



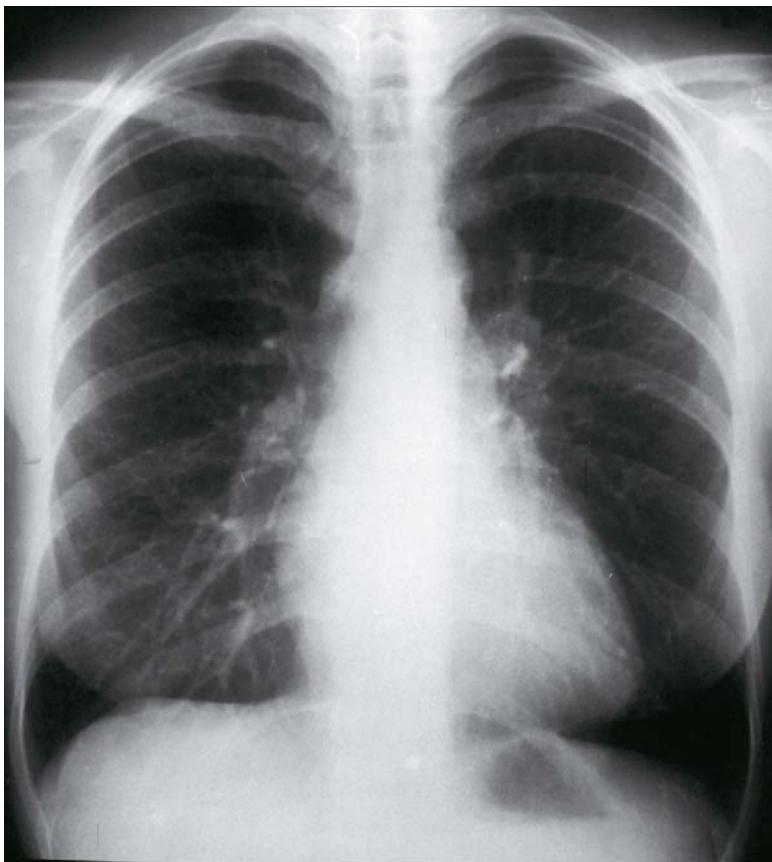
Semmelweis Egyetem, Anatómiai, Szövet- és Fejlődéstani Intézet

---

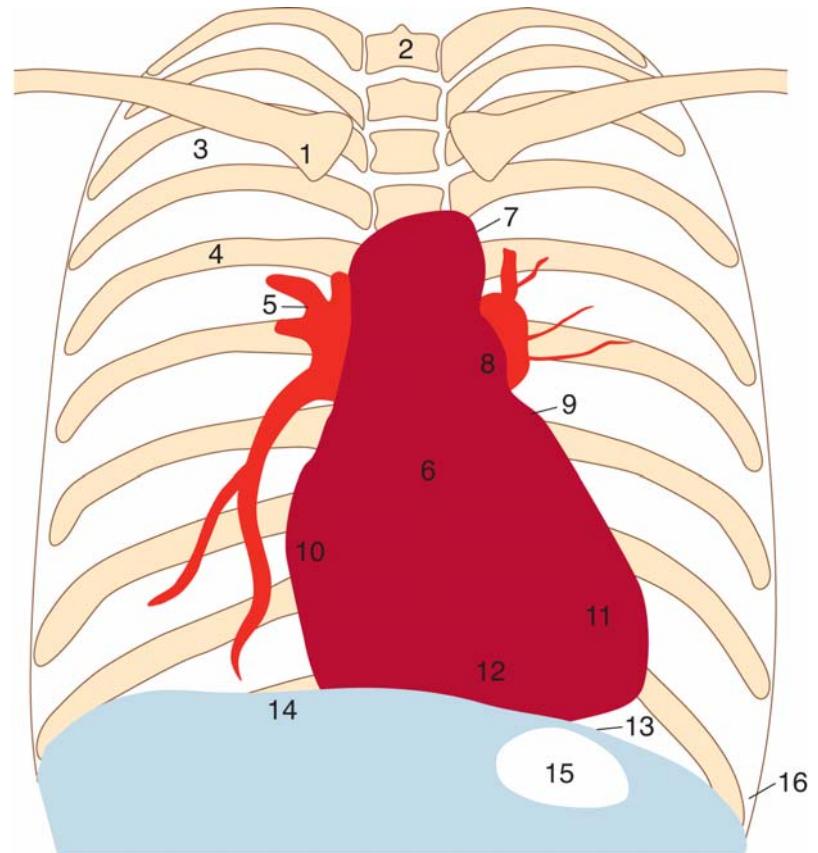
# Orvosi képalkotó eljárások

## Thorax

## Thorax, posteroant. irányú RTG felvétel

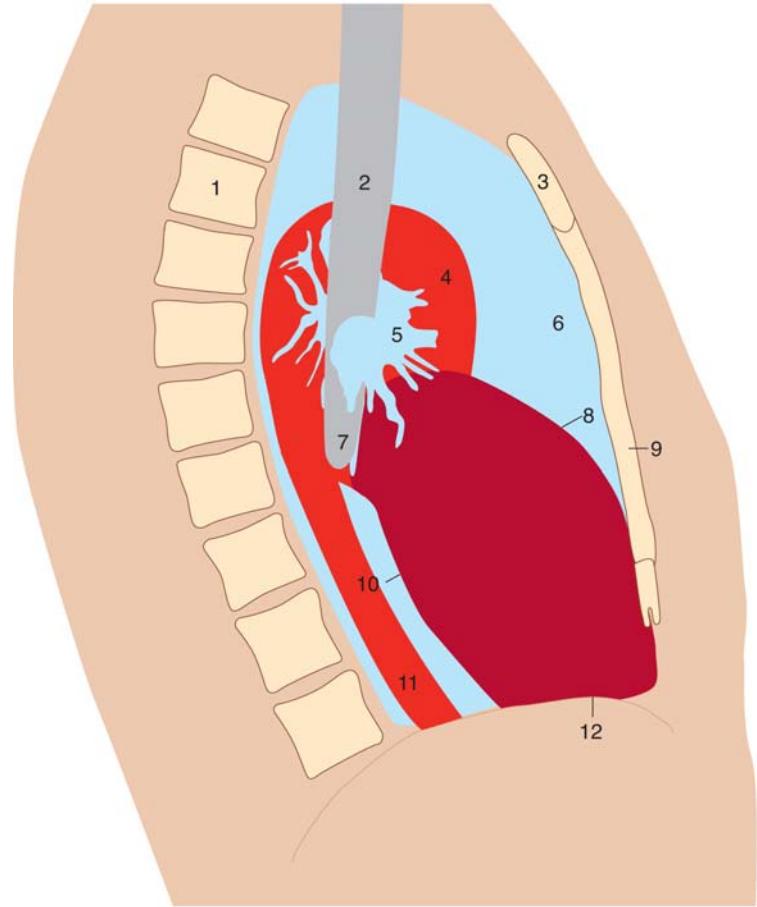


1. Clavica
2. Columna vertebralis
3. Spatium intercostale
4. Costae
5. Hilus pulmonalis
6. Atrium sinistrum
7. Aorta gomb
8. Truncus pulmonalis
9. Auricula sin.



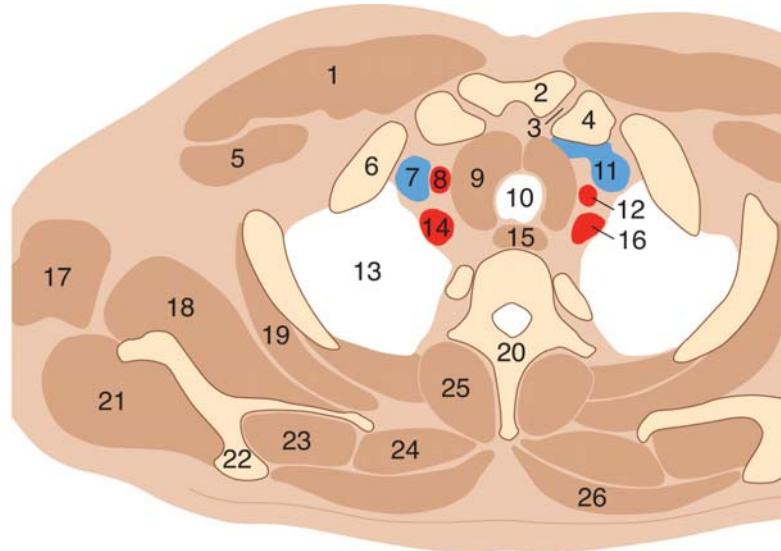
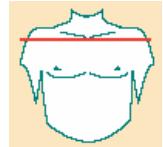
10. Atrium dextr.
11. Venticulus sin.
12. Ventriculus dext.
13. Angulus cardiophrenicus sin.
14. Diaphragma
15. Gyomorléghólyag
16. Recessus costodiaphragmaticus  
seu sinus phrenicocostalis

## Thorax, lat. irányú RTG felvétel



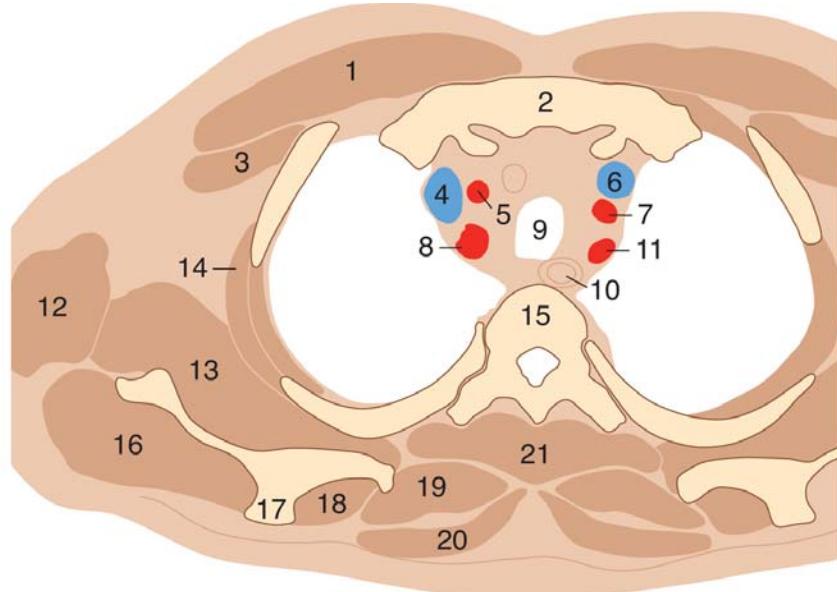
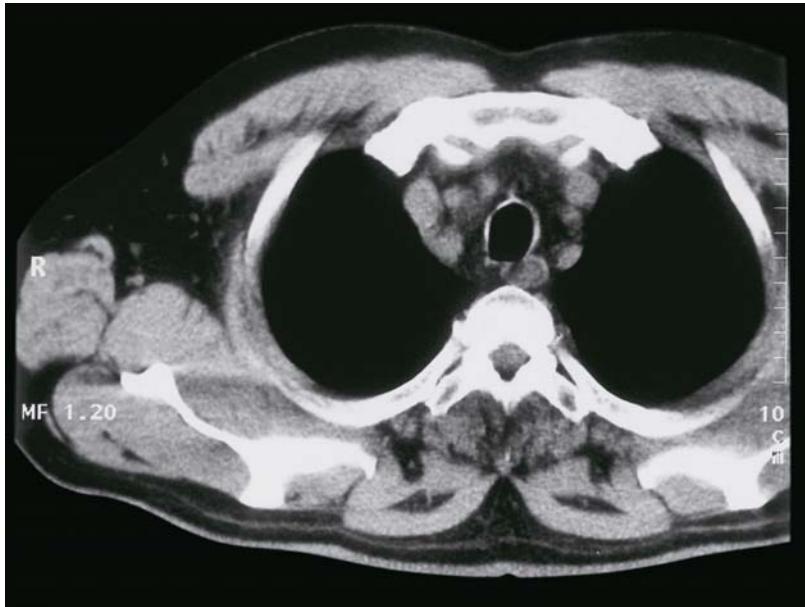
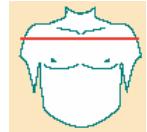
- 1. Columna vertebralis
- 2. Trachea
- 3. Manubrium sterni
- 4. Aorta ascendens
- 5. A. pulmonalis dext.
- 6. Spatium retrosternale
- 7. Bronchus principalis
- 8. Atrium dextrum
- 9. Corpus sterni
- 10. Atrium sinistrum
- 11. Aorta thoracica descendens
- 12. Diaphragma

# Thorax, axialis irányú CT felvétel / 1.



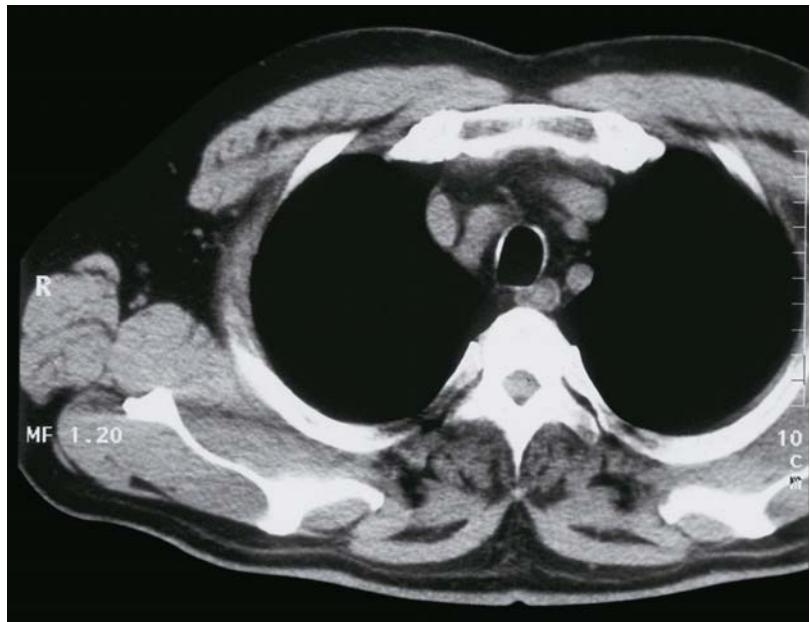
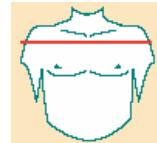
1. M. pectoralis major
2. Sternum
3. A. sternoclavicularis
4. Clavicula
5. M. pectoralis minor
6. Costa I
7. V. brachiocephalica dext./V. jugularis int.
8. A. carotis communis dext.
9. Gl. thyroidea (retrosternalisan kiterjedt)
10. Trachea
11. V. brachiocephalica sin.
12. A. carotis communis sin.
13. Pulmo
14. A. subclavia dext.
15. Oesophagus
16. A. subclavia sin.
17. M. latissimus dorsi
18. M. subscapularis
19. M. serratus ant.
20. Vertebra thoracica
21. M. infraspinatus
22. Spina scapulae
23. M. supraspinatus
24. Mm. rhomboidei
25. M. erector spinae
26. M. trapezius

