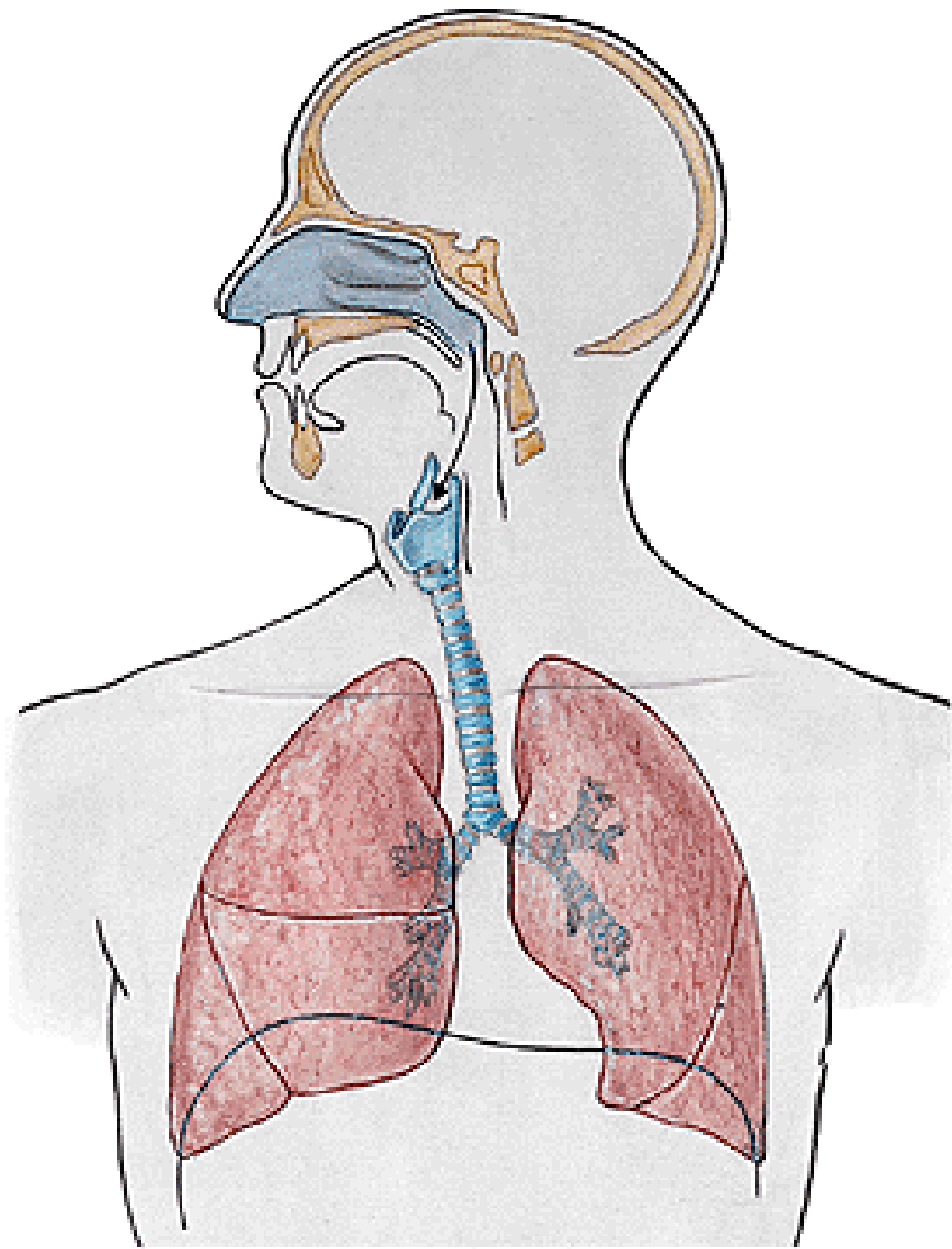




RESPIRATORY SYSTEM



NASUS EXTERNUS

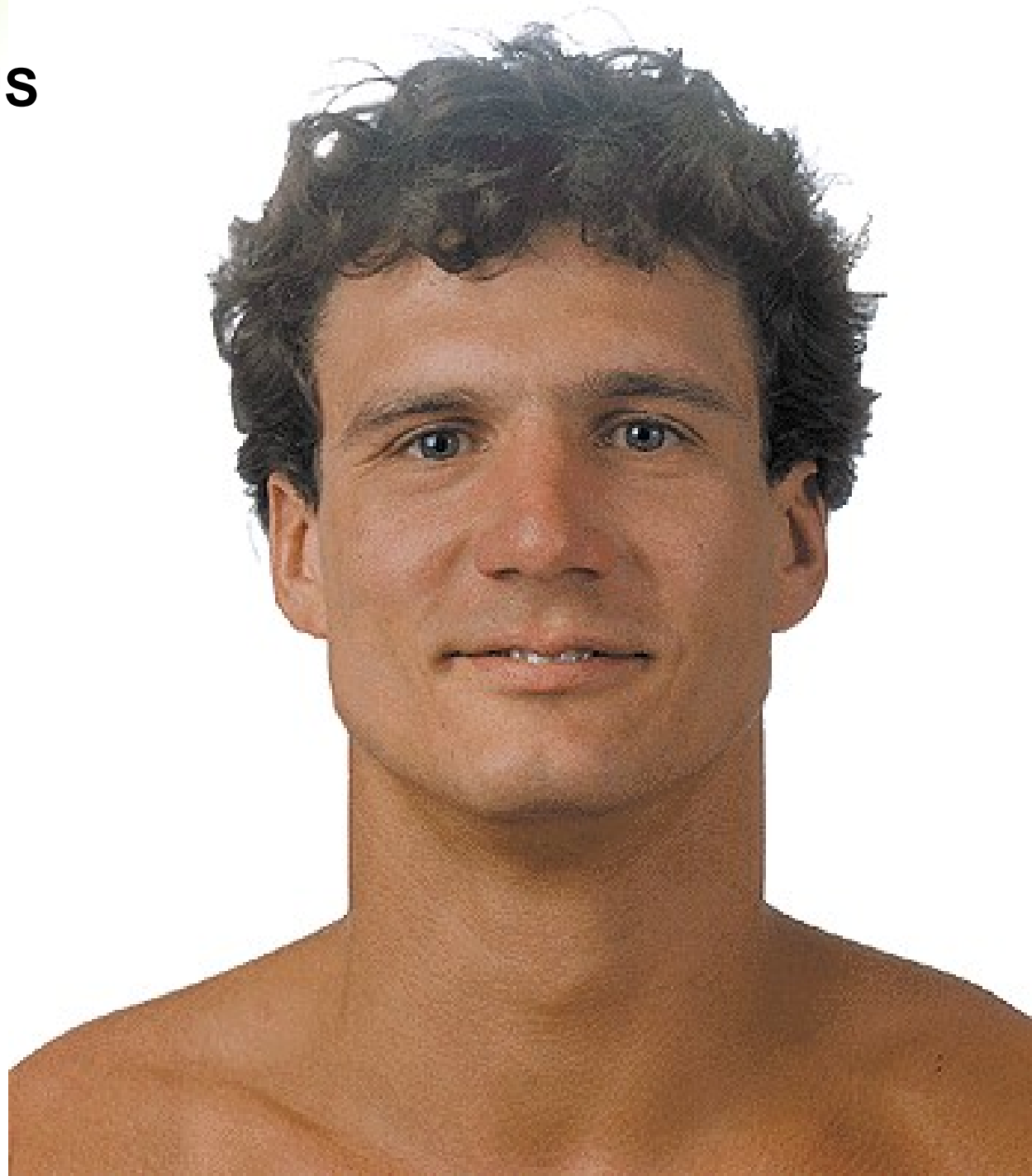
Radix nasi

Dorsum nasi

Apex nasi

Nares

Alae nasi



Cartilago nasi lateralis

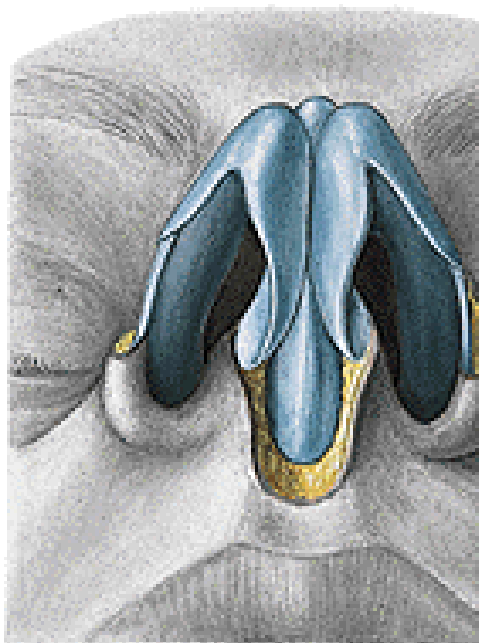
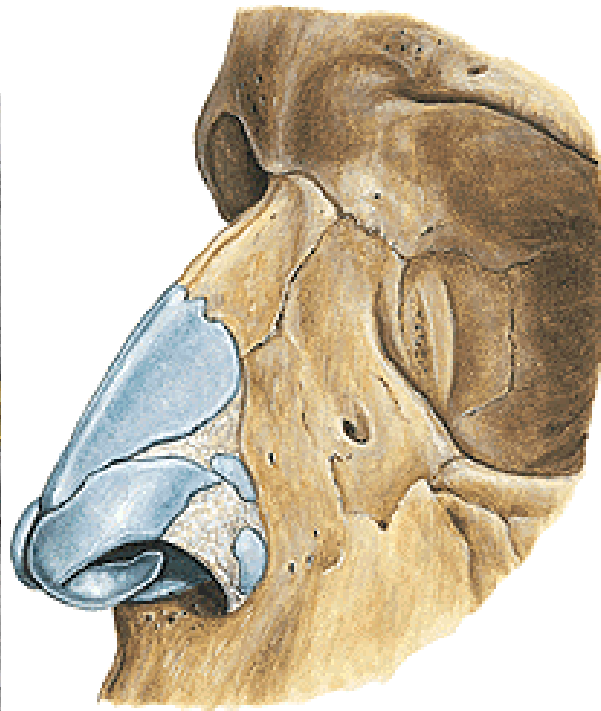
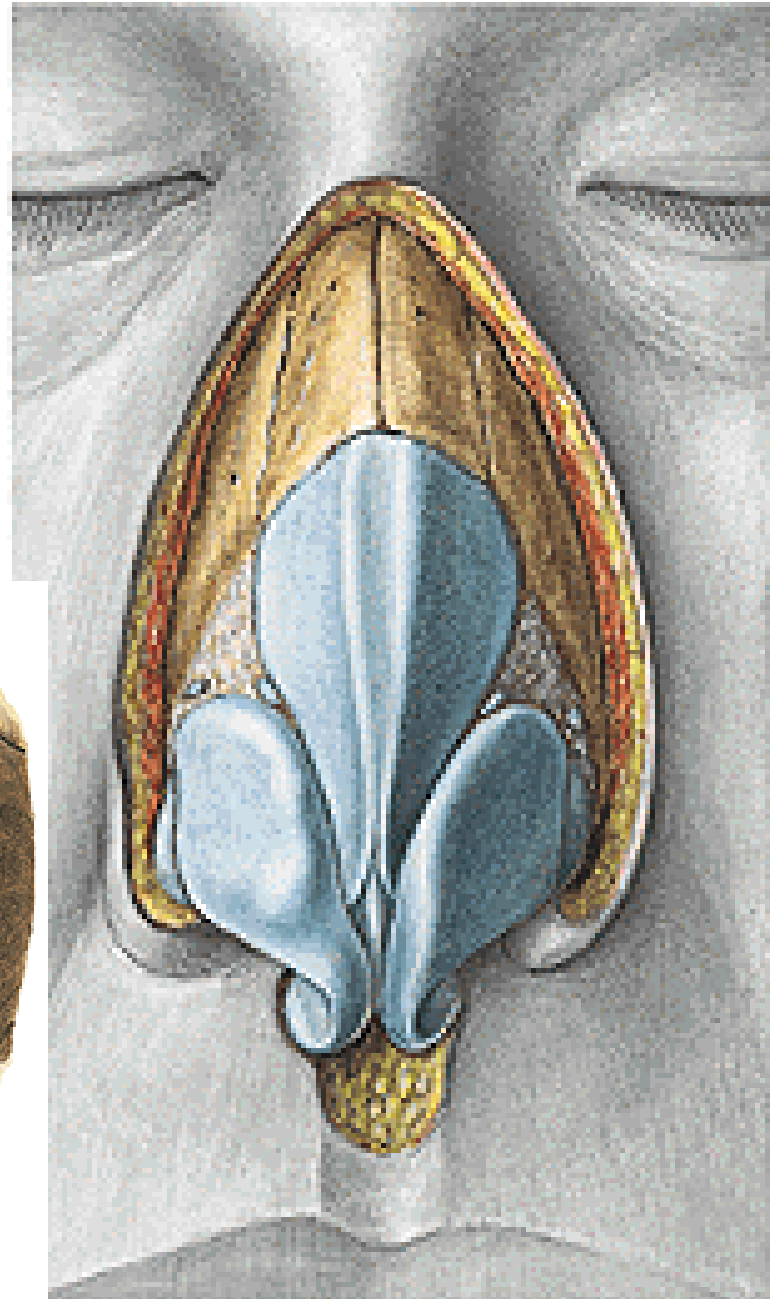
Cartilago septi nasi

