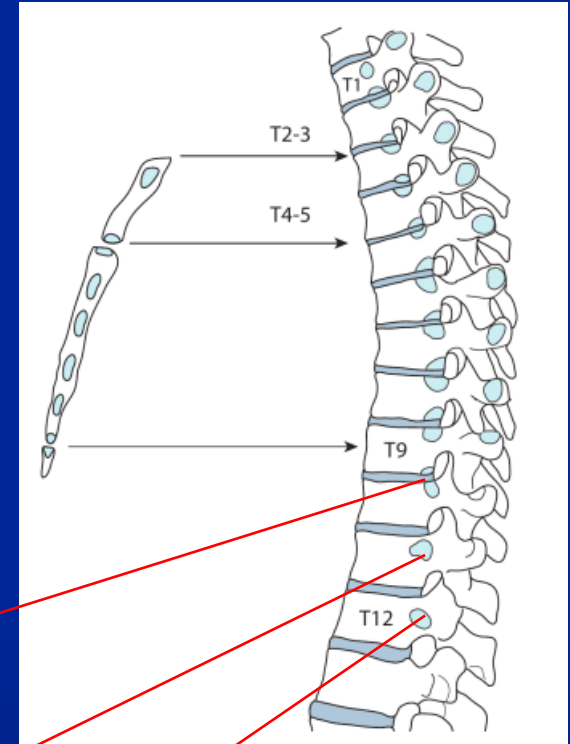
Maksimal expiration

Røntgen af columna thoracalis



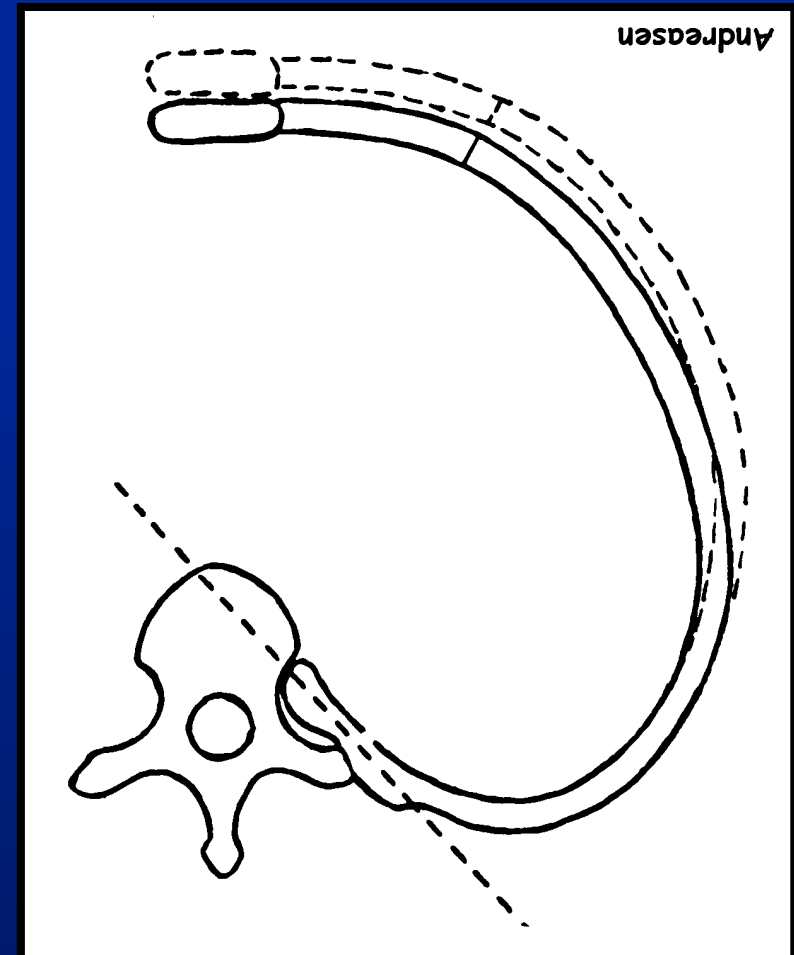
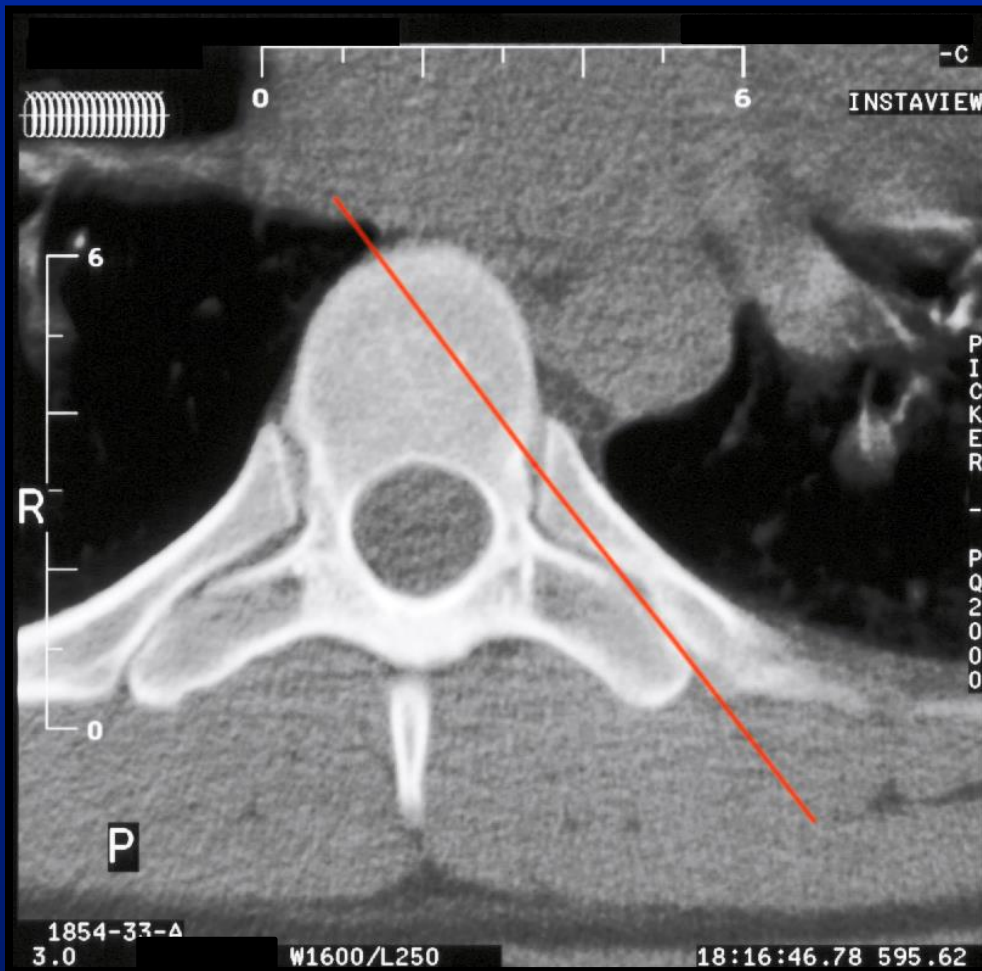
Røntgen af columna thoracalis

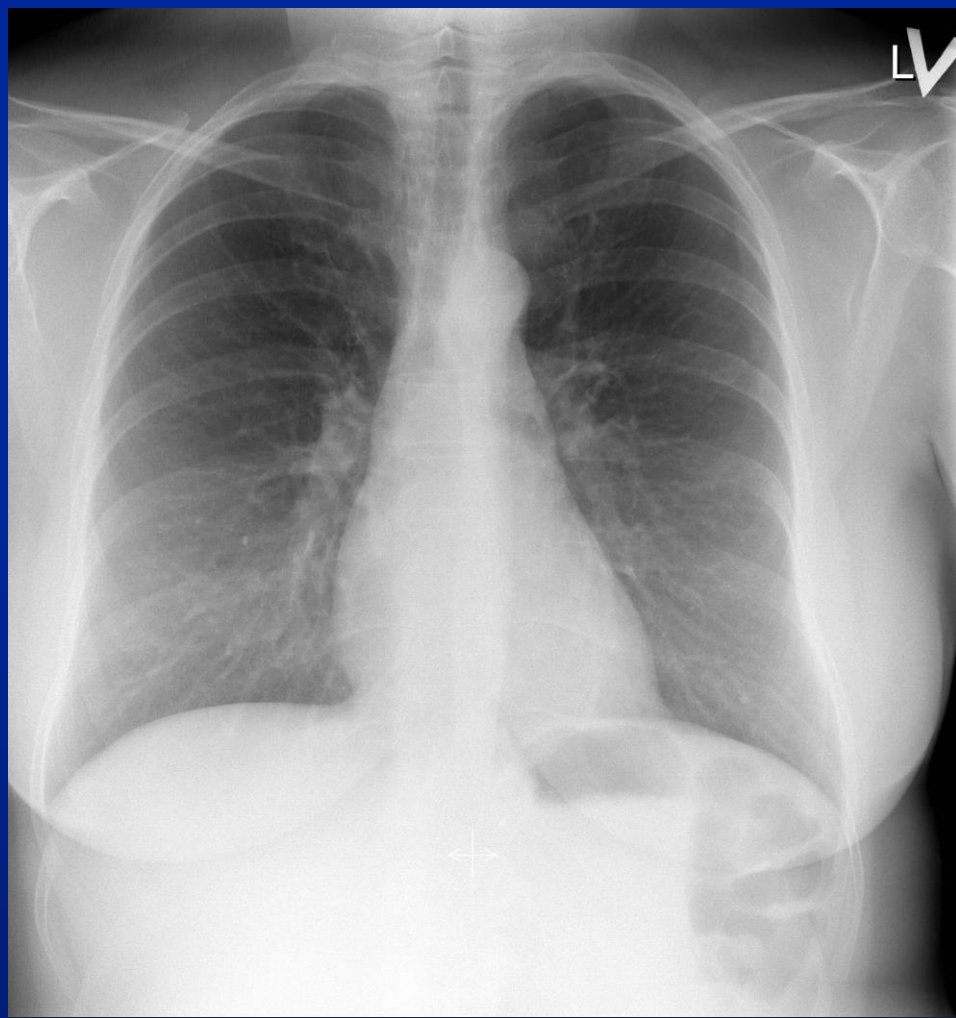
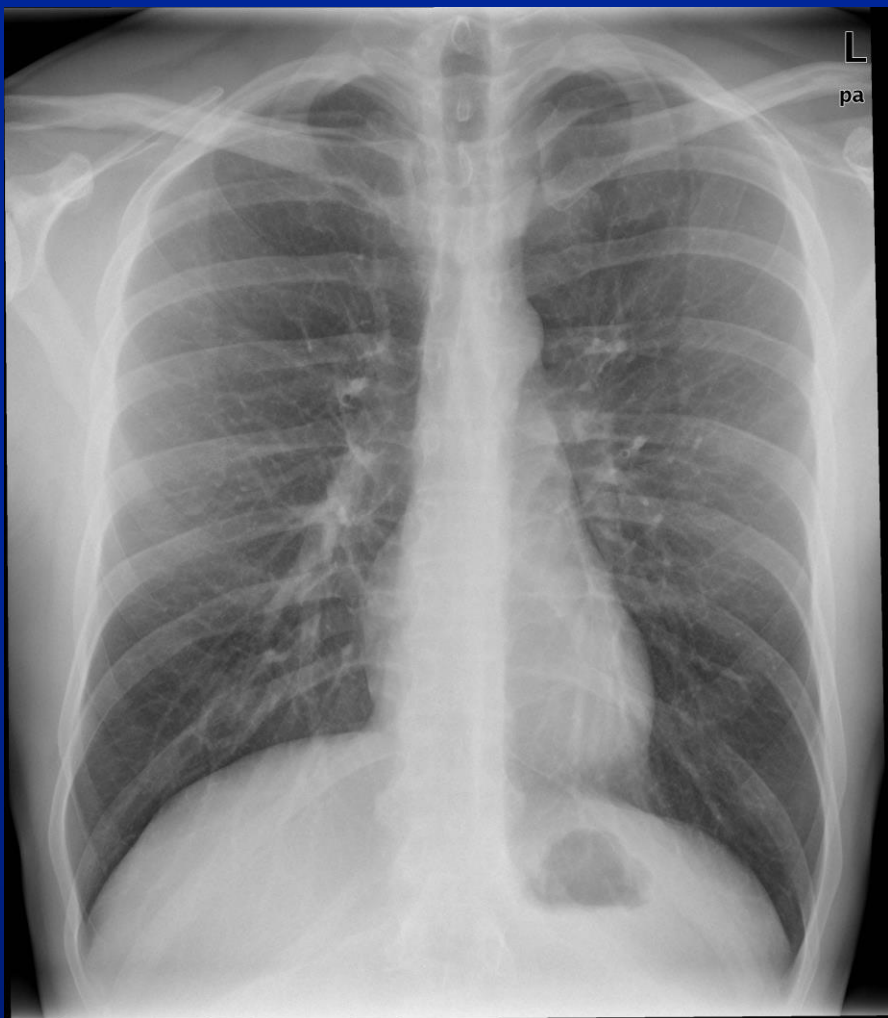
Costa 1, 11 og 12 artikulerer medialt midt på corpus lateralt, hvorimod de øvrige costae, artikulerer med discus intervertebralis og de tilstødende costae svarende til articulationes costovertebrales, idet der også er en artikulation mellem costa og processus transversus.

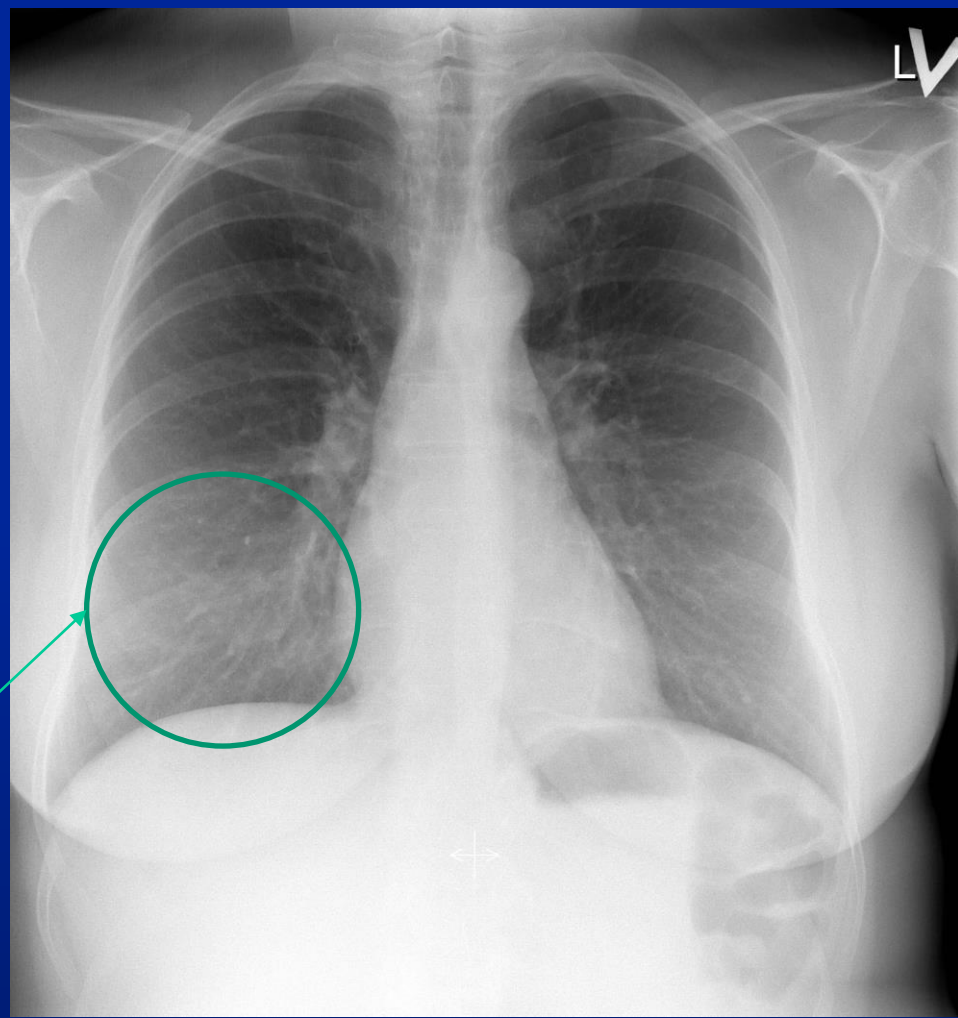
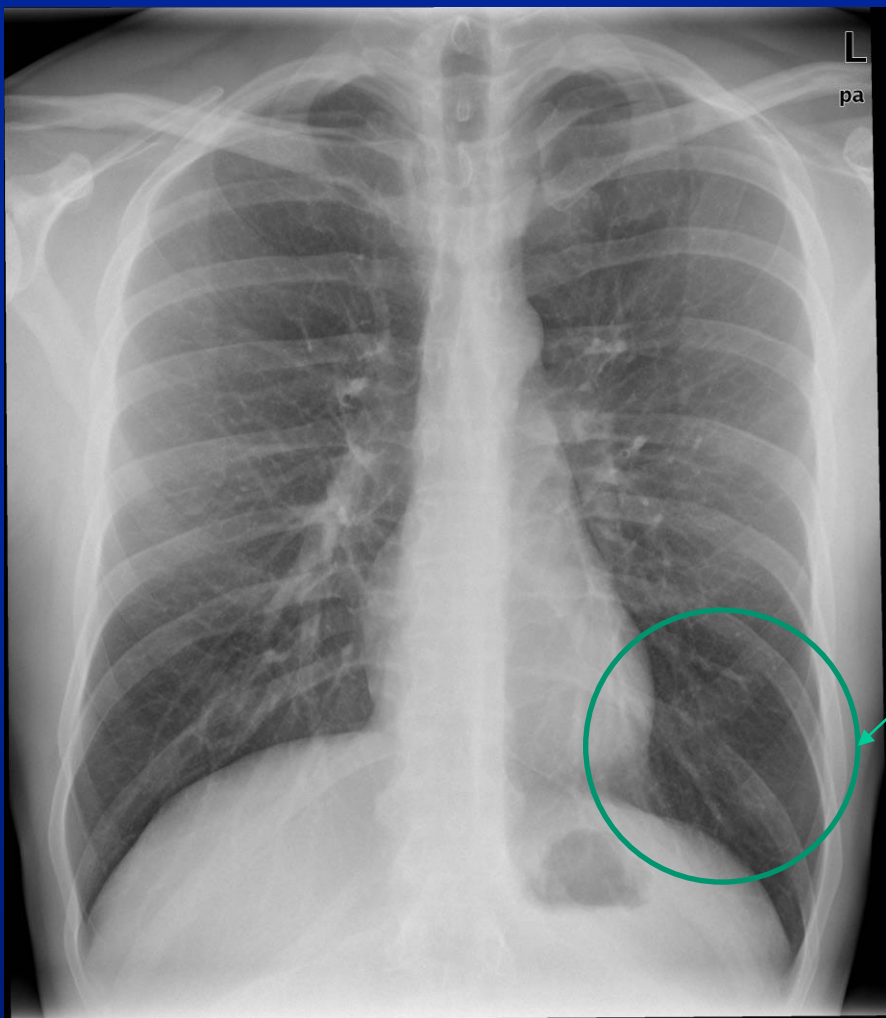


Brystkassens bevægelser

Articulatio costovertebralis: Kombineret led (Articulatio capitis costae et articulatio costotransversaria).