## Thorax, axialis irányú CT felvétel / 2.

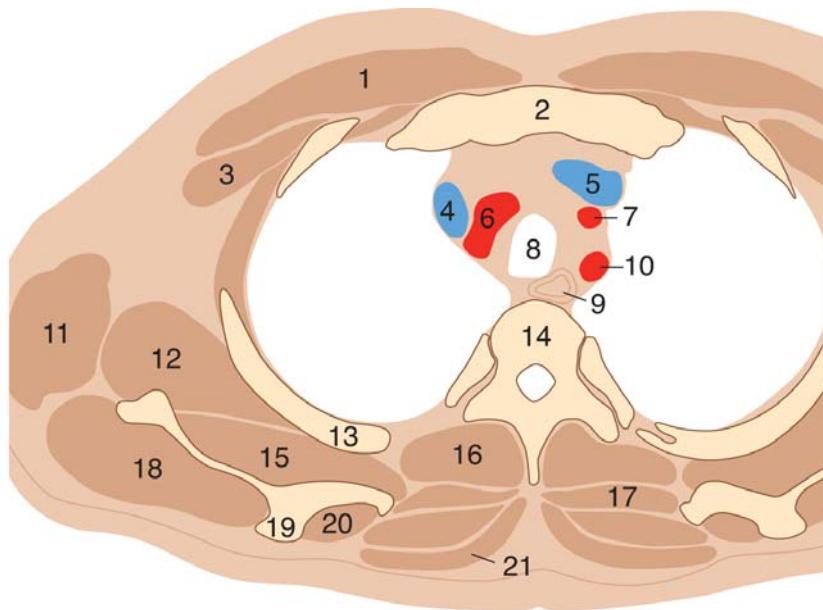


- |                              |                         |
|------------------------------|-------------------------|
| 1. M. pectoralis major       | 12. M. latissimus dorsi |
| 2. Sternum                   | 13. M. subscapularis    |
| 3. M. pectoralis minor       | 14. M. serratus ant.    |
| 4. V. brachiocephalica dext. | 15. Vertebra thoracica  |
| 5. A. carotis commun. dext.  | 16. M. infraspinatus    |
| 6. V. brachiocephalica sin.  | 17. Spina scapulae      |
| 7. A. carotis commun. sin.   | 18. M. supraspinatus    |
| 8. A. subclavia dext.        | 19. Mm. rhomboidei      |
| 9. Trachea                   | 20. M. trapezius        |
| 10. Oesophagus               | 21. M. erector spinae   |
| 11. A. subclavia sin.        |                         |

## Thorax, axialis irányú CT felvétel / 3.

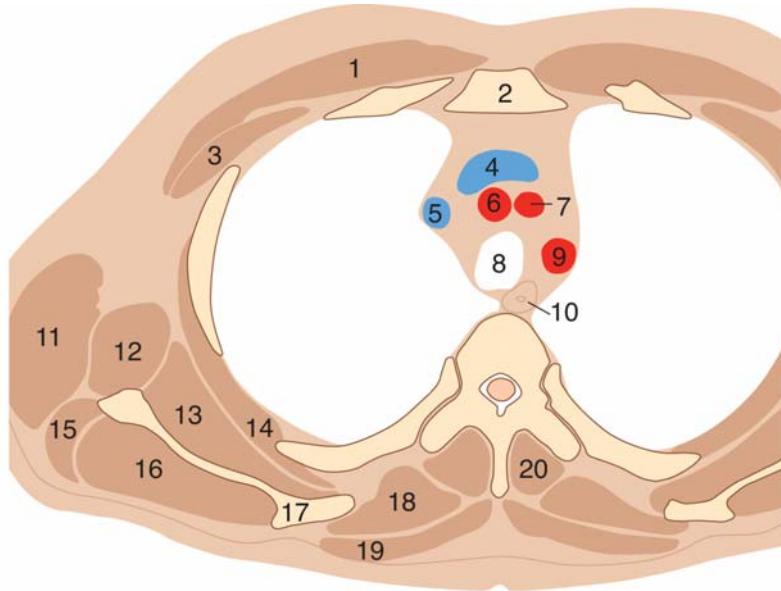
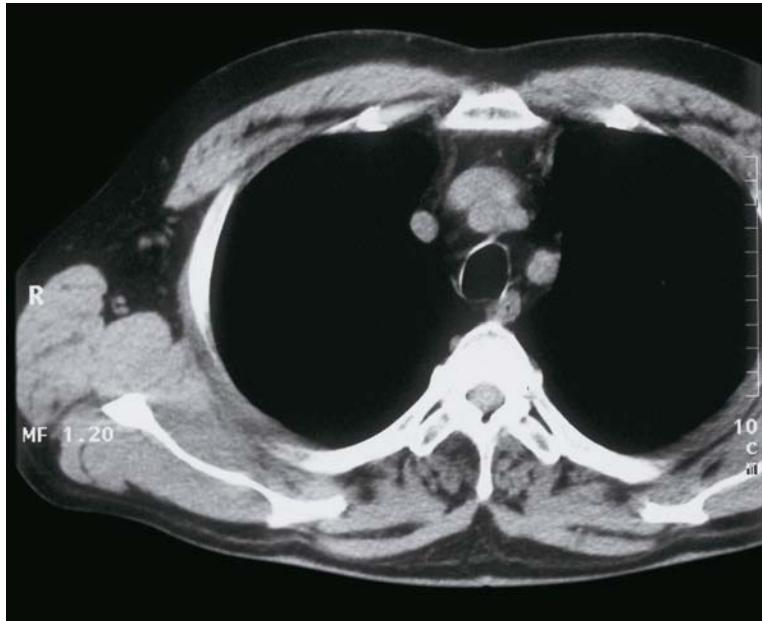
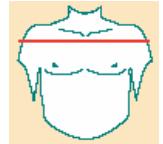


1. M. pectoralis major
2. Sternum
3. M. pectoralis minor
4. V. brachiocephalica dext.
5. V. brachiocephalica sin.
6. A. brachiocephalica
7. A. carotis commun. sin.
8. Trachea
9. Oesophagus
10. A. subclavia sin.



11. M. latissimus dorsi
12. M. teres major
13. Costa
14. Vertebra thoracica
15. M. subscapularis
16. M. erector spinae
17. Mm. rhomboidei
18. M. infraspinatus
19. Spina scapulae
20. M. supraspinatus
21. M. trapezius

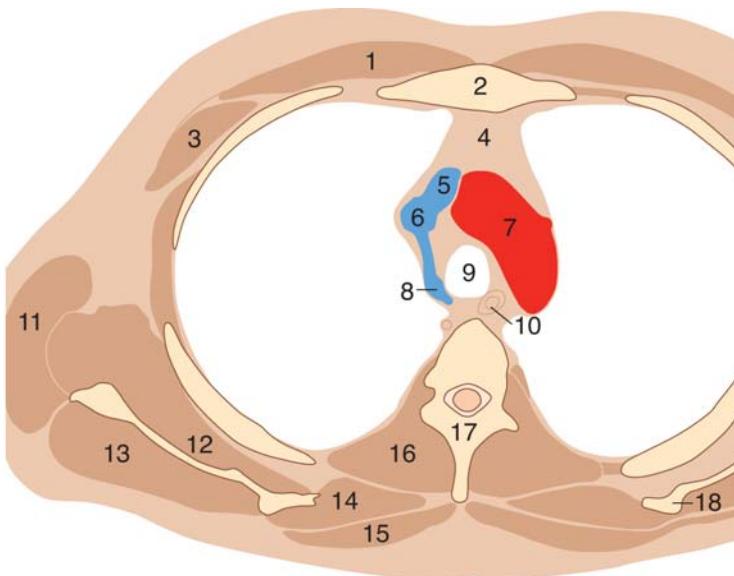
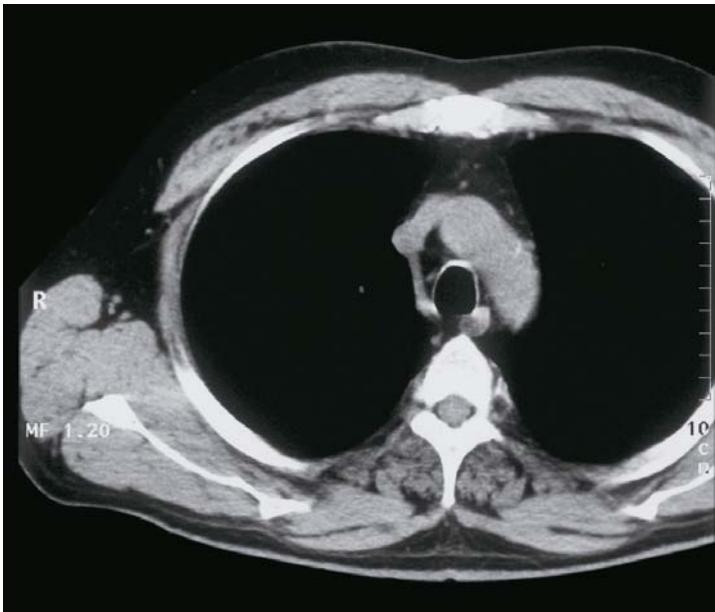
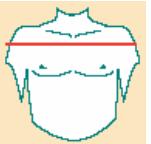
## Thorax, axialis irányú CT felvétel / 4.



1. M. pectoralis major
2. Sternum
3. M. pectoralis minor
4. V. brachiocephalica sin.
5. V. brachiocephalica dext.
6. A. brachiocephalica
7. A. carotis commun. sin.
8. Trachea
9. A. subclavia sin.
10. Oesophagus

11. M. latissimus dorsi
12. M. teres major
13. M. subscapularis
14. M. serratus ant.
15. M. teres minor
16. M. infraspinatus
17. Scapula
18. Mm. rhomboidei
19. M. trapezius
20. M. erector spinae

## Thorax, axialis irányú CT felvétel / 5.



1. M. pectoralis major

2. Sternum

3. M. pectoralis minor

4. Thymus residuum/ mediastinum sup.

5. V. brachiocephalica sin.

6. V. cava sup.

7. Arcus aortae

8. V. azygos

9. Trachea

10. Oesophagus

11. M. latissimus dorsi

12. M. subscapularis

13. M. infraspinatus

14. Mm. rhomboidei

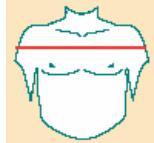
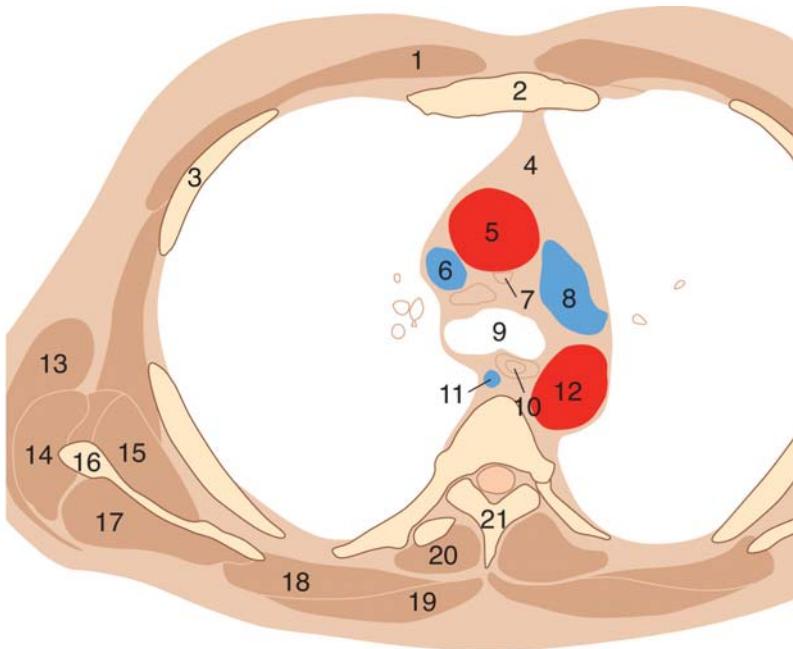
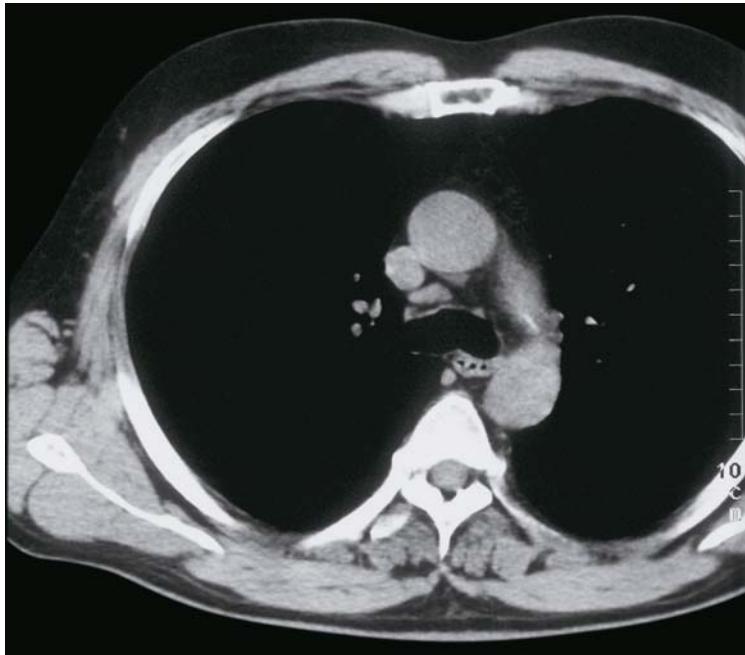
15. M. trapezius

16. M. erector spinae

17. Vertebra thoracica

18. Scapula

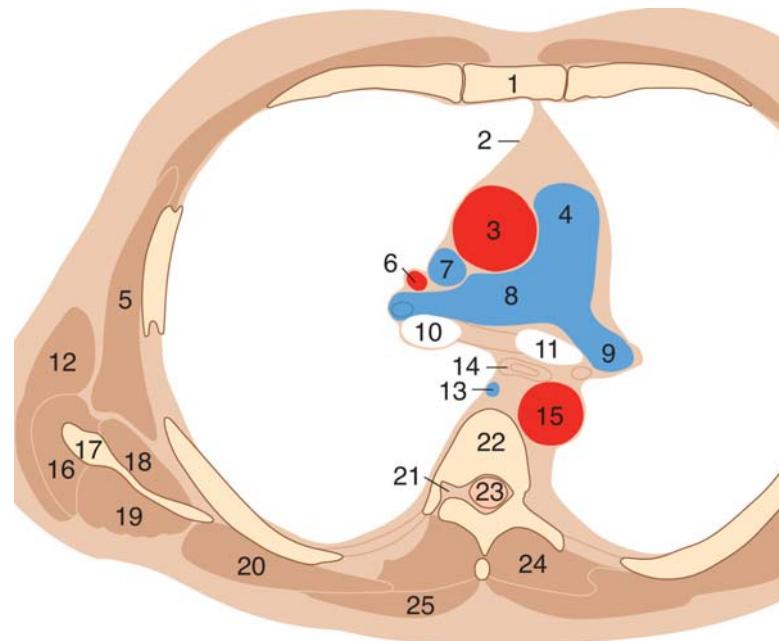
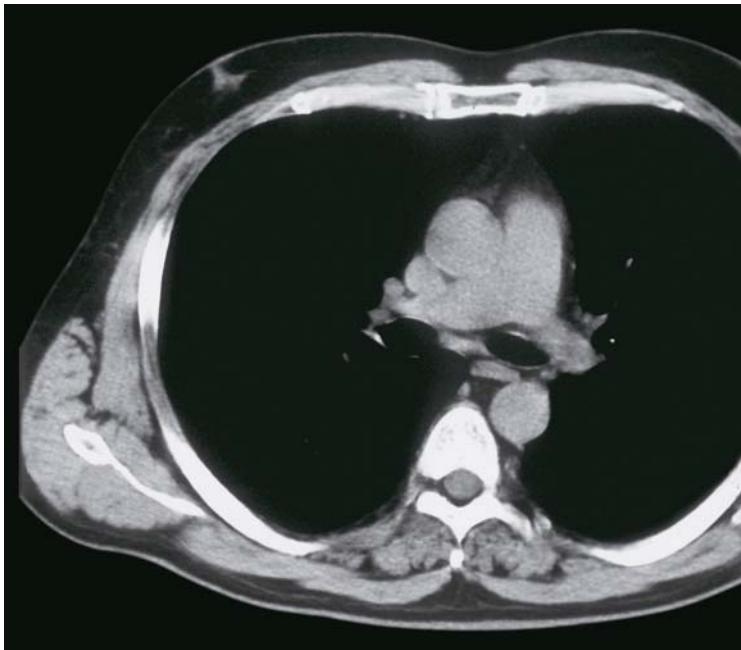
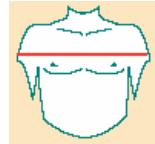
## Thorax, axialis irányú CT felvétel / 6.