Cartilago alaris major

- crus laterale

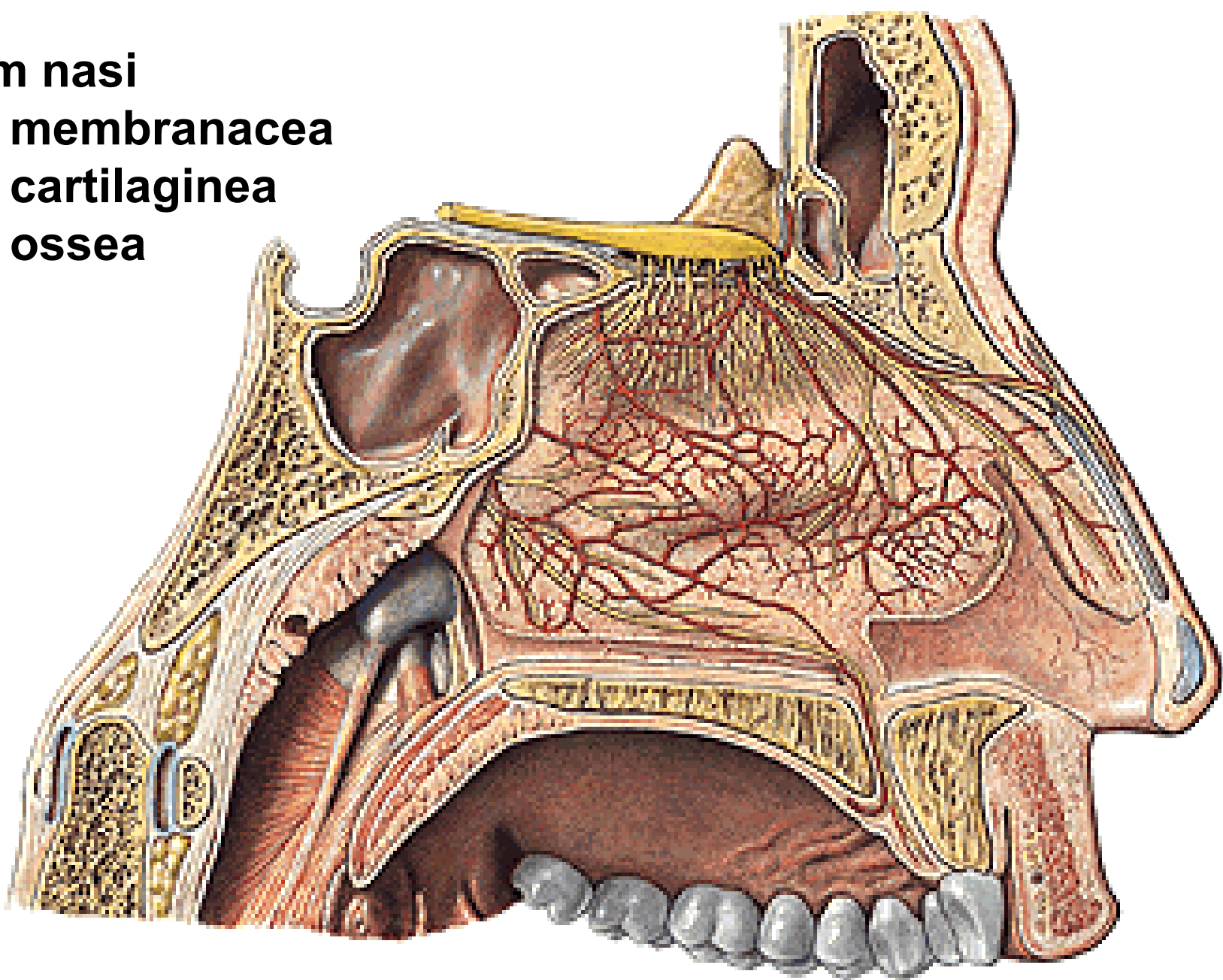
- crus mediale

Cartilagine alares minores



Septum nasi

- pars membranacea
- pars cartilaginea
- pars ossea



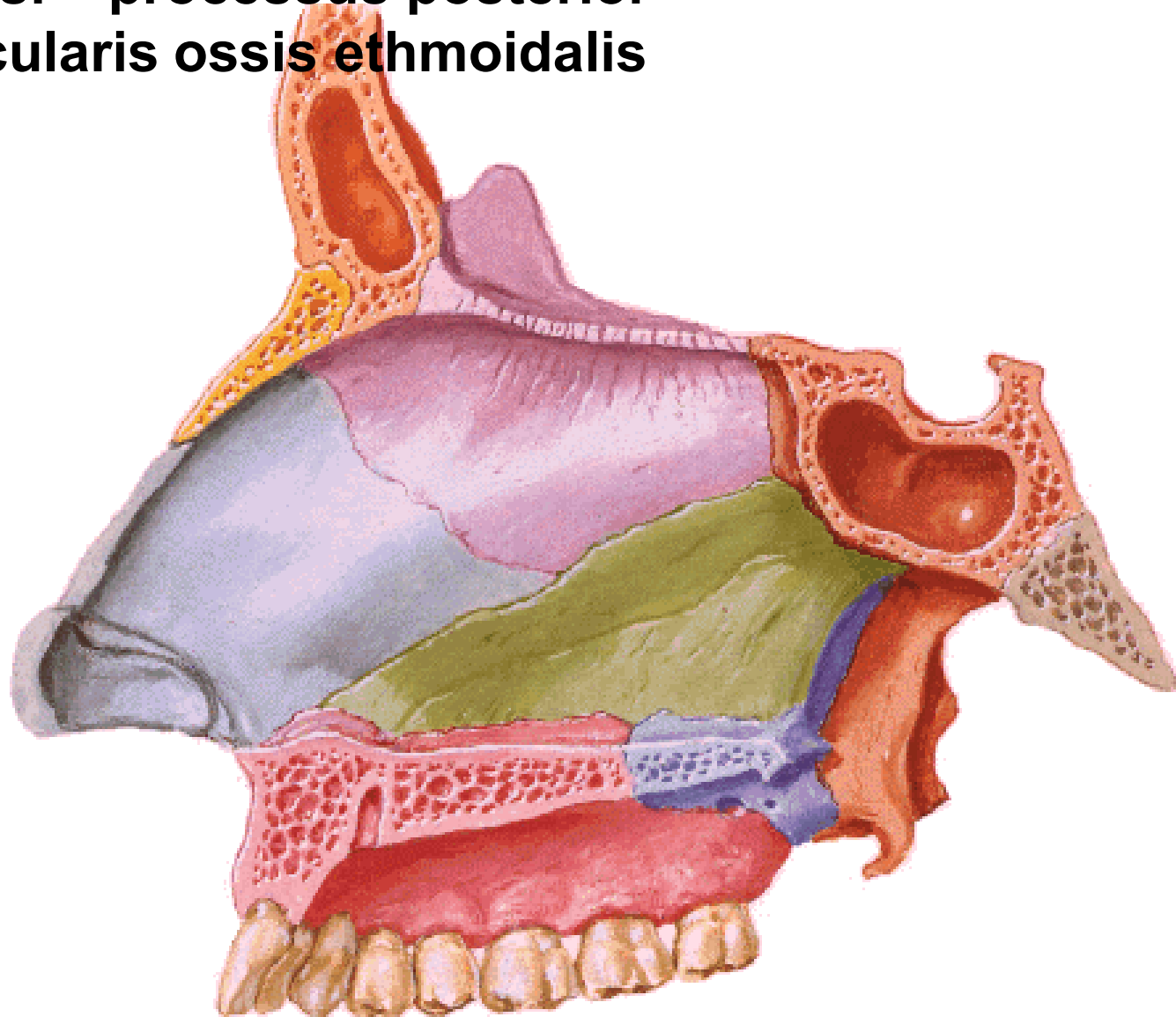
SEPTUM NASI

Cartilagine alares majores – crura medialis

Cartilago septi nasi – processus posterior

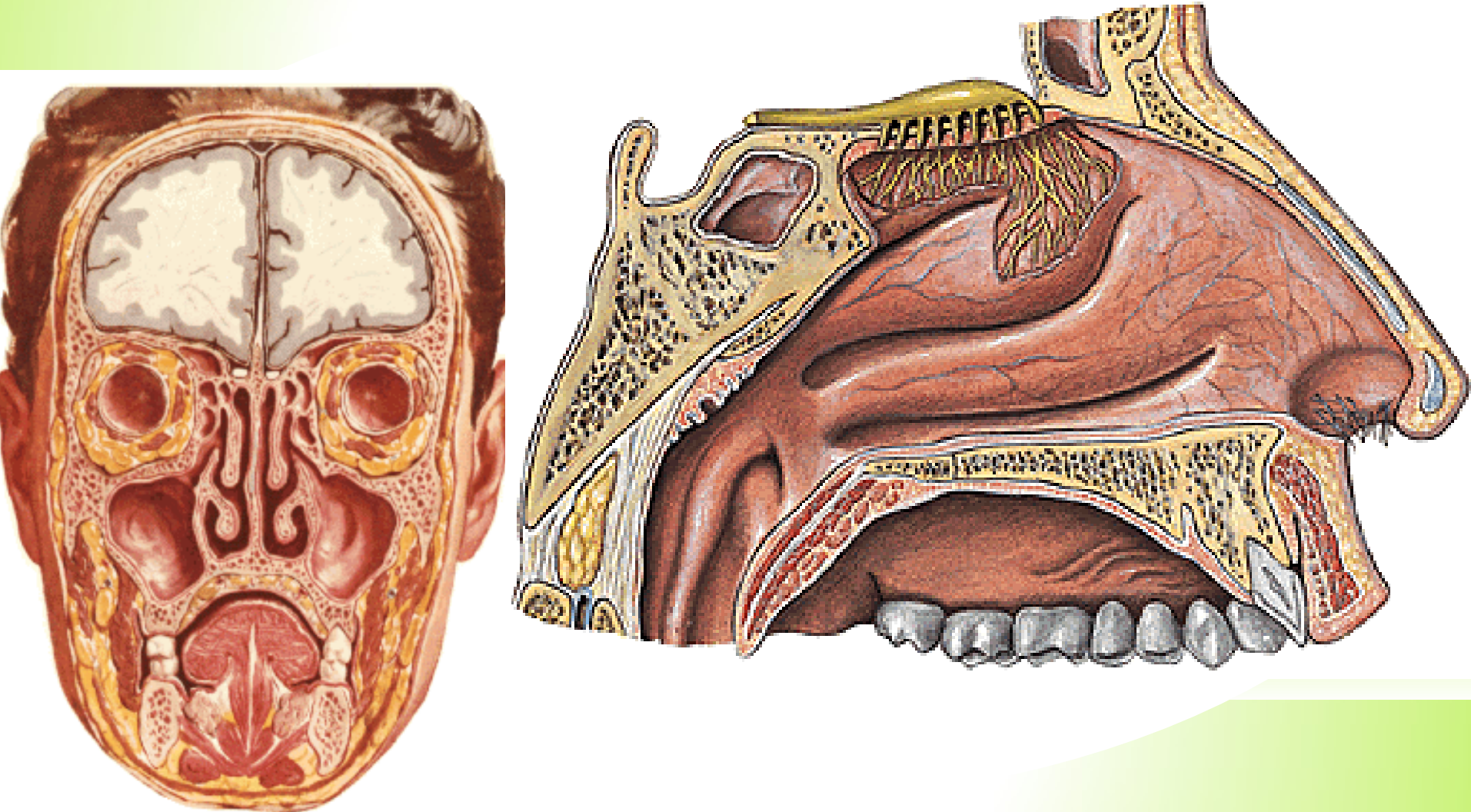
Lamina perpendicularis ossis ethmoidalis

Vomer



CAVITAS NASI

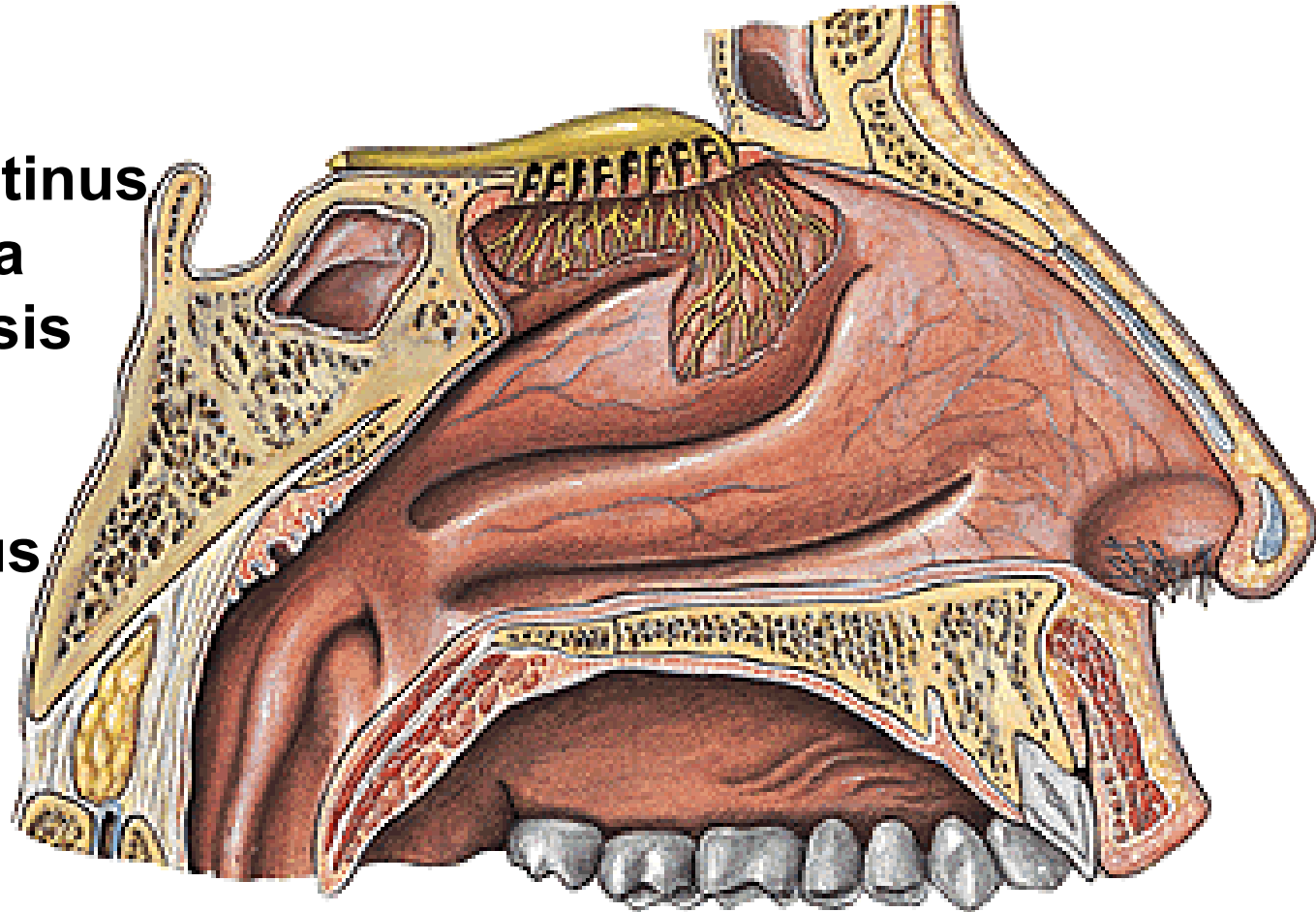
- vestibulum – limen, vibrisae, recessus apicis nasi
- cavitas nasi propria – meatus nasi sup., medius, inf.
meatus nasi communis, meatus nasopharyngeus, choanae



**Superior wall: cartilago nasi lateralis, os nasale,
pars nasalis ossis frontalis, lamina cribrosa
ossis ethmoidalis, corpus ossis sphenoidalis**

**Inferior wall:
processus palatinus
maxillae, lamina
horizontalis ossis
palatini**

canalis incisivus

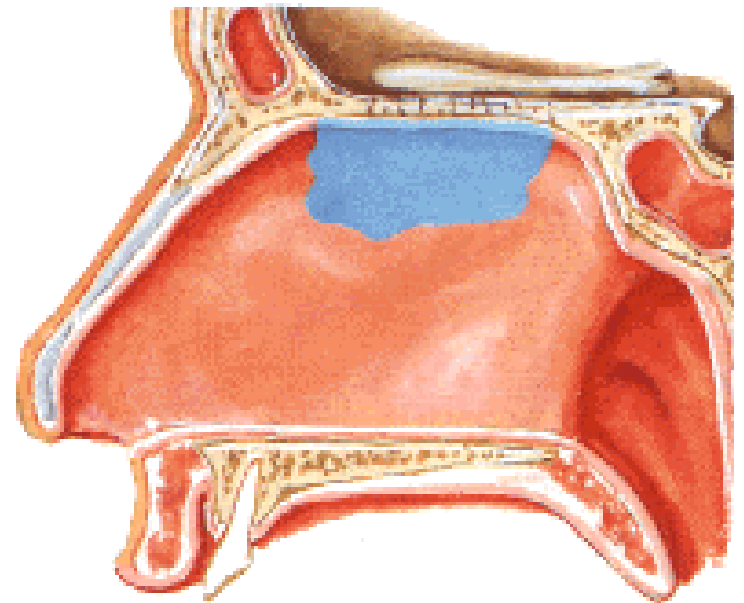
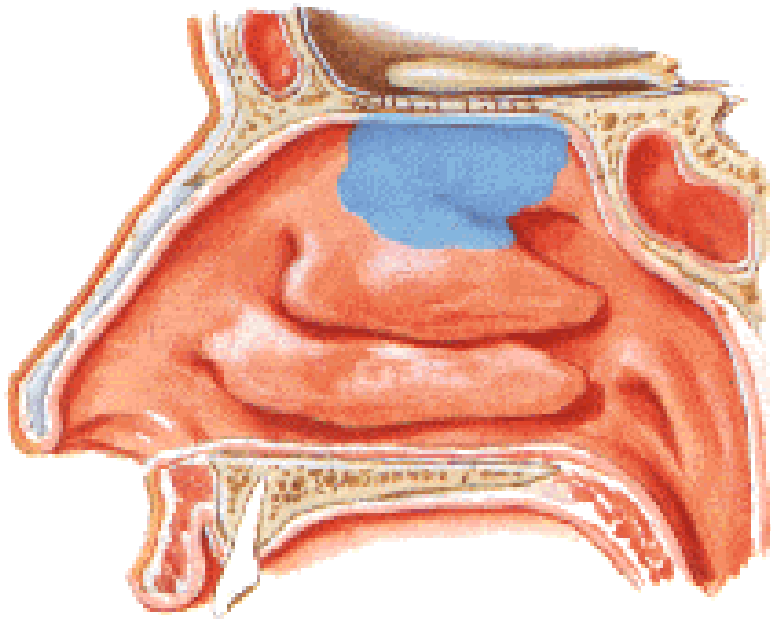


NASAL MUCOSA

Regio respiratoria

plexus cavernosi - epistaxis

Regio olfactoria



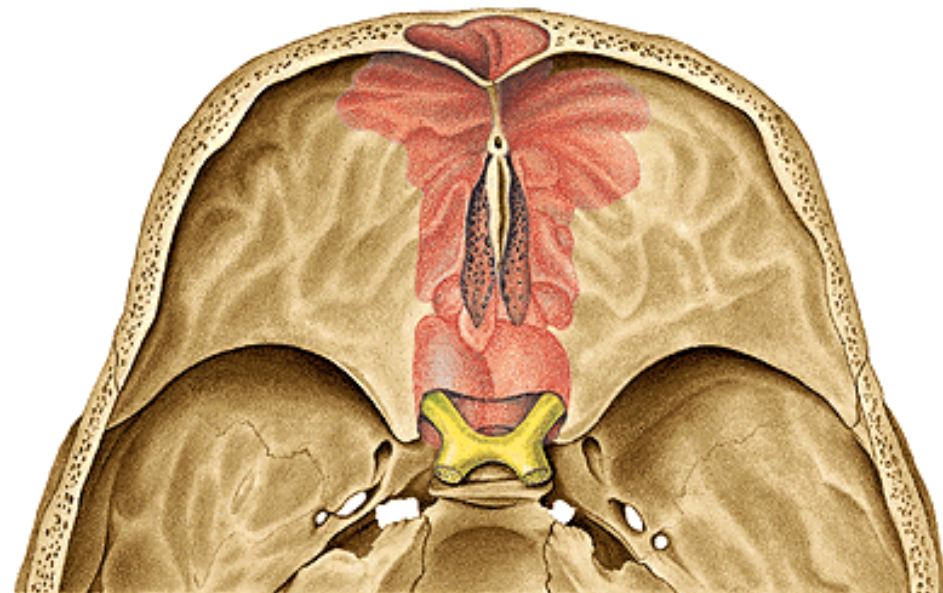
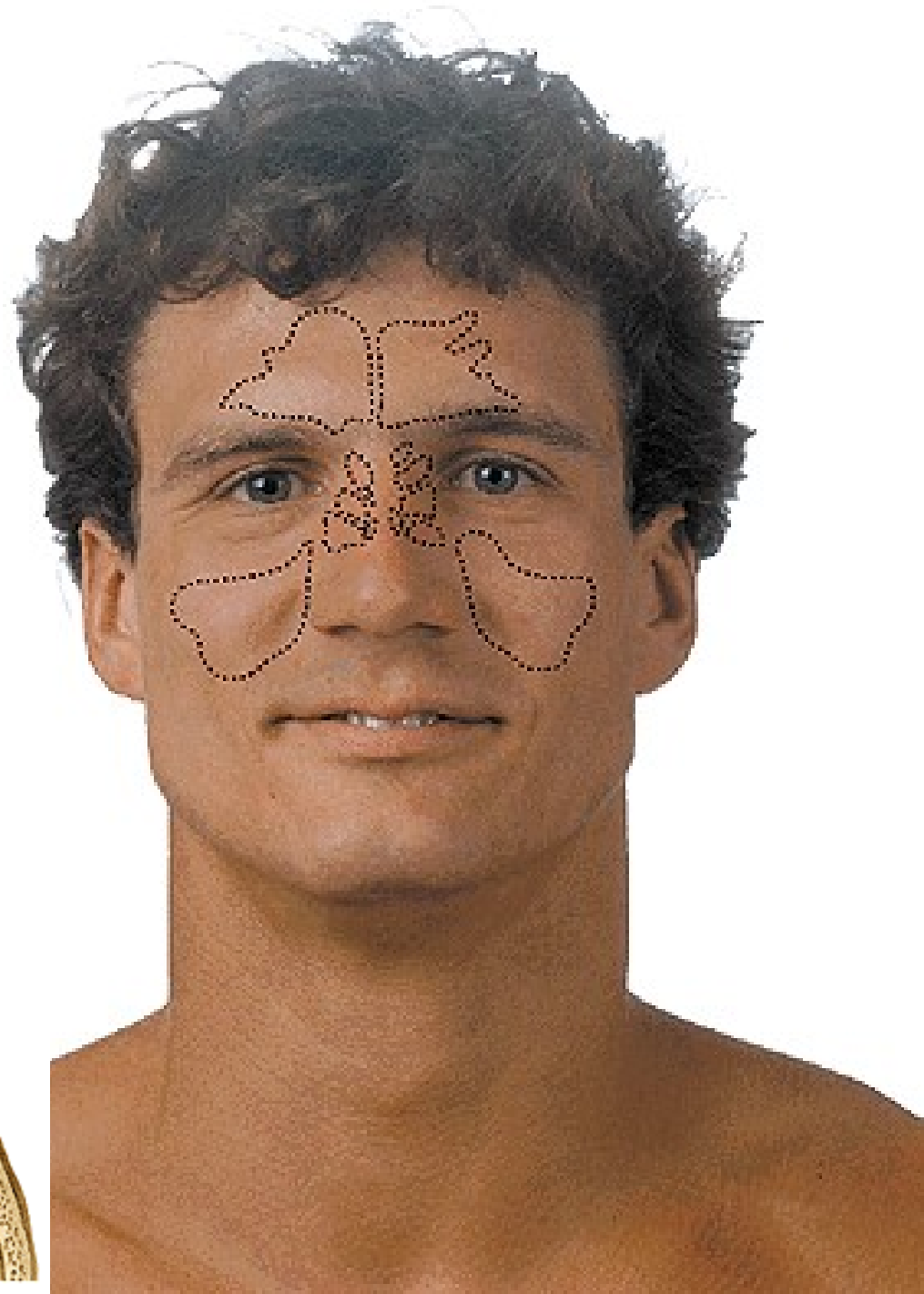
SINUS PARANASALES

Sinus maxillaris

Sinus frontalis

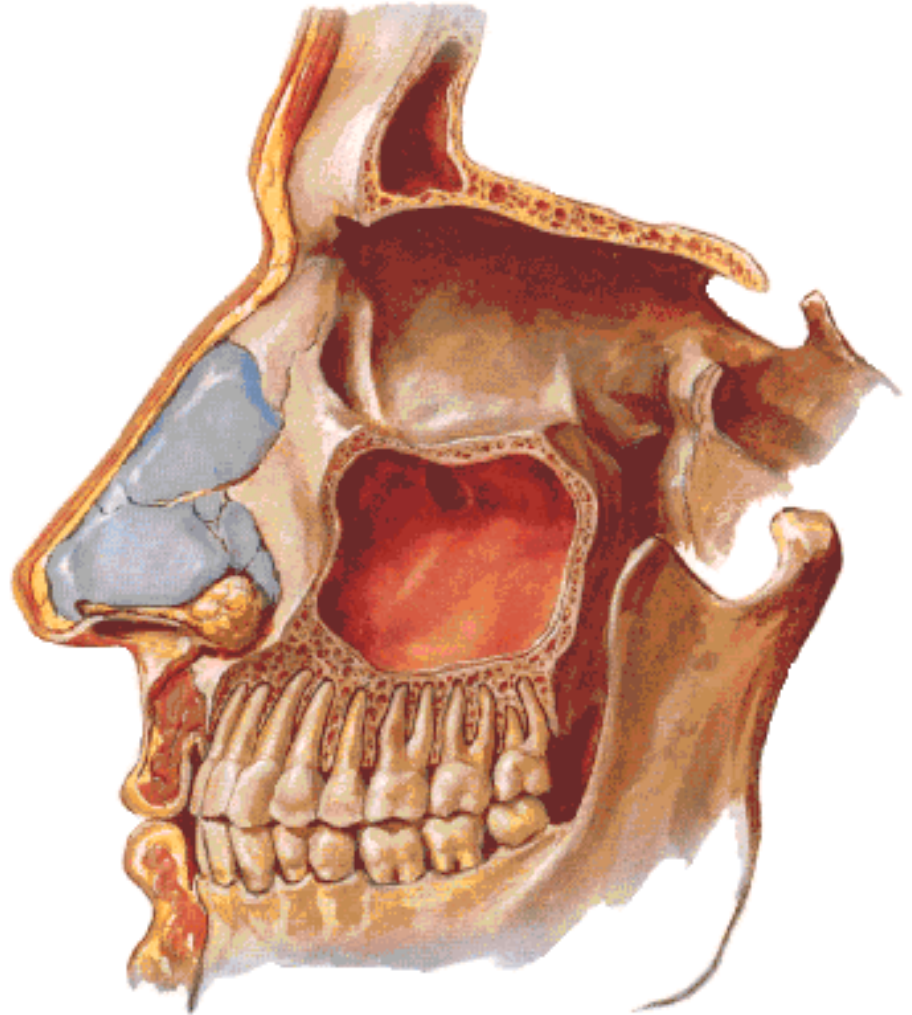
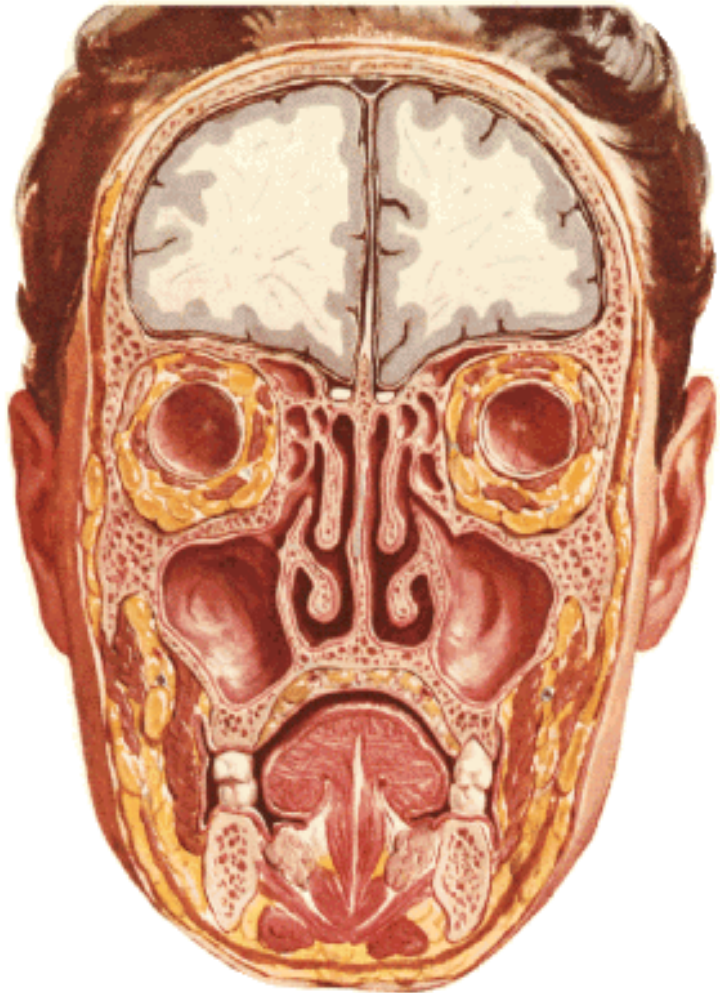
Sinus ethmoidales