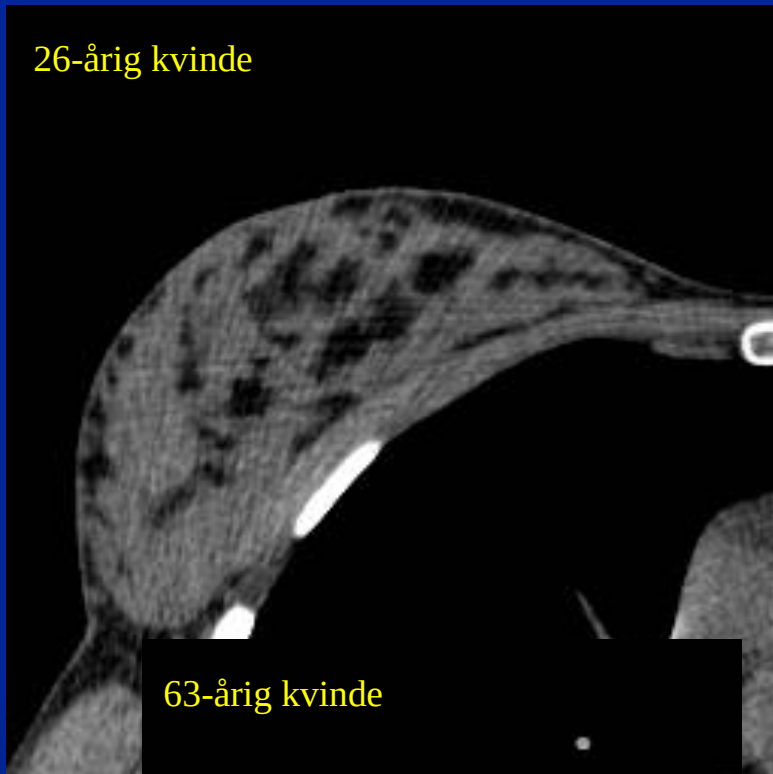




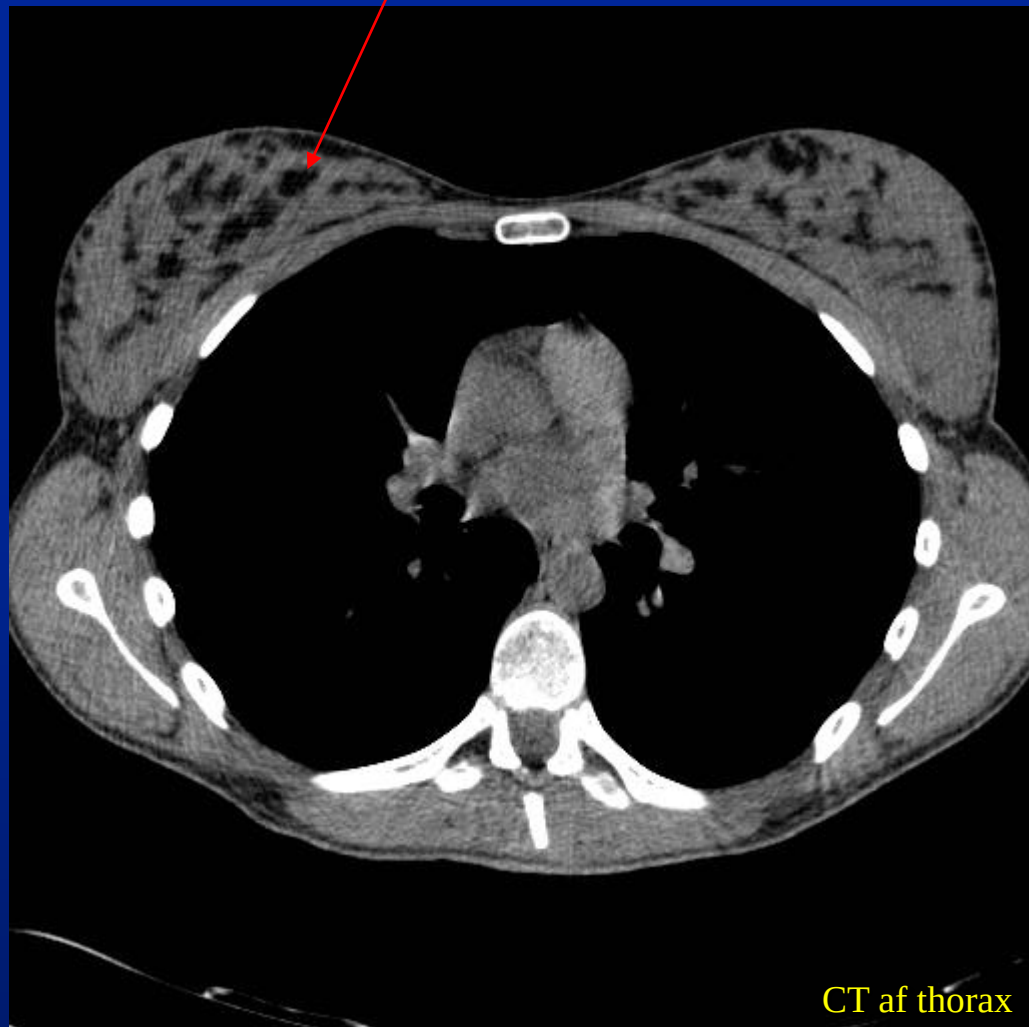
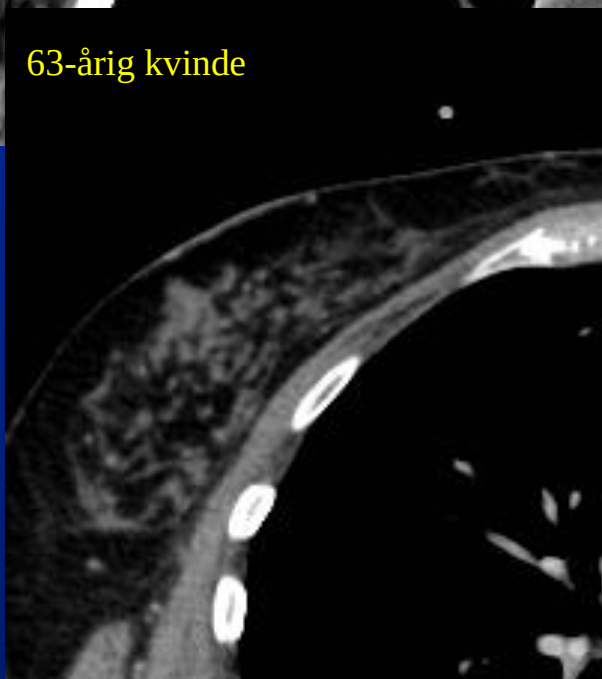


Røntgenoptagelsen til venstre er af en mand og til højre af en kvinde. Der ses sløring af lungefeltet kaudalt pga. mammae.

26-årig kvinde

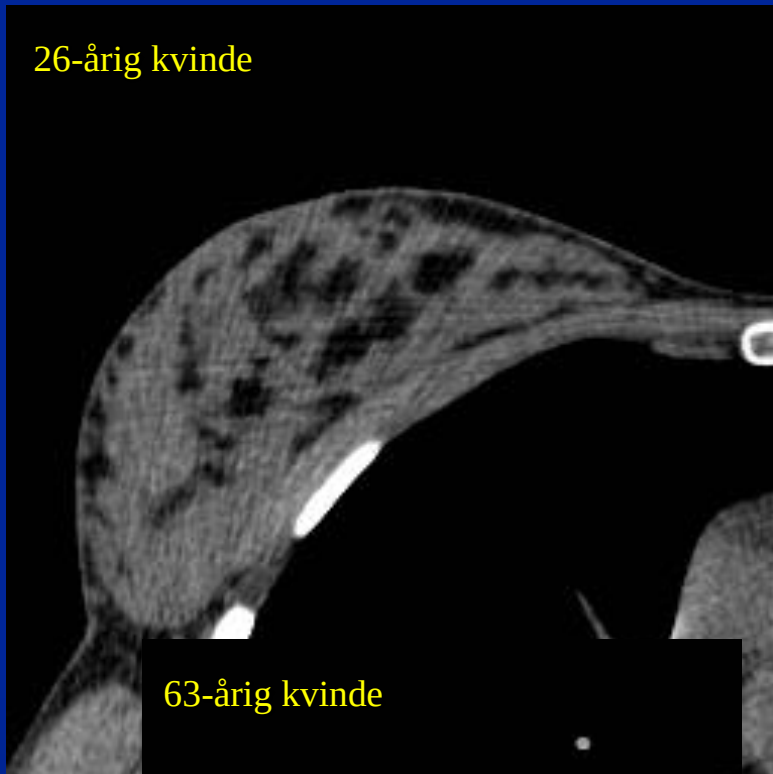


63-årig kvinde

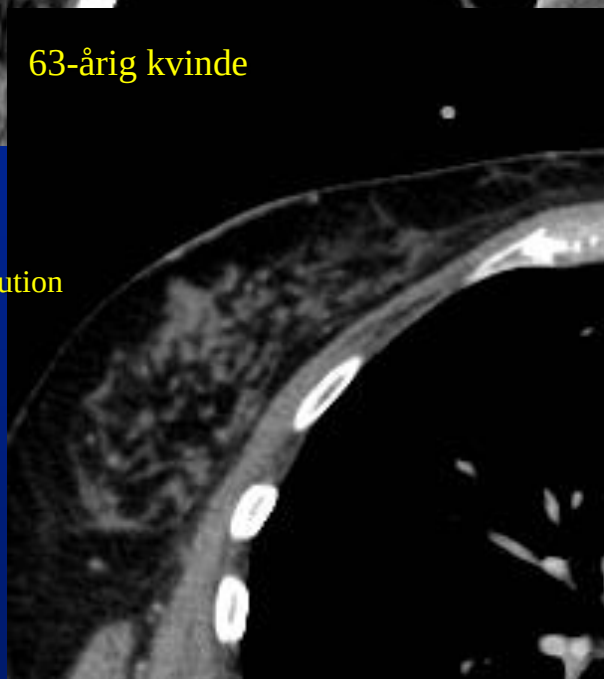


CT af thorax

26-årig kvinde



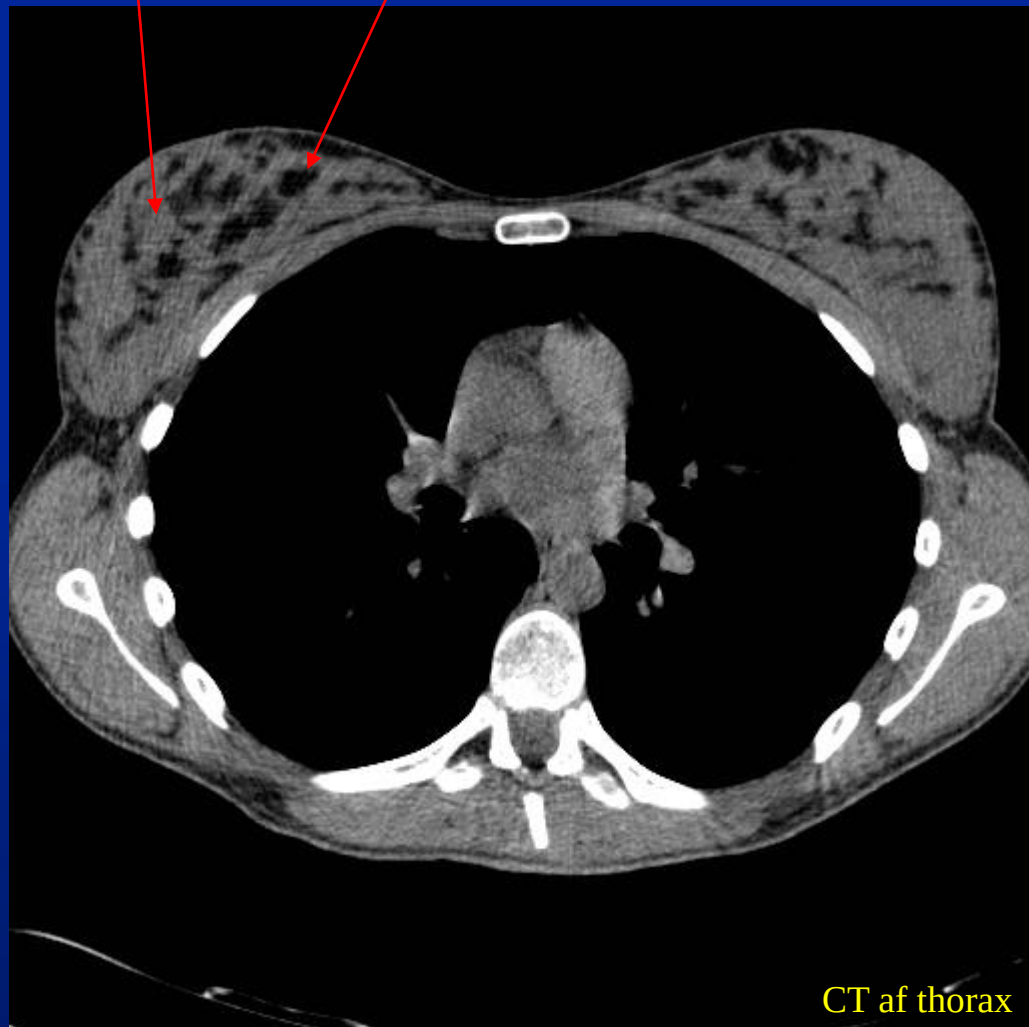
63-årig kvinde



Fedtinvolutions

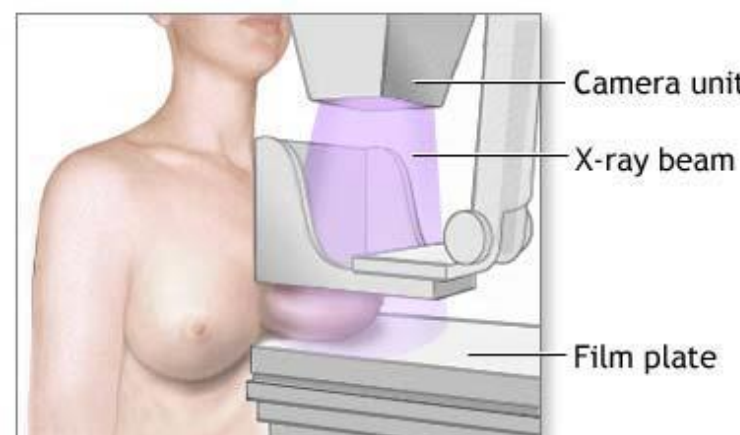
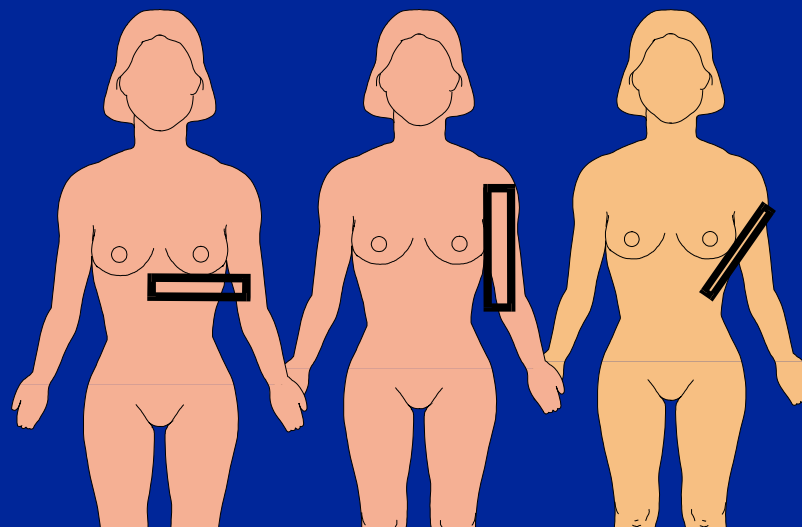
Kirtelvæv

Fedtvæv



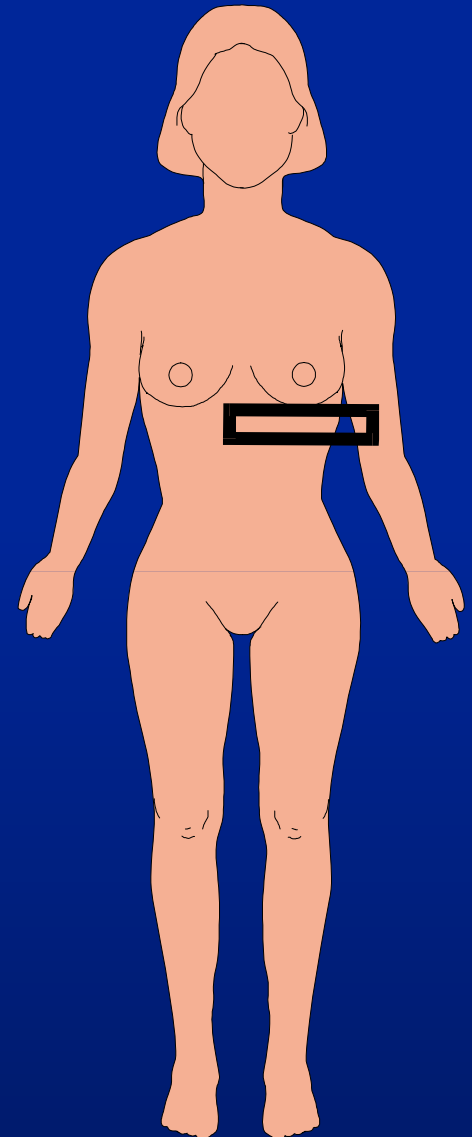
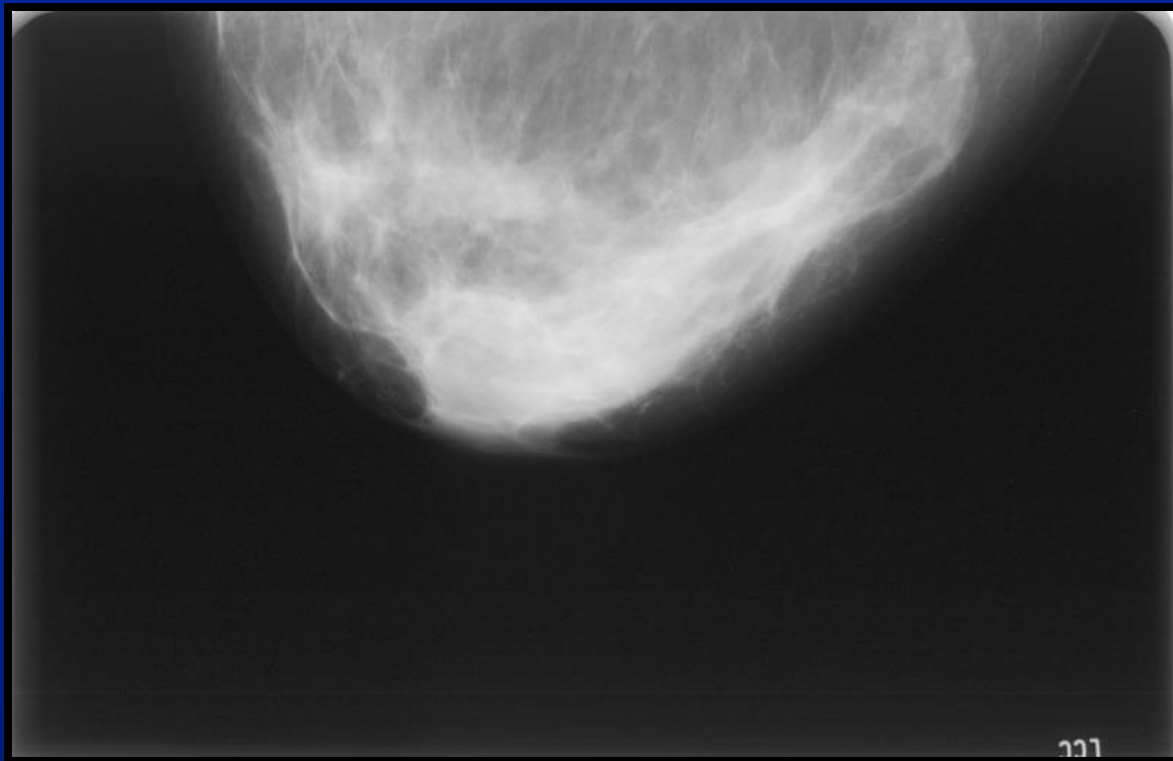
CT af thorax