1. M. pectoralis major
2. Sternum
3. Costa
4. Thymus residuum/ mediastinum sup.
5. Aorta ascendens
6. V. cava sup.
7. Pericardium áthajlás
8. A. pulmonalis sin.
9. Bifurcatio tracheae (carina)
10. Oesophagus
11. V. azygos

12. Aorta thoracica desc.
13. M. latissimus dorsi
14. M. teres major
15. M. subscapularis
16. Scapula
17. M. infraspinatus
18. Mm. rhomboidei
19. M. trapezius
20. M. erector spinae
21. Arcus vertebrae

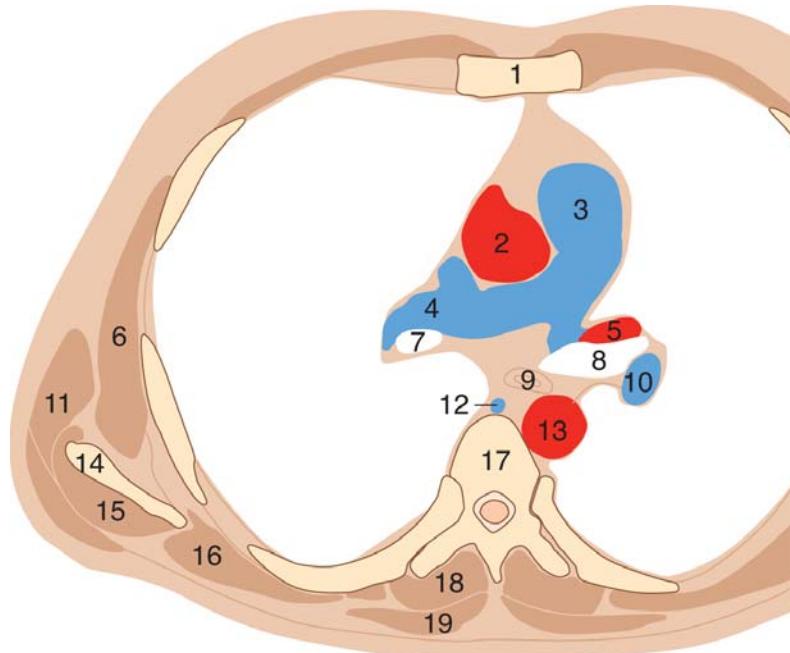
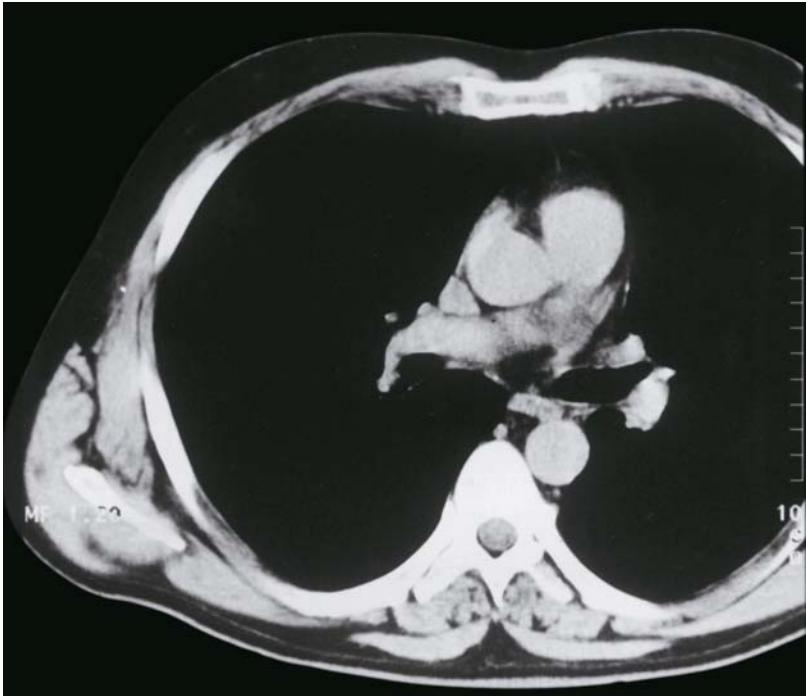
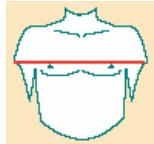
## Thorax, axialis irányú CT felvétel / 7.



- 1. Sternum
- 2. Pleura mediastinalis
- 3. Aorta ascendens
- 4. Truncus pulmonalis
- 5. M. serratus ant.
- 6. V. pulmonalis sup. dext.
- 7. V. cava sup.
- 8. A. pulmonalis dext.
- 9. A. pulmonalis sin.
- 10. Bronchus intermedius (dext.)
- 11. Bronchus principalis sin.
- 12. M. latissimus dorsi
- 13. V. azygos

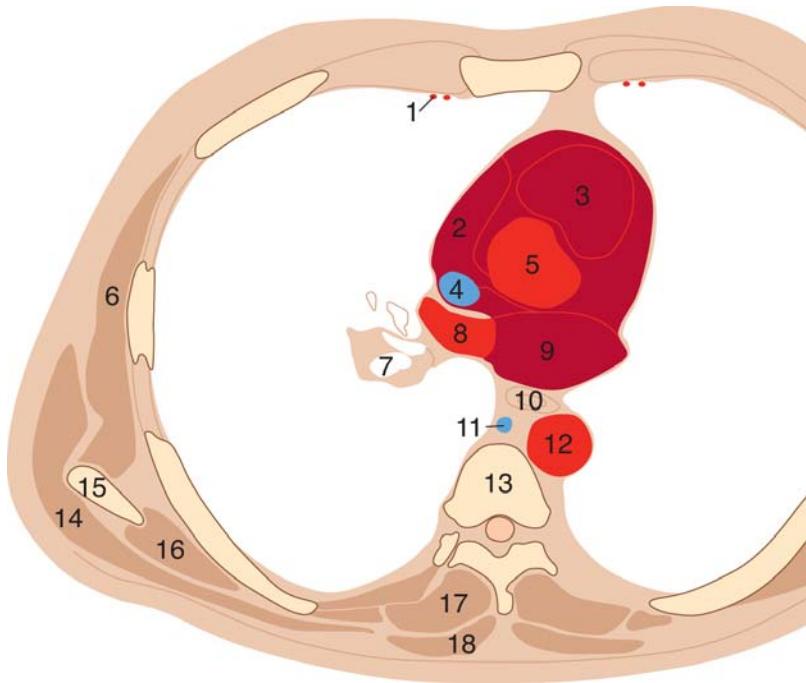
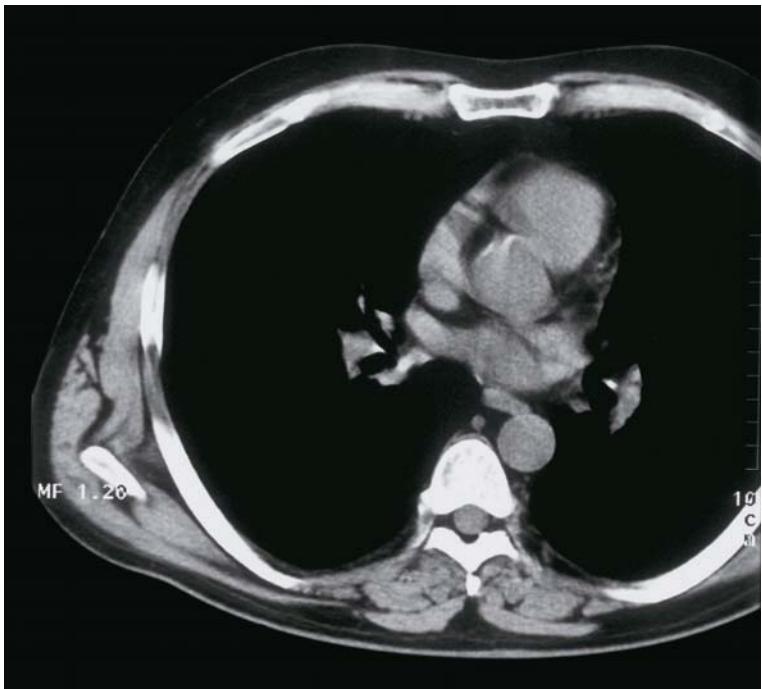
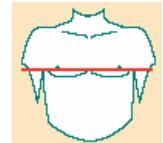
- 14. Oesophagus
- 15. Aorta thoracica desc.
- 16. M. teres major
- 17. Scapula
- 18. M. subscapularis
- 19. M. infraspinatus
- 20. Mm. rhomboidei
- 21. Foramen intervertebrale
- 22. Vertebra thoracica
- 23. Medulla spinalis
- 24. M. erector spinae
- 25. M. trapezius

## Thorax, axialis irányú CT felvétel / 8.



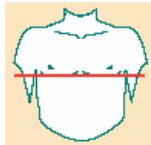
1. Sternum
2. Aorta ascendens
3. Truncus pulmonalis (conus arteriosus)
4. A. pulmonalis dext.
5. V. pulmonalis sup. dext.
6. M. serratus ant.
7. Bronchus intermedius (dext.)
8. Bronchus principalis sin.
9. Oesophagus
10. A. pulmonalis sin.
11. M. latissimus dorsi
12. V. azygos
13. Aorta thoracica desc.
14. Scapula
15. M. teres major
16. Mm. rhomboidei
17. Vertebra thoracica
18. M. erector spinae
19. M. trapezius

## Thorax, axialis irányú CT felvétel / 9.



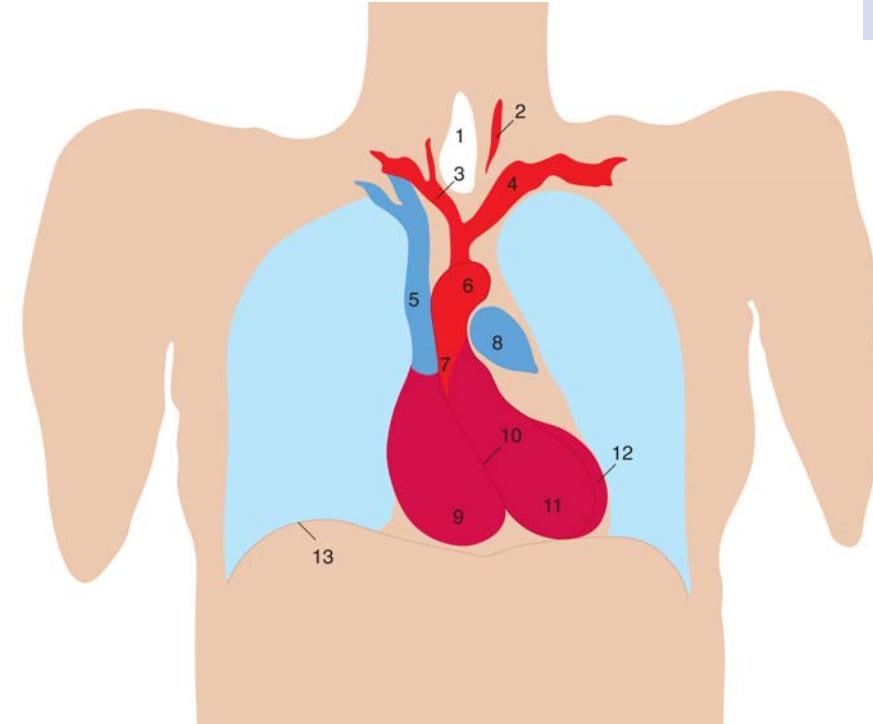
1. A.et v. thoracica int.
2. Atrium dextrum
3. Jobb kamra, kiáramlási zóna
4. V. cava sup.
5. Aorta ascendens
6. M. serratus ant.
7. Bronchus lobaris inf. dext.
8. V. pulmonalis sup. sin.
9. Atrium sin.
10. Oesophagus
11. V. azygos
12. Aorta thoracica desc.
13. Vertebra thoracica
14. M. latissimus dorsi
15. Scapula
16. Mm. rhomboidei
17. M. erector spinae
18. M. trapezius