Sinus sphenoidalis

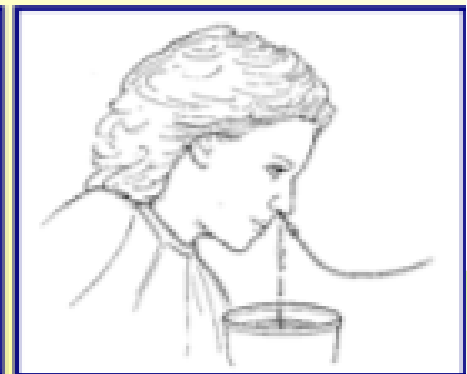
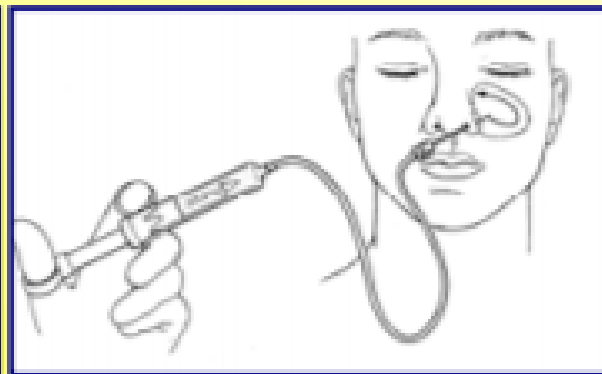
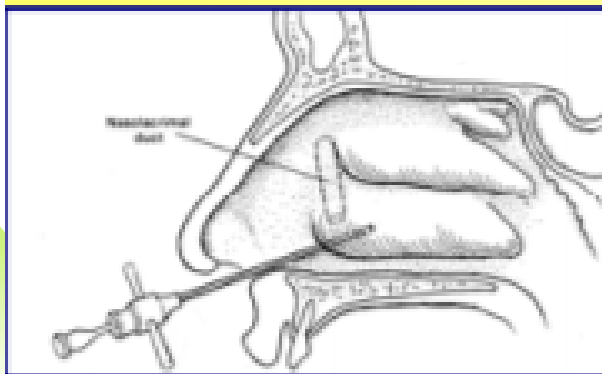
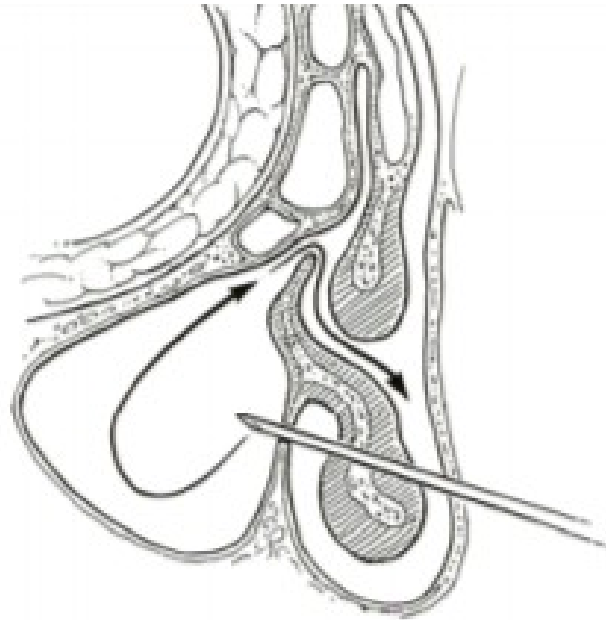


SINUS MAXILLARIS (Antrum of Highmore)

– hiatus sinus maxillaris

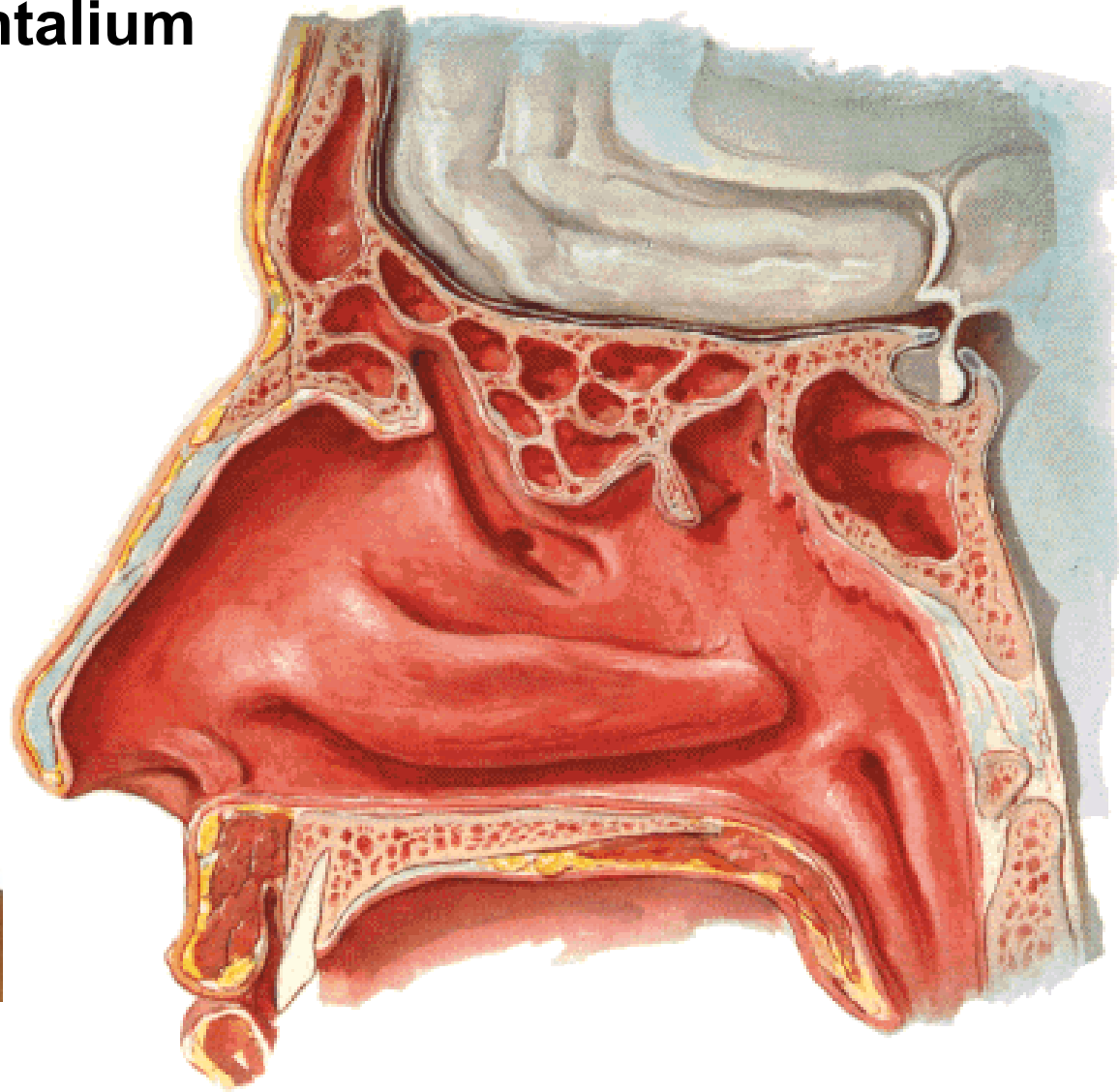


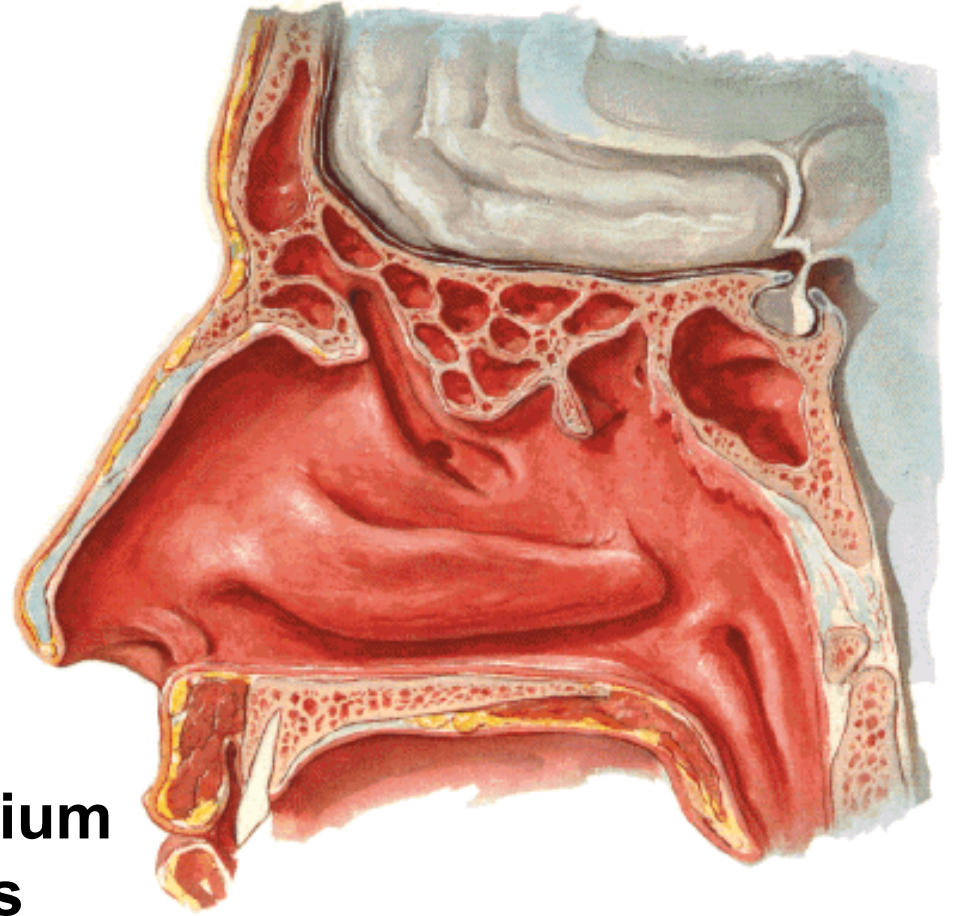
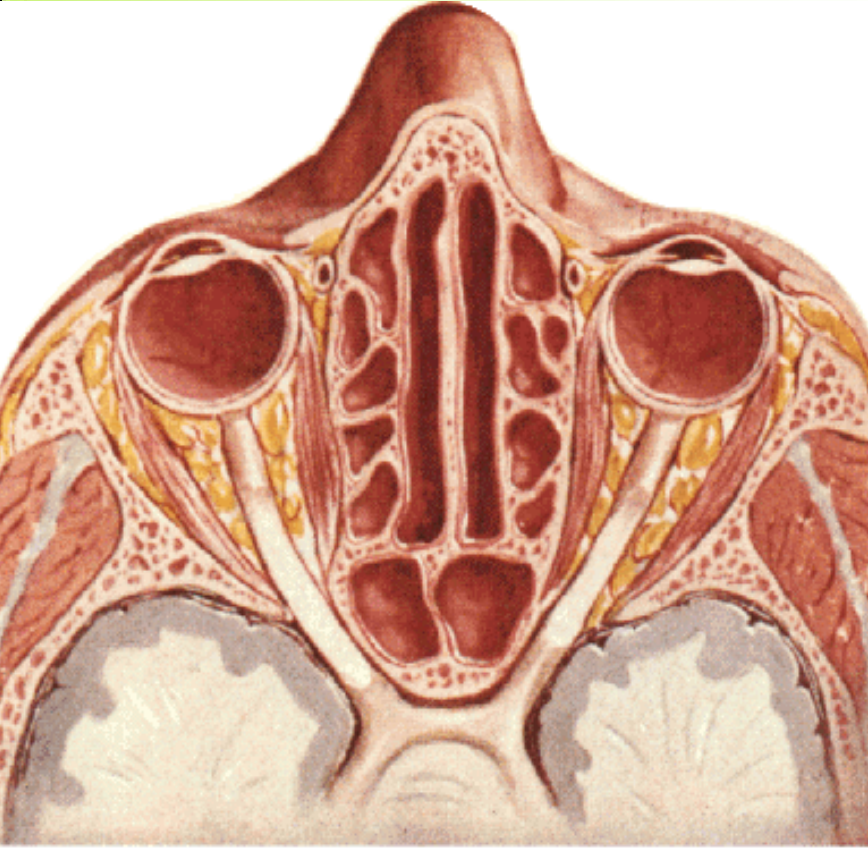
Maxillary sinus puncture (Antral washout)



SINUS FRONTALIS

Septum sinuum frontalem
Hiatus semilunaris





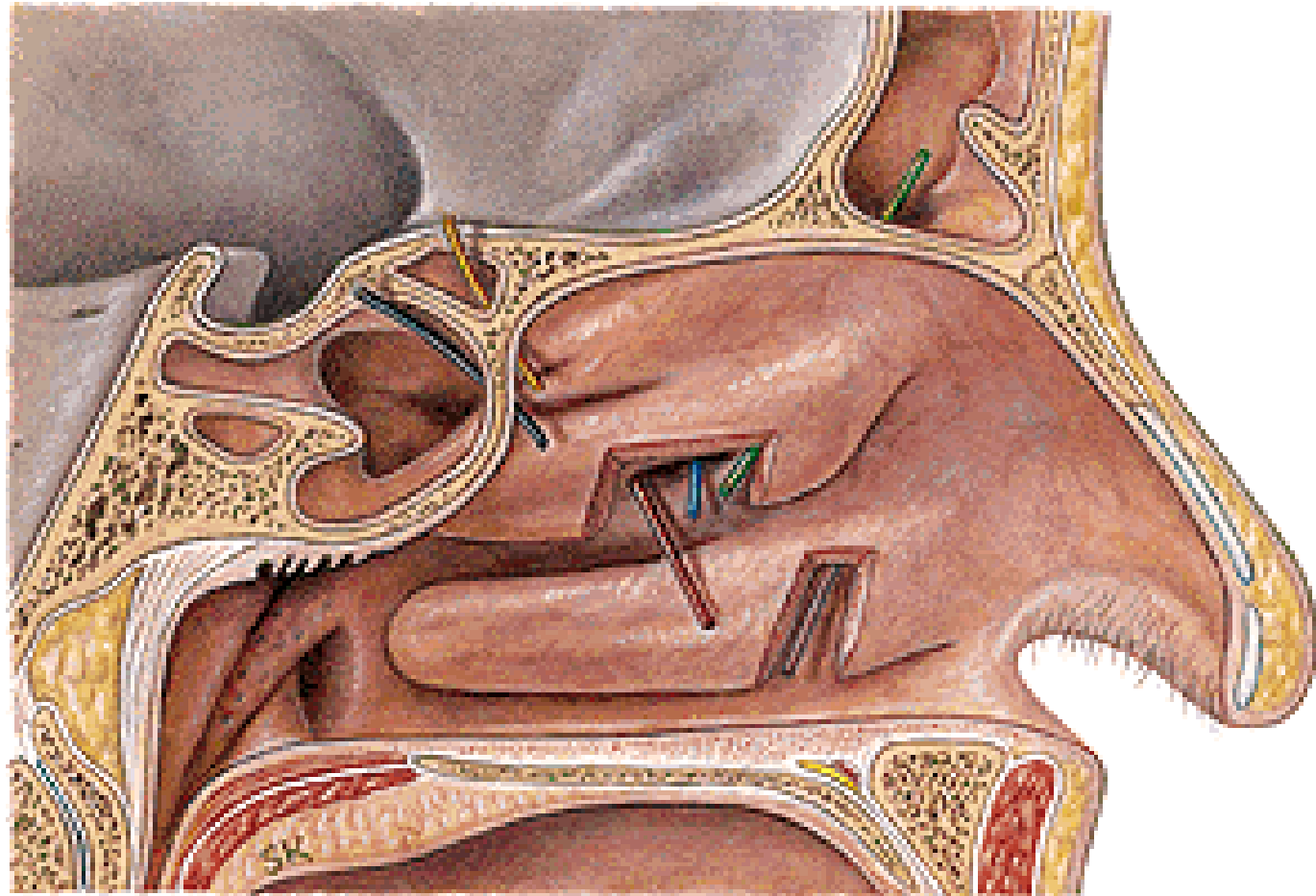
CELLULAE ETHMOIDALES
SINUS SPHENOIDALIS

Septum sinuum sphenoidalium
Apertura sinus sphenoidalis

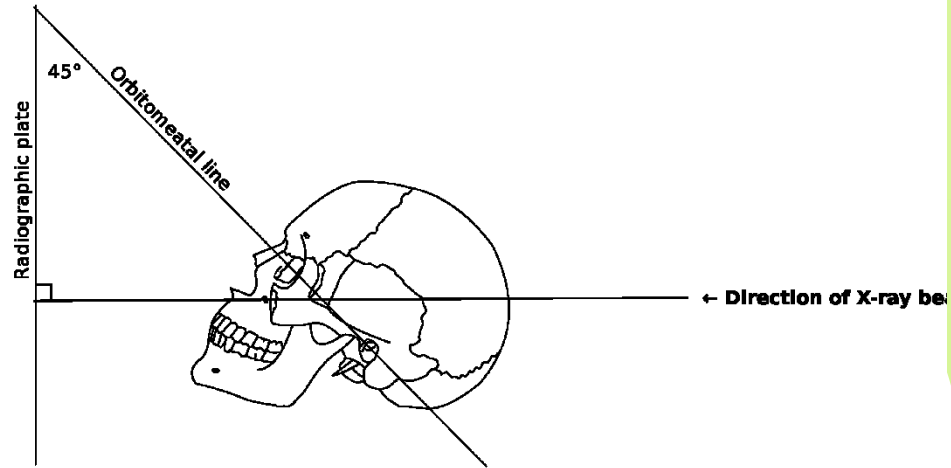
Meatus nasi inf. – ductus nasolacrimalis