Mammografi: Røntgenundersøgelse af brystet

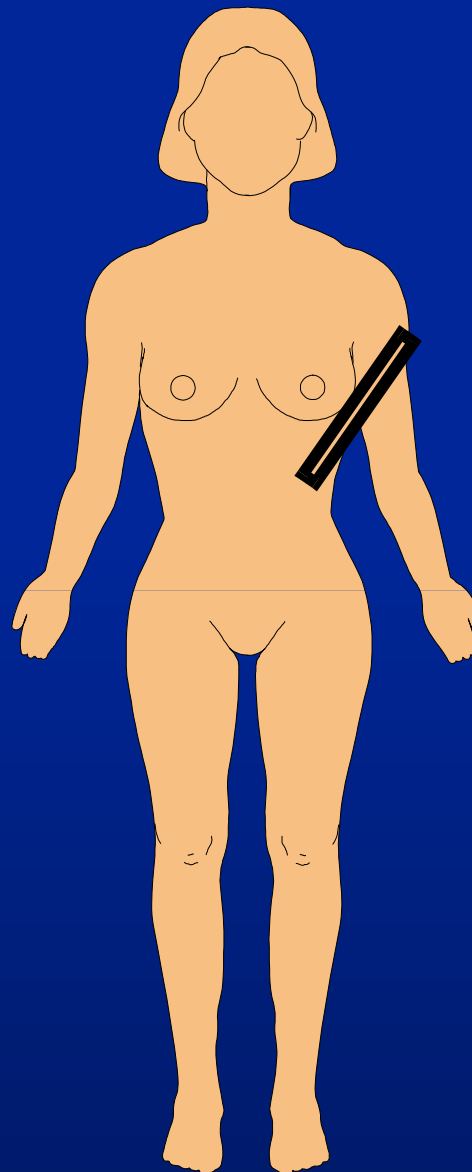


In mammography, each breast is compressed horizontally, then obliquely and an x-ray is taken of each position

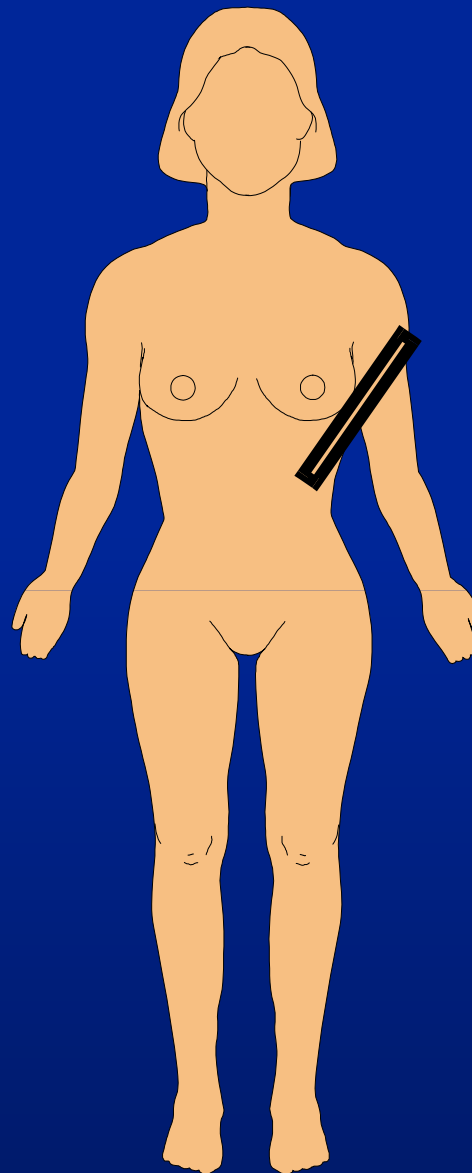
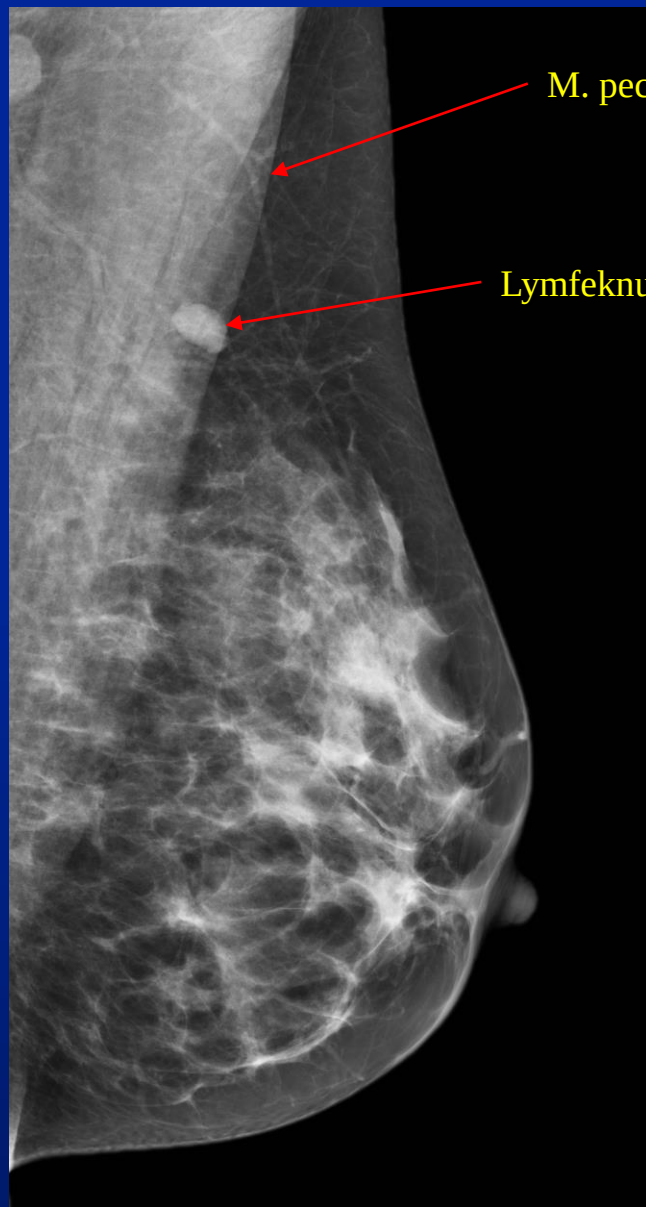
Mammografi, kvinde 40 år kraniokaudal projektion.



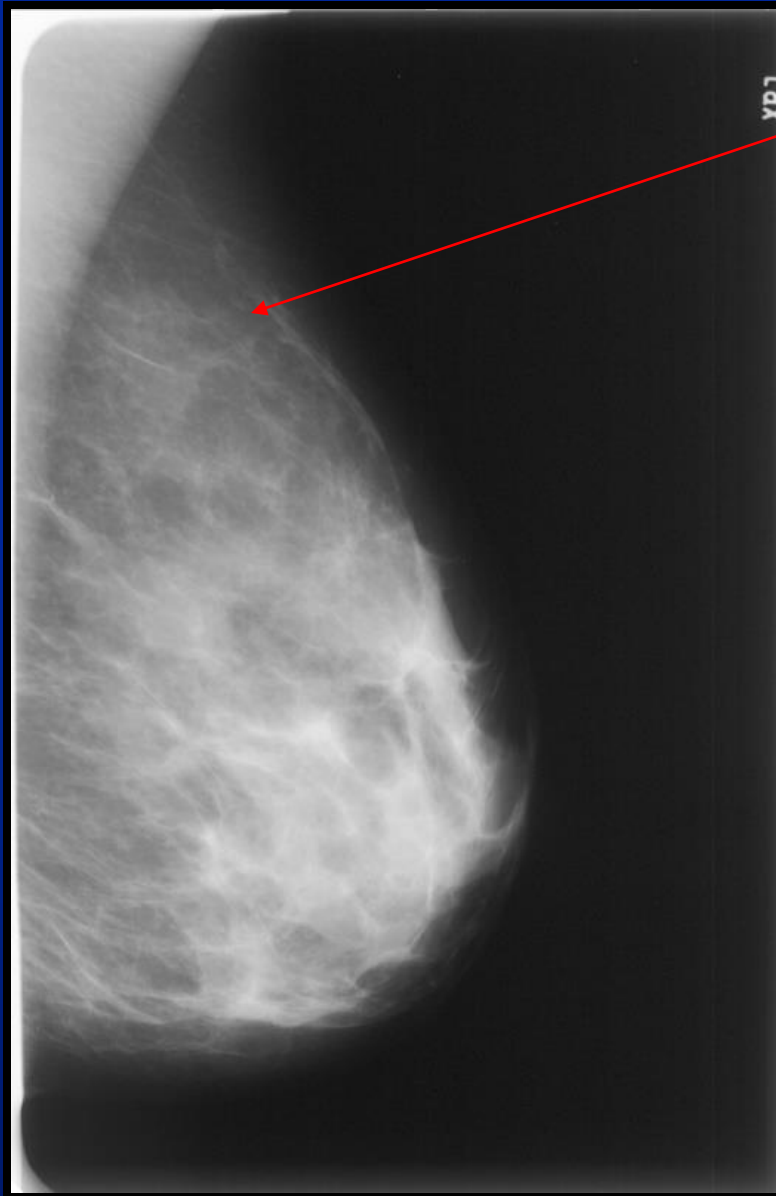
Mammografi, kvinde 41 år axillær projektion.



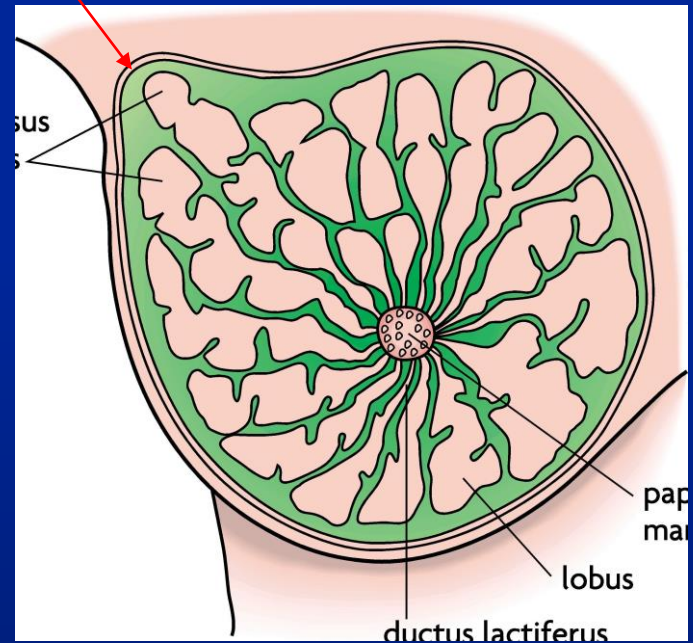
Mammografi, kvinde 41 år axillær projektion.



Mammografi, kvinde 40 år axillærprojektion.

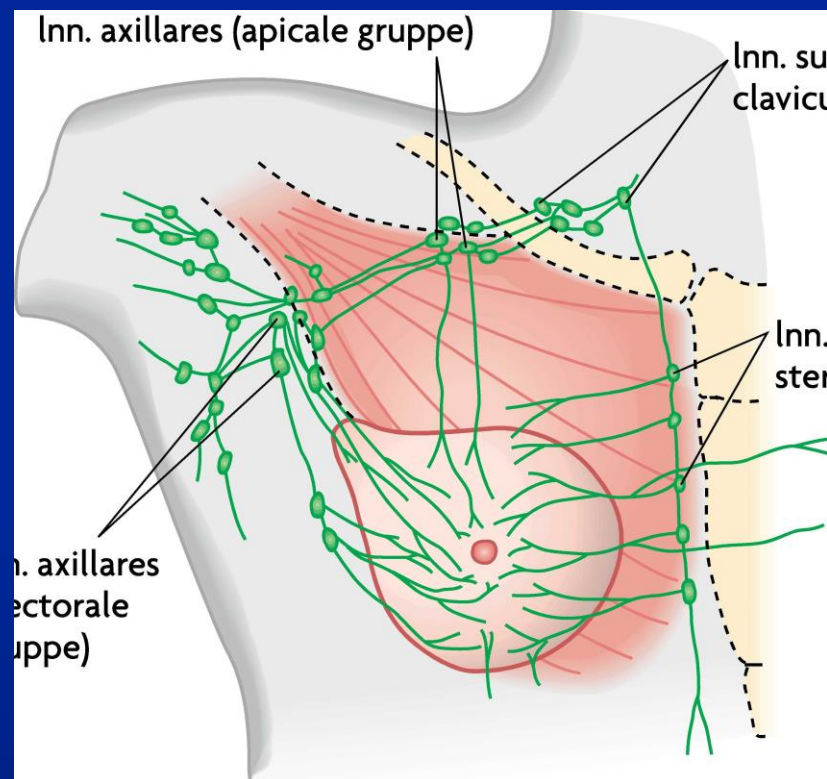
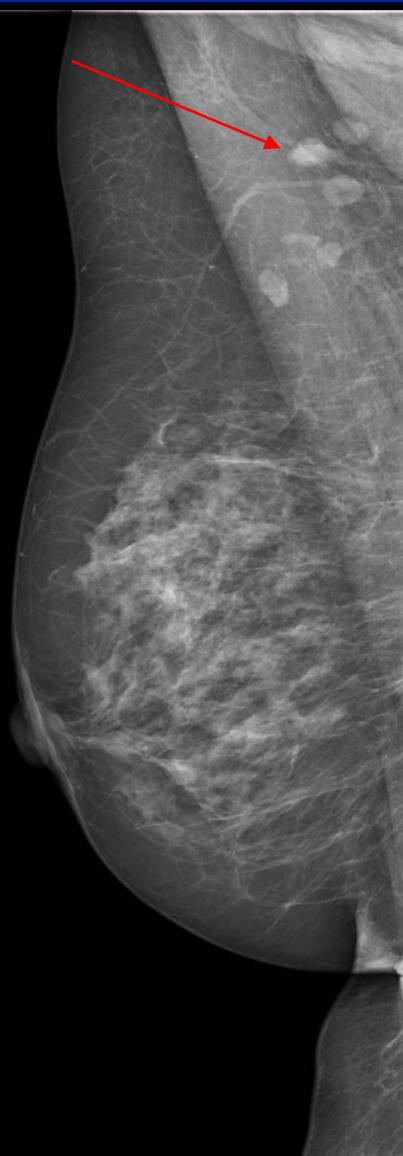


Processus axillaris



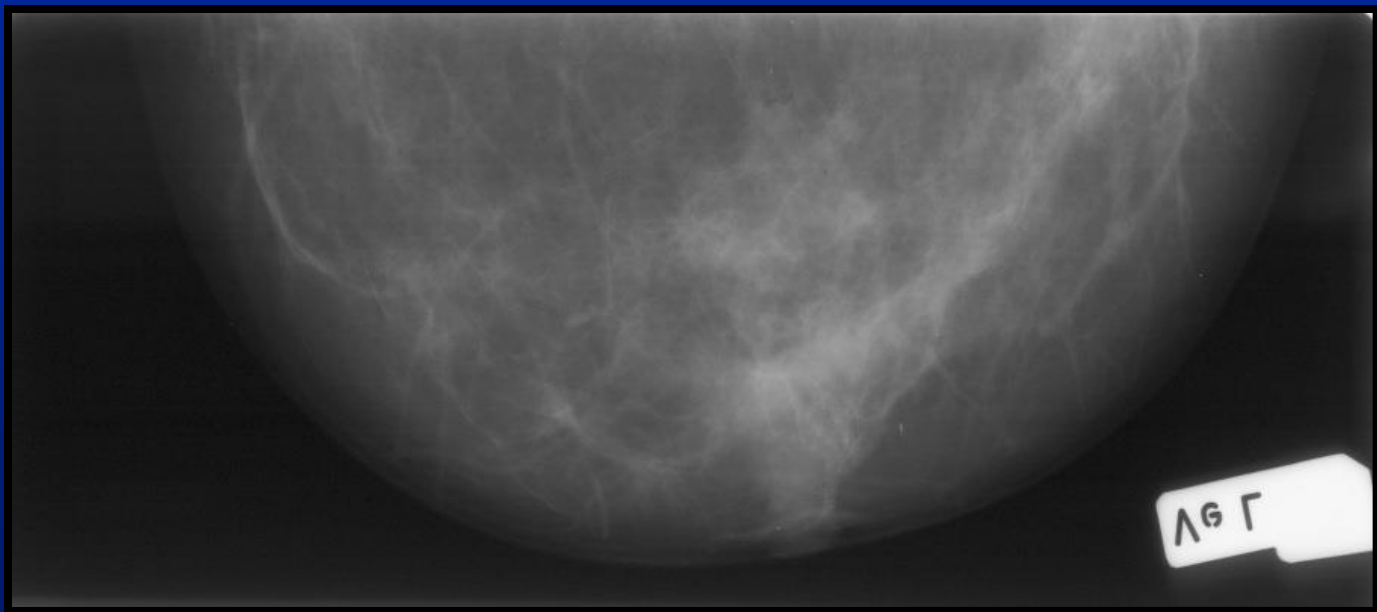
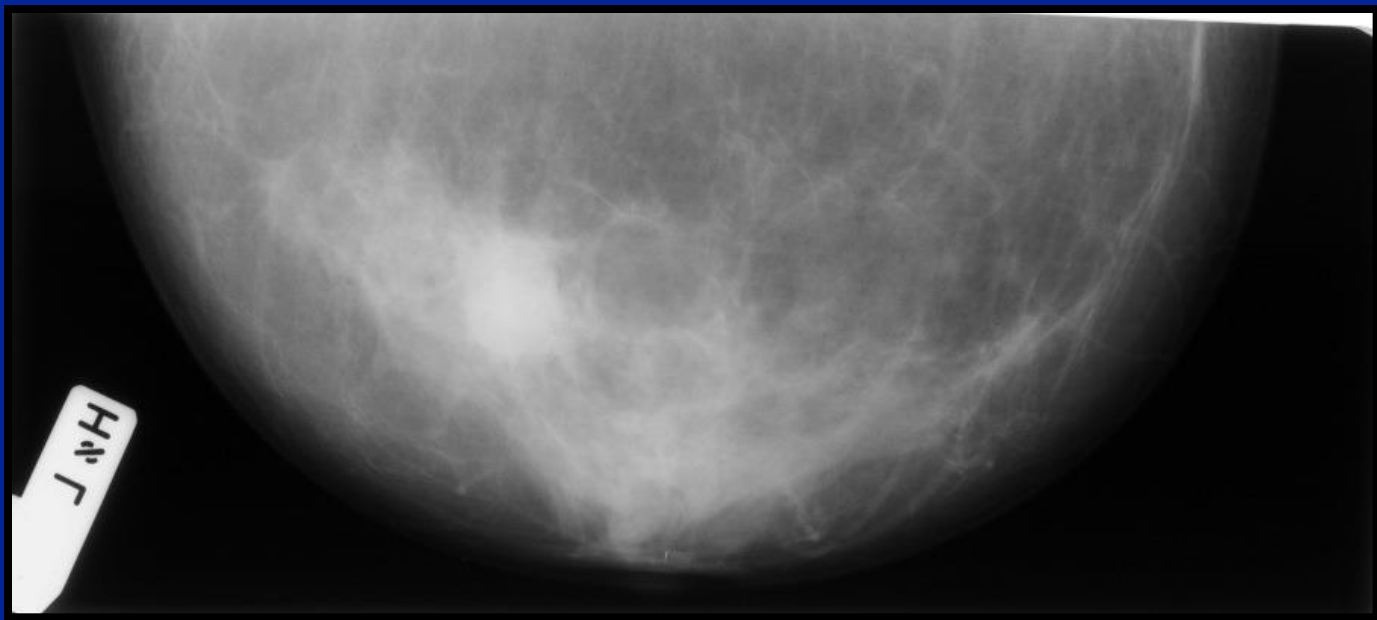
Mammografi, kvinde 65 år skråprojektion.