## Thorax, axialis irányú CT felvétel / 10.



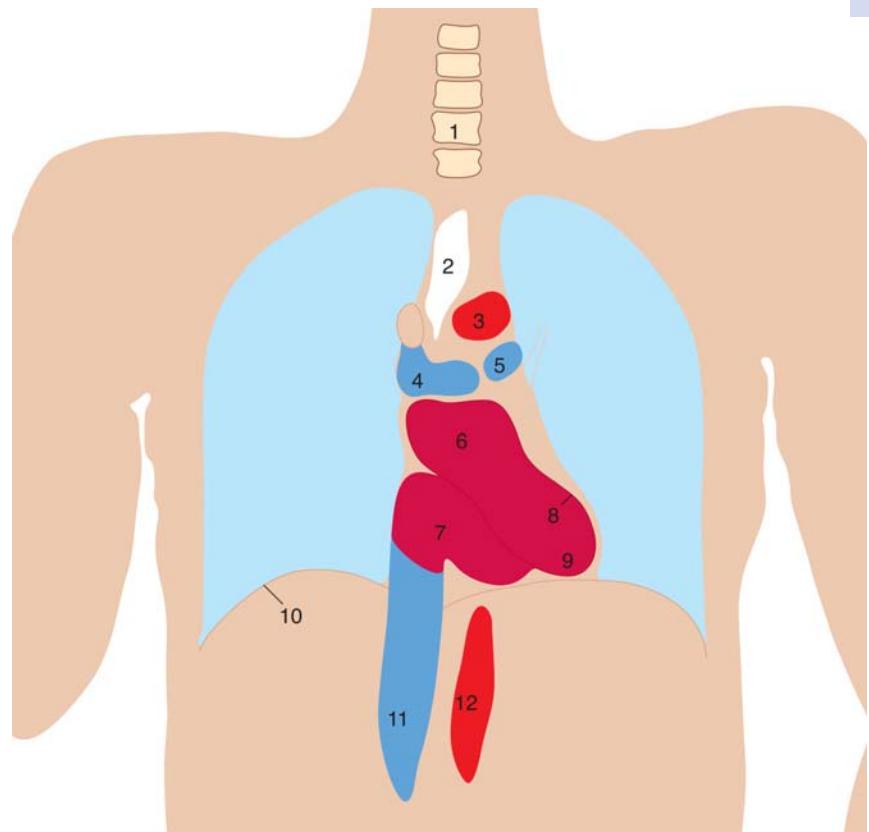
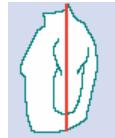
- 1. Cartilago costalis
- 2. Processus xiphoides
- 3. M. serratus ant.
- 4. Pulmo (lobus medius)
- 5. Jobb kamra
- 6. Jobb pitvar
- 7. Bal kamra
- 8. Bal pitvar
- 9. Oesophagus
- 10. Aorta thoracica desc.
- 11. M. latissimus dorsi
- 12. Vertebra thoracica
- 13. M. erector spinae
- 14. M. trapezius

# Coronalis MRI felvétel / 1.



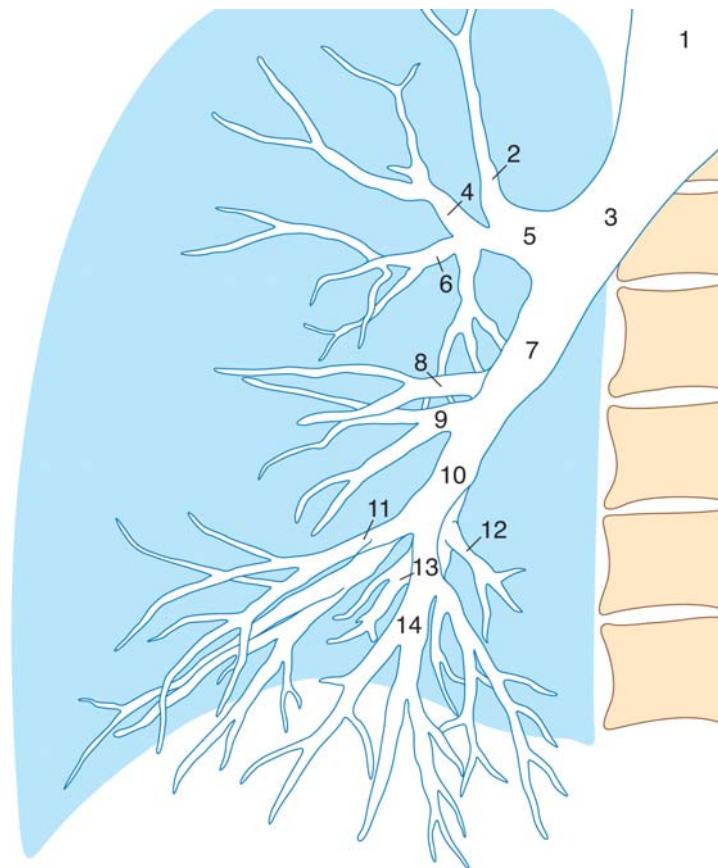
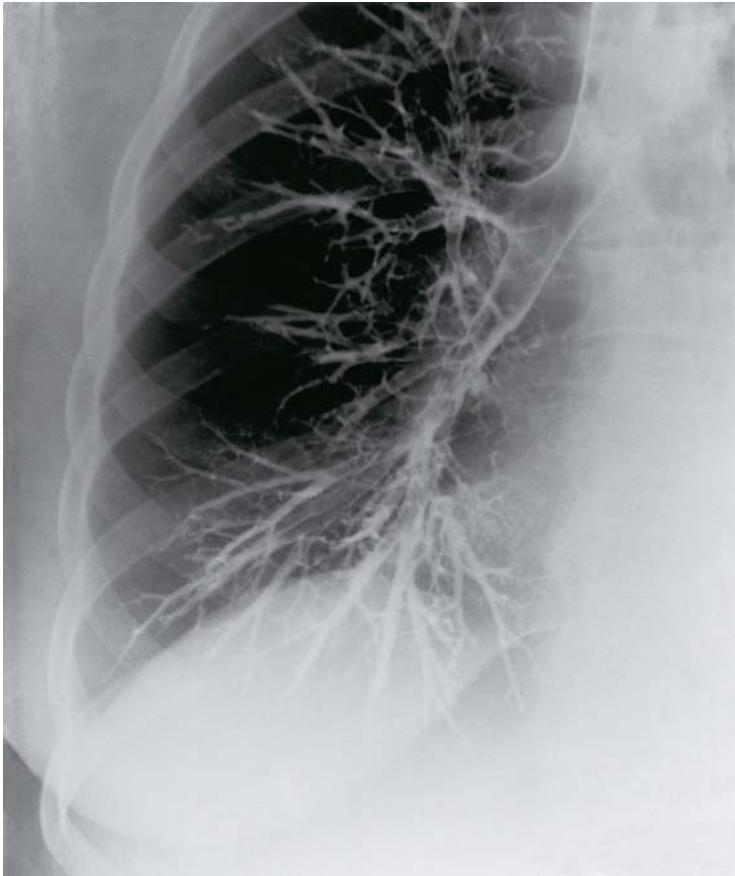
1. Trachea
2. A. carotis commun. sin.
3. Truncus brachiocephalicus
4. A. subclavia sin.
5. V. cava sup.
6. Aorta 'gomb'
7. Aorta ascendens
8. Truncus pulmonalis
9. Jobb kamra
10. Septum interventriculare, pars muscularis
11. Bal kamra ürege
12. Bal kamra fala
13. Diaphragma

## Coronalis MRI felvétel / 2.



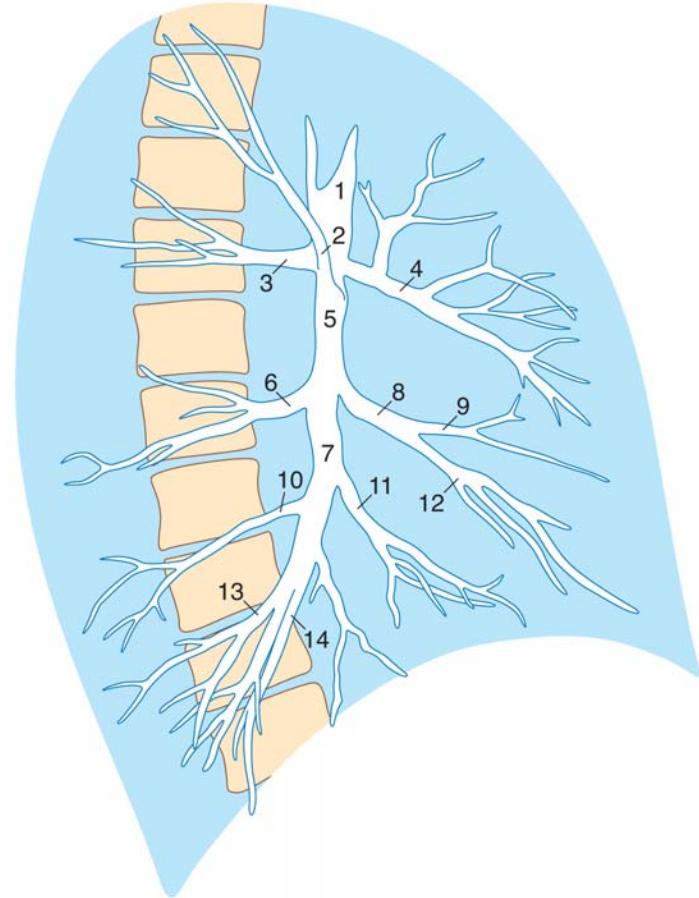
1. Vertebrae cervicales
2. Trachea
3. Aorta gomb
4. A. pulmonalis dext.
5. A. pulmonalis sin.
6. Bal pitvar
7. Jobb pitvar
8. Bal kamra fala
9. Bal kamra ürege
10. Diaphragma
11. V. cava inf.
12. Aorta desc.

## A jobb tüdő bronchográfiás felvételen, anteriopost. nézet



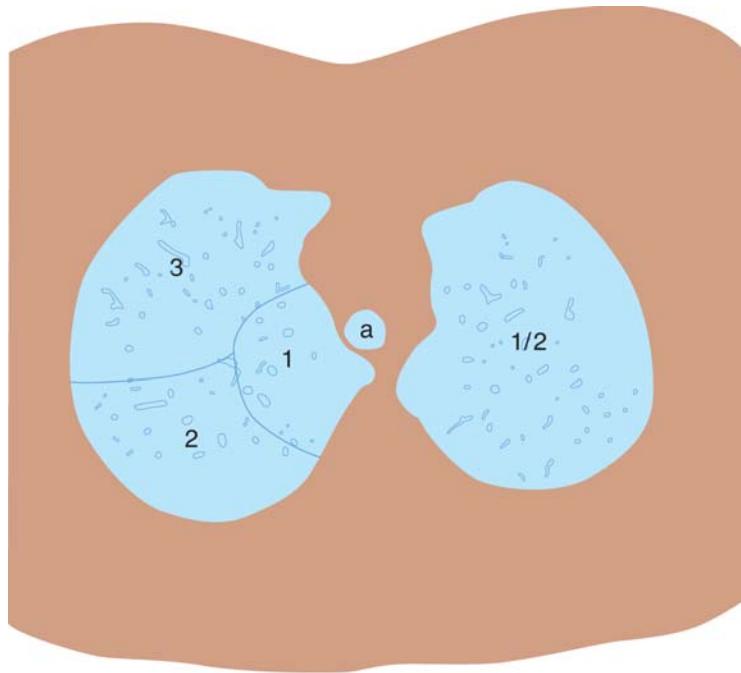
1. Trachea
2. Bronchus segmentalis apicalis lobi superioris
3. Bronchus principalis dexter
4. Bronchus segmentalis posterior lobi superioris
5. Bronchus lobaris superior
6. Bronchus segmentalis anterior lobi superioris
7. Bronchus intermedius
8. Bronchus segmentalis medialis lobi medii
9. Bronchus segmentalis lateralis lobi medii
10. Bronchus lobaris inferior
11. Bronchus segmentalis basalis lateralis lobi inferioris
12. Bronchus segmentalis basalis medialis lobi inferioris
13. Bronchus segmentalis basalis posterior lobi inferioris
14. Bronchus segmentalis basalis anterior lobi inferioris

## A jobb tüdő bronchográfiás felvételen, lateralis nézet



1. Bronchus principalis dexter
2. Bronchus segmentalis apicalis lobi superioris
3. Bronchus segmentalis posterior lobi superioris
4. Bronchus segmentalis anterior lobi superioris
5. Bronchus intermedius
6. Bronchus segmentalis apicalis lobi inferioris
7. Bronchus lobaris inferior
8. Bronchus lobaris medius
9. Bronchus segmentalis lateralis lobi medii
10. Bronchus segmentalis basalis posterior lobi inferioris
11. Bronchus segmentalis basalis anterior lobi inferioris
12. Bronchus segmentalis medialis lobi medii
13. Bronchus segmentalis basalis lateralis lobi inferioris
14. Bronchus segmentalis basalis medialis lobi inferioris

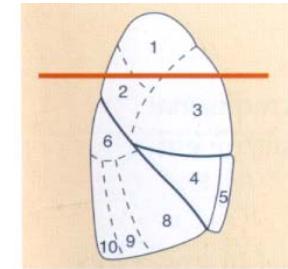
## Bronchopulmonalis segmentumok, axialis CT felvétel / 1.



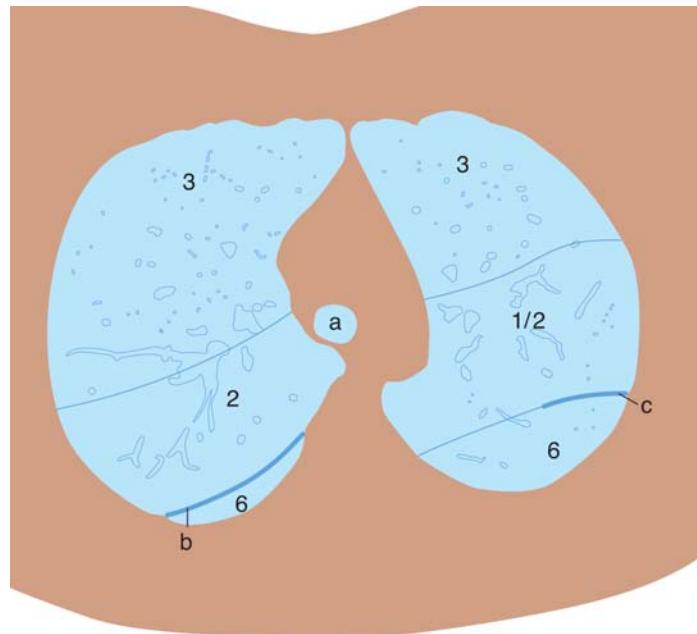
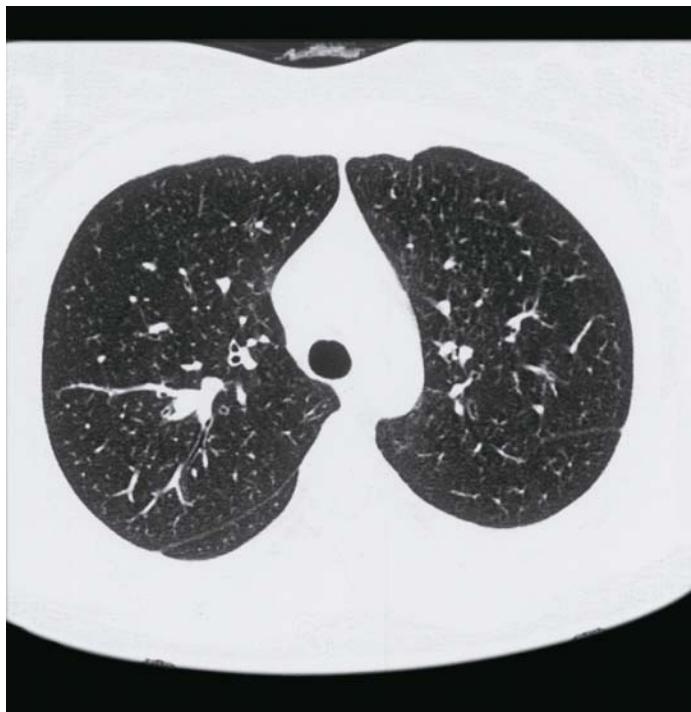
1. Segmentum apicale lobi sup.
2. Segmentum posterius lobi sup.
3. Segmentum anterius lobi sup.
4. Segmentum laterale lobi med. (jobb), lingulare sup. (bal)
5. Segmentum mediale lobi med. (jobb), lingulare inf. (bal)

6. Segmentum apicale lobi inf.
7. Segmentum basale mediale lobi inf. (csak jobb oldalon!)
8. Segmentum basale anterius lobi inf.
9. Segmentum basale laterale lobi inf.
10. Segmentum basale posterius lobi inf.