**Meatus nasi medius – hiatus semilunaris – sinus maxillaris,
sinus frontalis, cellulae ethmoidales anteriores**

**Meatus nasi sup. – cellulae ethmoidales posteriores, sinus
sphenoidalis**

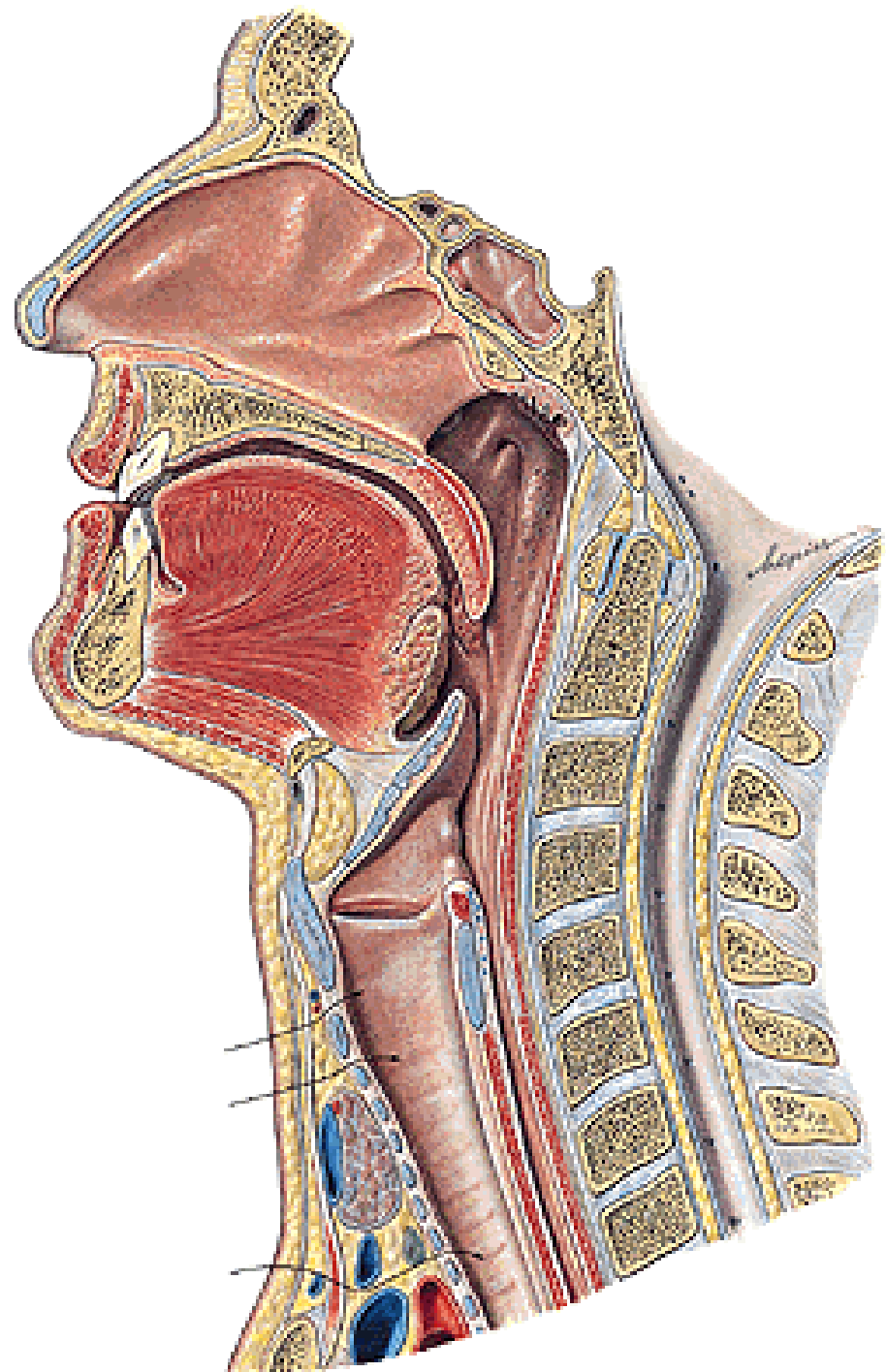


Waters' (Occipitomenal) view



Water's radiographic view of skull

PHARYNX



NASOPHARYNX

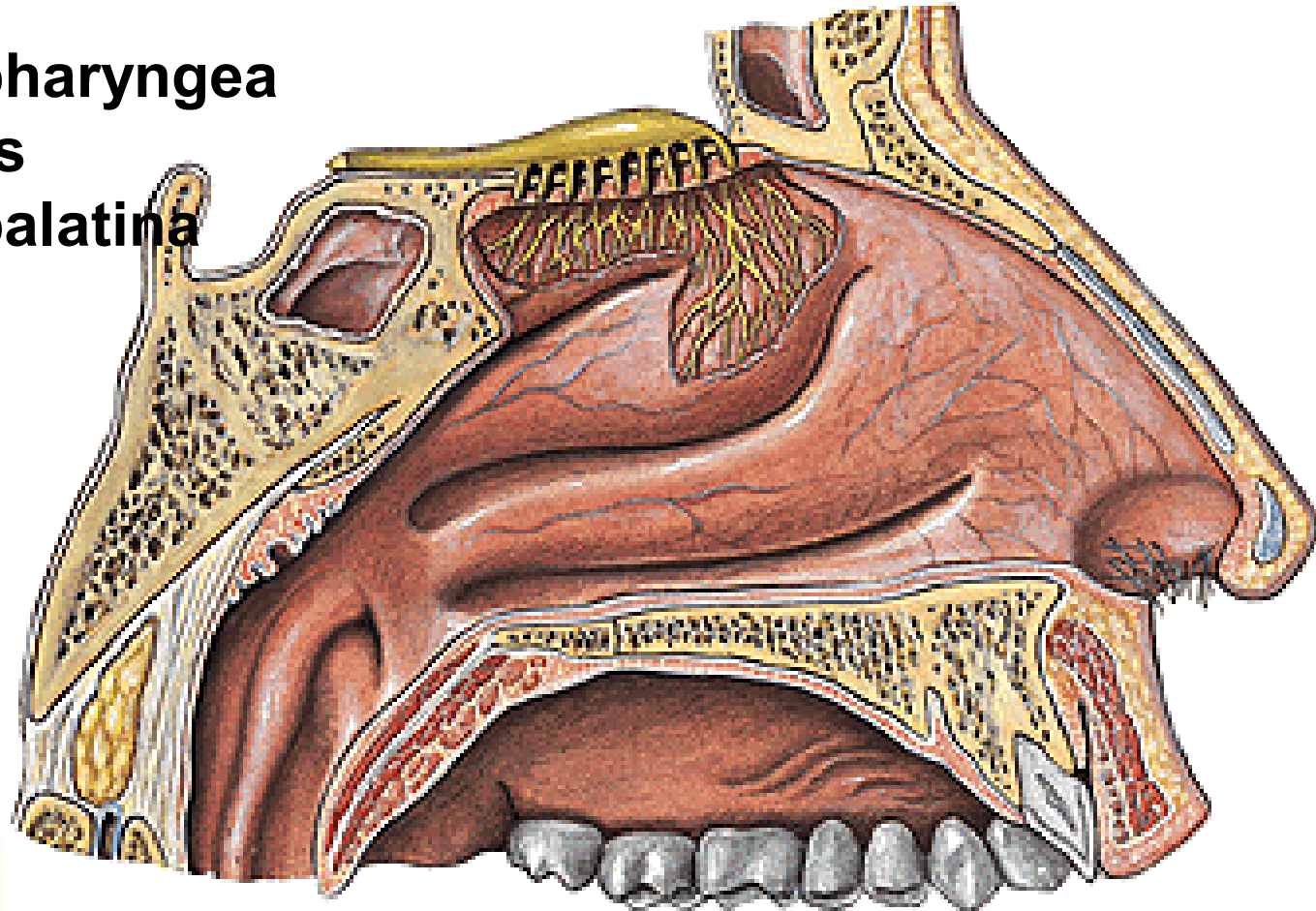
Ostium pharyngeum
tubae auditivae:

Torus tubarius

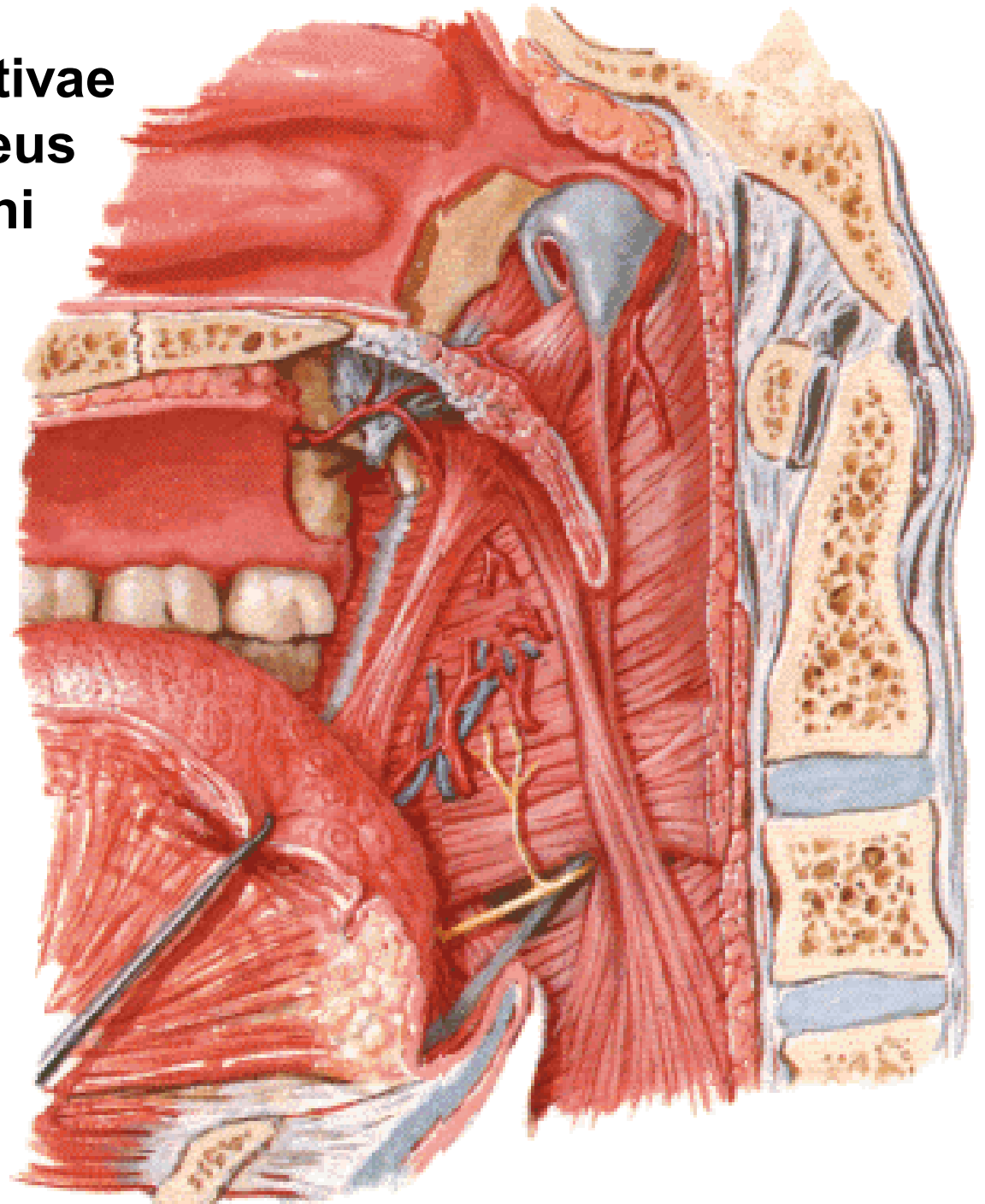
Plica salpingopharyngea

Torus levatorius

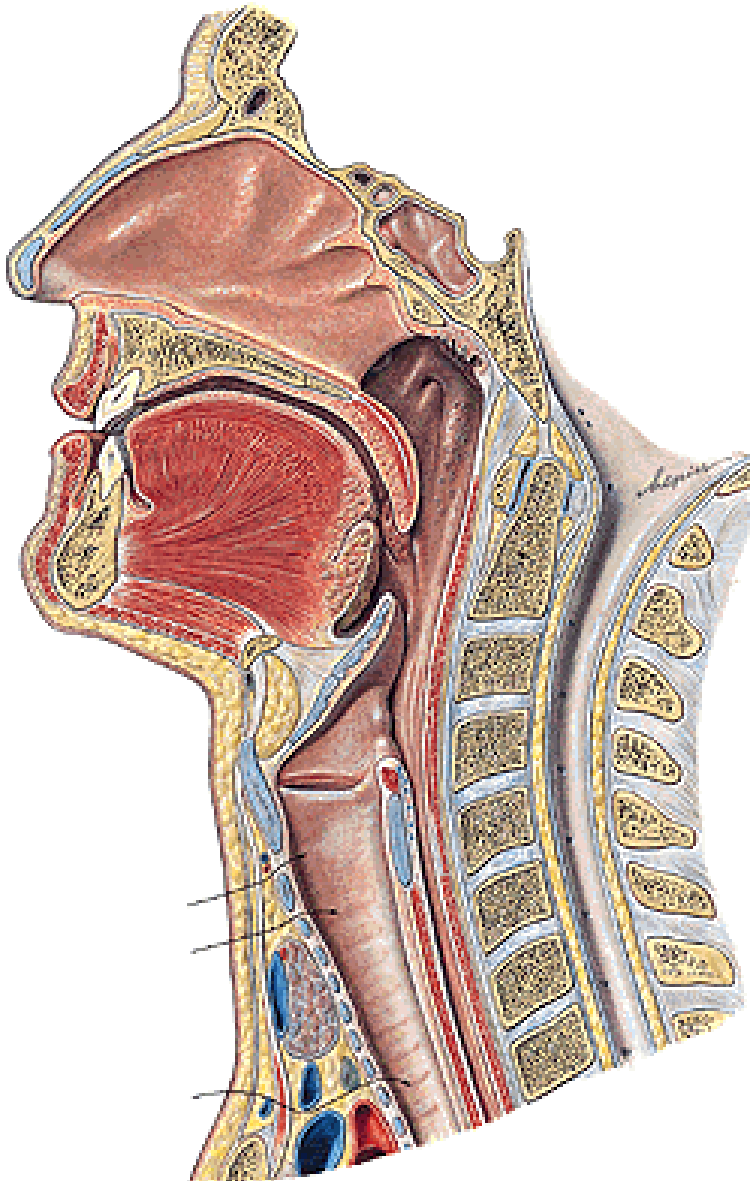
Plica salpingopalatina



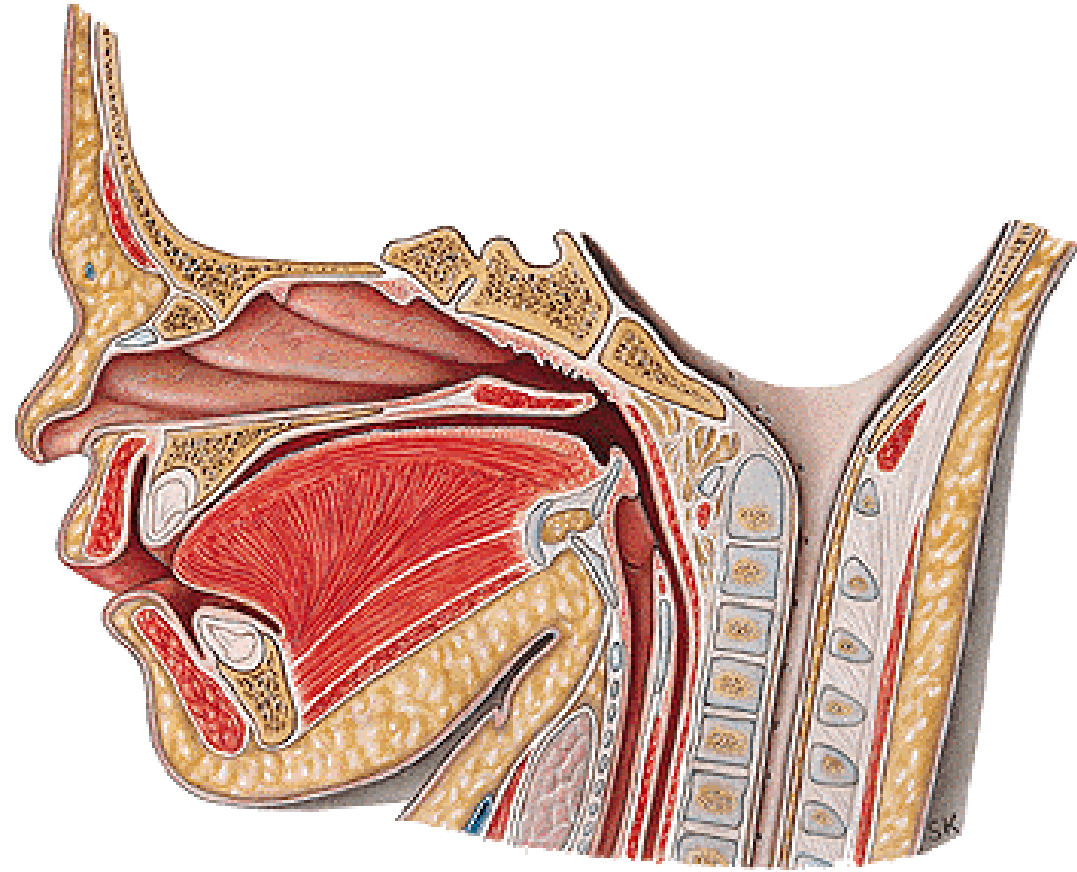
Cartilago tubae auditivae
M. salpingopharyngeus
M. levator veli palatini



LARYNX

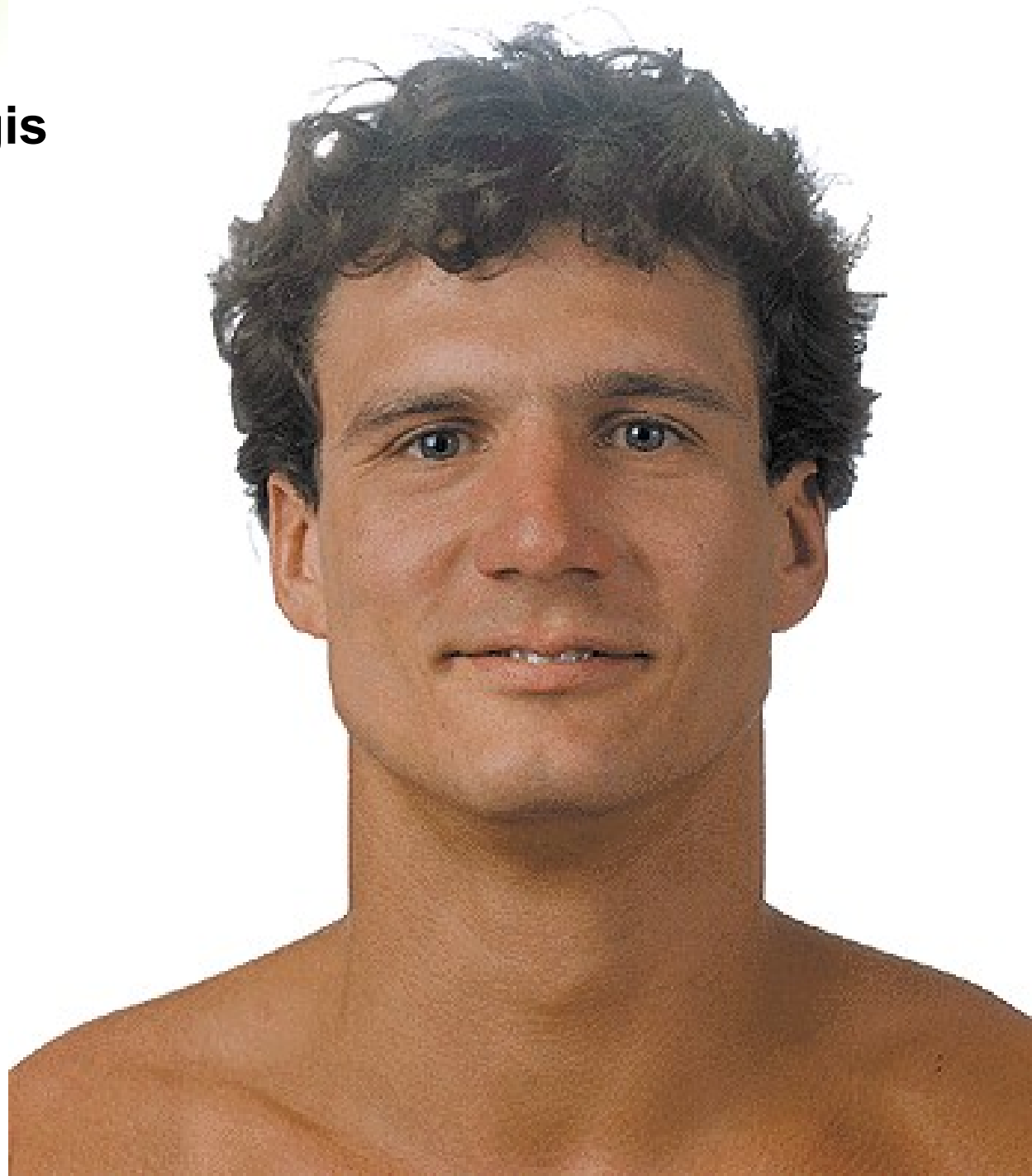


← ADULT



↑
NEONATE

Prominentia laryngis



CARTILAGINES LARYNGIS:

Cartilago thyroidea

Cartilago cricoidea

Cartilago arytenoidea

Cartilago epiglottica

Cartilago corniculata

Cartilago cuneiformis

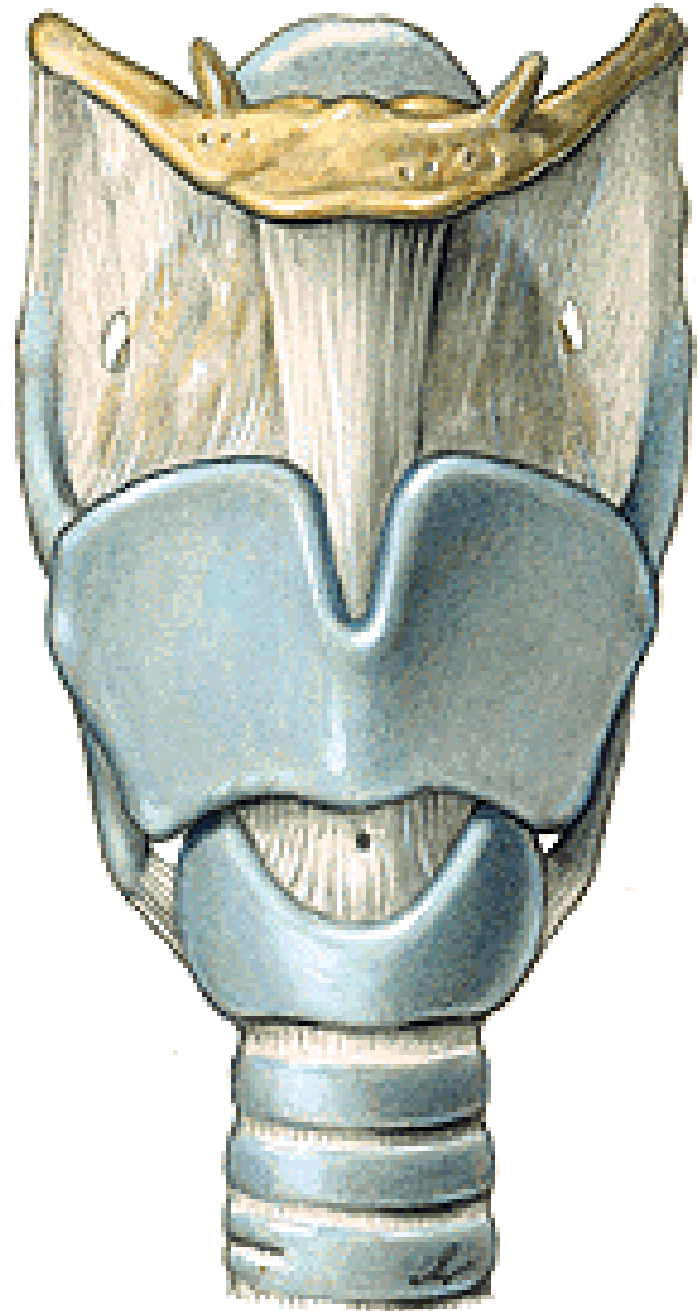


LARYNX

**Membrana thyrohyoidea
(thyroidea)**

Cartilago thyroidea

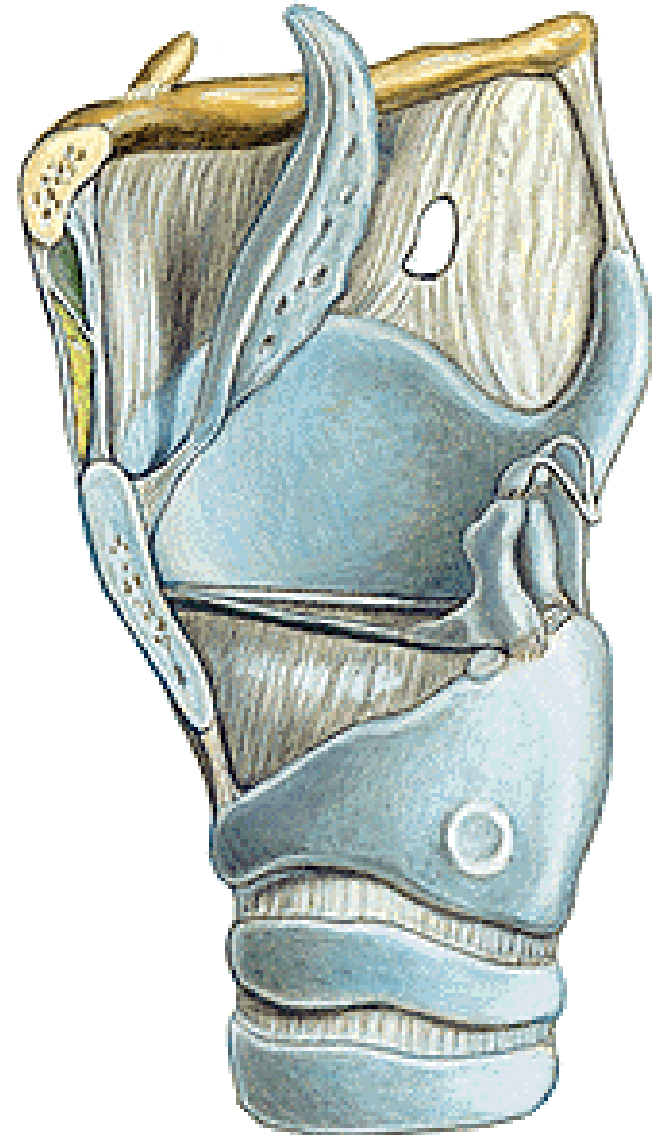
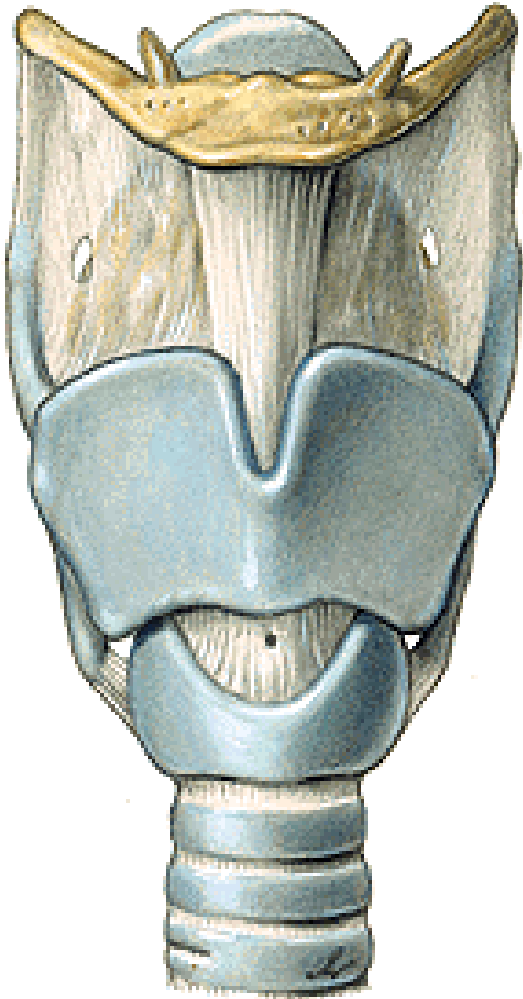
- lamina dextra
- lamina sinistra
- incisura thyroidea sup.
- incisura thyroidea inf.
- cornua superiora
- ligg. thyroidea lateralia
- cornua inferiora
- facies art. cricoidea
- linea obliqua





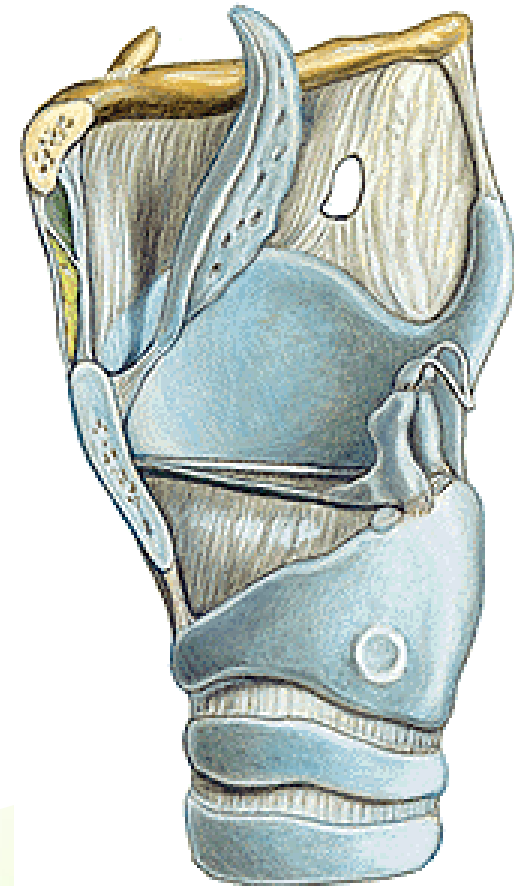
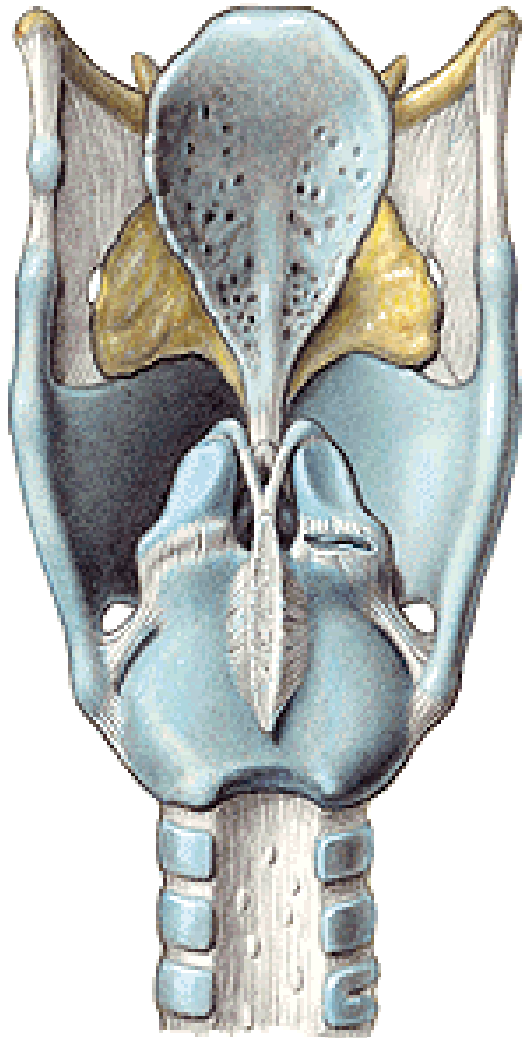
CARTILAGO CRICOIDEA

- arcus
- lamina
- facies articularis arytenoidea
- facies articularis thyroidea



CARTILAGO ARYTENOIDEA

- apex
- basis
 - facies art. cricoidea
- processus vocalis
- processus muscularis
- facies anterolateralis
- facies medialis
- facies posterior



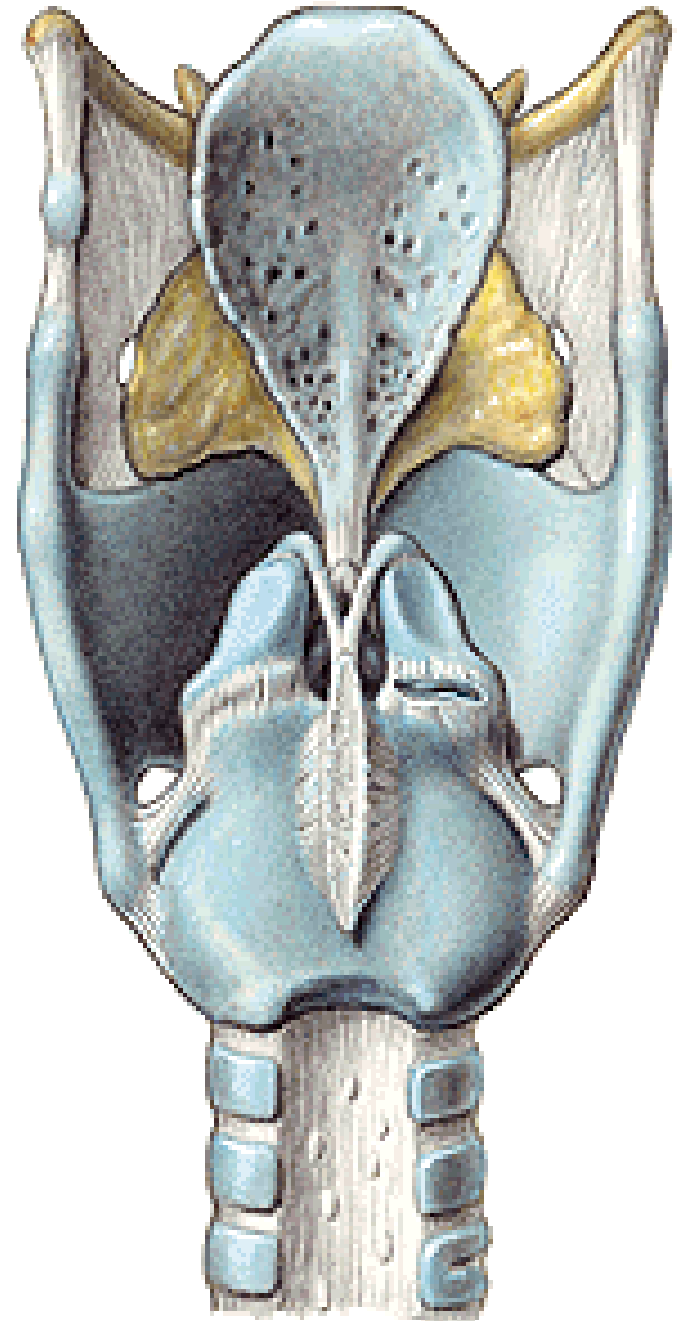
CARTILAGO EPIGLOTTICA

-petiolus epiglottidis

-lamina

CARTILAGO CORNICULATA

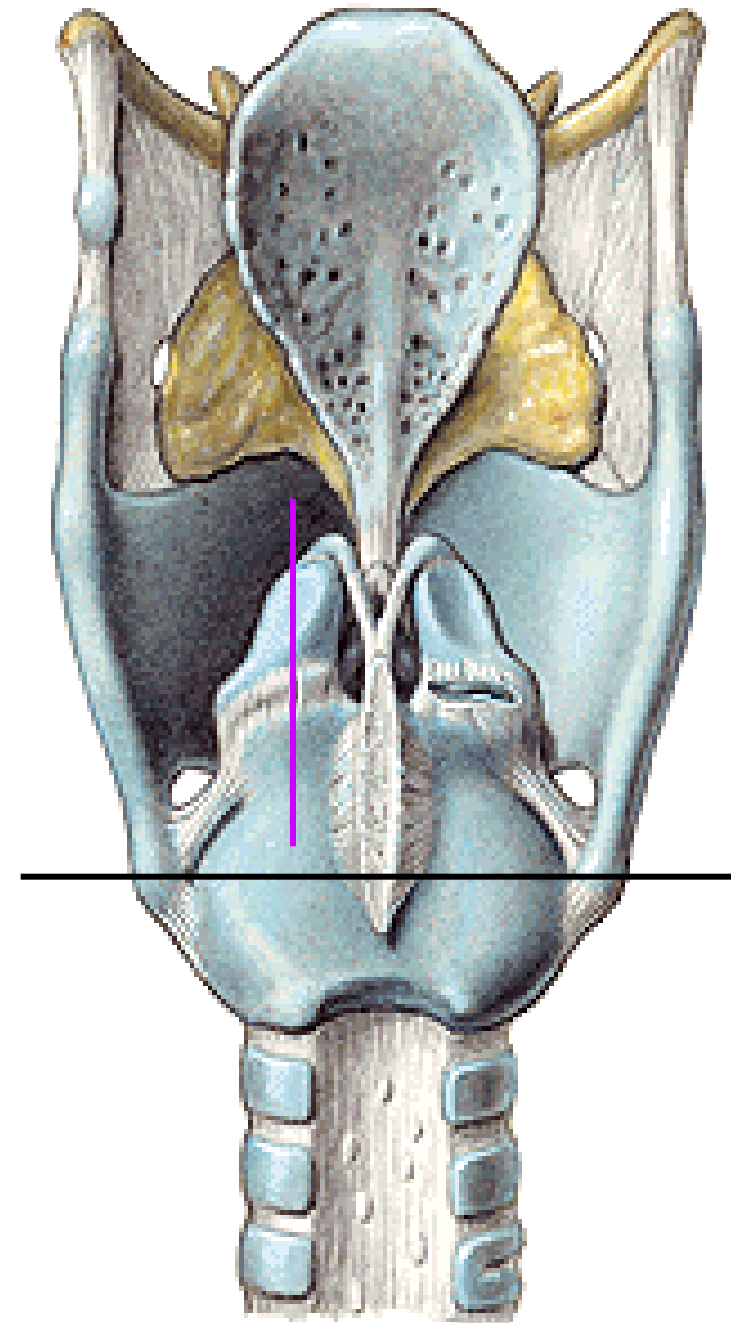
CARTILAGO CUNEIFORMIS



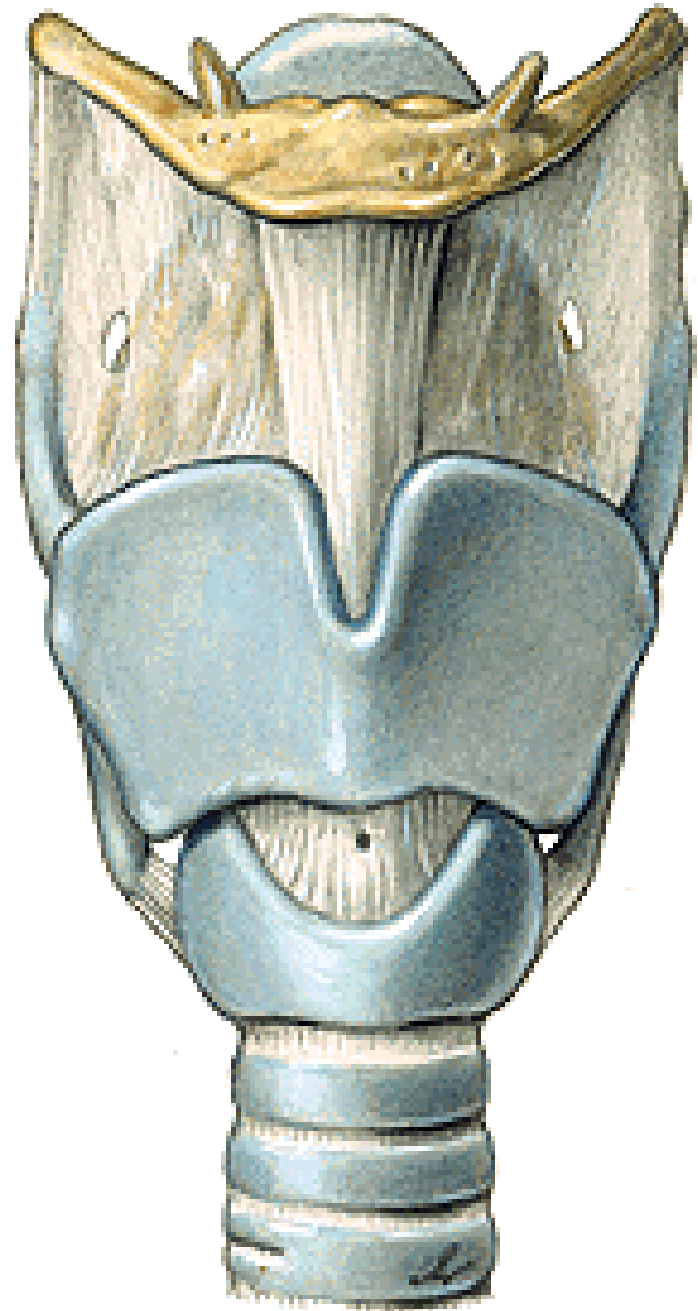


ARTICULATIO CRICOARYTENOIDEA
-lig. cricoarytaenoideum post.