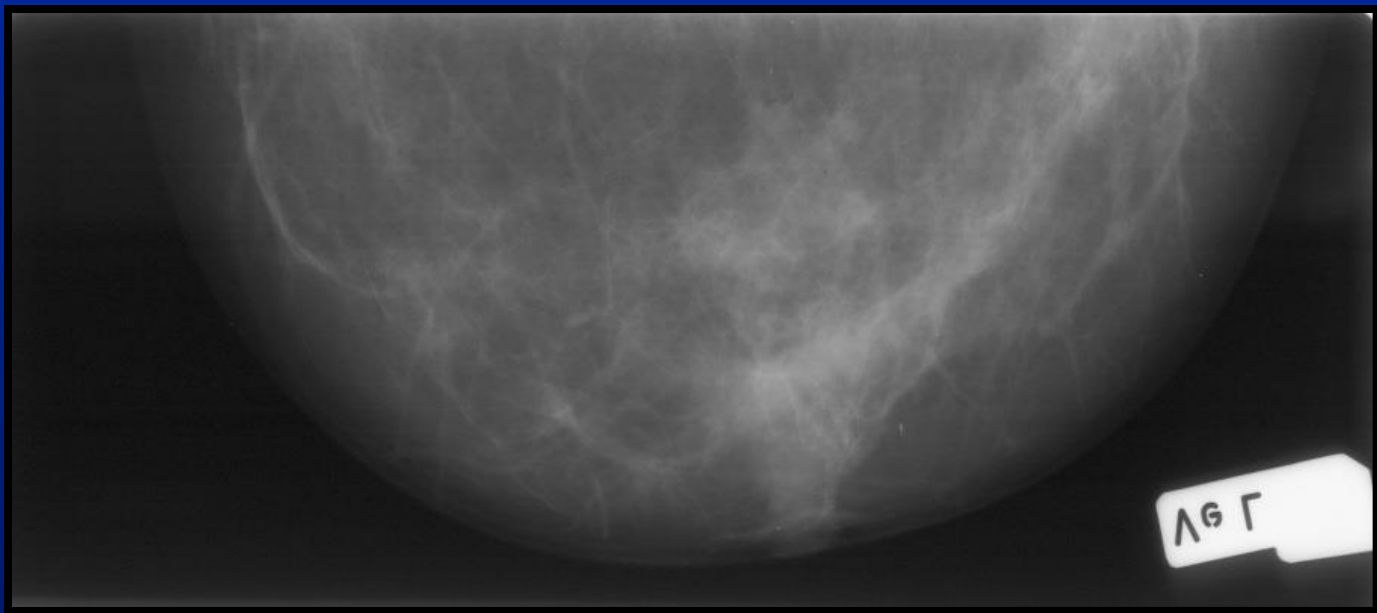
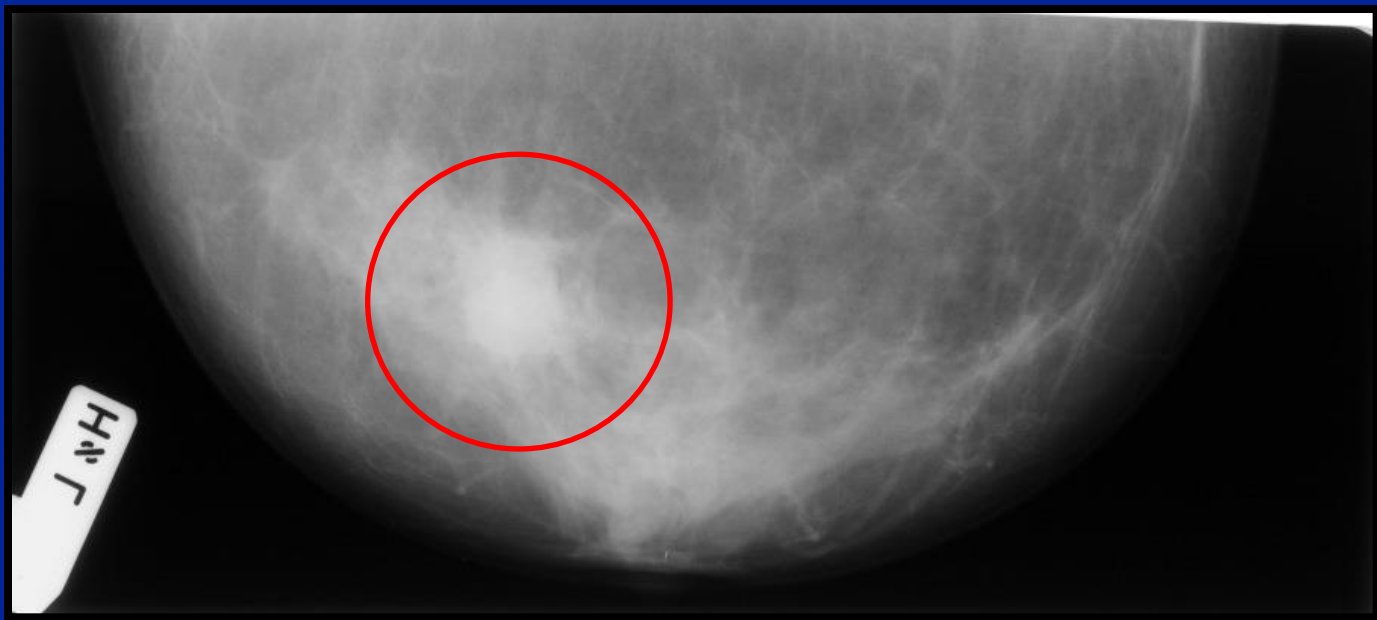
R-MLO



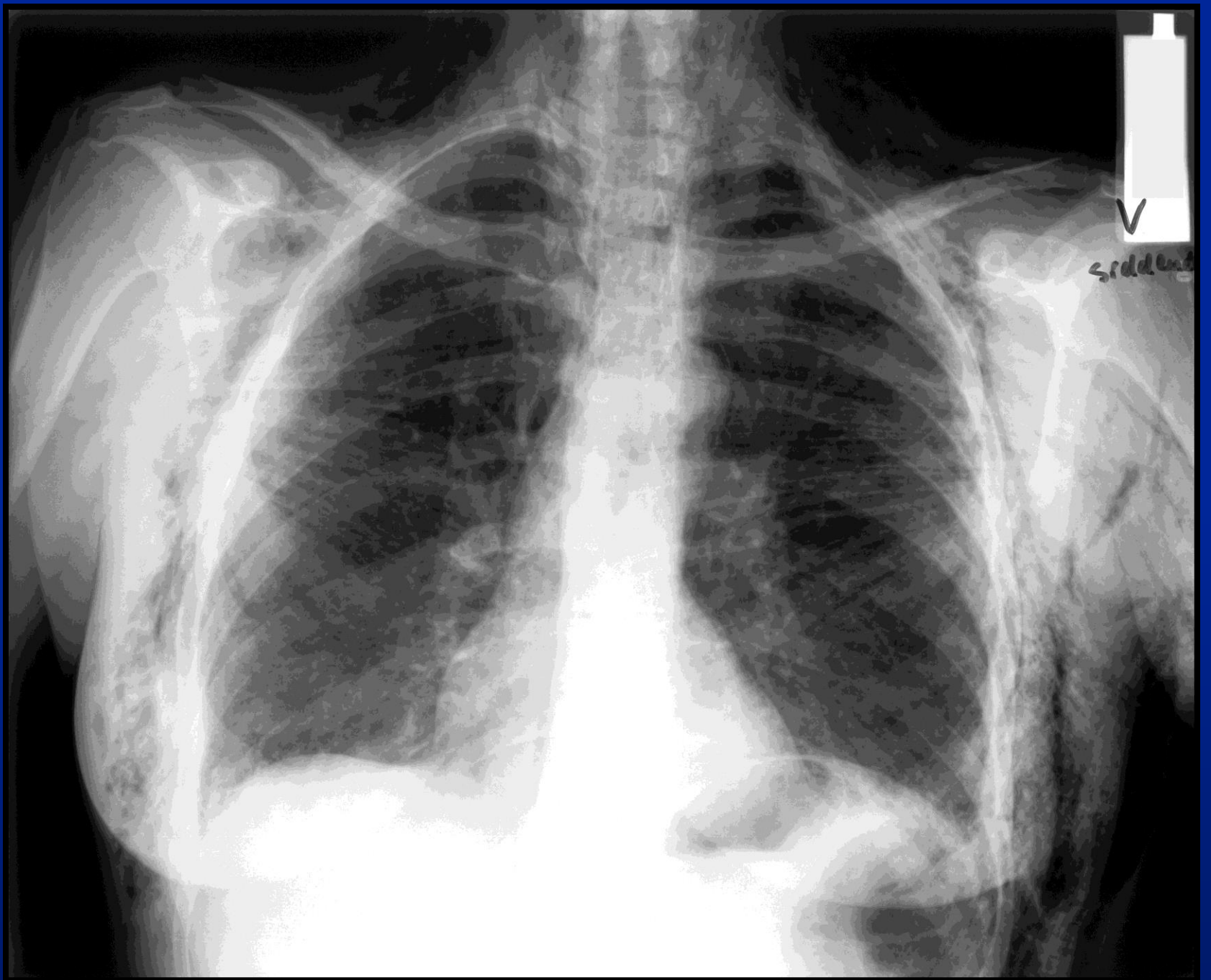
Lnn. axillares (pectorale gruppe -> centrale, laterale, subscapulære og apikale gruppe) 75 % af drænen
Lnn. parasternalis
Lnn. infraclaviculares
Drainage kaudalt og videre til peritoneum parietale

67 årig kvinde med knude i højre
bryst

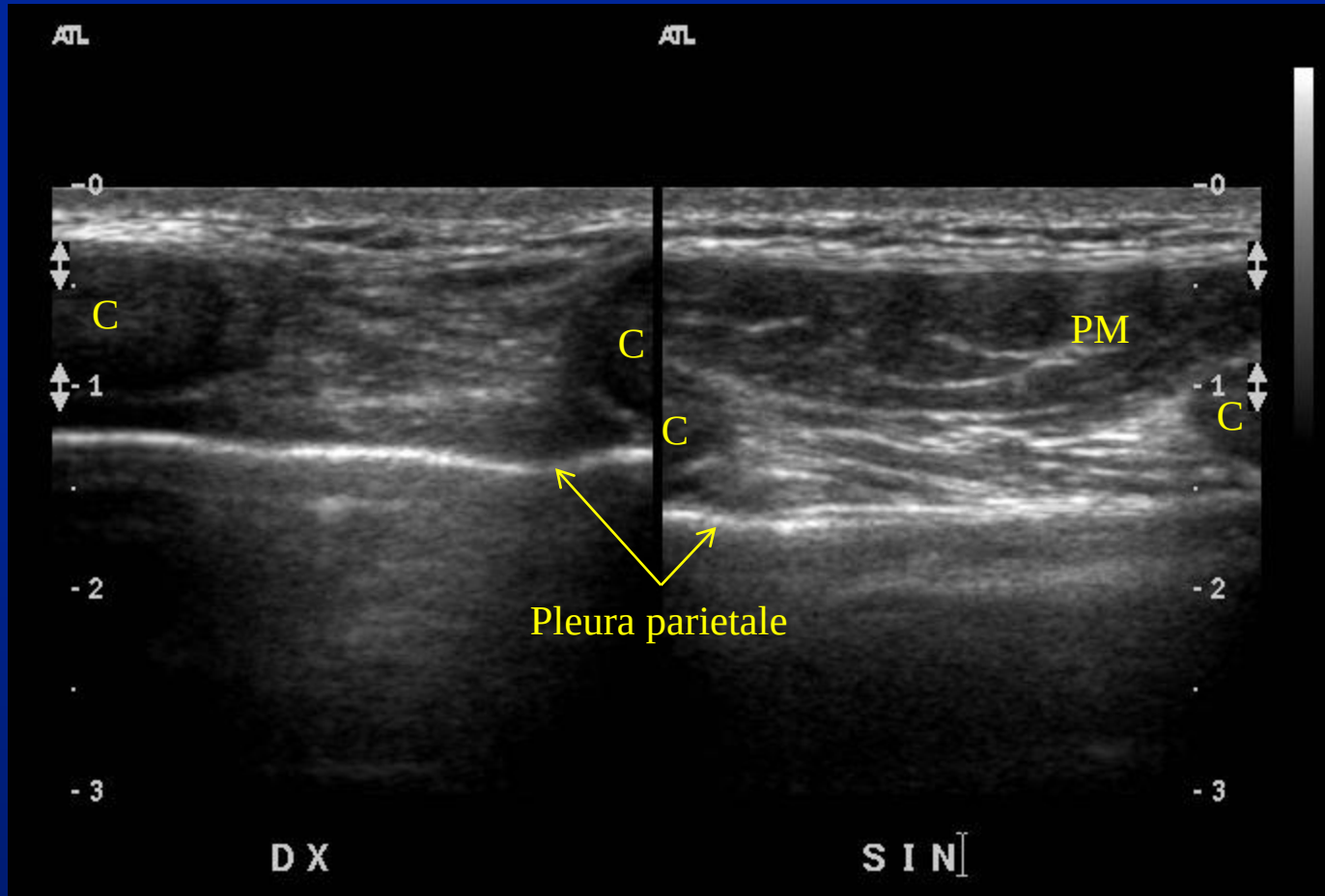




Thorax muskulatur



Poland syndrom: Hypo- eller aplasi af brystmuskulaturen på den ene side af kroppen



Sagittal UL billede af thoraxvæggen anteriort på hhv. højre (dx) og venstre side (sin)

15-årig dreng

Poland syndrom: Hypo- eller aplasi af brystmuskulaturen på den ene side af kroppen

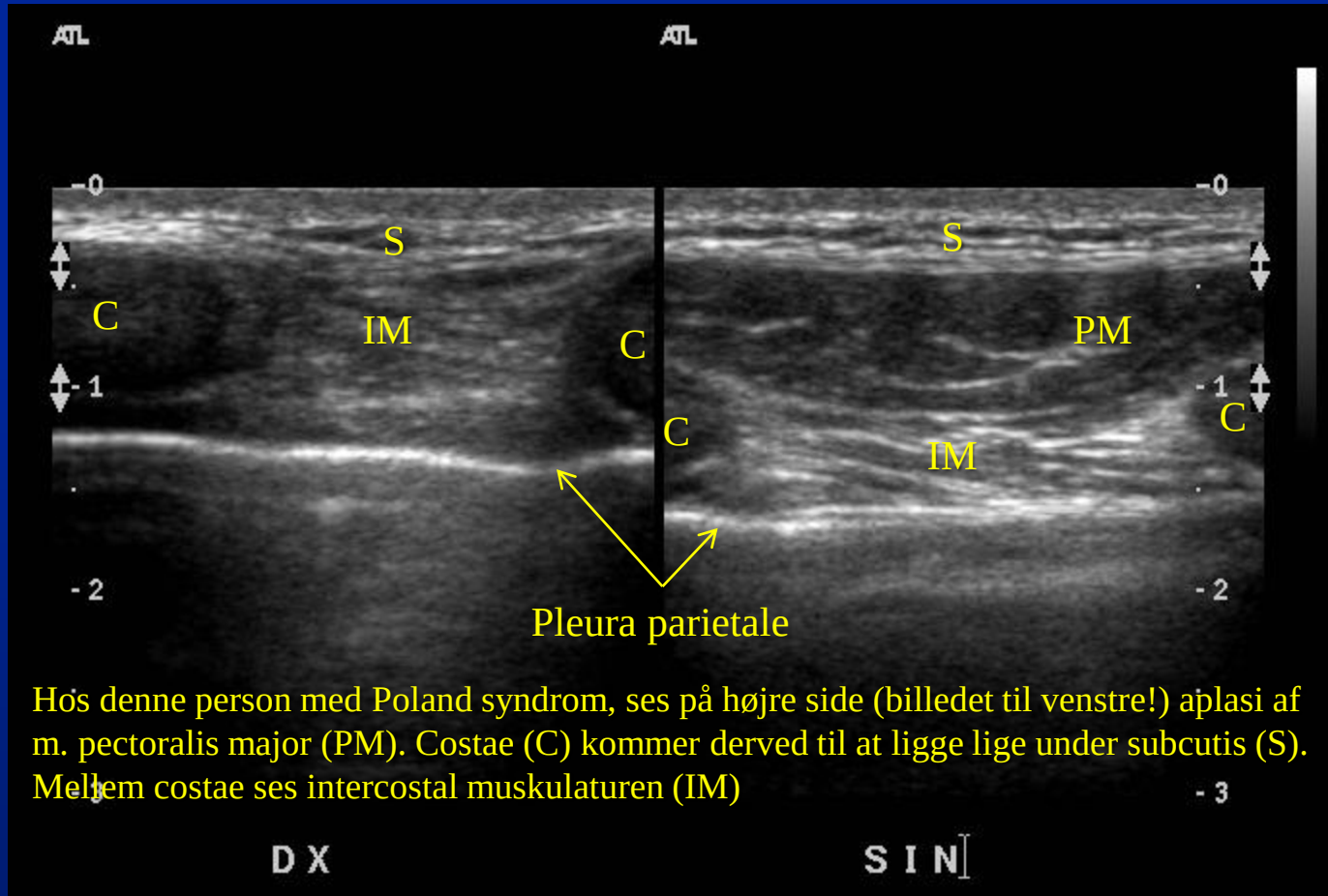
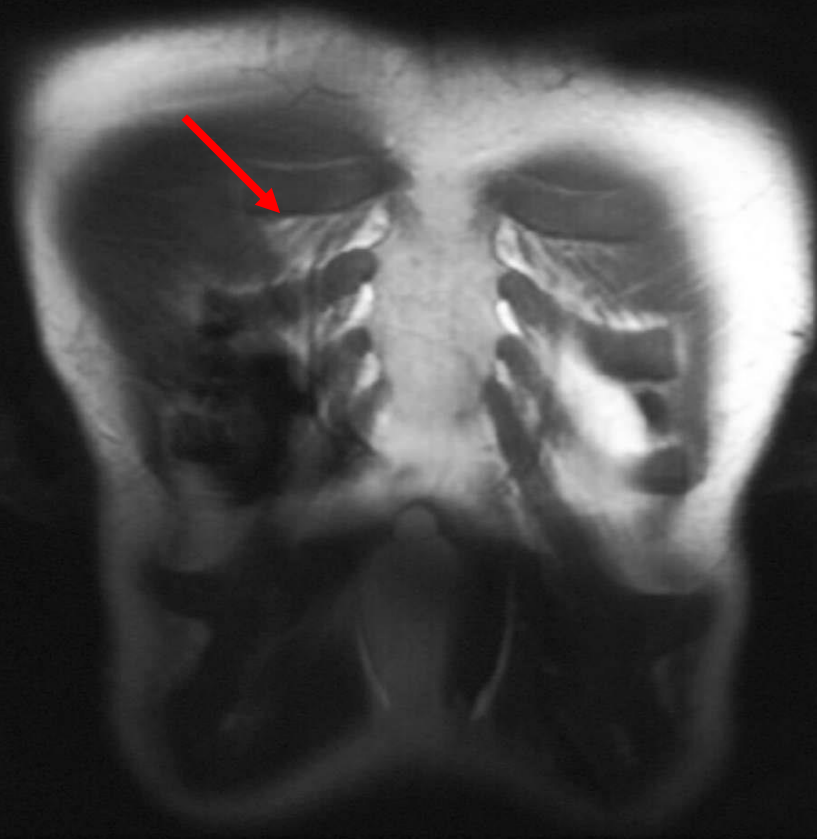
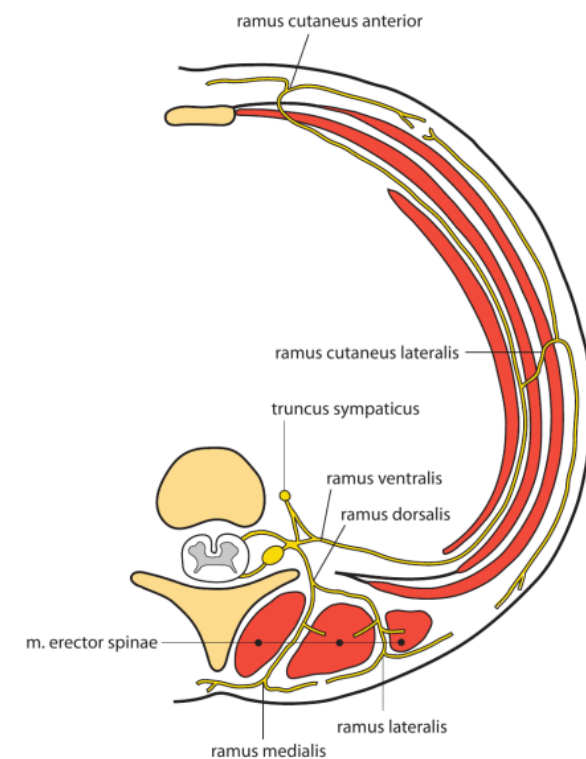
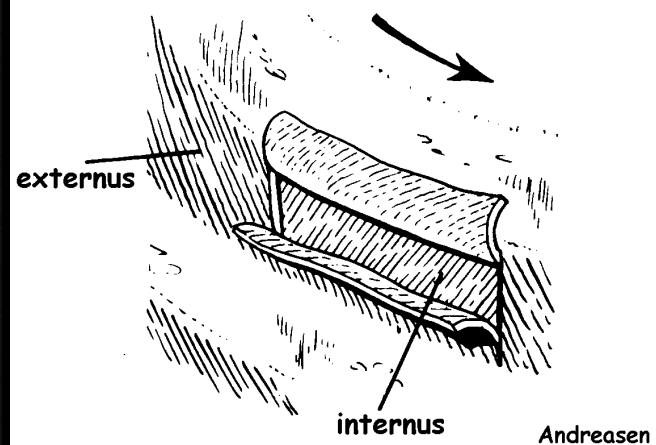