**a = trachea**



## Bronchopulmonalis segmentumok, axialis CT felvétel / 2.

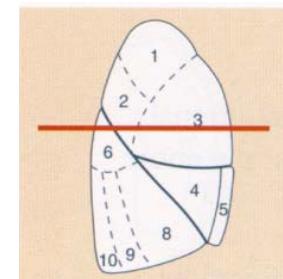


1. Segmentum apicale lobi sup.
2. Segmentum posterius lobi sup.
3. Segmentum anterius lobi sup.
4. Segmentum laterale lobi med. (jobb), lingulare sup. (bal)
5. Segmentum mediale lobi med. (jobb), lingulare inf. (bal)
6. Segmentum apicale lobi inf.
7. Segmentum basale mediale lobi inf., (csak jobb oldalon!)
8. Segmentum basale anterius lobi inf.
9. Segmentum basale laterale lobi inf.
10. Segmentum basale posterius lobi inf.

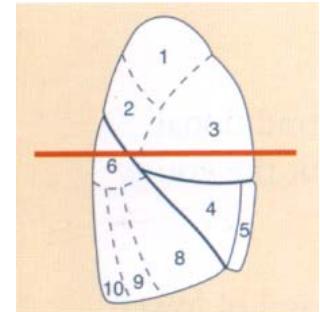
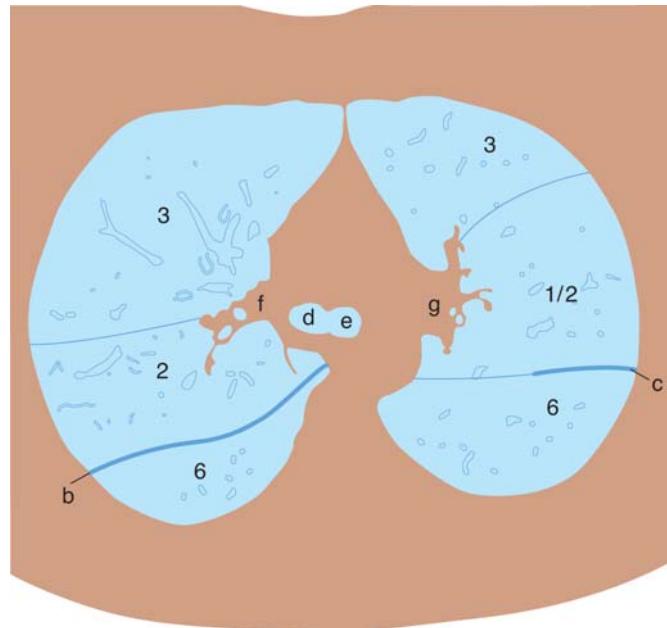
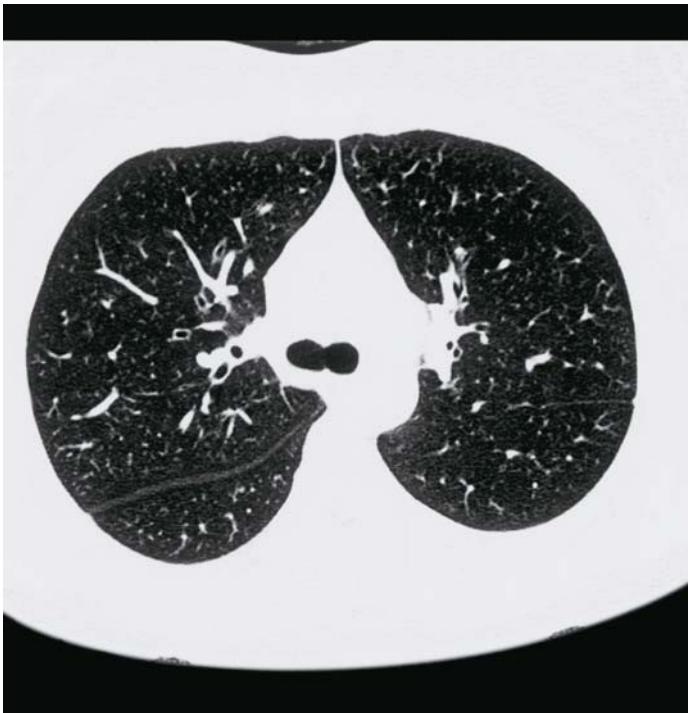
**a = trachea**

**b = fissura obliqua pulm. dext.**

**c = fissura obliqua pulm. sin.**



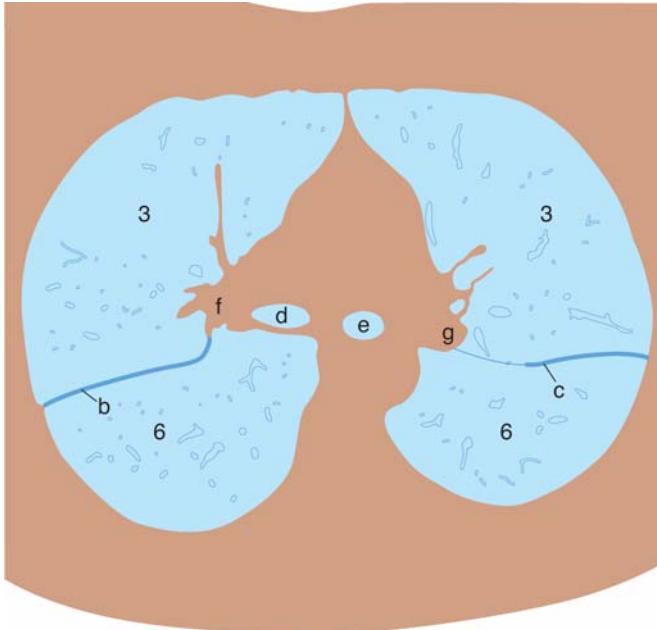
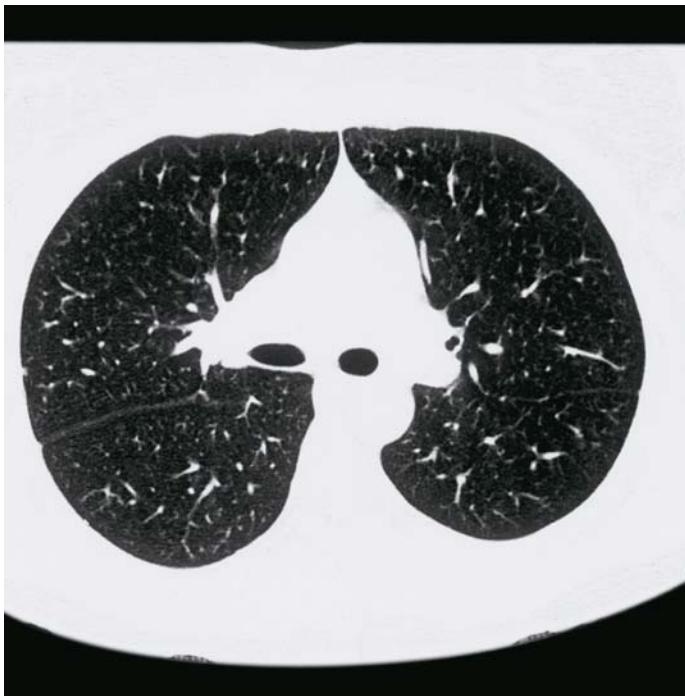
## Bronchopulmonalis segmentumok, axialis CT felvétel / 3.



1. Segmentum apicale lobi sup.
2. Segmentum posterius lobi sup.
3. Segmentum anterius lobi sup.
4. Segmentum laterale lobi med. (jobb), lingulare sup. (bal)
5. Segmentum mediale lobi med. (jobb), lingulare inf. (bal)
6. Segmentum apicale lobi inf.
7. Segmentum basale mediale lobi inf. (csak jobb oldalon)

8. Segmentum basale anterius lobi inf.
  9. Segmentum basale laterale lobi inf.
  10. Segmentum basale posterius lobi inf.
- b** = **fissura obliqua pulm. dext.**  
**c** = **fissura obliqua pulm. sin.**  
**d** = **bronchus principalis dext.**  
**e** = **bronchus principalis sin.**  
**f** = **hilus pulm. dext.**  
**g** = **hilus pulm. sin.**

## Bronchopulmonalis segmentumok, axialis CT felvétel / 4.



1. Segmentum apicale lobi sup.
2. Segmentum posterius lobi sup.
3. Segmentum anterius lobi sup.
4. Segmentum laterale lobi med. (jobb), lingulare sup. (bal)
5. Segmentum mediale lobi med. (jobb), lingulare inf. (bal)
6. Segmentum apicale lobi inf.
7. Segmentum basale mediale lobi inf. (csak jobb oldalon)

8. Segmentum basale anterius lobi inf.

9. Segmentum basale laterale lobi inf.

10. Segmentum basale posterius lobi inf.

**b** = **fissura obliqua pulm. dext.**

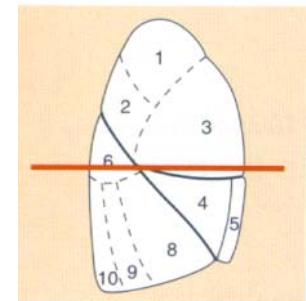
**c** = **fissura obliqua pulm. sin.**

**d** = **bronchus principalis dext.**

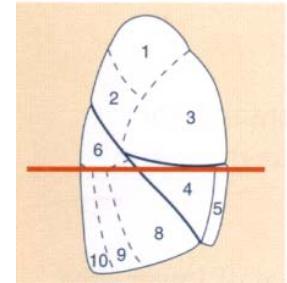
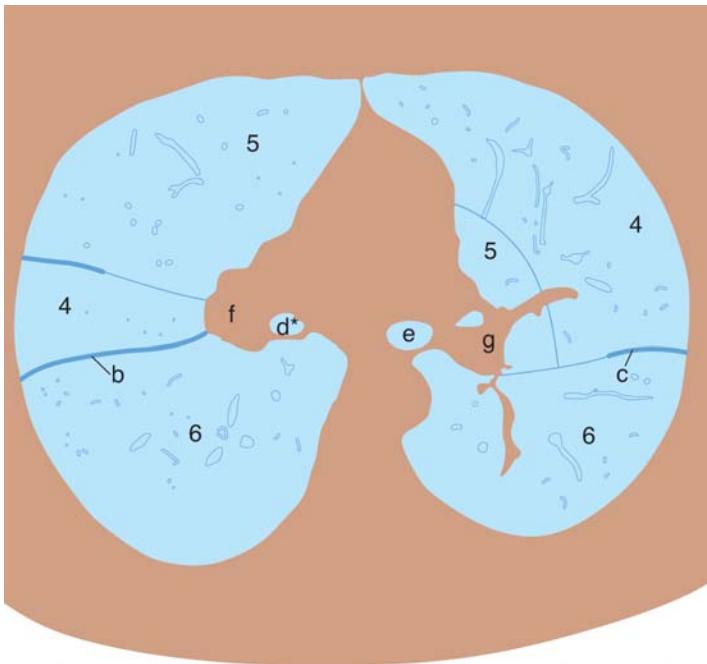
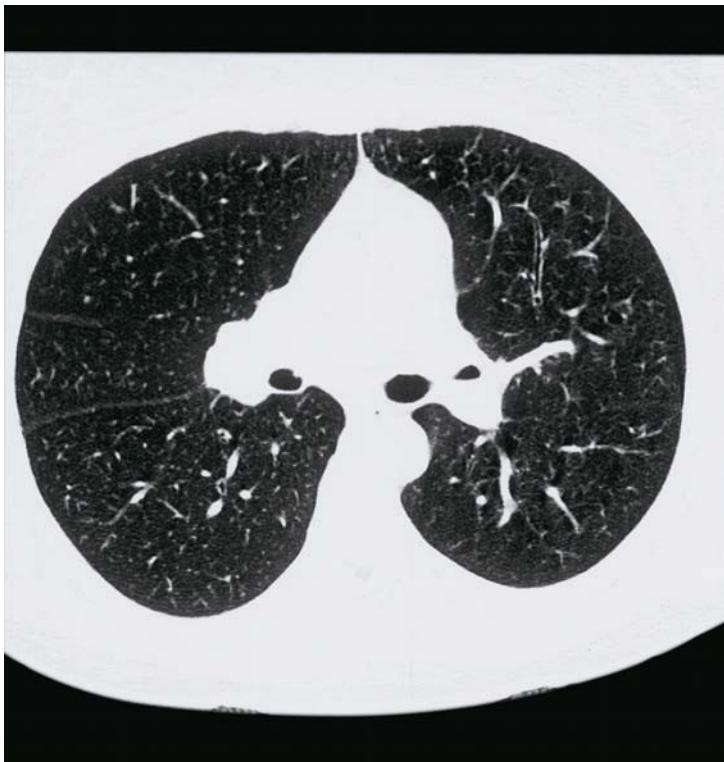
**e** = **bronchus principalis sin.**

**f** = **hilus pulm. dext.**

**g** = **hilus pulm. sin.**



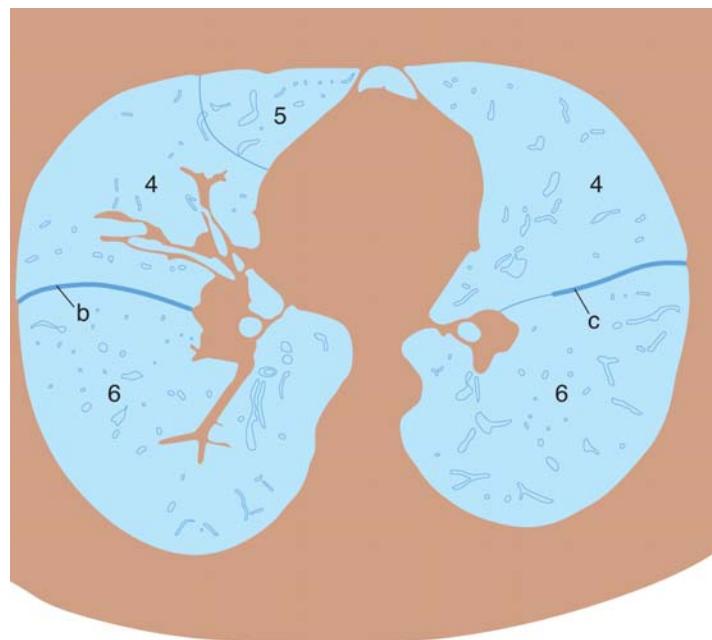
## Bronchopulmonalis segmentumok, axialis CT felvétel / 5.