ARTICULATIO CRICOTHYROIDEA



MEMBRANA THYROIDEA
lig. thyroideum laterale
lig. thyroideum medianum

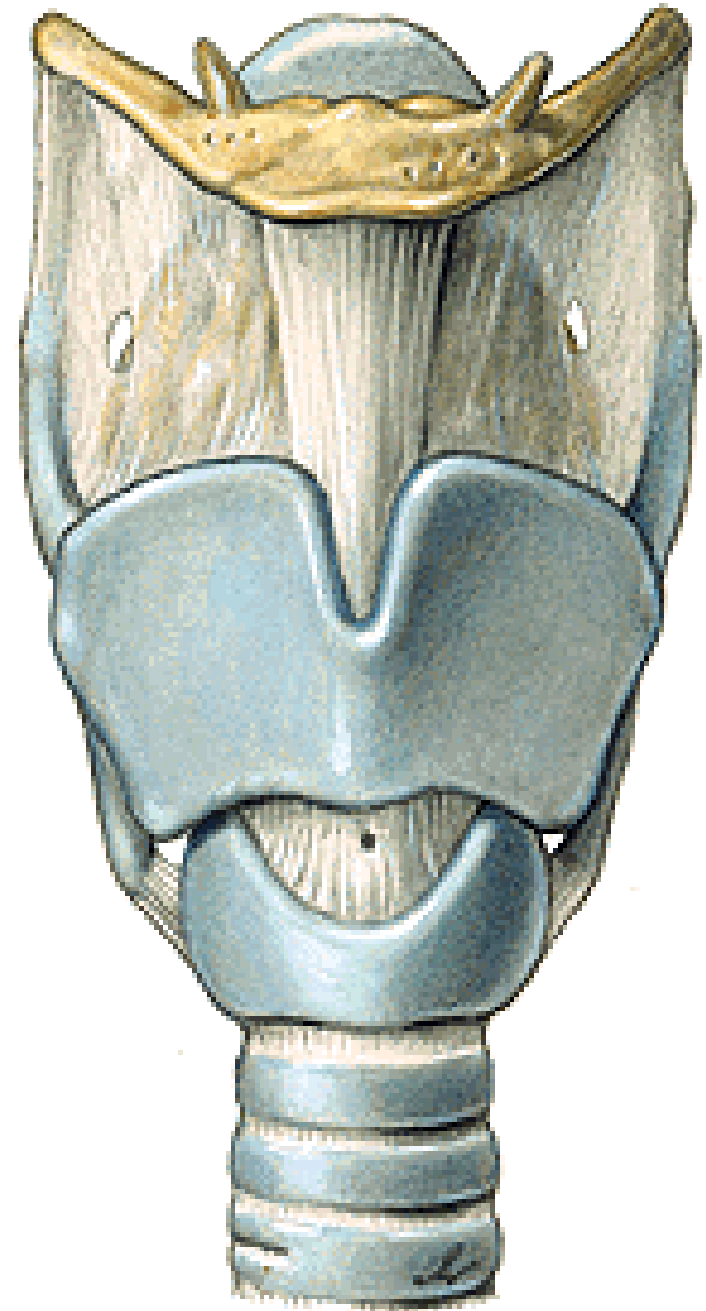


CONUS ELASTICUS

-lig. cricothyroideum- coniotomy

-lig. vocale – plica vocalis

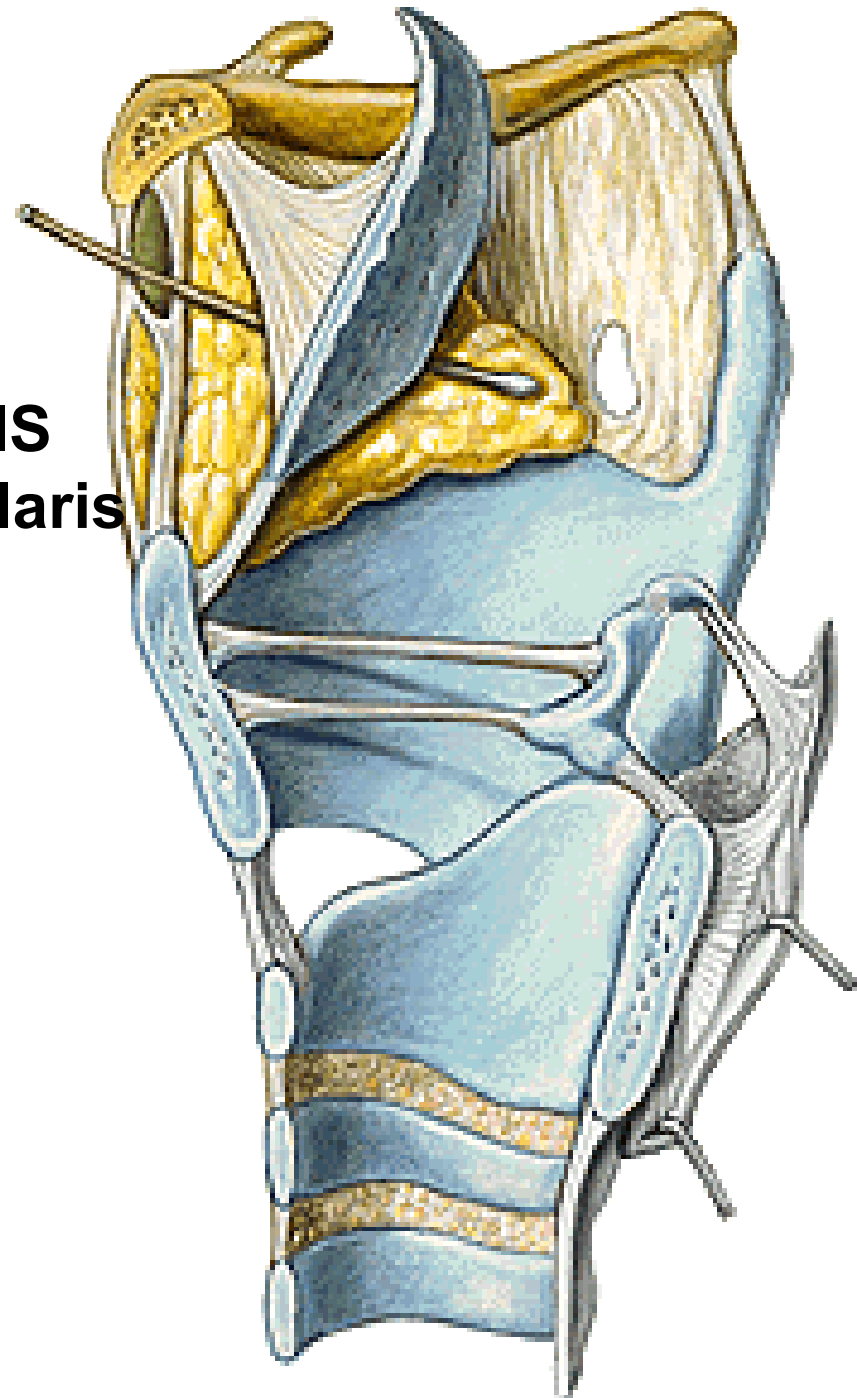
Lig. cricotracheale



Lig thyroepiglotticum
Lig. hyoepiglotticum
Spatium praeepiglotticum

MEMBRANA QUADRANGULARIS
-lig. ventriculare – plica vestibularis

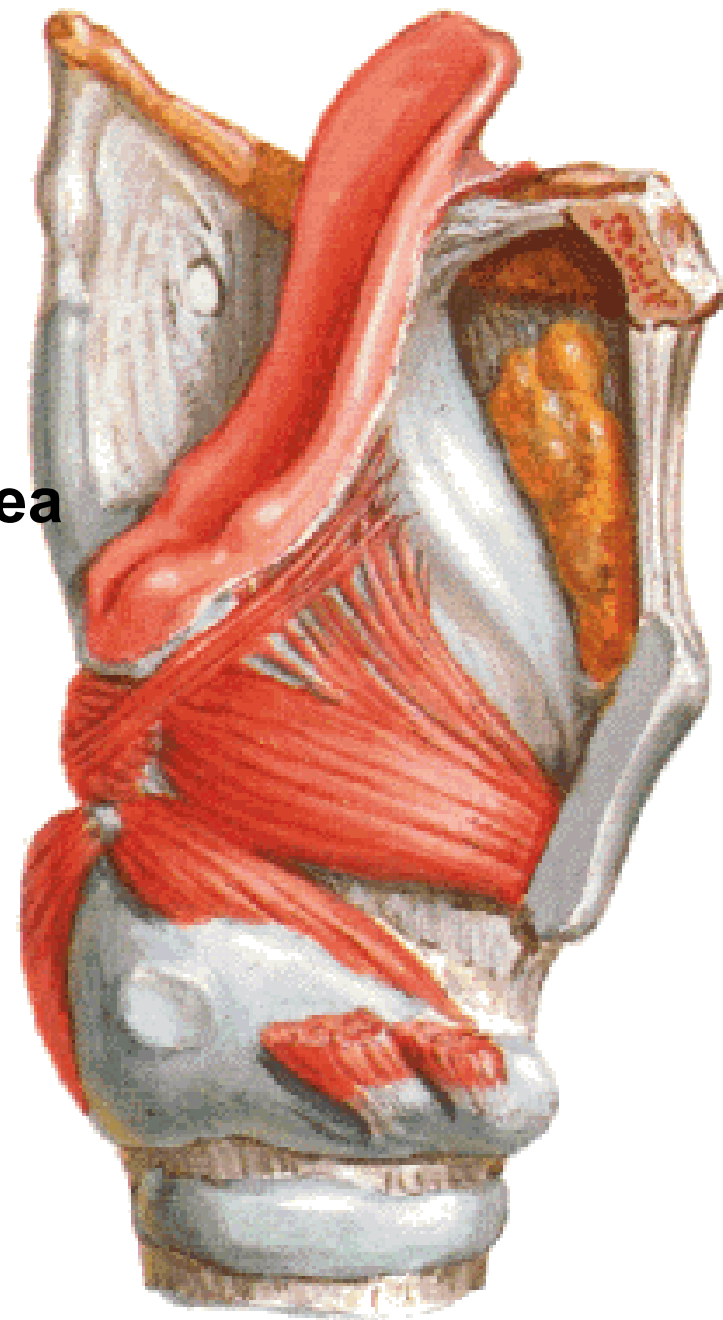
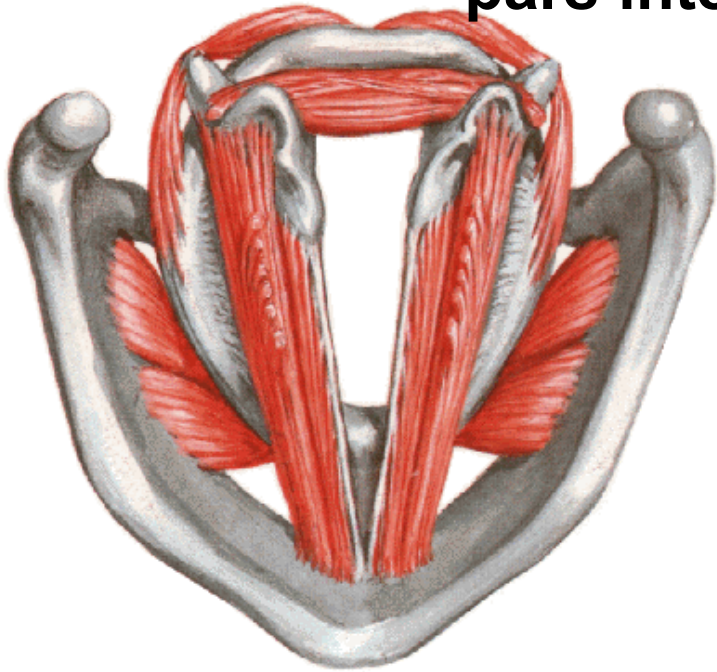
MEMBRANA FIBROELASTICA
LARYNGIS = conus elasticus +
membrana quadrangularis

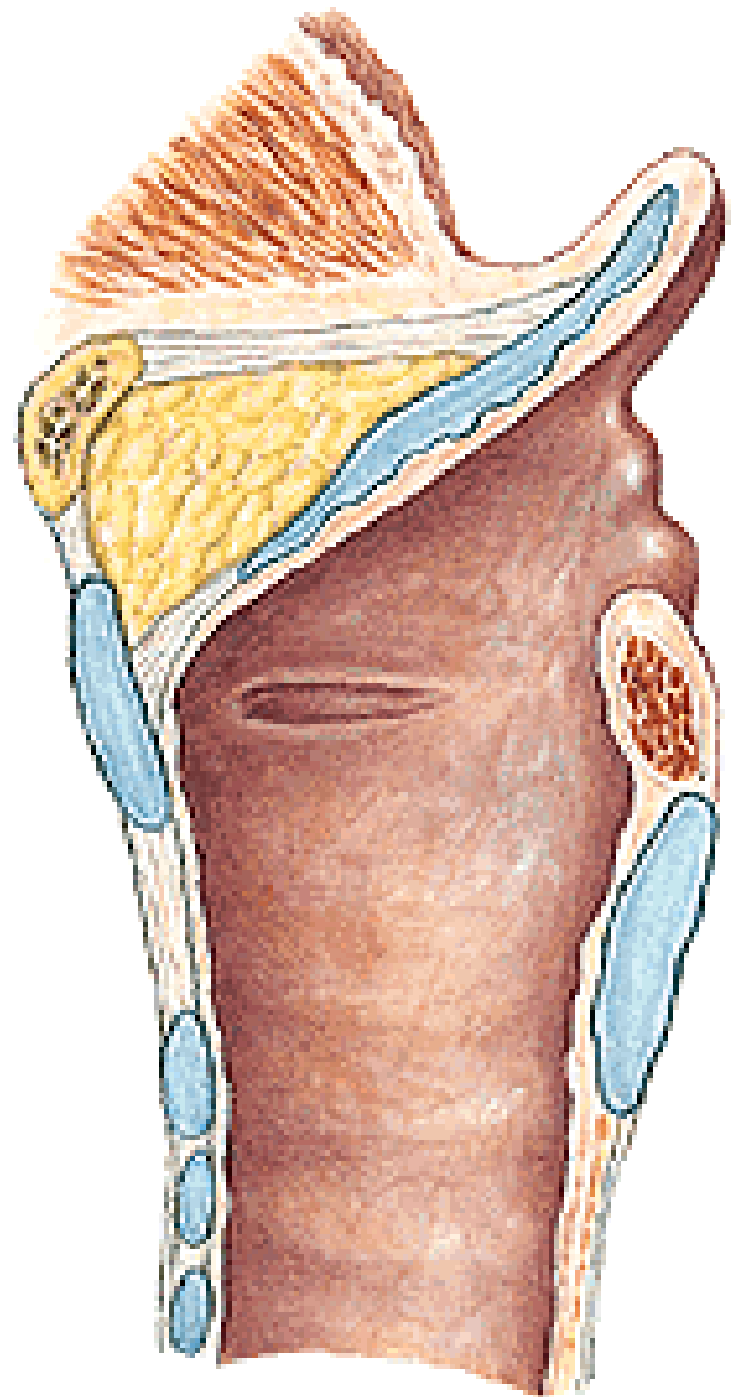
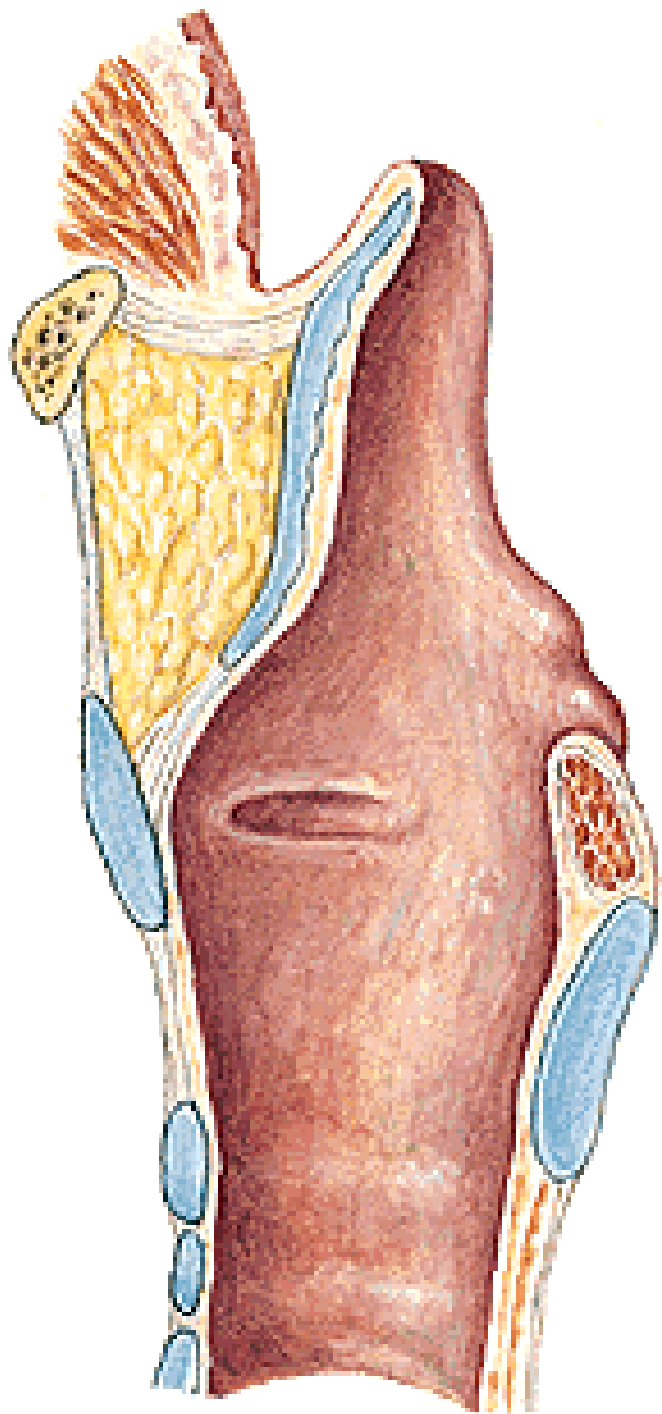


MUSCULI LARYNGIS

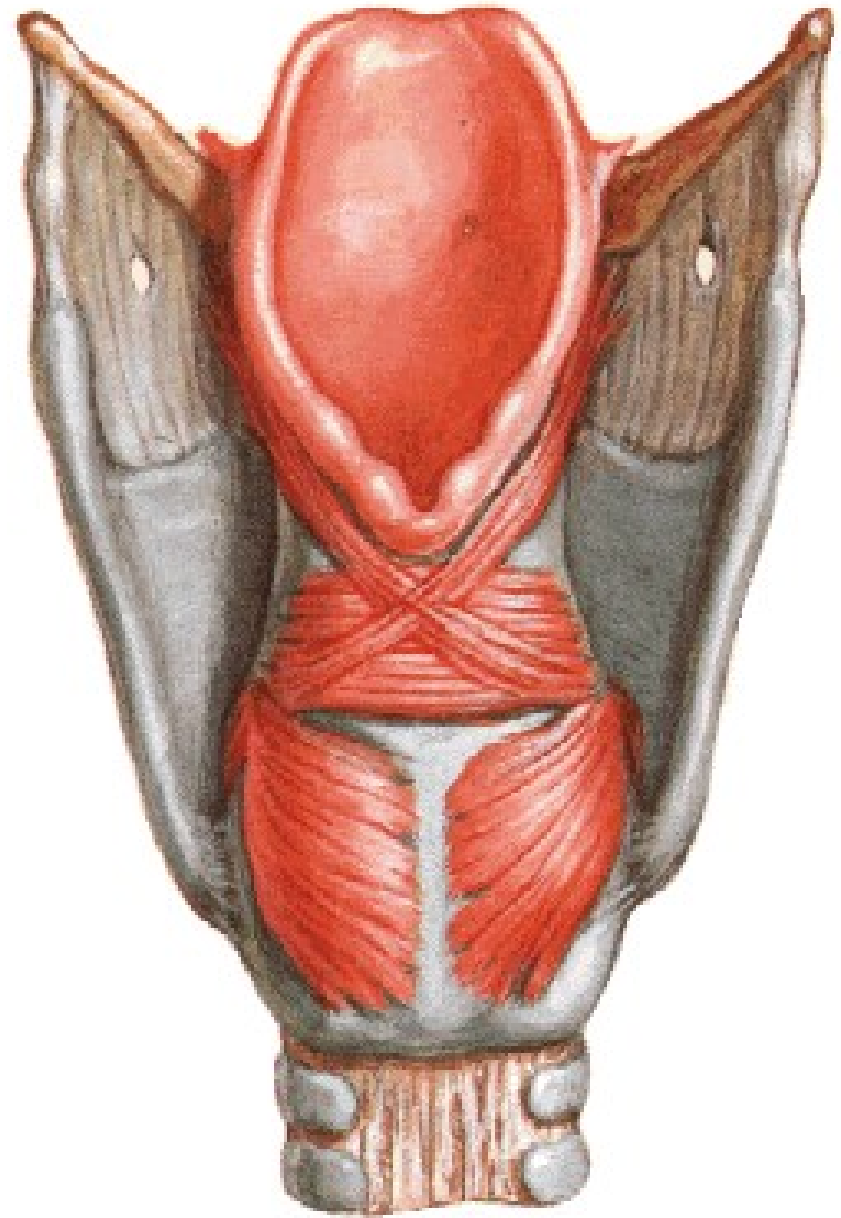
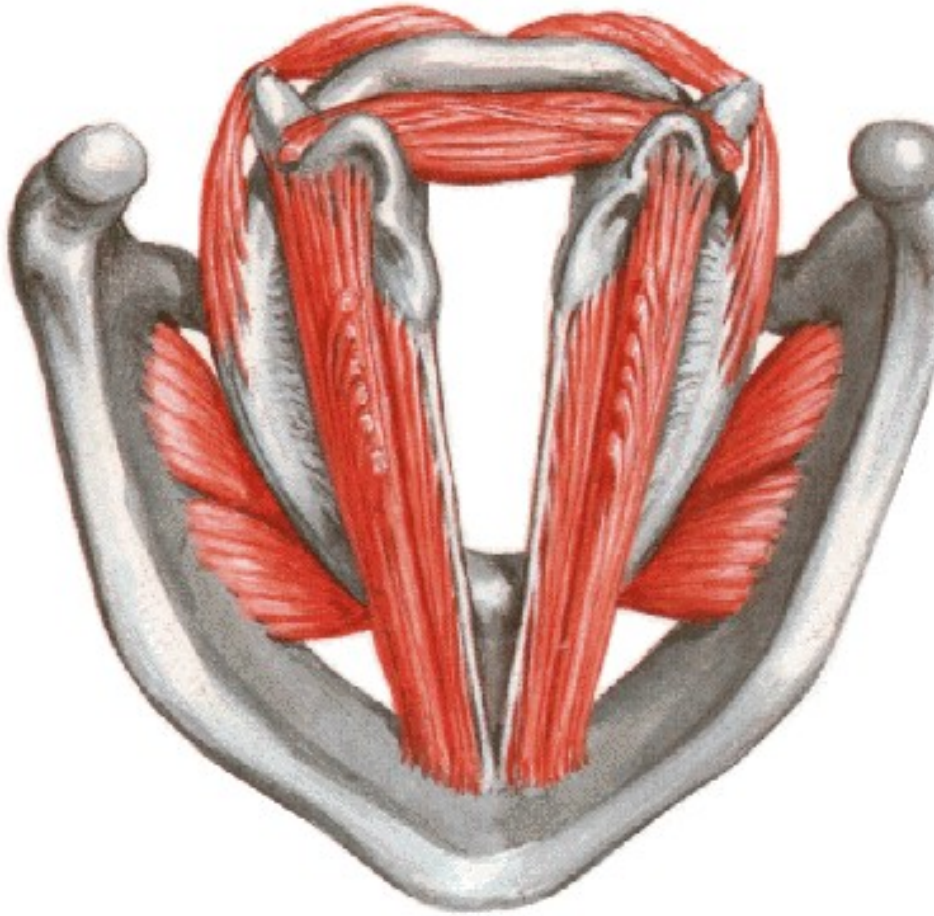
**M. thyroarytenoideus
(thyroepiglotticus)**
M. vocalis