IMAGE 42
SER 1-3

R



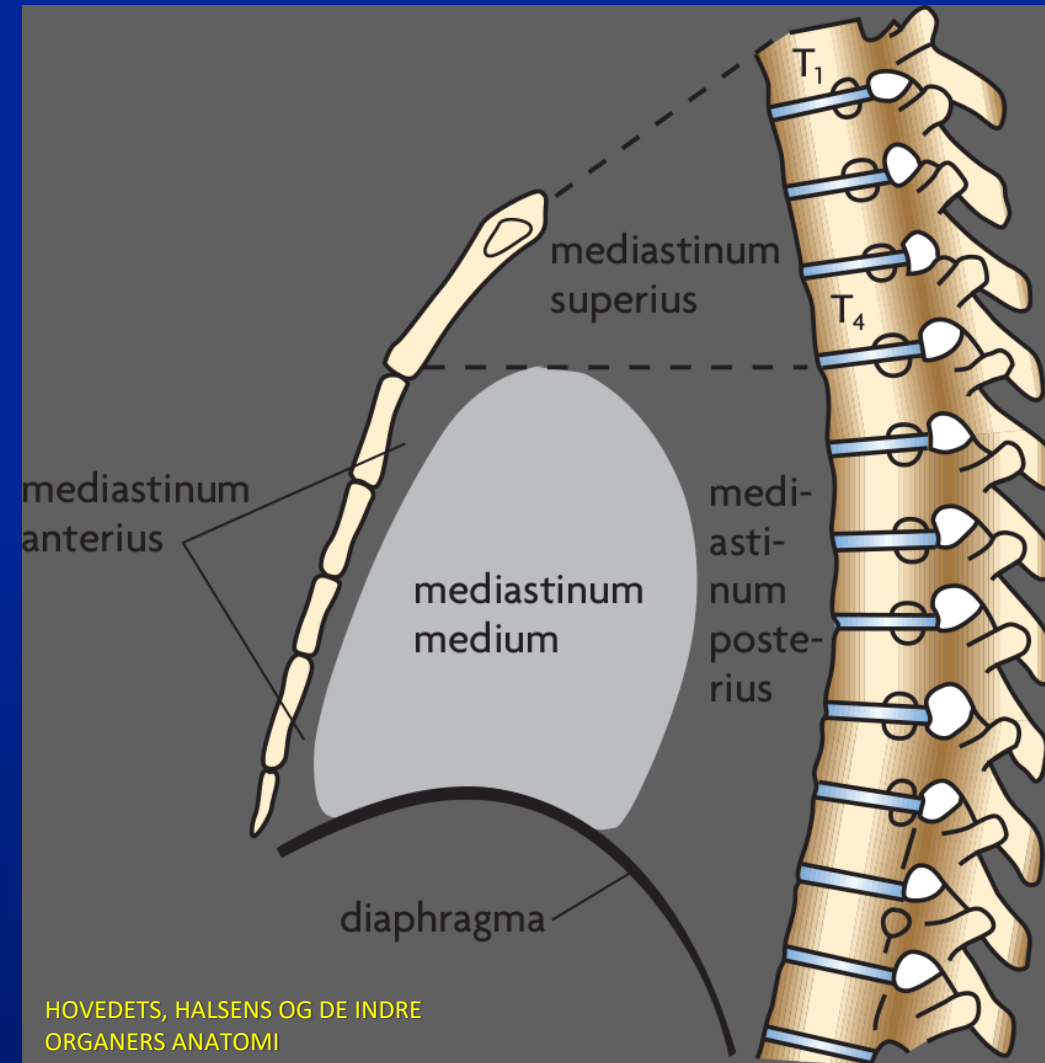
Mm. intercostales



Cavitas thoracis

Mediastinum

Mediastinum: Brystskillevæggen.

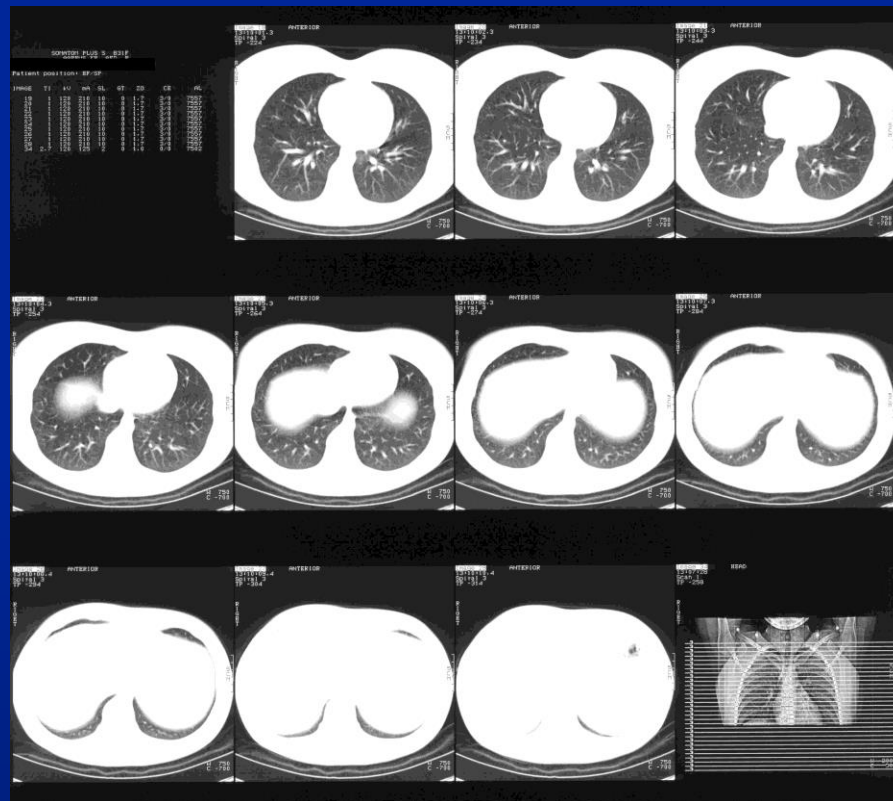
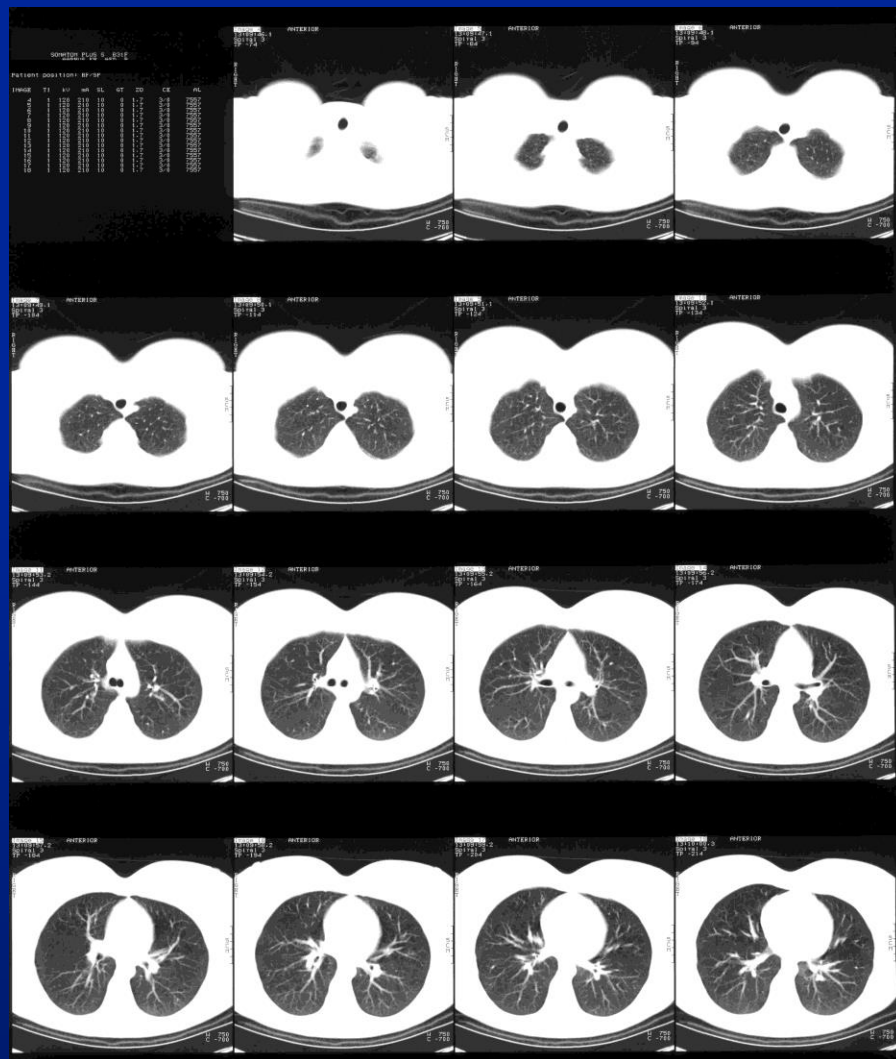


Mediastinum superius

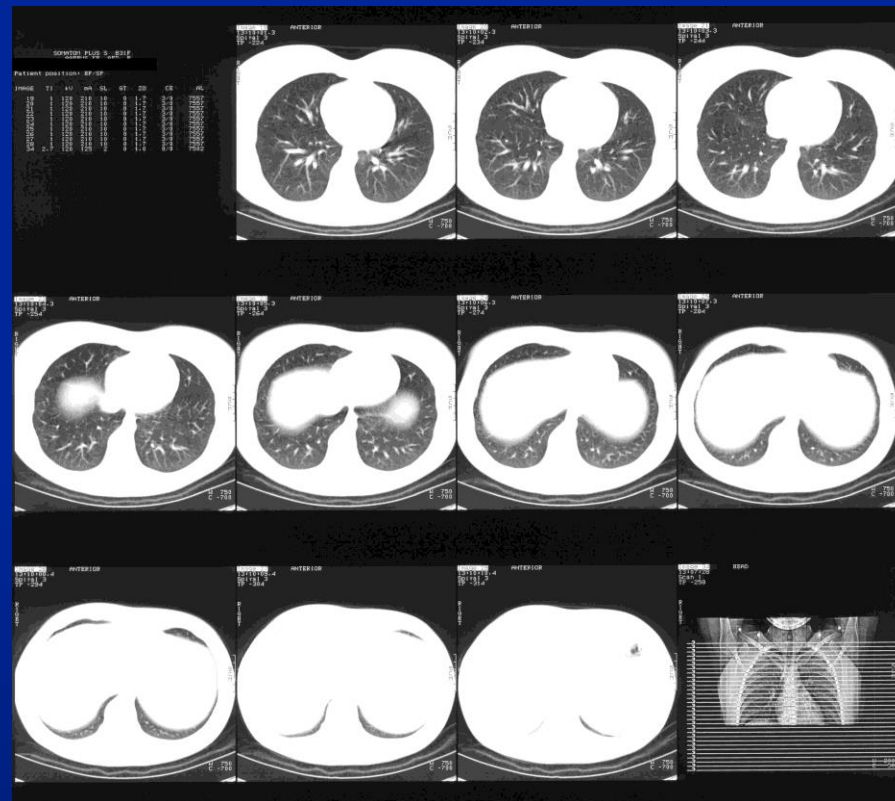
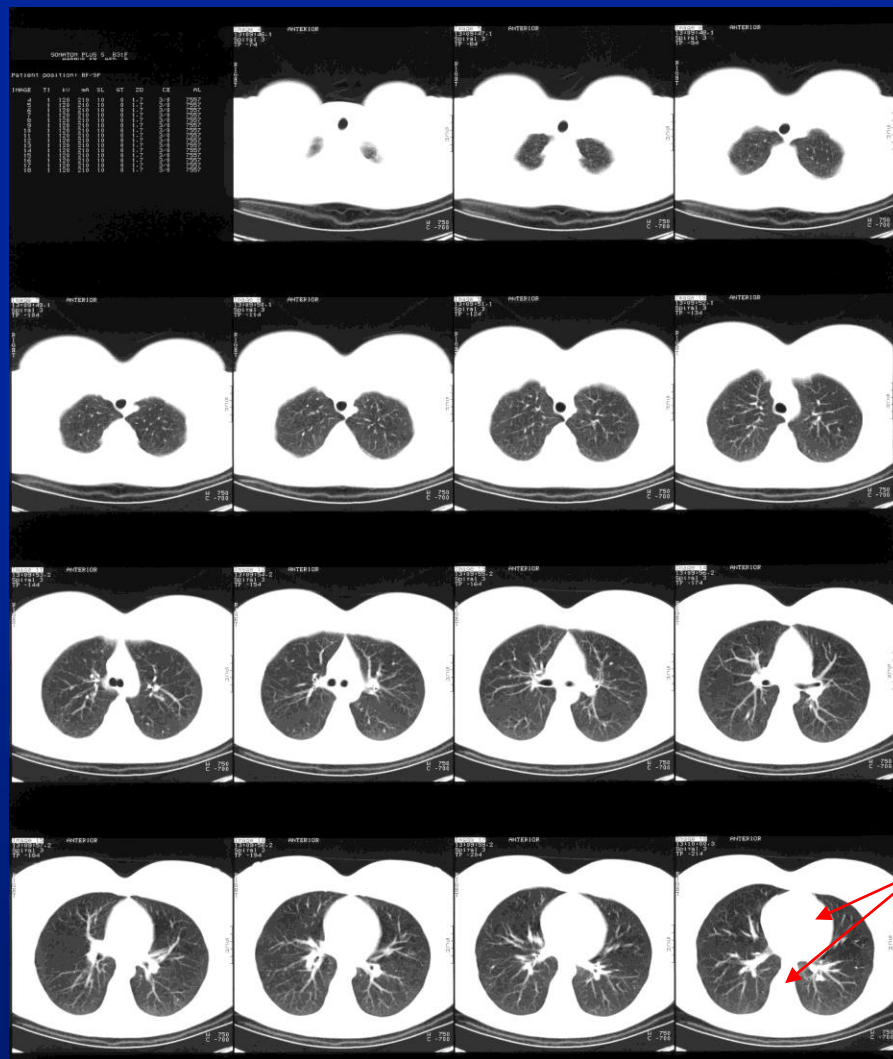
Mediastinum inferius

- Mediastinum anterius
- Mediastinum medium
- Mediastinum posterius

Mediastinum: CT thorax (lungevindue), yngre kvinde.

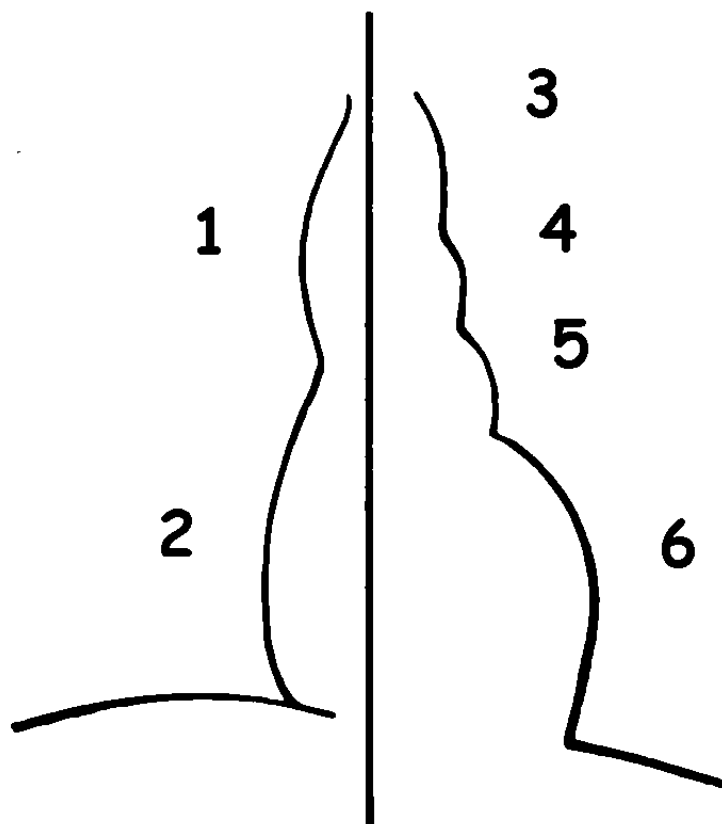


Mediastinum: CT thorax (lungevindue), yngre kvinde.