1. Segmentum apicale lobi sup.
2. Segmentum posterius lobi sup.
3. Segmentum anterius lobi sup.
4. Segmentum laterale lobi med. (jobb), lingulare sup. (bal)
5. Segmentum mediale lobi med. (jobb), lingulare inf. (bal)
6. Segmentum apicale lobi inf.
7. Segmentum basale mediale lobi inf. (csak jobb oldalon)

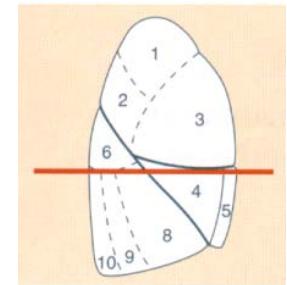
8. Segmentum basale anterius lobi inf.
  9. Segmentum basale laterale lobi inf.
  10. Segmentum basale posterius lobi inf.
- b = fissura obliqua pulm. dext.**  
**c = fissura obliqua pulm. sin.**  
**d = bronchus principalis dext.**  
**e = bronchus principalis sin.**  
**f = hilus pulm. dext.**  
**g = hilus pulm. sin.**

## Bronchopulmonalis segmentumok, axialis CT felvétel / 6.

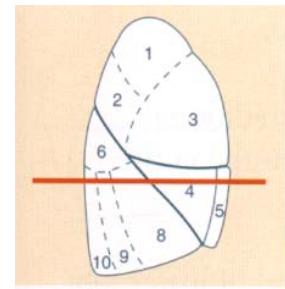
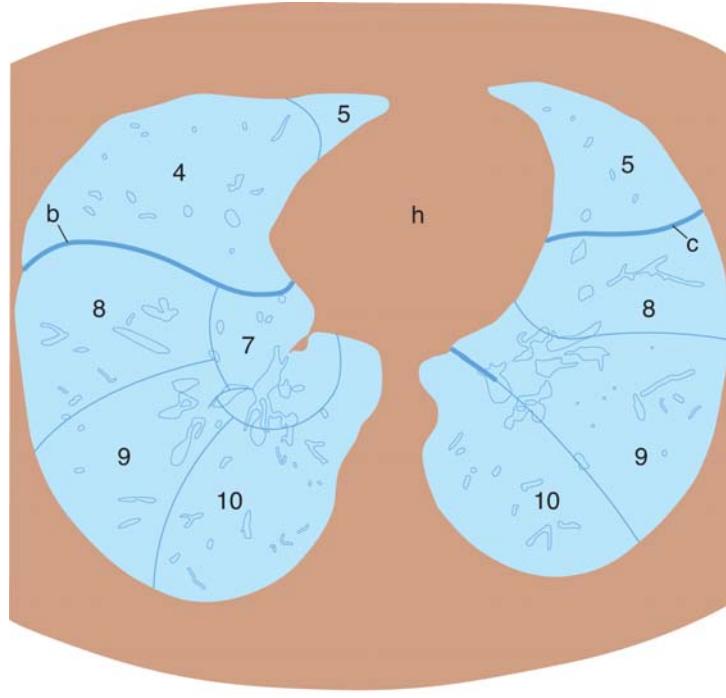
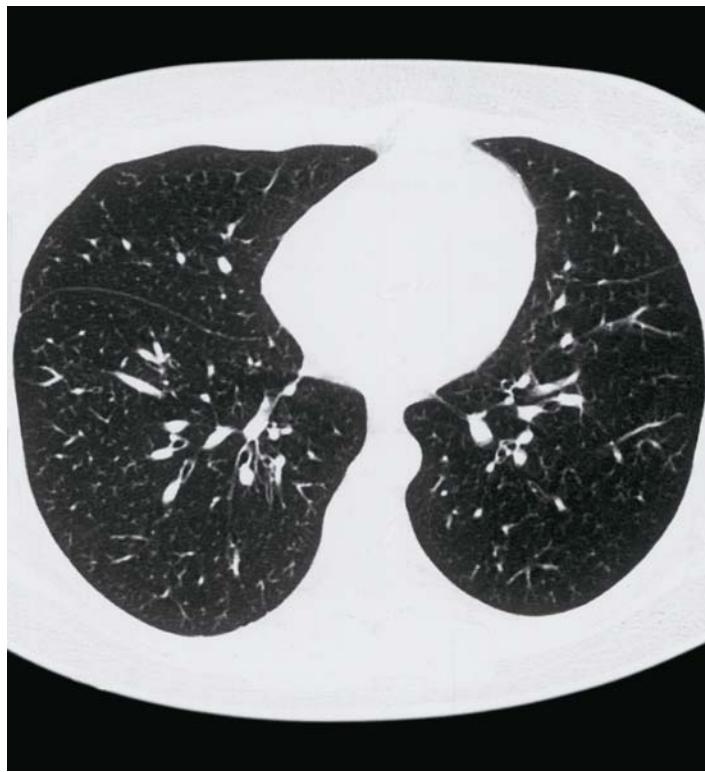


1. Segmentum apicale lobi sup.
2. Segmentum posterius lobi sup.
3. Segmentum anterius lobi sup.
4. Segmentum laterale lobi med. (jobb), lingulare sup. (bal)
5. Segmentum mediale lobi med. (jobb), lingulare inf. (bal)
6. Segmentum apicale lobi inf.

7. Segmentum basale mediale lobi inf. (csak jobb oldalon)
  8. Segmentum basale anterius lobi inf.
  9. Segmentum basale laterale lobi inf.
  10. Segmentum basale posterius lobi inf.
- b = fissura obliqua pulm. dext.**  
**c = fissura obliqua pulm. sin.**



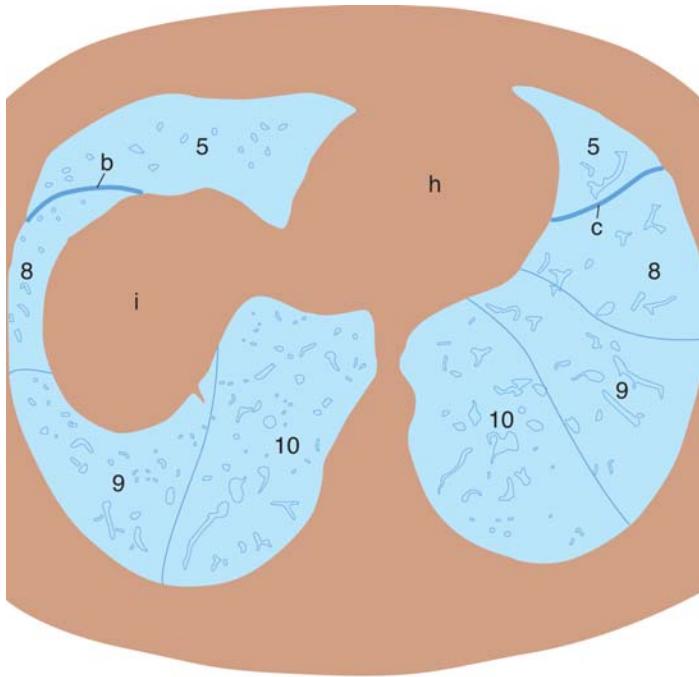
## Bronchopulmonalis segmentumok, axialis CT felvétel / 7.



1. Segmentum apicale lobi sup.
2. Segmentum posterius lobi sup.
3. Segmentum anterius lobi sup.
4. Segmentum laterale lobi med. (jobb), lingulare sup. (bal)
5. Segmentum mediale lobi med. (jobb), lingulare inf. (bal)
6. Segmentum apicale lobi inf.

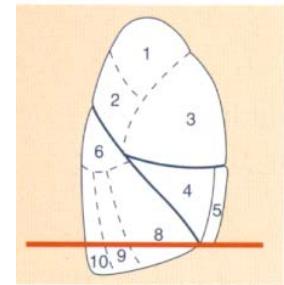
7. Segmentum basale mediale lobi inf., (csak jobb oldalon!)
  8. Segmentum basale anterius lobi inf.
  9. Segmentum basale laterale lobi inf.
  10. Segmentum basale posterius lobi inf.
- b** = fissura obliqua pulm. dext.  
**c** = fissura obliqua pulm. sin.  
**h** = cor

## Bronchopulmonalis segmentumok, axialis CT felvétel / 8.

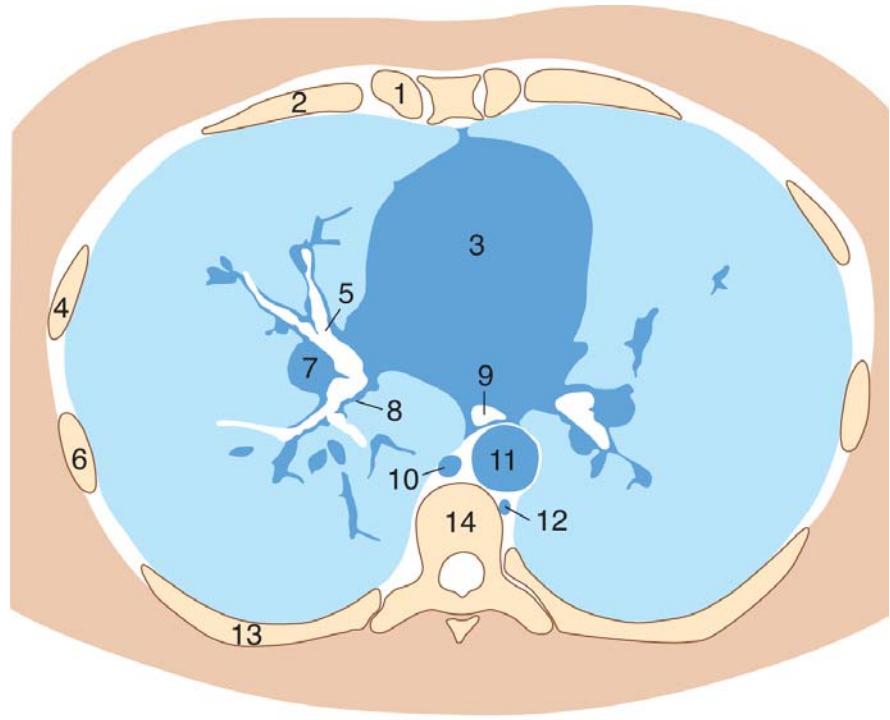
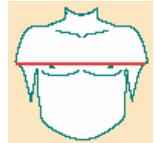


1. Segmentum apicale lobi sup.
2. Segmentum posterius lobi sup.
3. Segmentum anterius lobi sup.
4. Segmentum laterale lobi med. (jobb), lingulare sup. (bal)
5. Segmentum mediale lobi med. (jobb), lingulare inf. (bal)
6. Segmentum apicale lobi inf.

7. Segmentum basale mediale lobi inf, (csak jobb oldalon!)
  8. Segmentum basale anterius lobi inf.
  9. Segmentum basale laterale lobi inf.
  10. Segmentum basale posterius lobi inf.
- b** = fissura obliqua pulm. dext.  
**c** = fissura obliqua pulm. sin.  
**h** = cor  
**i** = diaphragma

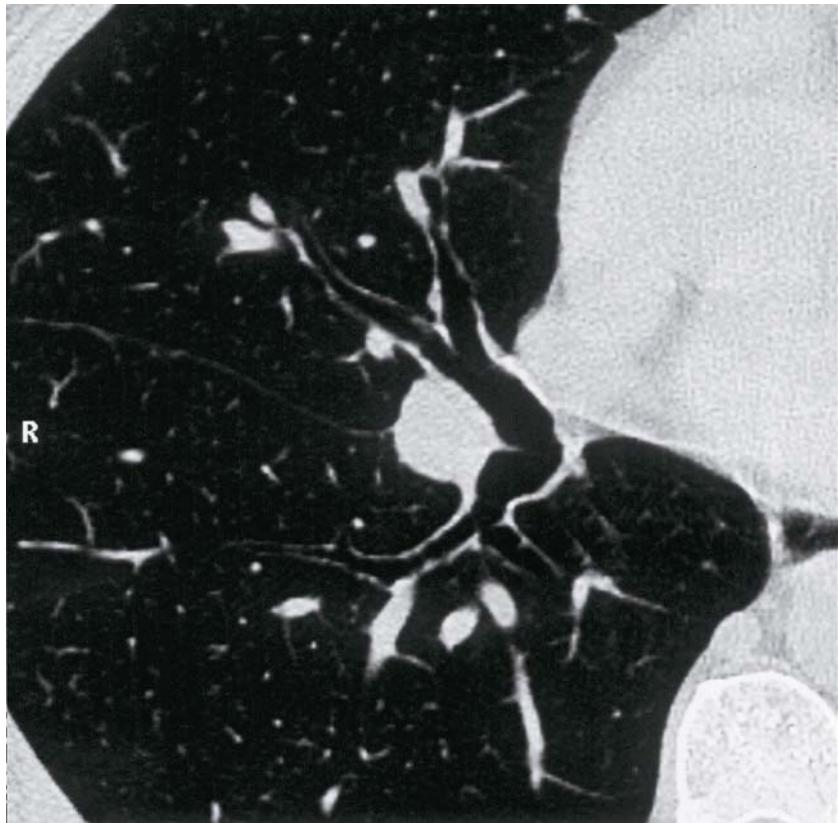
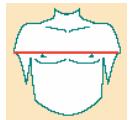


## Tüdőparenchyma - high-resolution CT

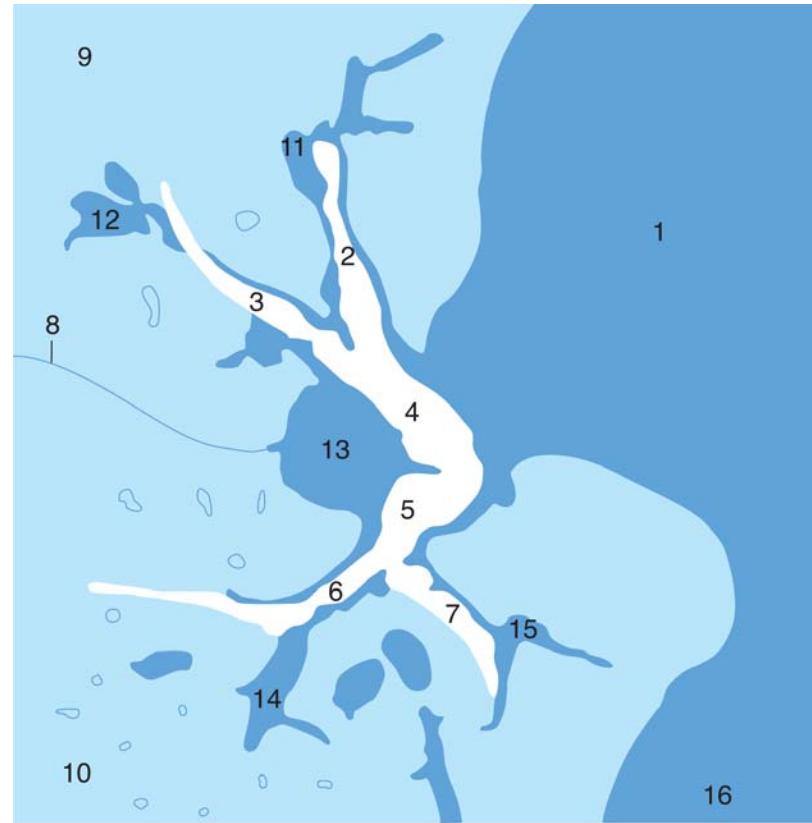


1. Cartilago costalis IV.
2. Costa V.
3. Szív és pericardium
4. Costa IV.
5. Bronchus et arteria lobares med.
6. Costa VII.
7. A. pulmonalis
8. Brochus et arteria lobares inf.
9. Oesophagus
10. Vena azygos
11. Aorta
12. Vena hemiazygos
13. Costa VIII.
14. Vertebra thoracica VIII.