**Rima glottidis – pars intermembranacea
– pars intercartilaginea**





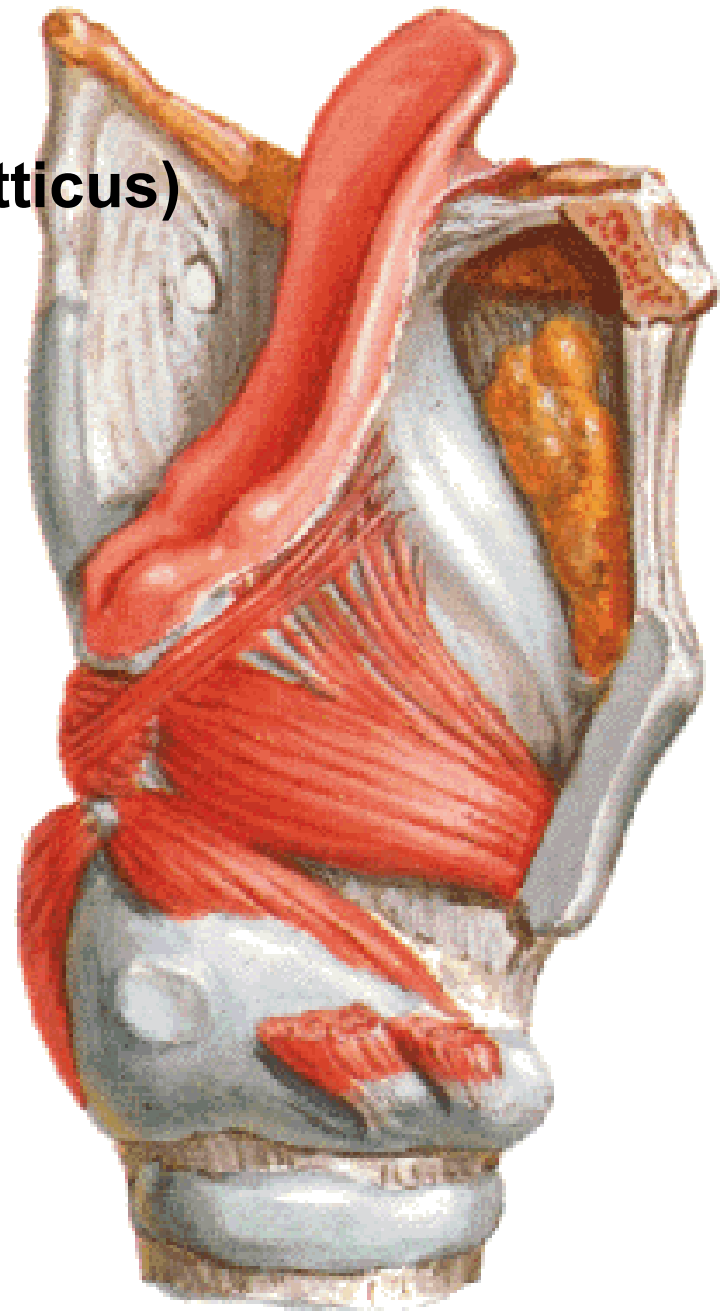
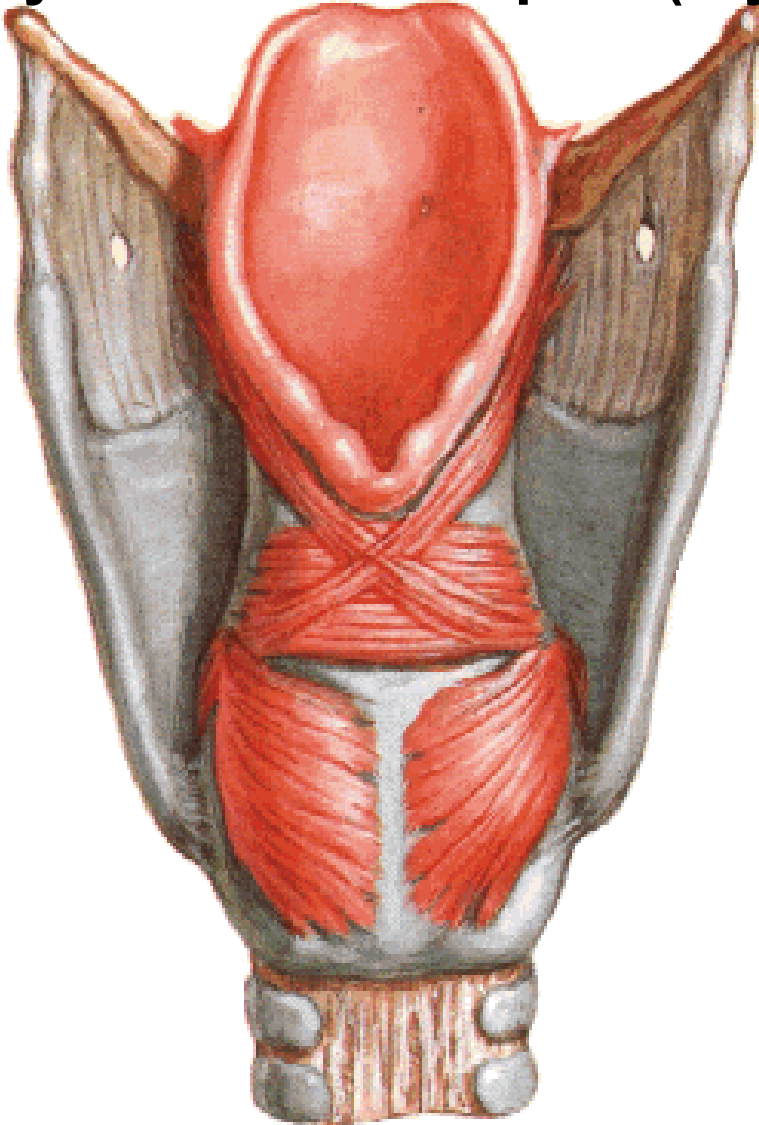
M. cricoarytenoideus post.
- respiration



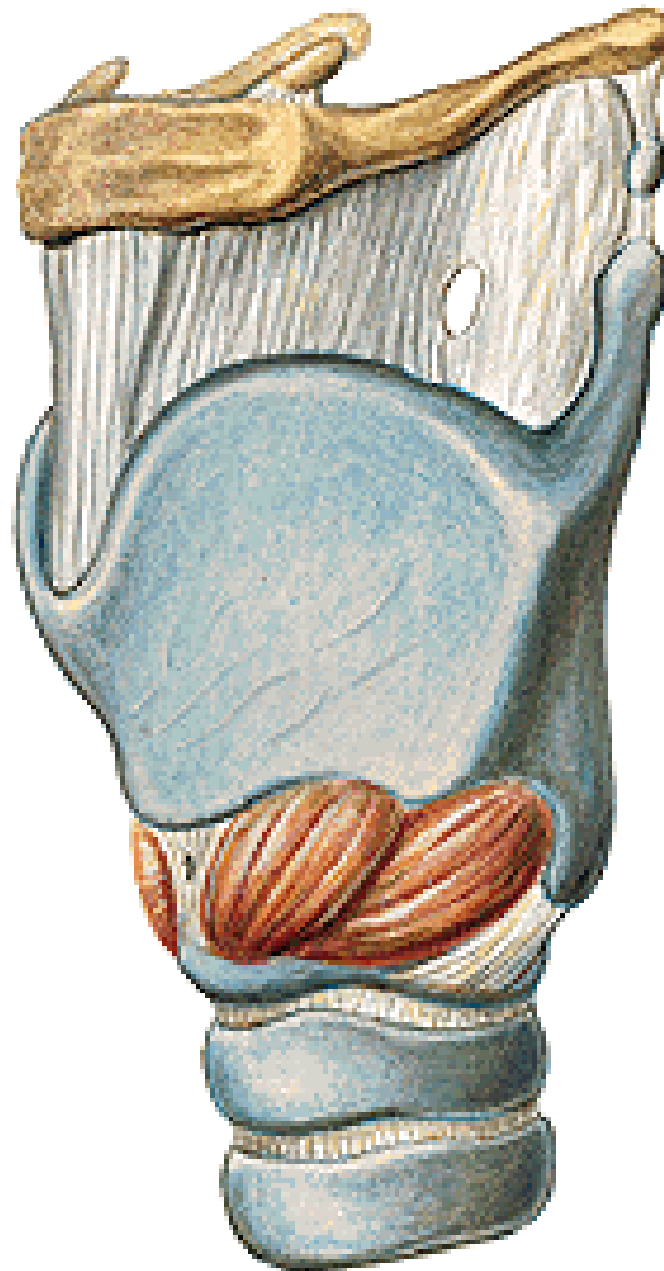
M. cricoarytenoideus lateralis

M. arytenoideus transversus

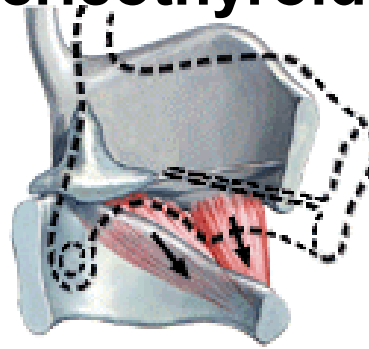
M. arytenoideus obliquus (aryepiglotticus)



M. cricothyroideus



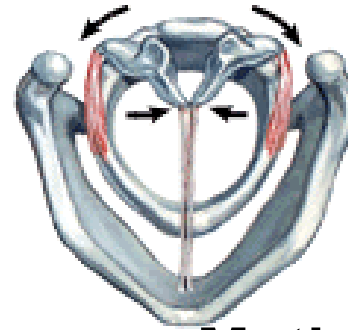
M. cricothyroideus



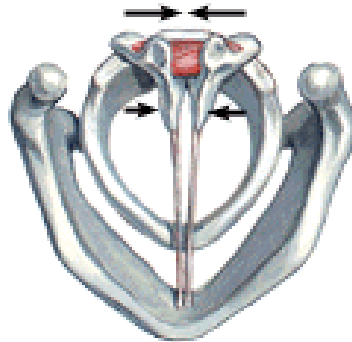
M. cricoarytenoideus post.



M. cricoarytenoideus lateralis



M. arytenoideus trans. et obliq.

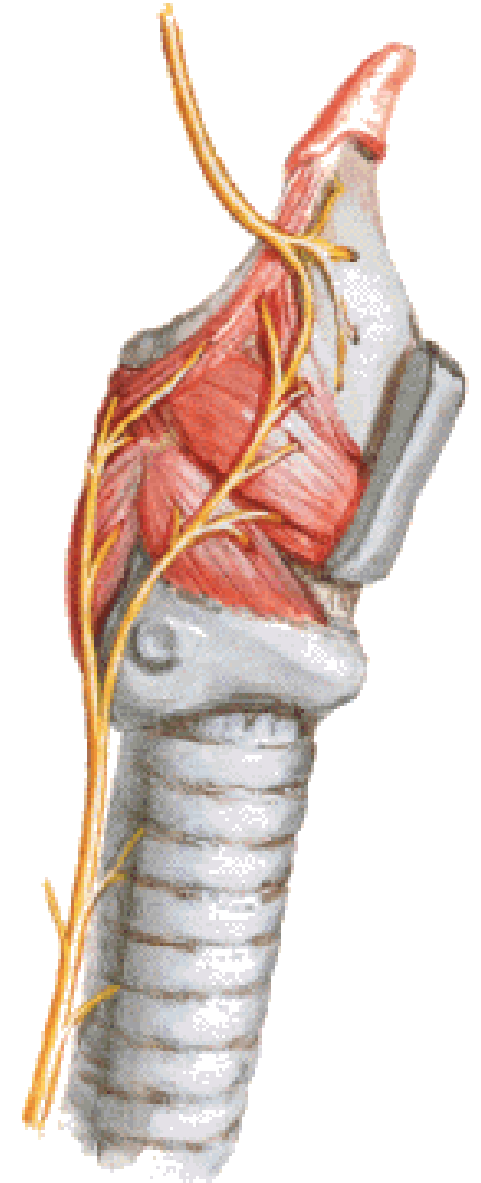
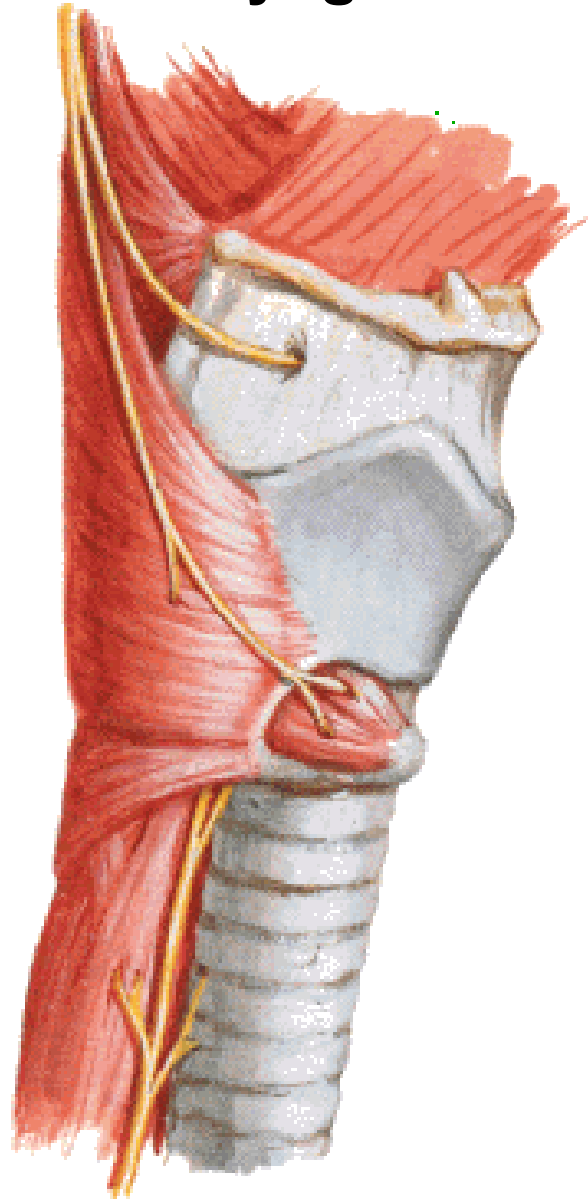


M. thyroarytenoideus



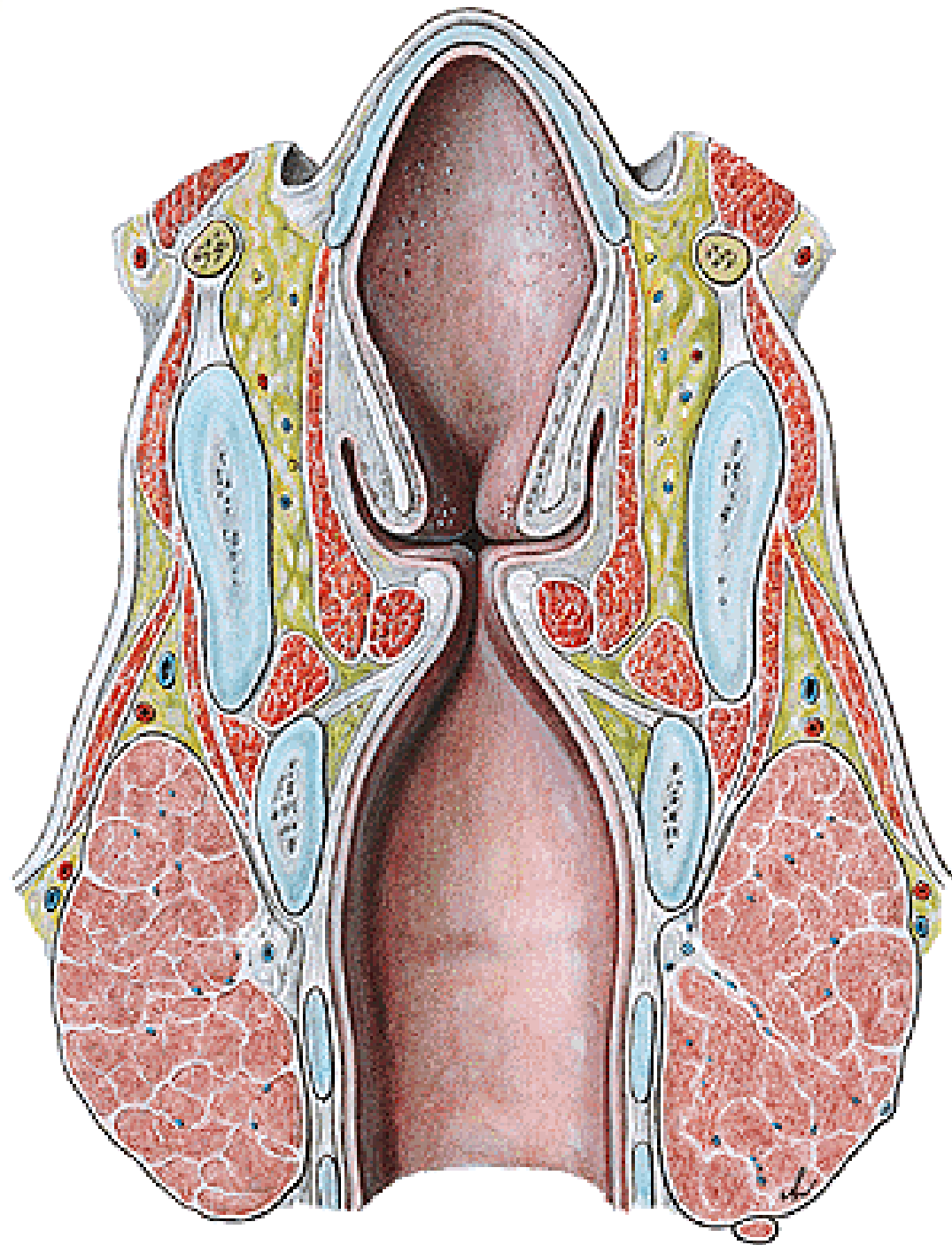
N. laryngeus sup. (CN X)