Mellem de to lungefelter ses posteriort columna og anteriort mediastinum

Mediastinum



Højre side:

1 V. cava superior

2 Højre atrium

Venstre side:

3 Aortabuen

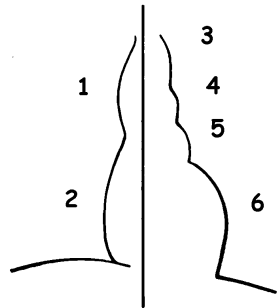
4 Truncus pulmonalis

5 Venstre atrium

6 Venstre ventrikel

Andreasen

Mediastinum



Højre side:

1 V. cava superior

2 Højre atrium

Venstre side:

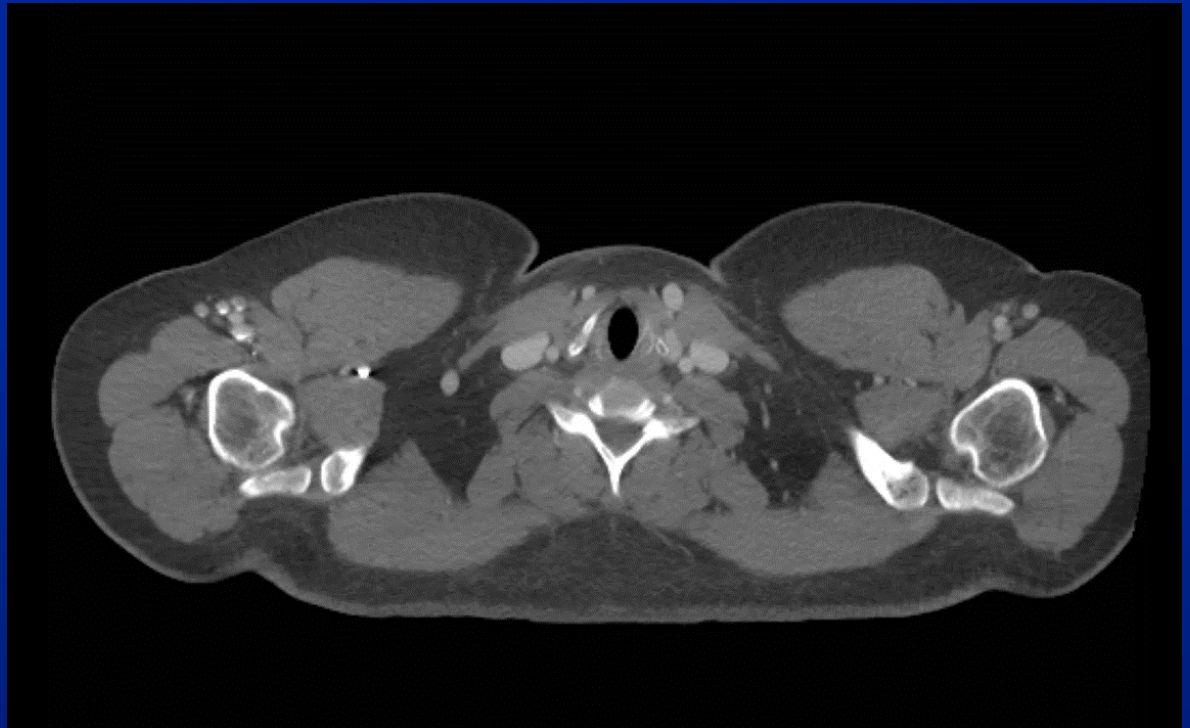
3 Aortabuen

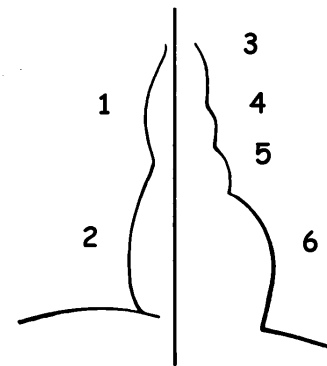
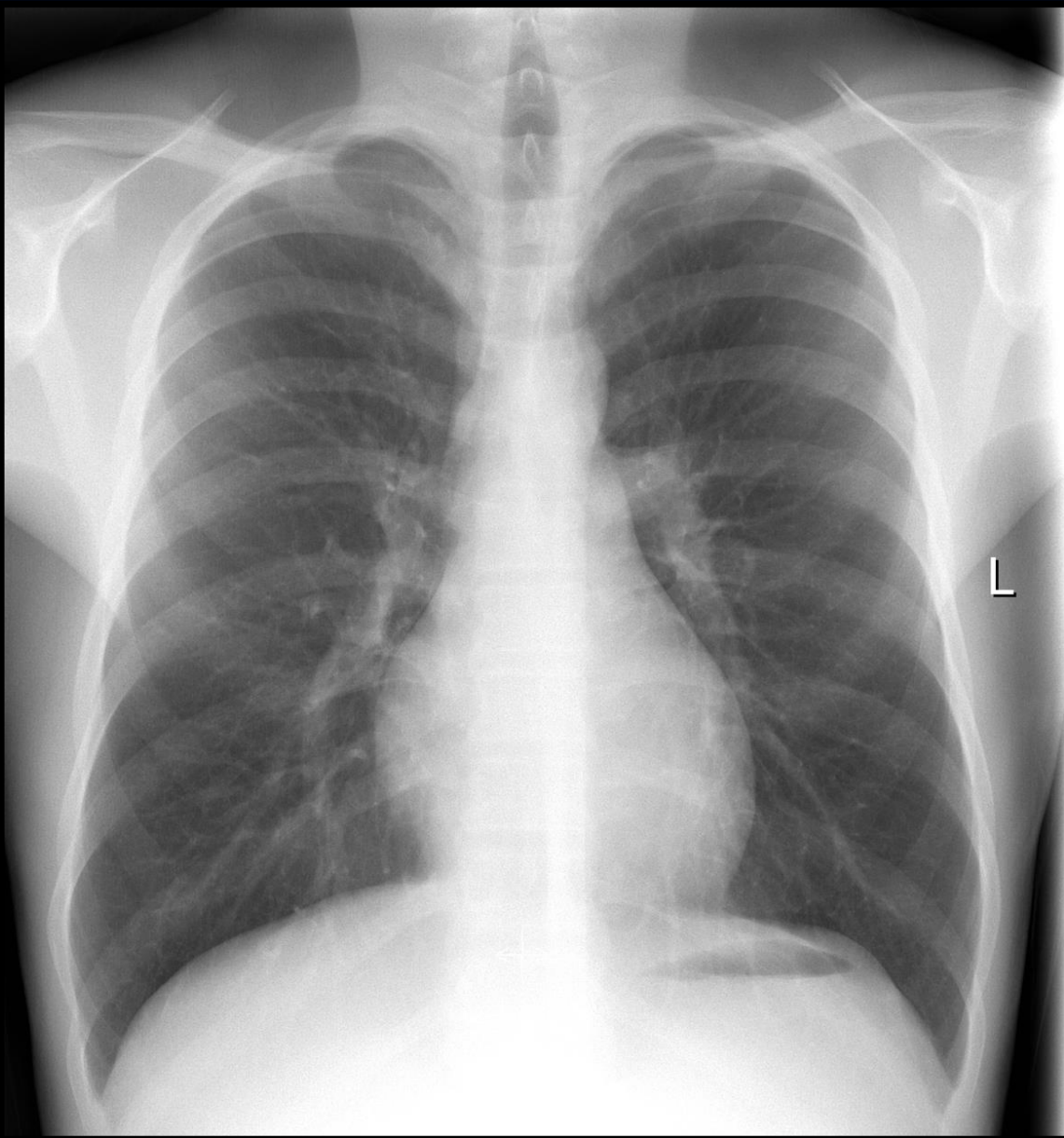
4 Truncus pulmonalis

5 Venstre atrium

6 Venstre ventrikel

Andreasen





Højre side:

1 V. cava superior

2 Højre atrium

Venstre side:

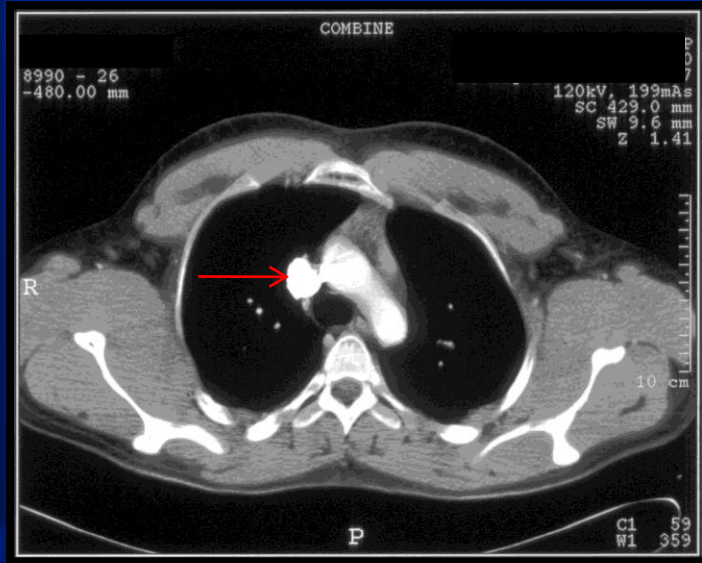
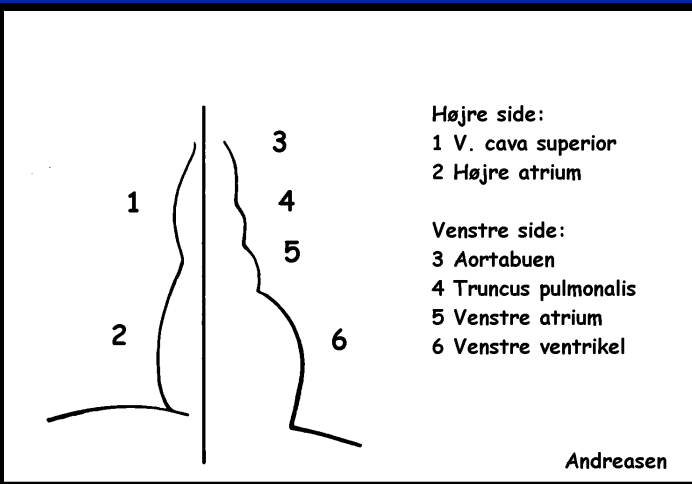
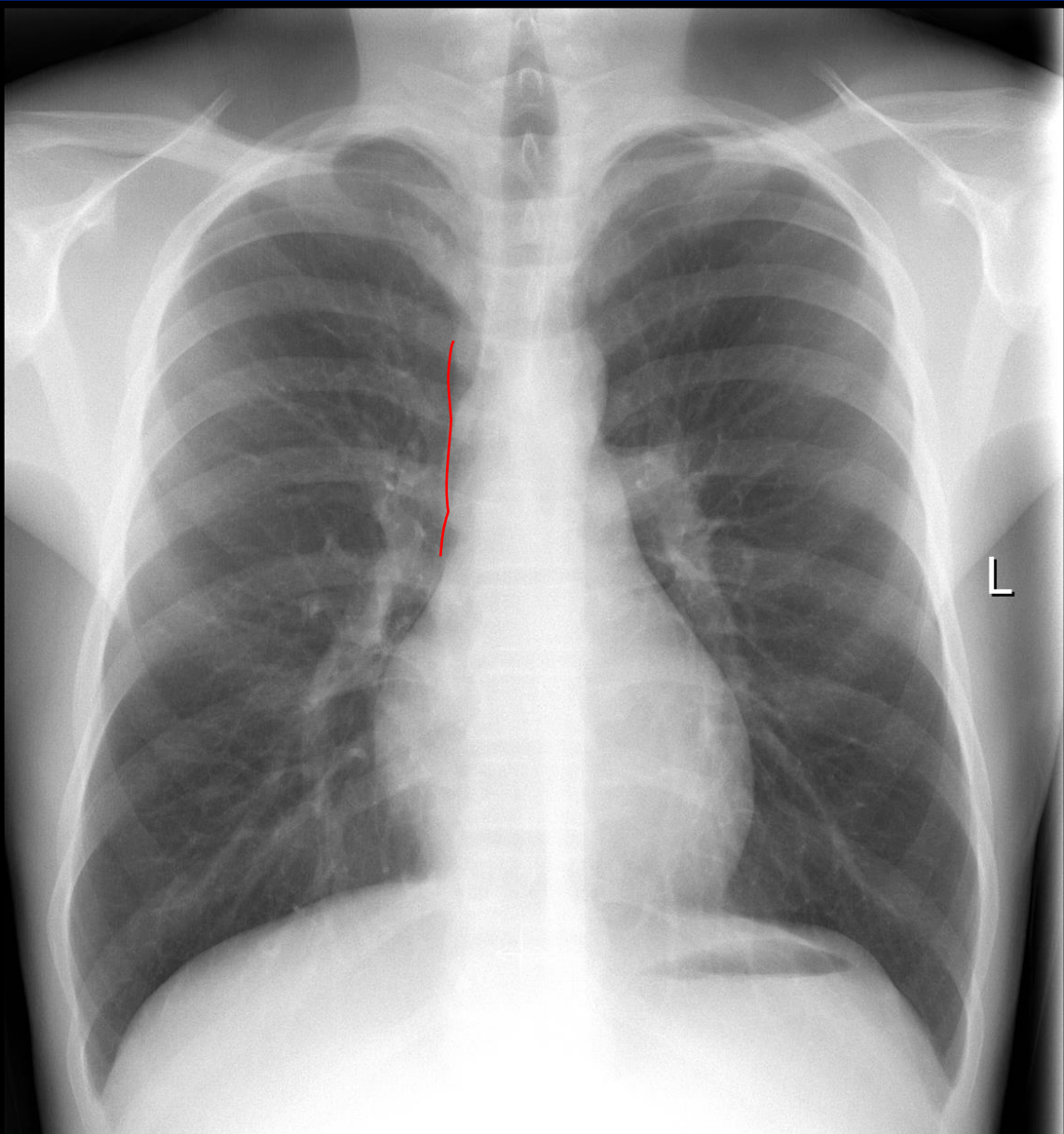
3 Aortabuen

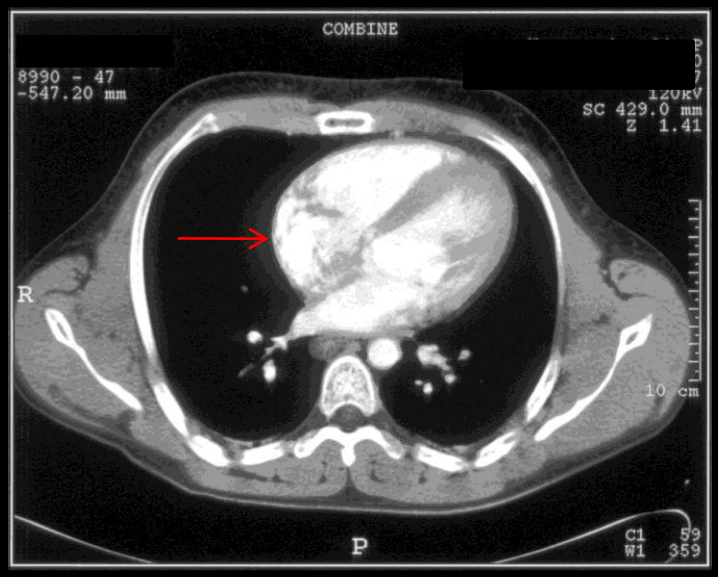
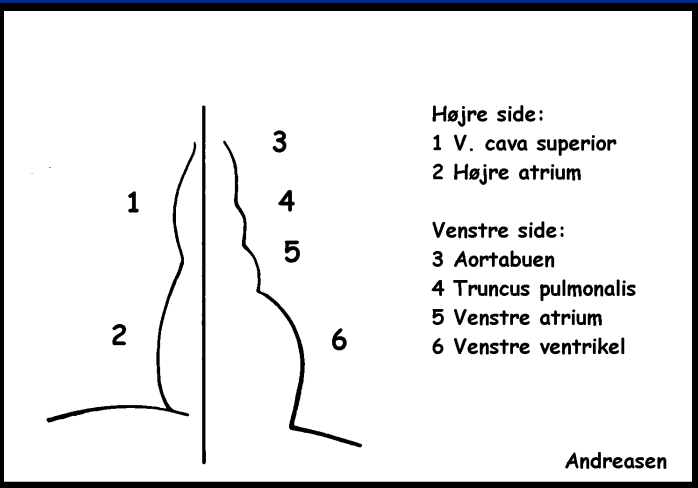
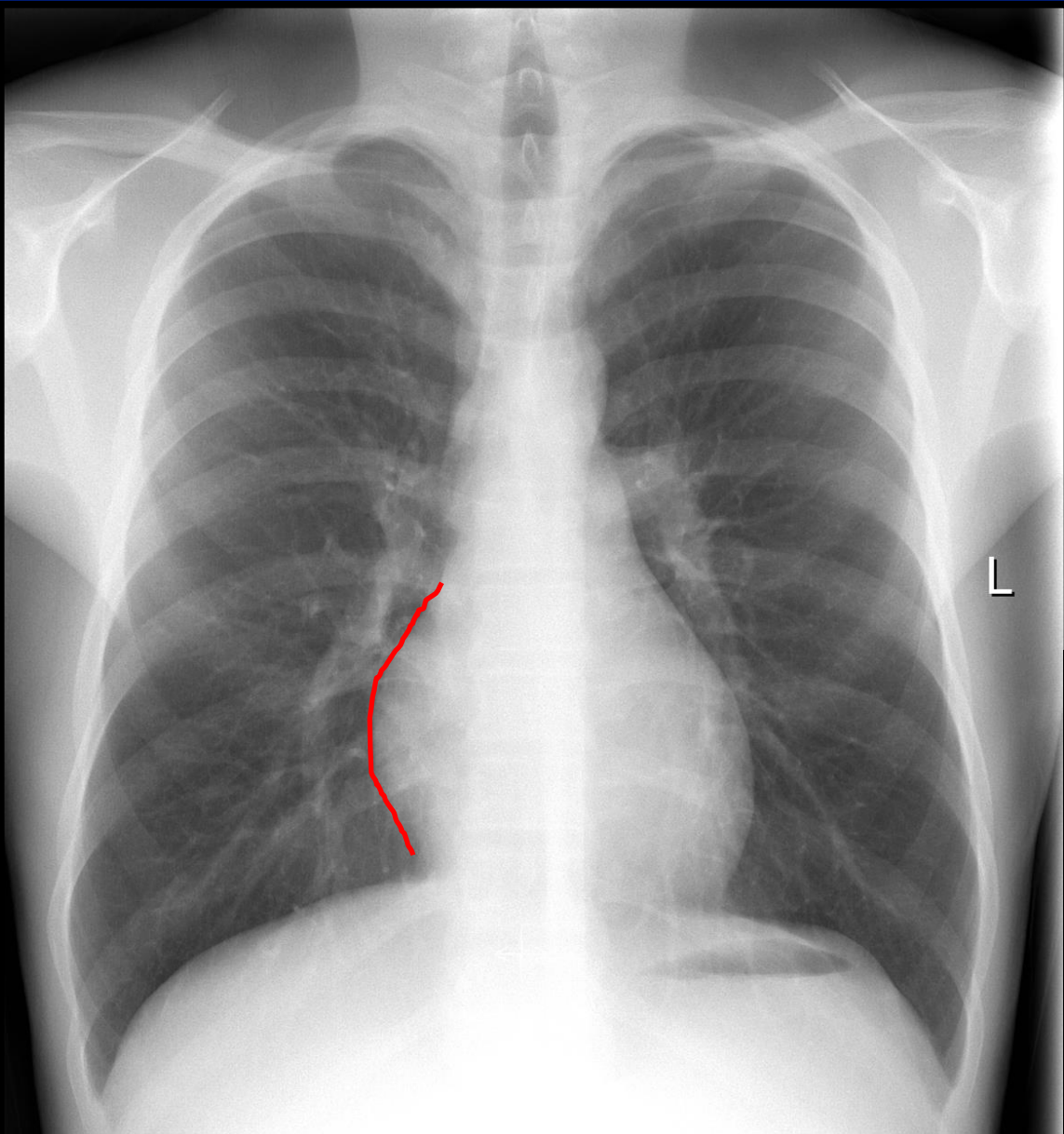
4 Truncus pulmonalis