# Hilus pulmonis dext. - high-resolution CT

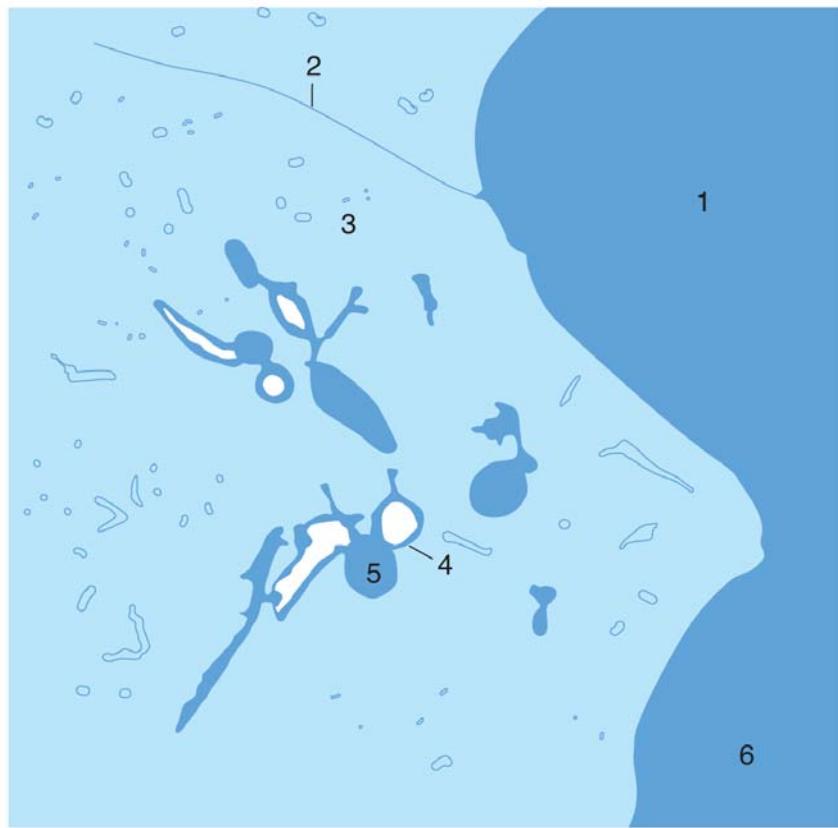
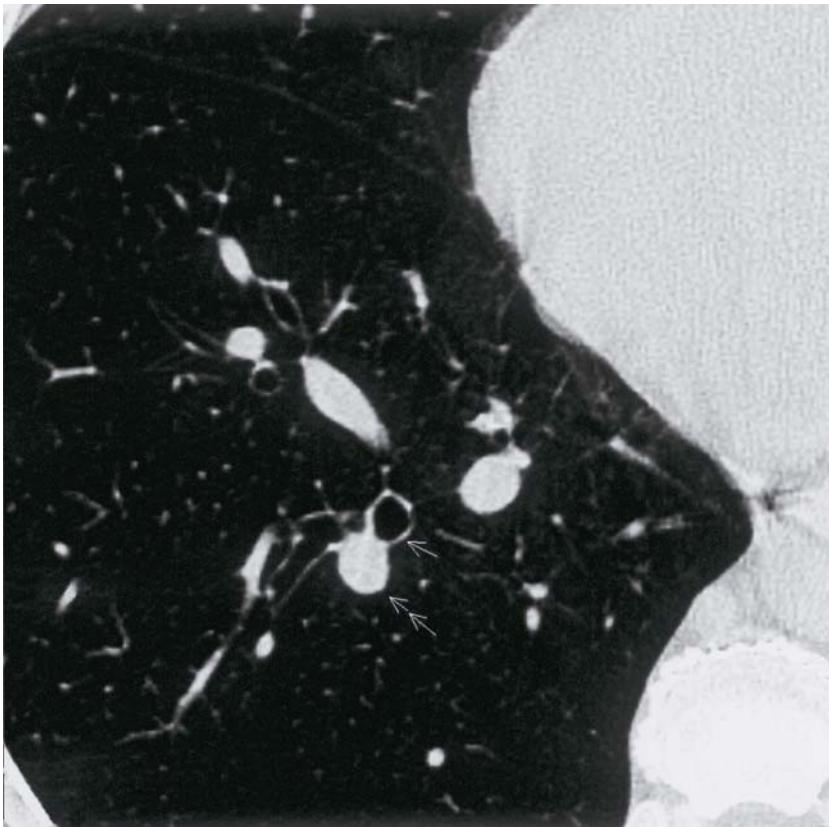


1. Szív
2. Bronchus segmentalis medialis lobi medii
3. Bronchus segmentalis lateralis lobi medii
4. Bronchus lobaris medius
5. Bronchus lobaris inferior
6. Bronchus segmentalis anterobasalis lobi inferioris
7. Bronchus segmentalis mediobasalis lobi inferioris
8. Fissura obliqua



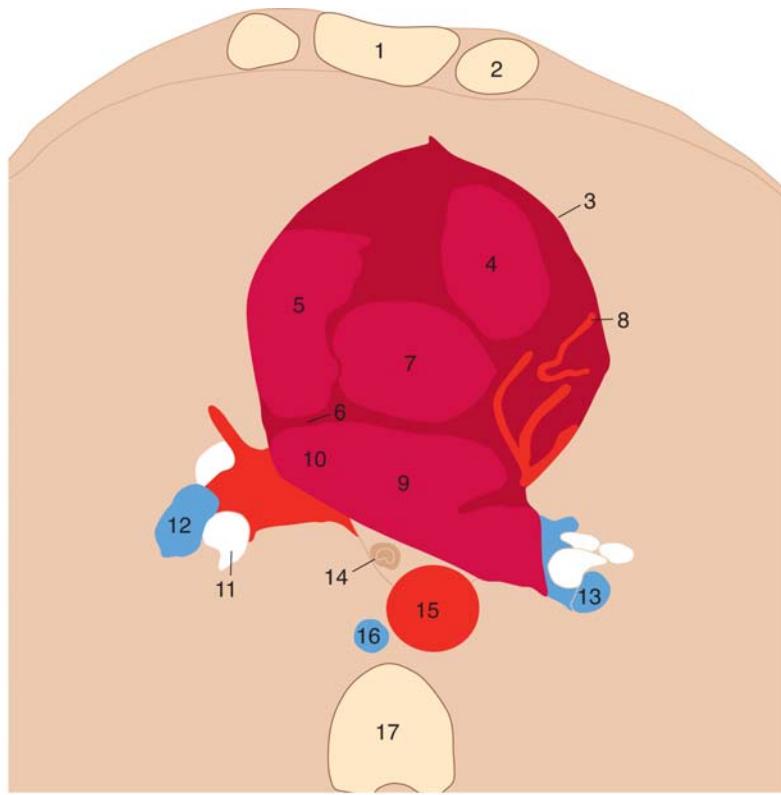
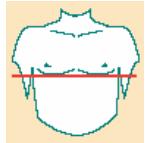
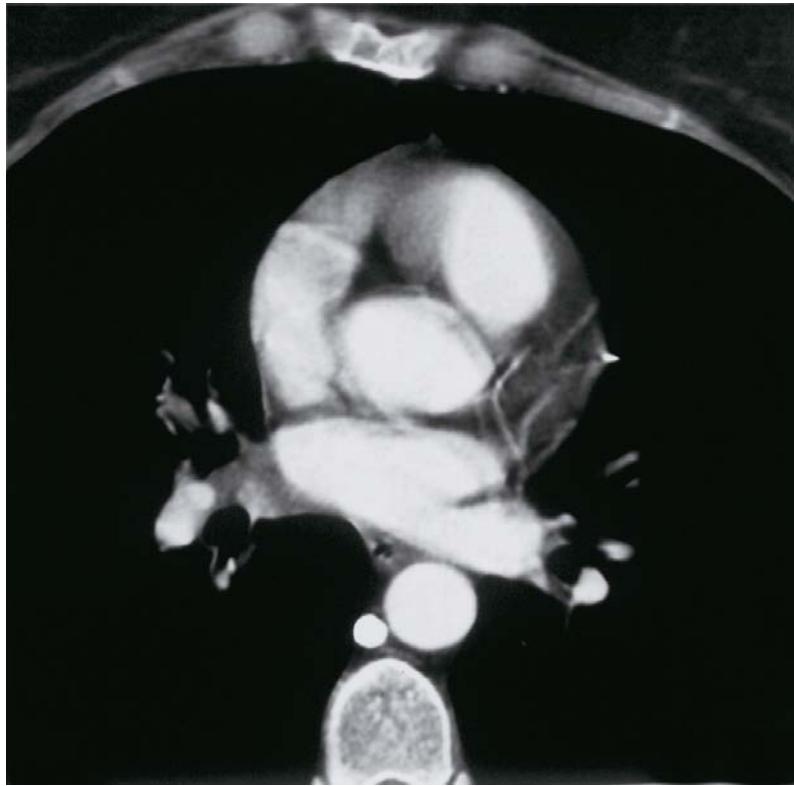
9. Lobus medius
10. Lobus inferior
11. A. segmentalis medius lobi medii
12. A. segmentalis lateralis lobi medii
13. A. pulmonalis
14. A. segmentalis anterobasalis lobi inferioris
15. A. segmentalis mediobasalis lobi inferioris
16. Columna vertebralis

## Tüdőparenchyma - high-resolution CT



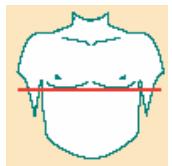
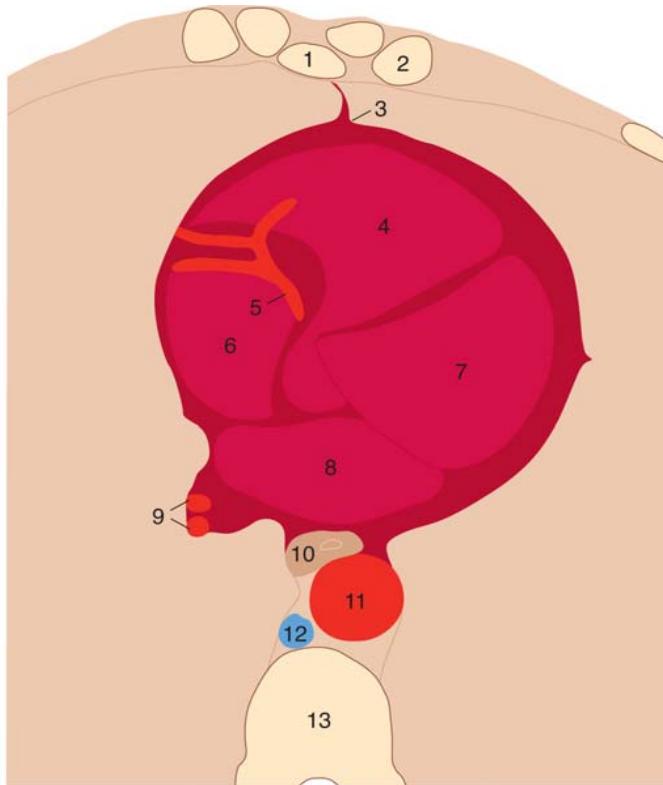
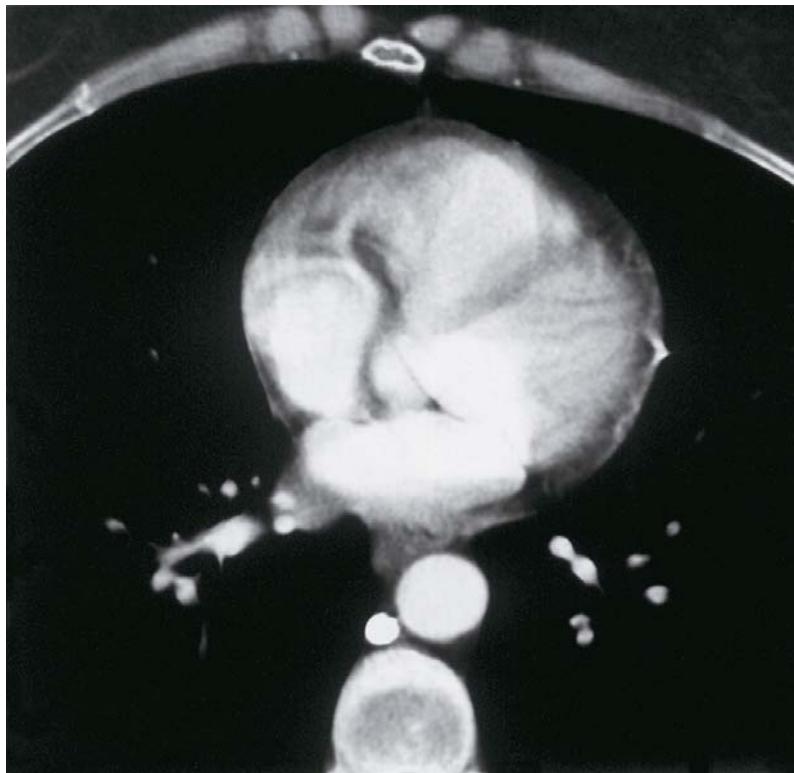
1. Szív
2. Fissura obliqua
3. Tüdőparenchyma
4. Bronchus lobaris (keresztmetszet)
5. A. lobaris (keresztmetszet)
6. Columna vertebralis