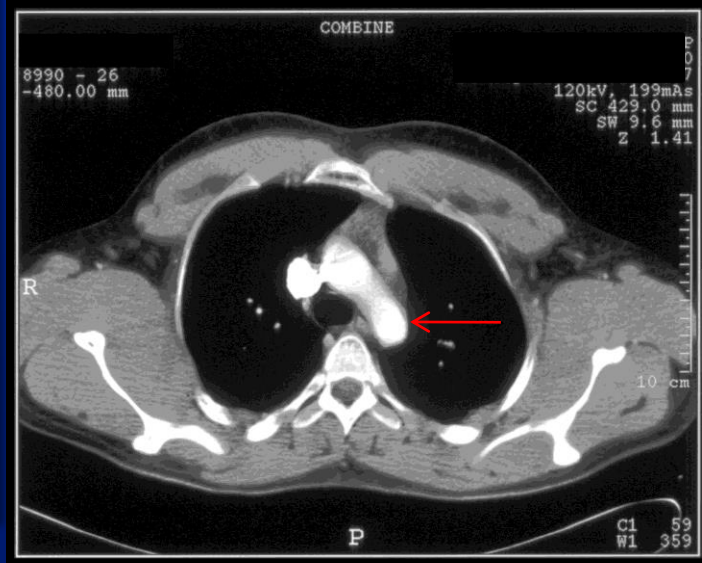
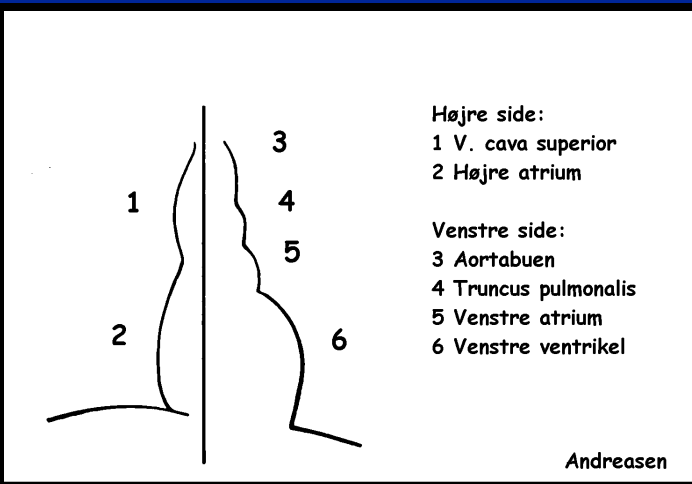
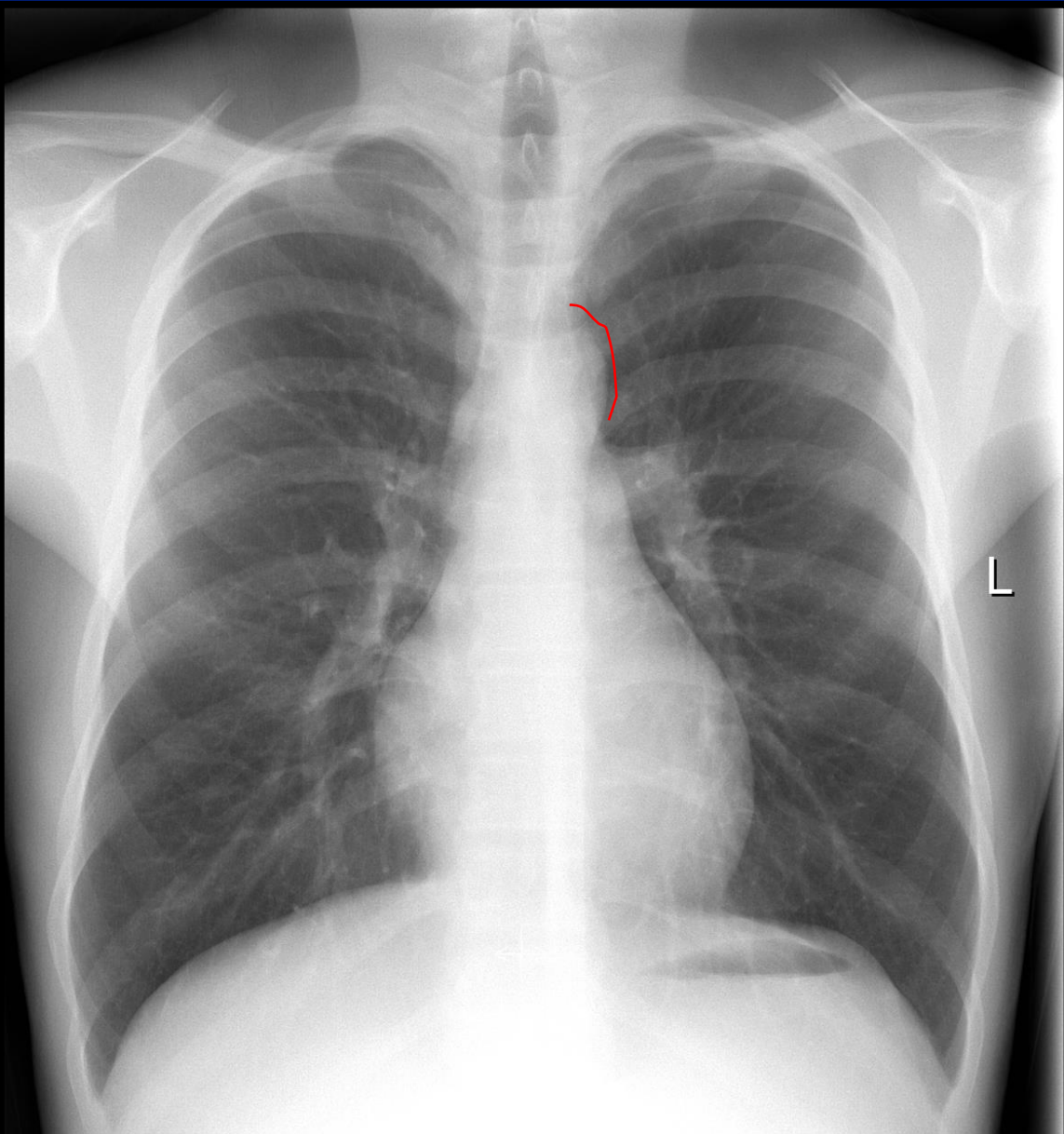
5 Venstre atrium

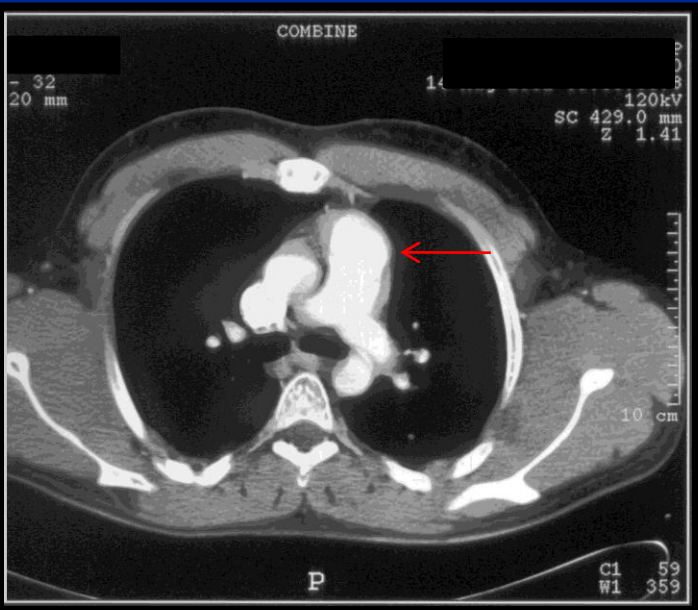
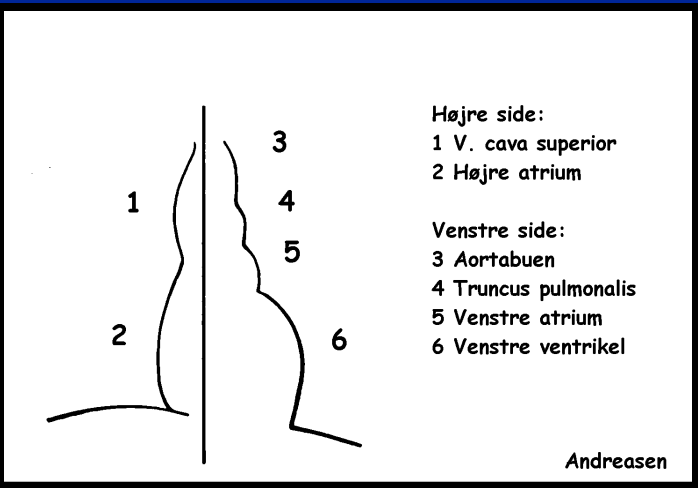
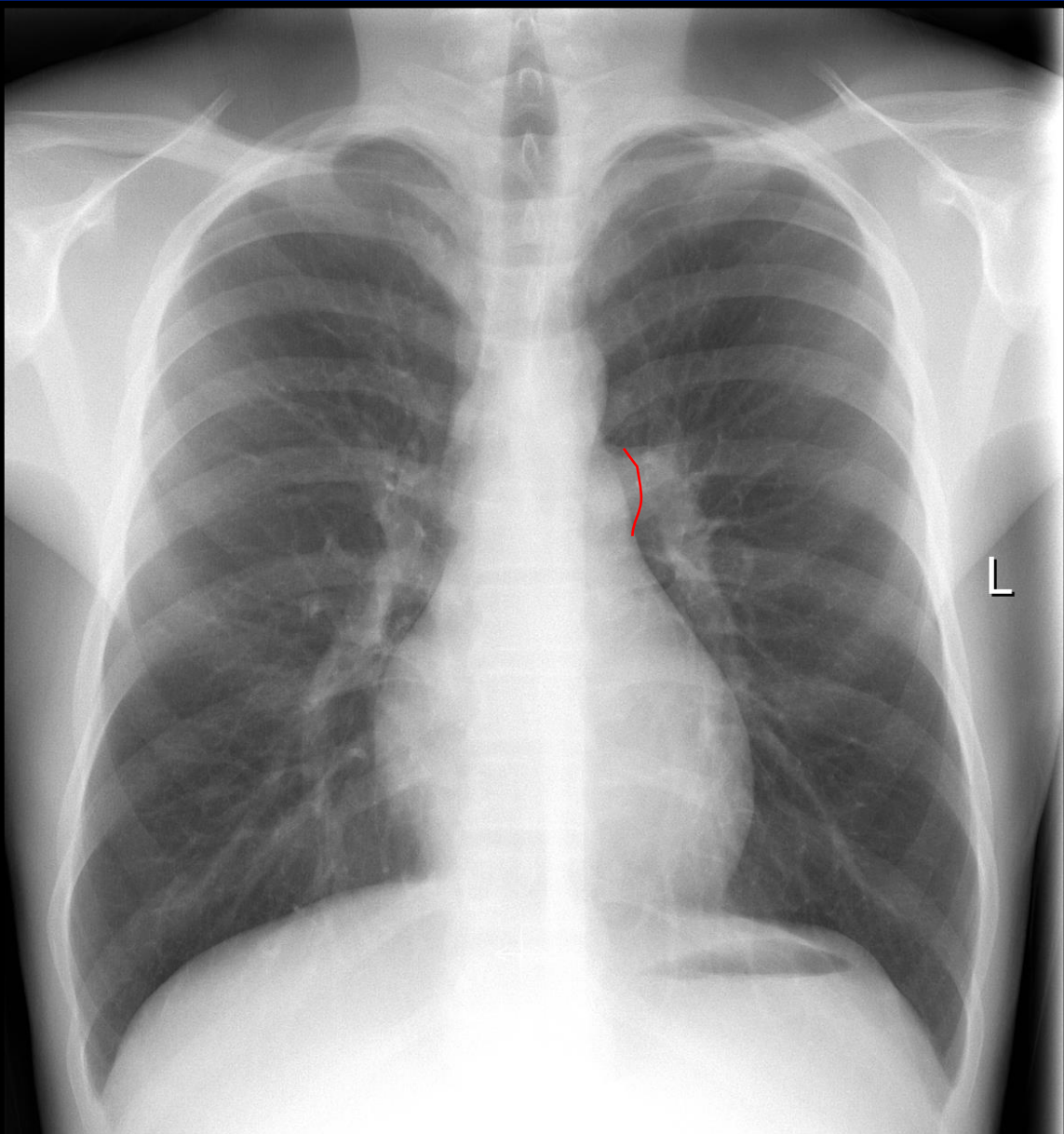
6 Venstre ventrikel

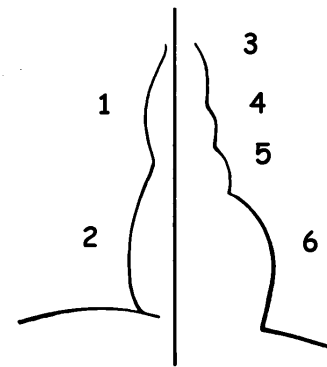
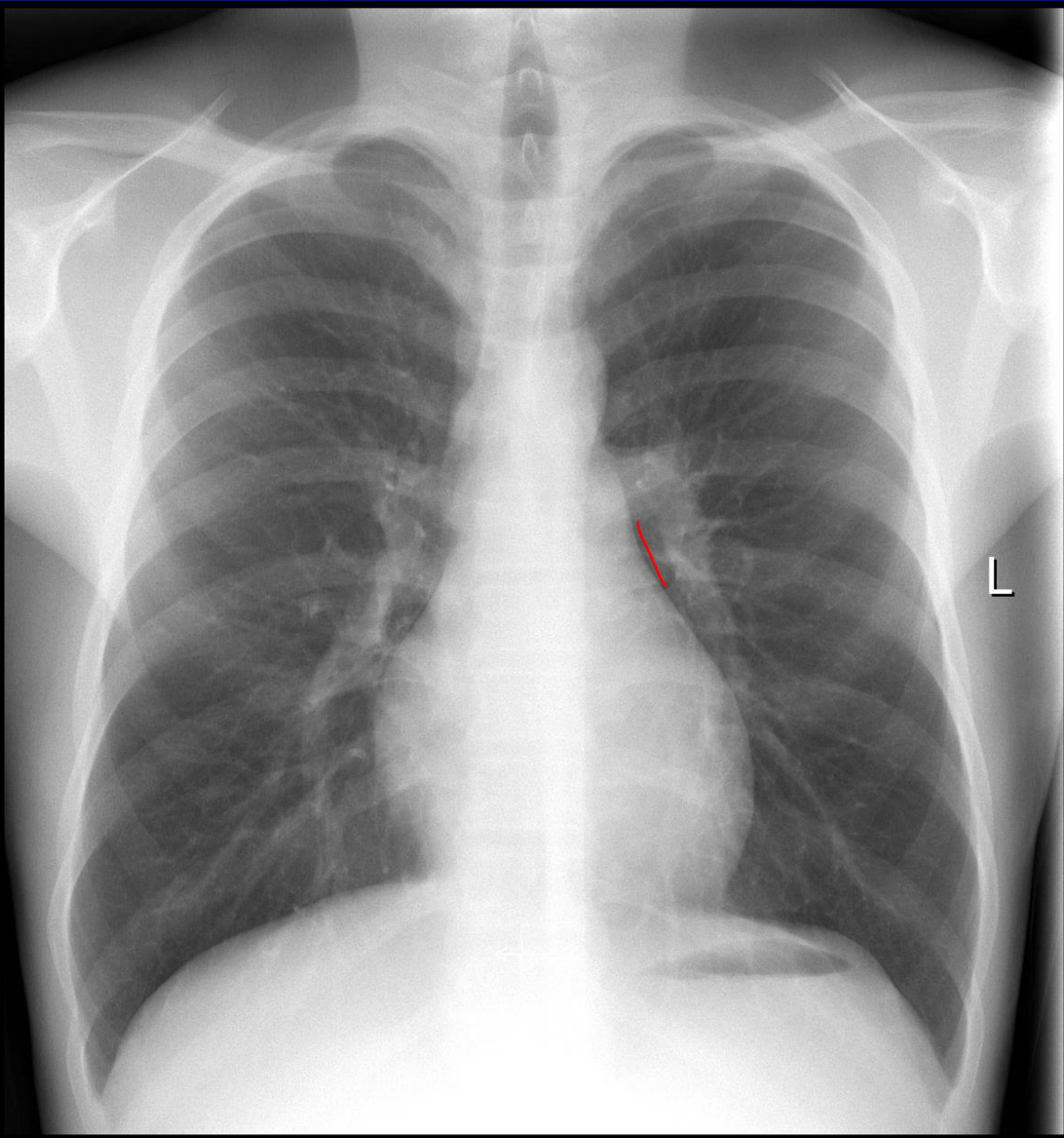
Andreasen