## Szív axialis CT felvétele / 1.



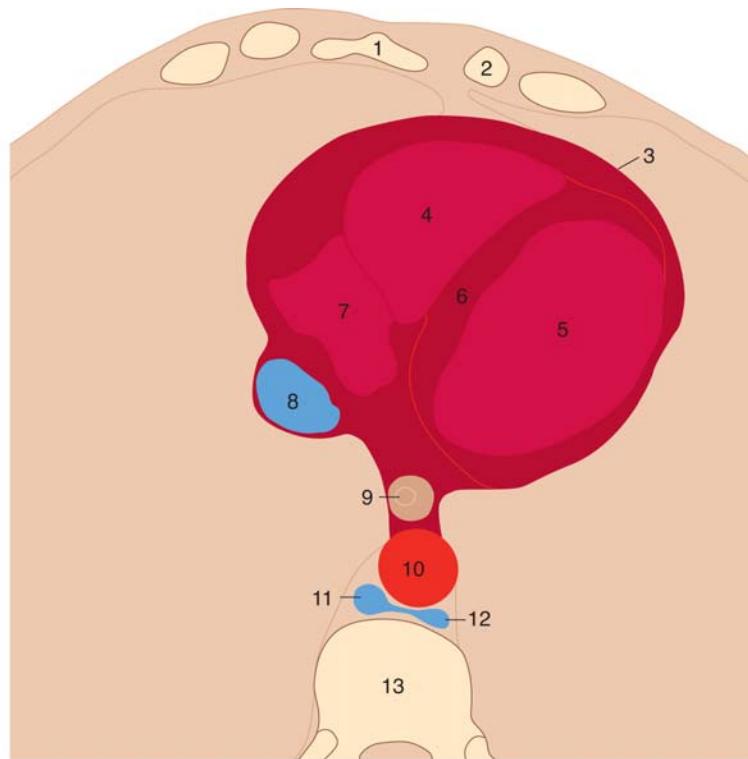
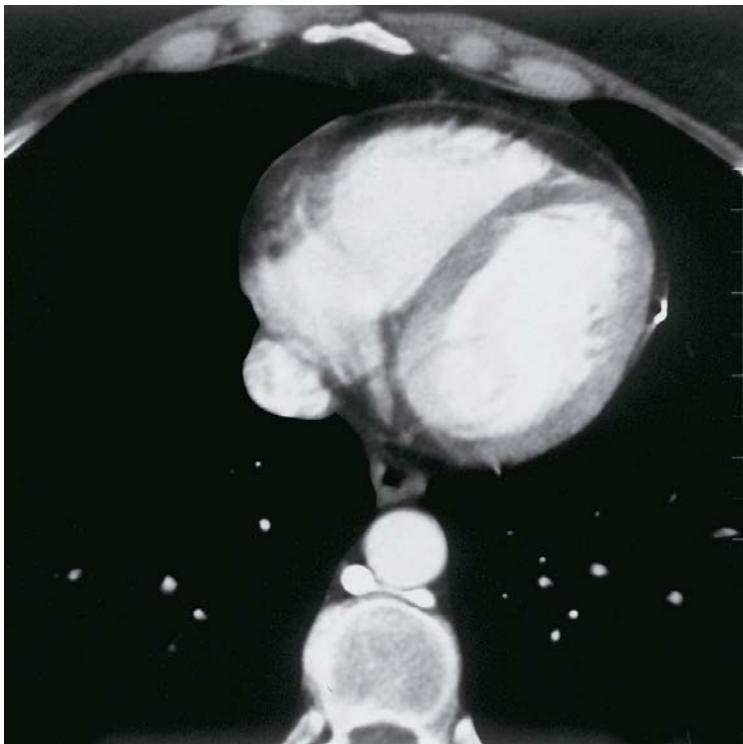
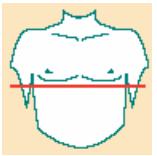
1. Sternum
2. Cartilago costalis
3. Pericardium
4. Truncus pulmonalis
5. Jobb pitvar
6. Septum interatriale
7. Aorta ascendens
8. A. coronaria sin. (r. interventr. desc.)
9. Bal pitvar
10. V. pulmonalis dext.
11. Bronchus lobaris inf. dext.
12. A. pulmonalis dext.
13. A. lobaris inf. sin.
14. Oesophagus
15. Aorta
16. V. azygos
17. Vertebra

## Szív axialis CT felvétele / 2.



1. Sternum
2. Cartilago costalis
3. Pericardium
4. Jobb kamra
5. A. coronaria dext.
6. Jobb pitvar
7. Bal kamra
8. Bal pitvar
9. Vv. pulmonales dextt.
10. Oesophagus
11. Aorta
12. V. azygos
13. Vertebra

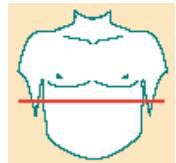
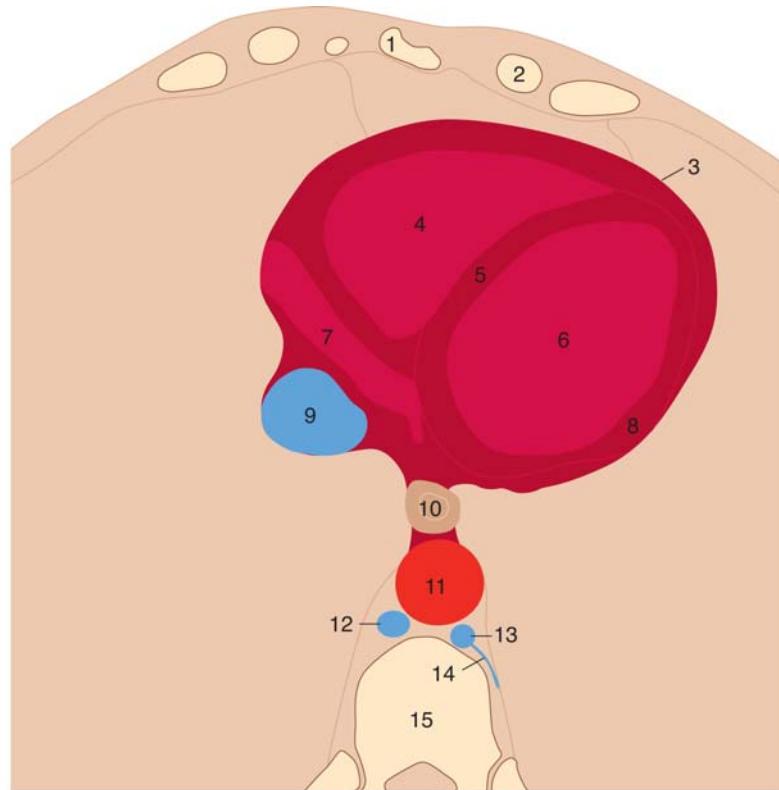
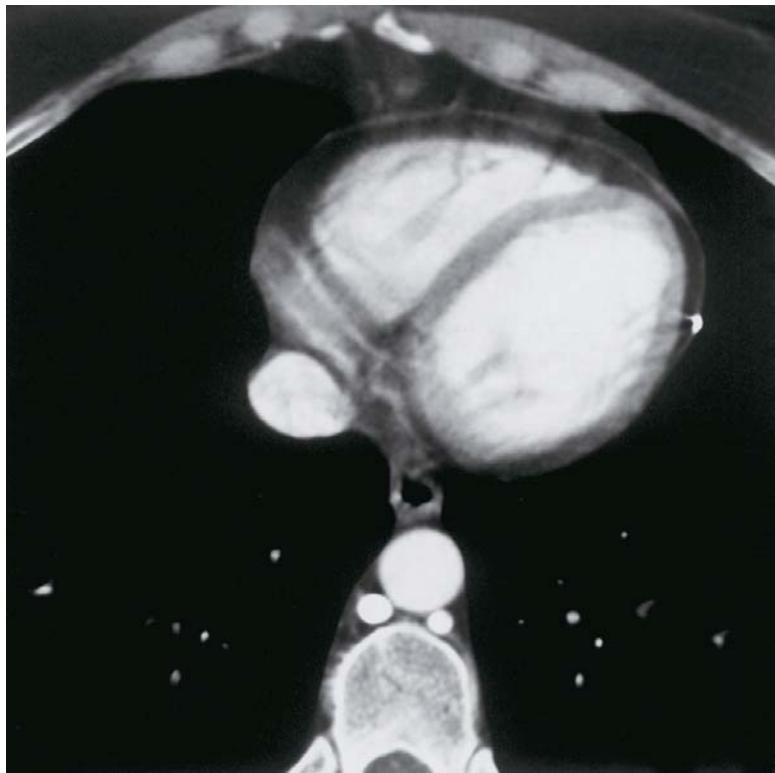
## Szív axialis CT felvétele / 3.



- 1. Sternum
- 2. Cartilago costalis
- 3. Pericardium
- 4. Jobb kamra ürege
- 5. Bal kamra ürege
- 6. Septum interventriculare p. musc.
- 7. Jobb pitvar

- 8. V. cava inf.
- 9. Oesophagus
- 10. Aorta
- 11. V. azygos
- 12. V. hemiazygos
- 13. Vertebra

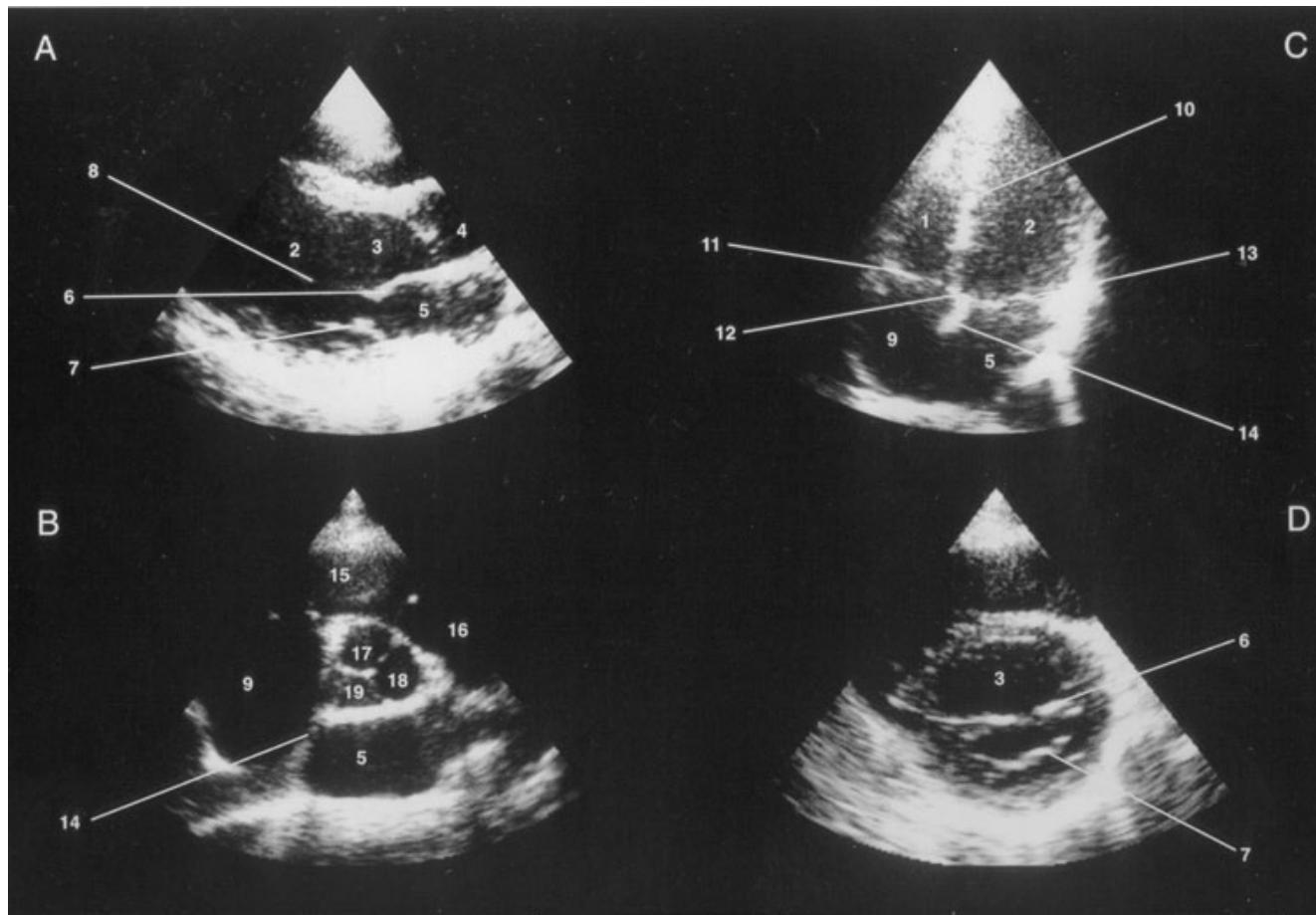
## Szív axialis CT felvétele / 4.



1. Sternum
2. Cartilago costalis
3. Pericardium
4. Jobb kamra
5. Septum interventriculare, pars muscularis
6. Bal kamra
7. Jobb pitvar
8. Bal kamra fala
9. V. cava inf.
10. Oesophagus
11. Aorta
12. V. azygos
13. V. hemiazygos
14. V. intercostalis post.
15. Vertebra

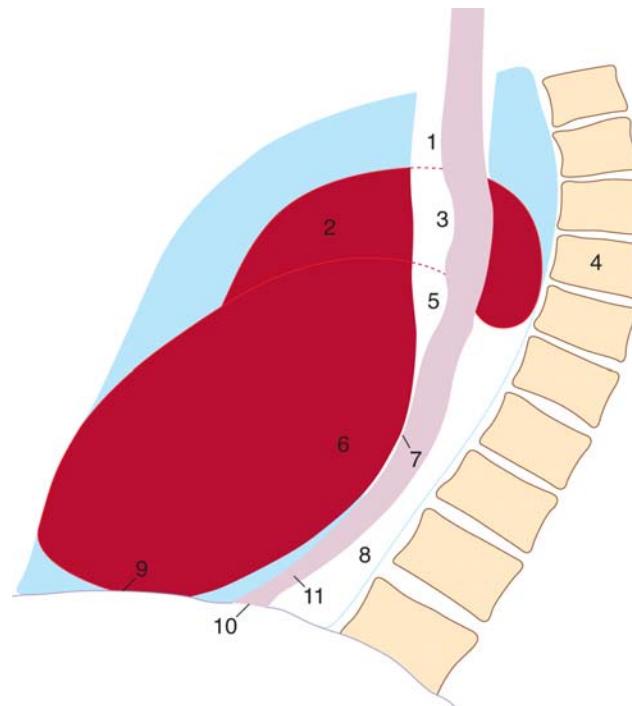
# Echocardiográfia

A – hosszú axis felv.; B – aorta billentyű; C – a négy üreg; D – bal parasternalis rövid axis felv.



1. Jobb kamra
2. Bal kamra
3. Bal kamra kiáramlási zóna
4. Aorta
5. Bal pitvar
6. Cuspis ant. valvae mitralis
7. Cuspis post. valvae mitralis
8. Chordae tendineae
9. Jobb pitvar
10. Septum interventriculare
11. Valva tricuspidalis
12. Septum atrioventriculare
13. Valva bicuspidalis (mitralis)
14. Septum interatriale
15. Jobb kamra, kiáramlási zóna
16. A. pulmonalis
17. Valvula semilun. dext. aortae
18. Valvula semilun. sin. aortae
19. Valvula semilun. post. aortae

## Nyelőcső barium kontrasztanyagos RTG képe – lateralis nézet



1. Trachea
2. Aorta ascendens
3. Impressio aortica
4. Columna vertebralis
5. Bal főhörgő benyomata
6. Bal pitvar
7. Impressio cardiaca
8. Spatium retrocardiacum
9. Diaphragma
10. Hiatus oesophageus (oesophago-gastricus átmenet)
11. Kontrasztanyag a nyelőcsőben