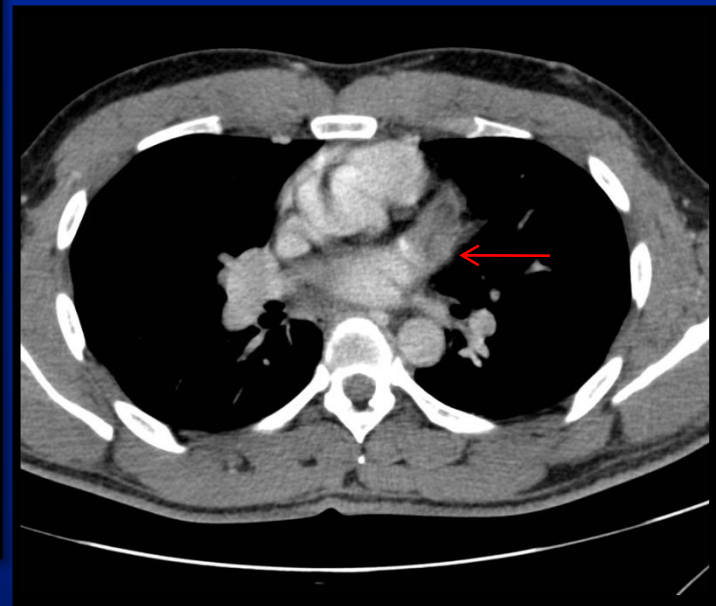


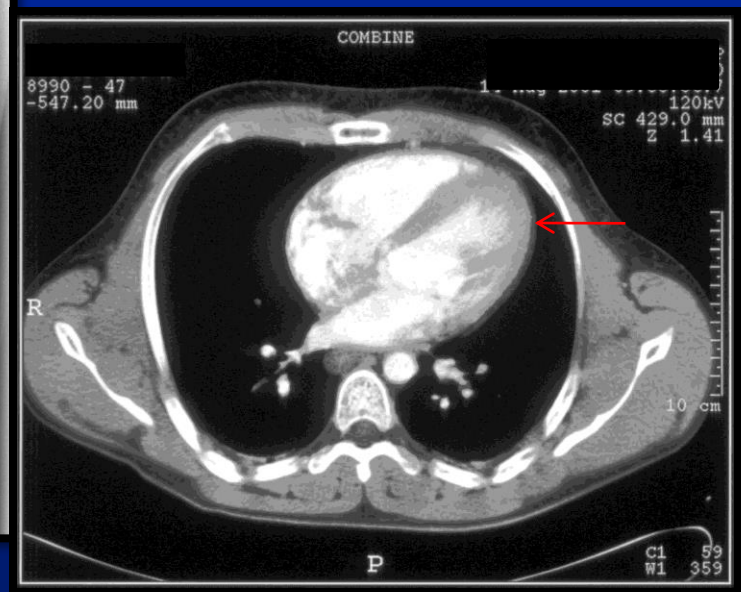
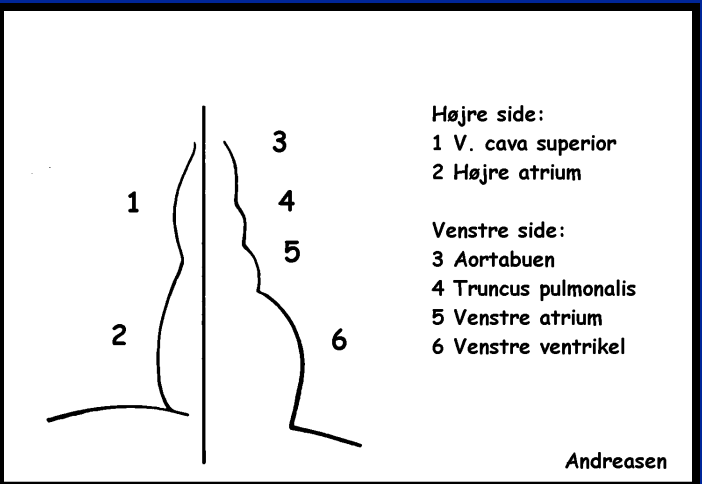
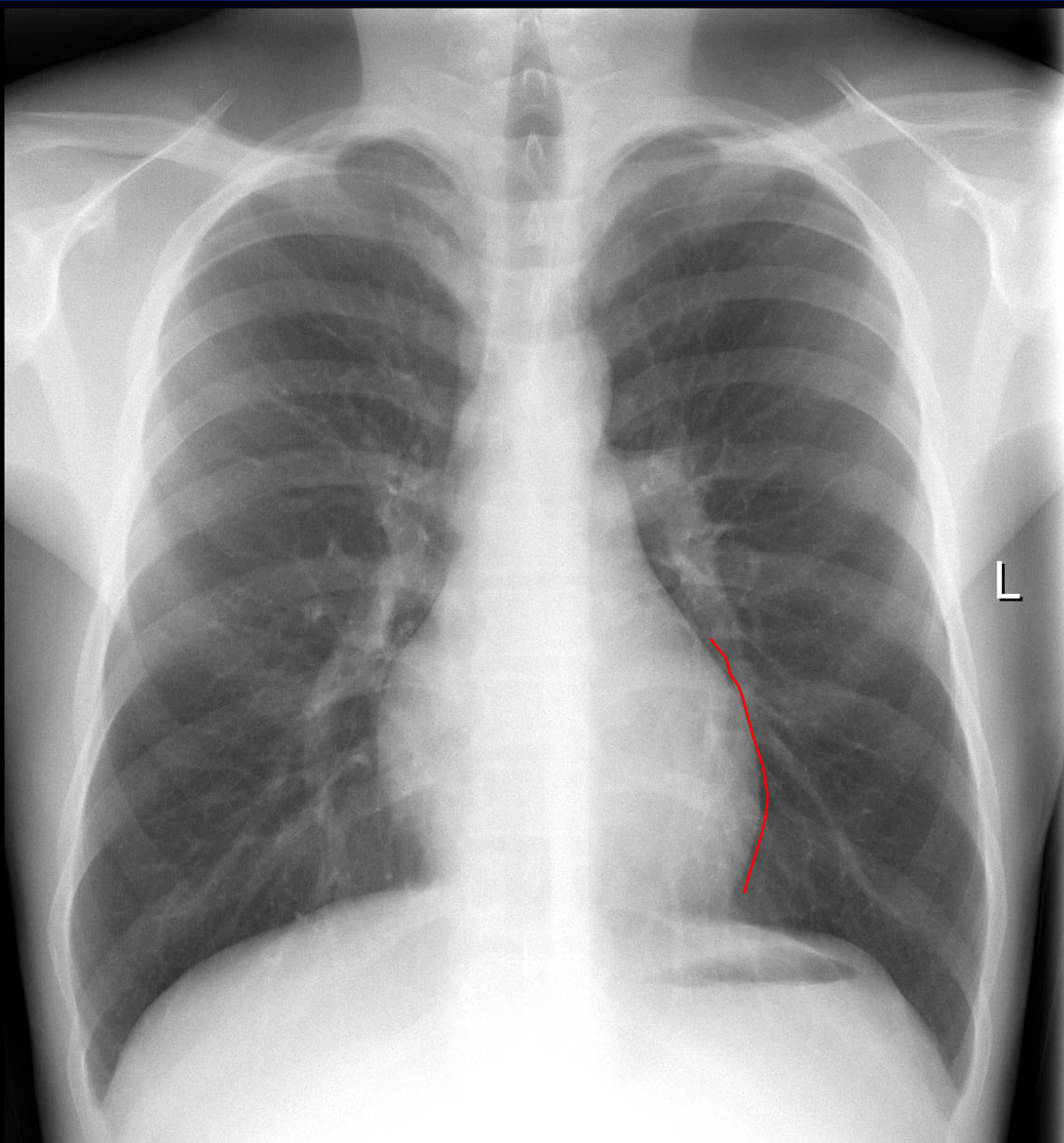


Højre side:
1 V. cava superior
2 Højre atrium

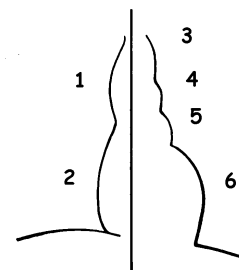
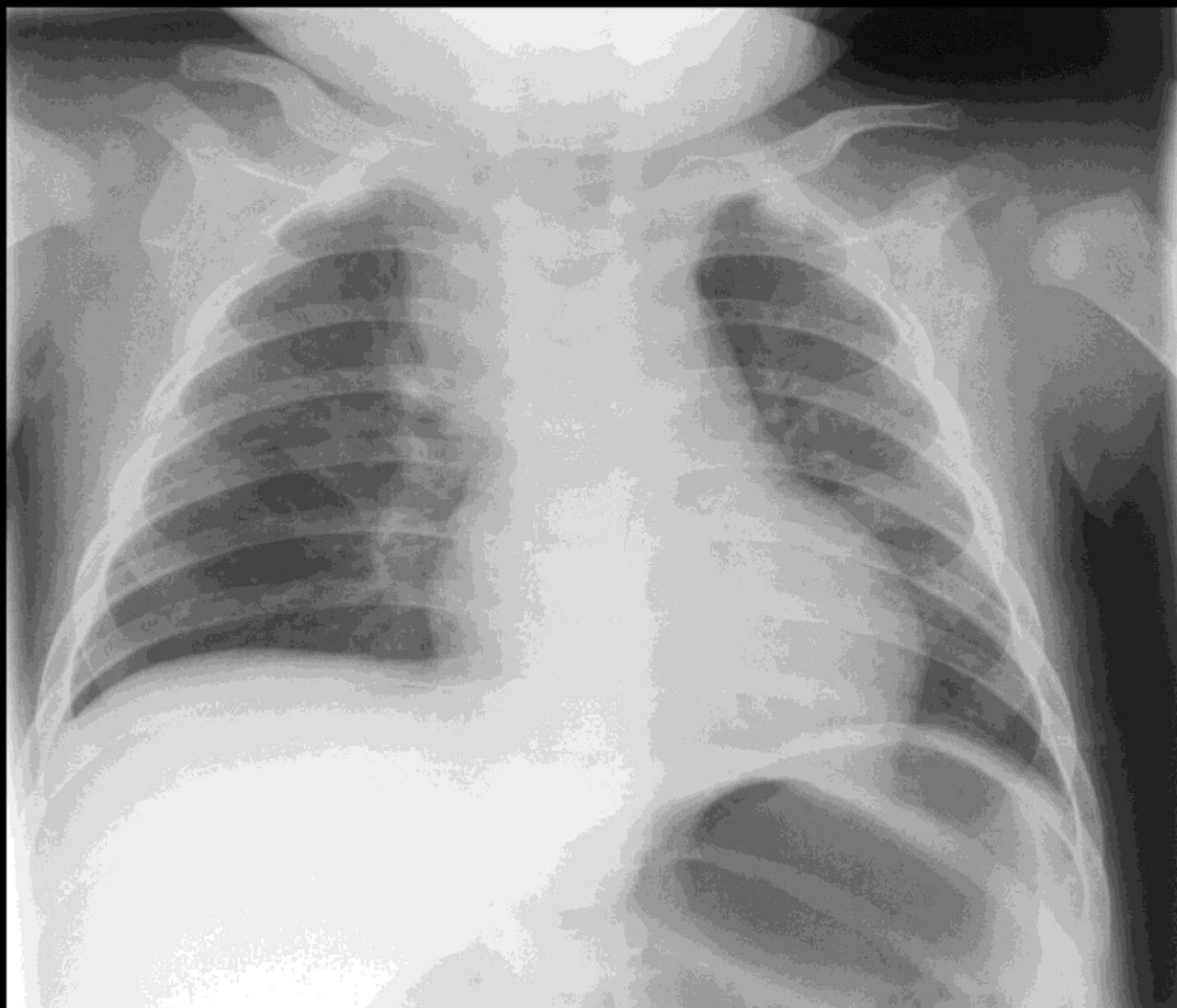
Venstre side:
3 Aortabuen
4 Truncus pulmonalis
5 Venstre atrium
6 Venstre ventrikel

Andreasen





Liggende røntgen af thorax, barn 11 måneder gammel.



Højre side:

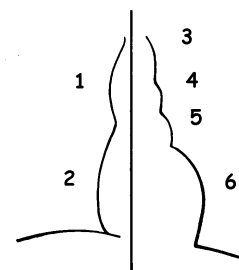
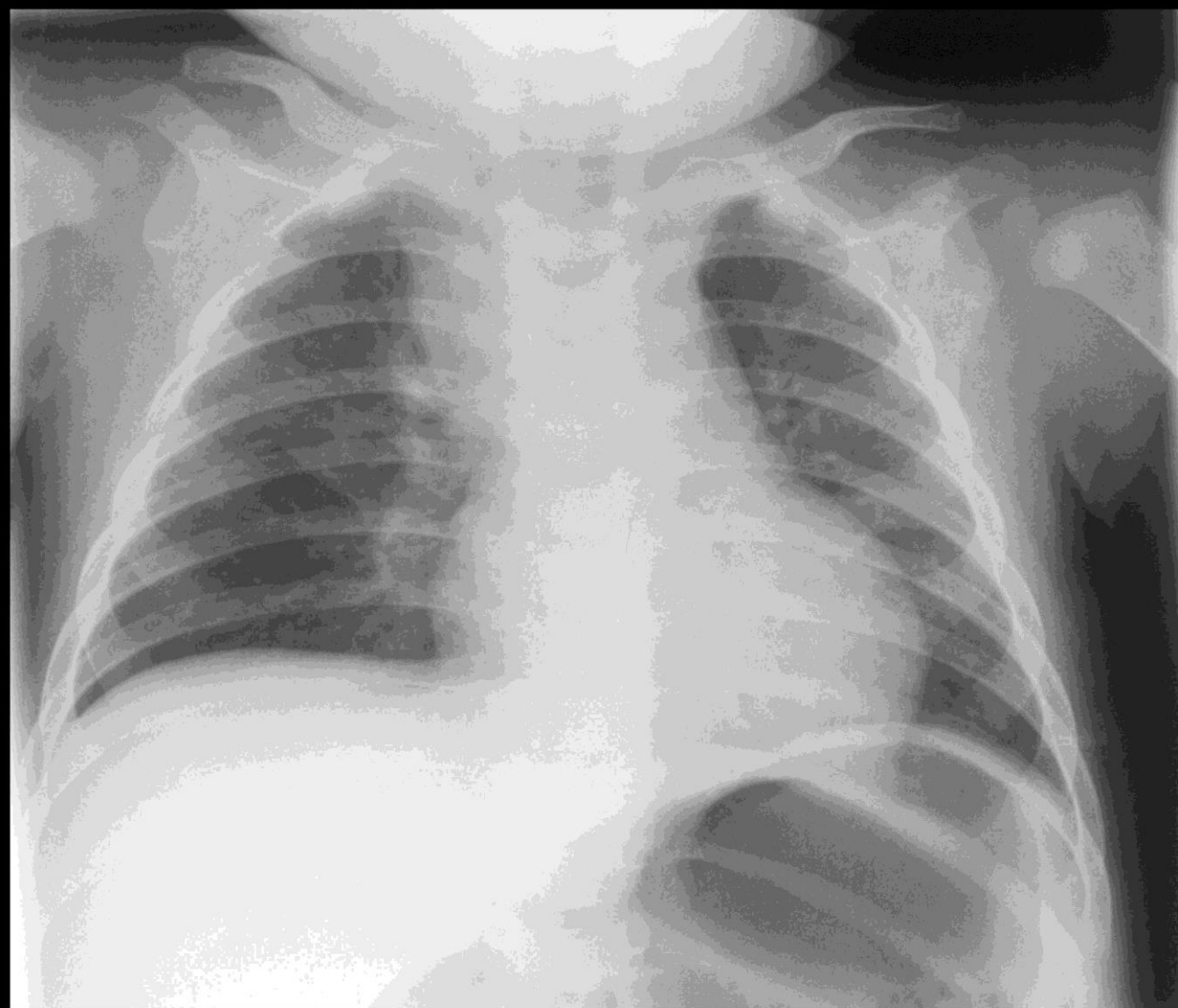
- 1 V. cava superior
- 2 Højre atrium

Venstre side:

- 3 Aortabuen
- 4 Truncus pulmonalis
- 5 Venstre atrium
- 6 Venstre ventrikel

Andreasen

Liggende røntgen af thorax, barn 11 måneder gammel.



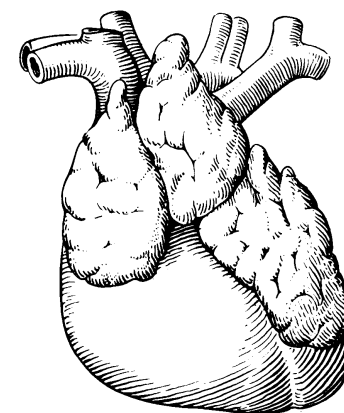
Højre side:

- 1 V. cava superior
- 2 Højre atrium

Venstre side:

- 3 Aortabuen
- 4 Truncus pulmonalis
- 5 Venstre atrium
- 6 Venstre ventrikel

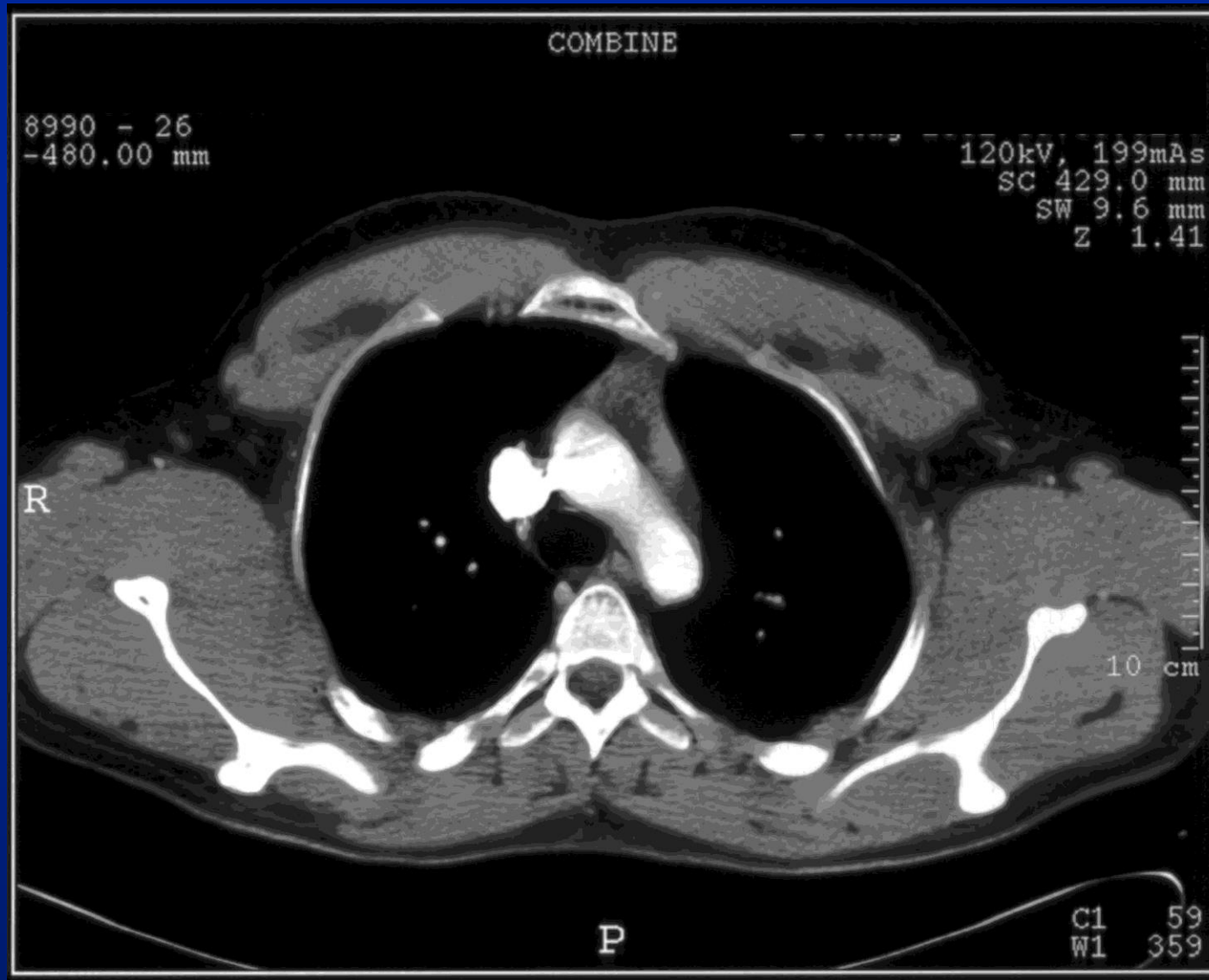
Andreasen



Thymus

Feneis

Traumeskanning af 20 årig mand, thymusrest i mediastinum.



Traumeskanning af 20 årig mand, thymusrest i mediastinum.