N. laryngeus inf. – N. laryngeus recurrens (CN X)



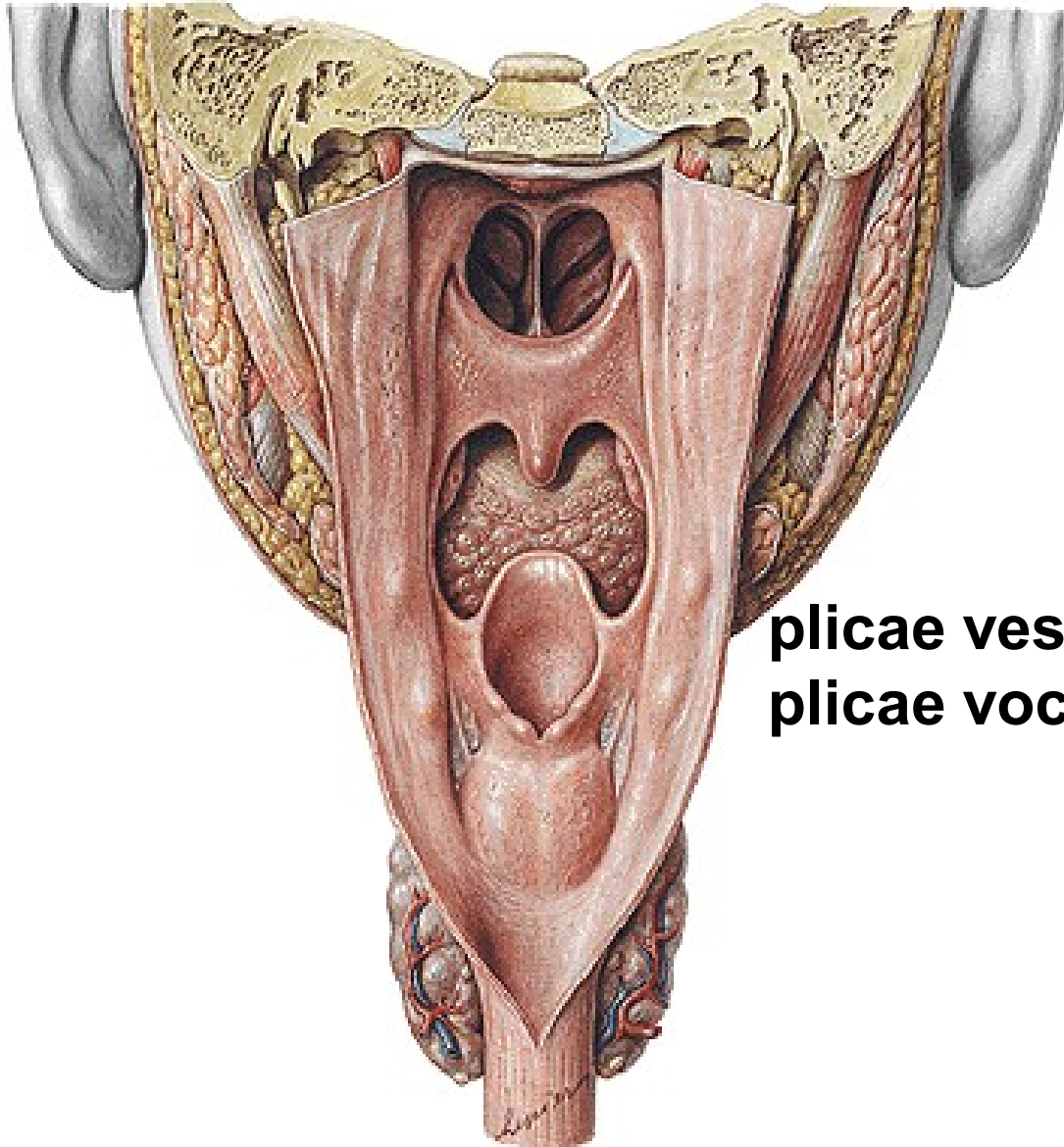
CAVITAS LARYNGIS

- vestibulum laryngis**
- plicae vestibulares**
- rima vestibuli**
- plicae vocales**
- rima glottidis**
- glottis**
- ventriculus laryngis**
- cavitas infraglottica**

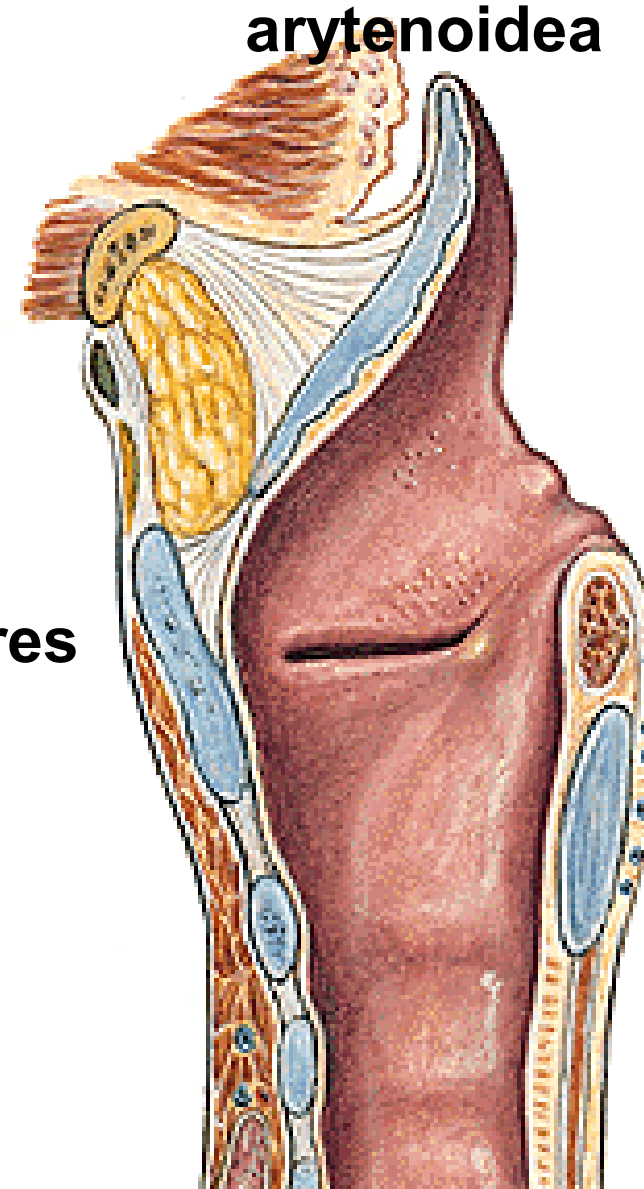


CAVITAS LARYNGIS

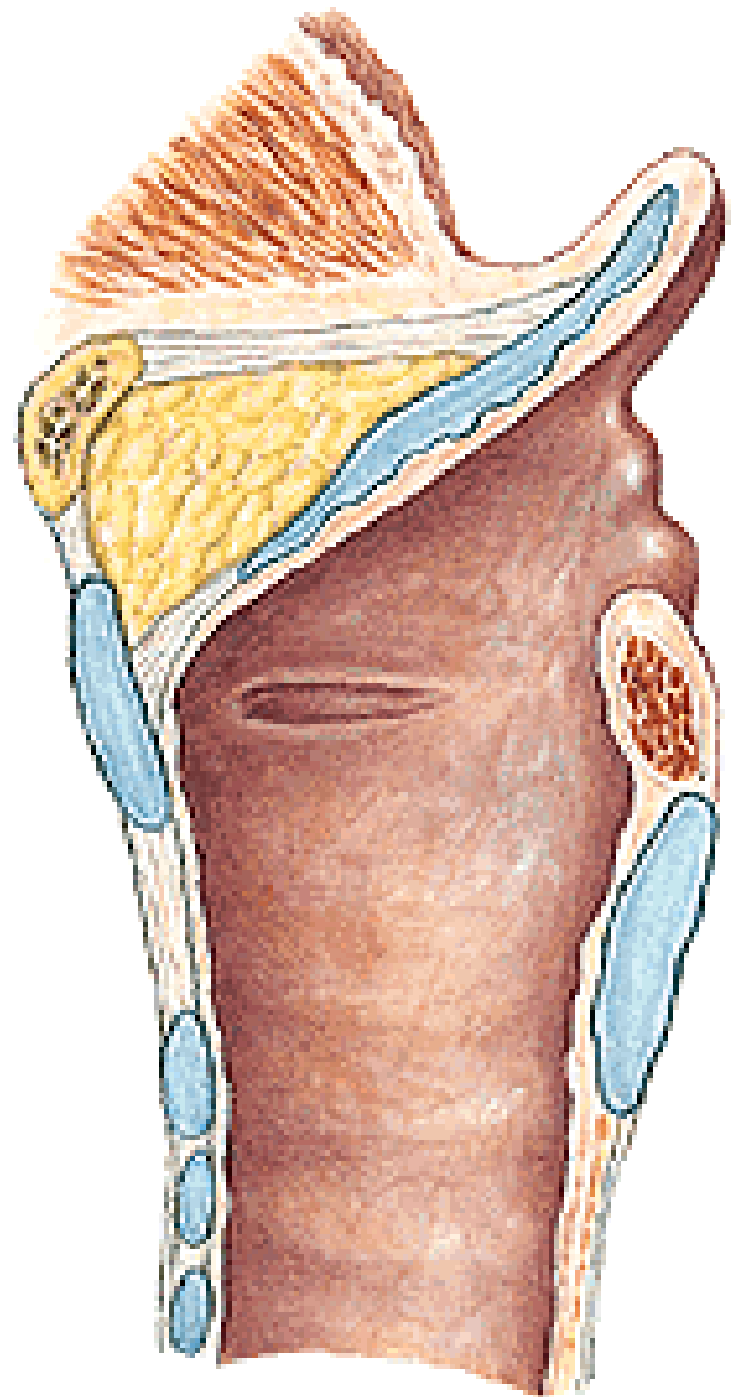
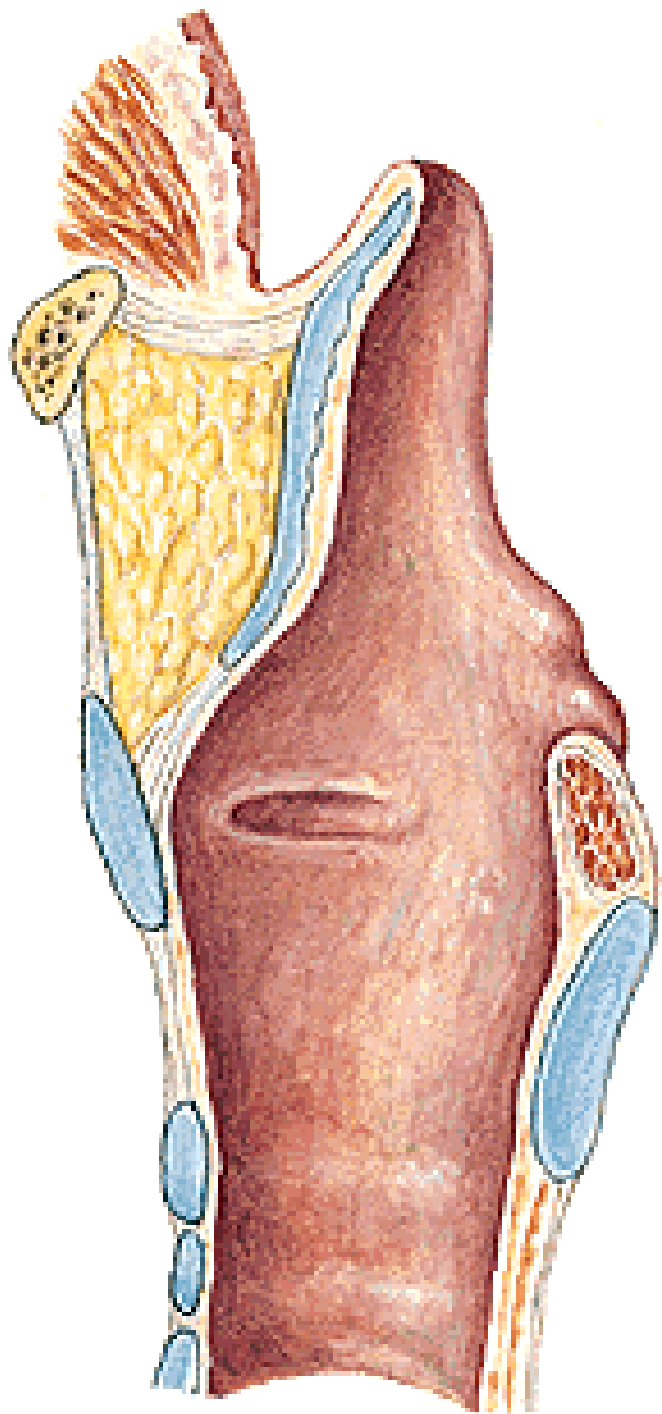
-aditus laryngis-plicae aryepiglotticae (tuberculum cuneiforme et corniculatum), plica interarytenoidea, incisura inter-



plicae vestibulares
plicae vocales

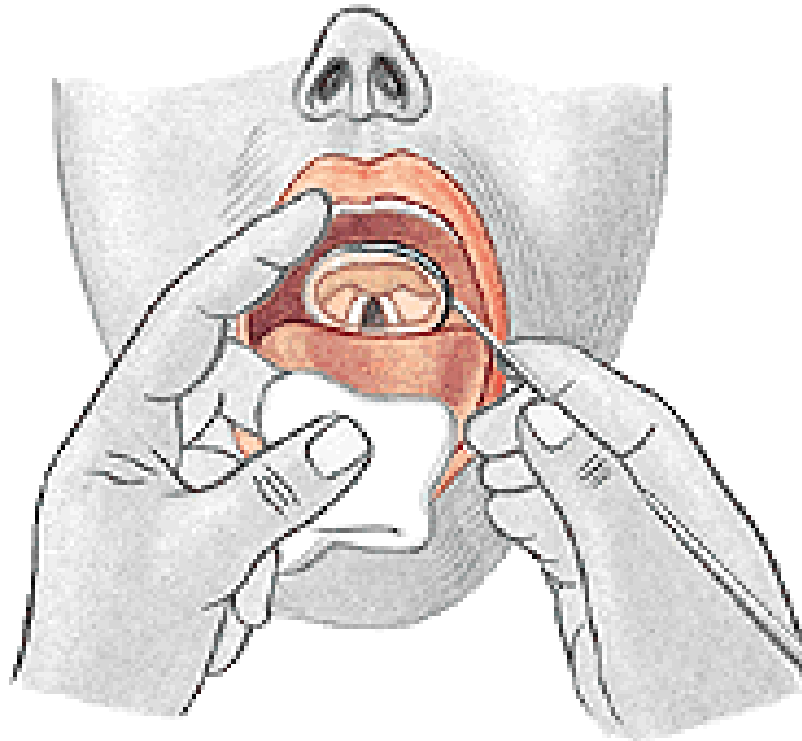


arytenoidea

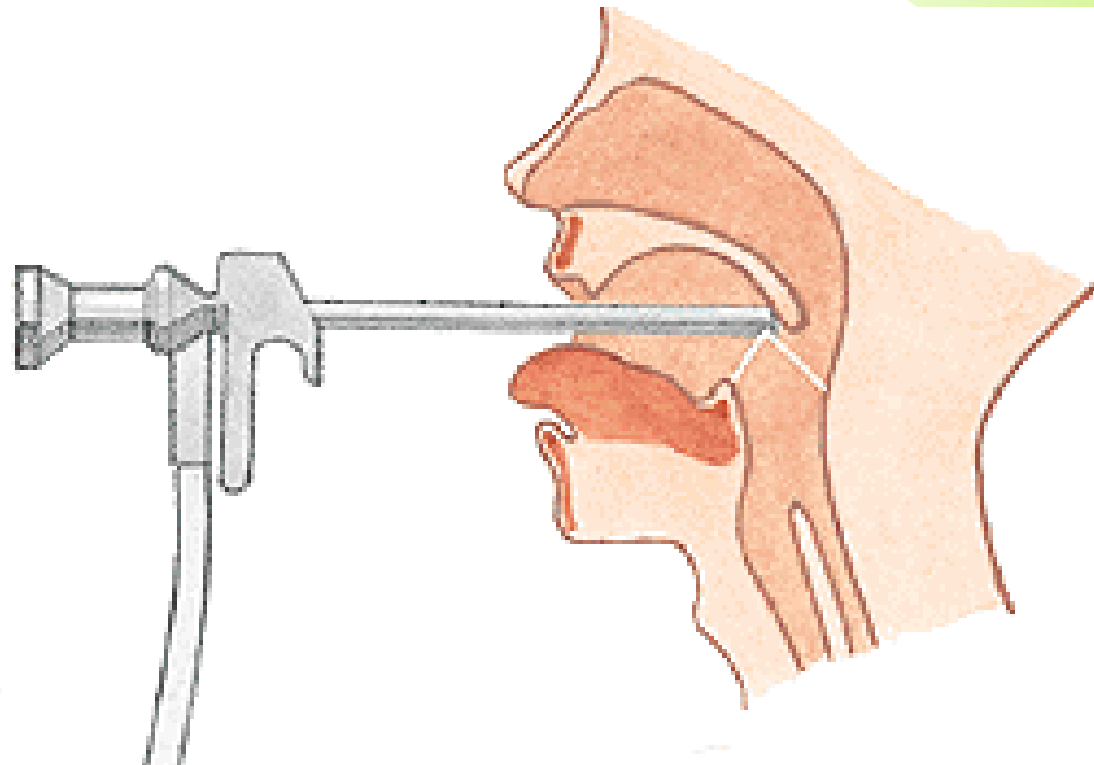


LARYNGOSCOPY

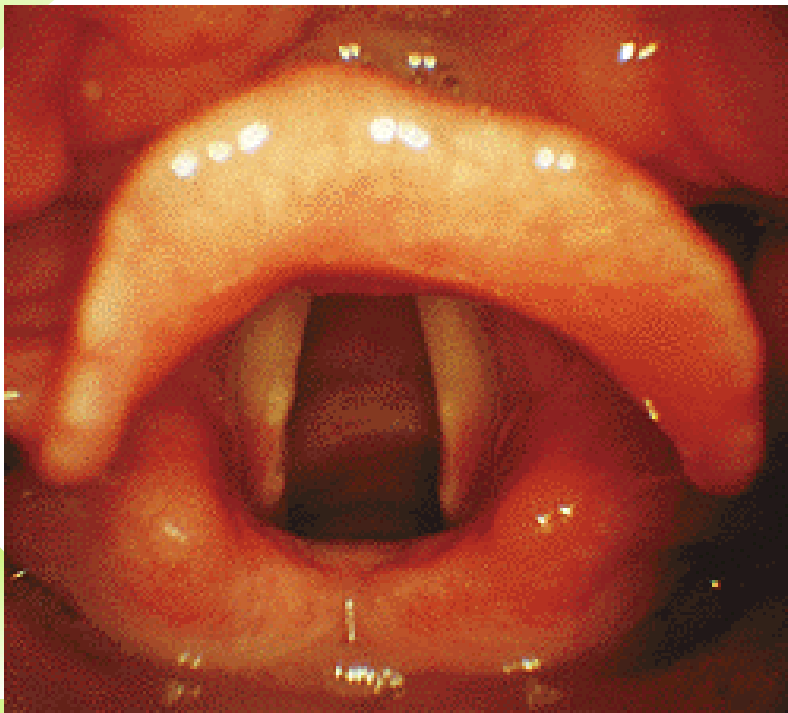
indirect



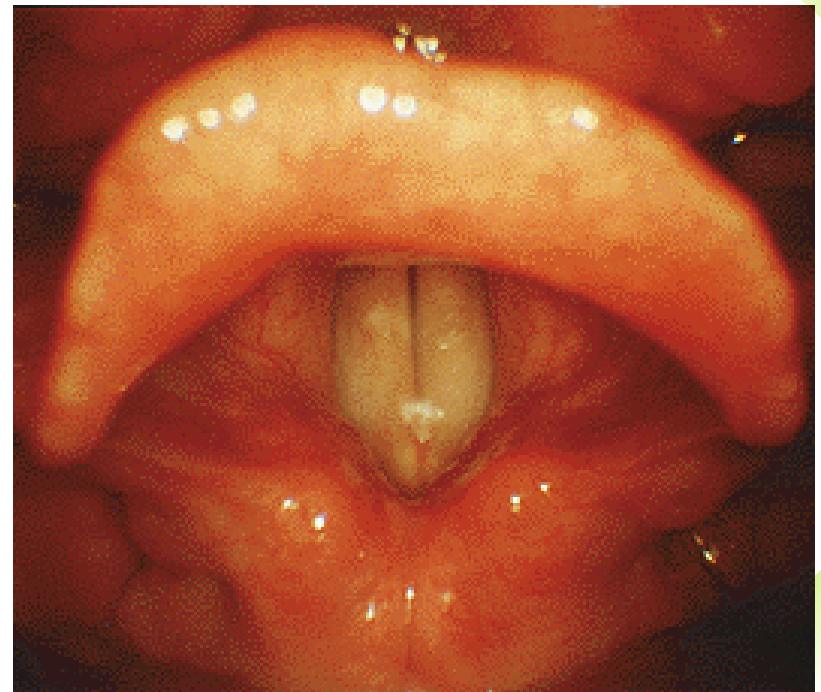
direct

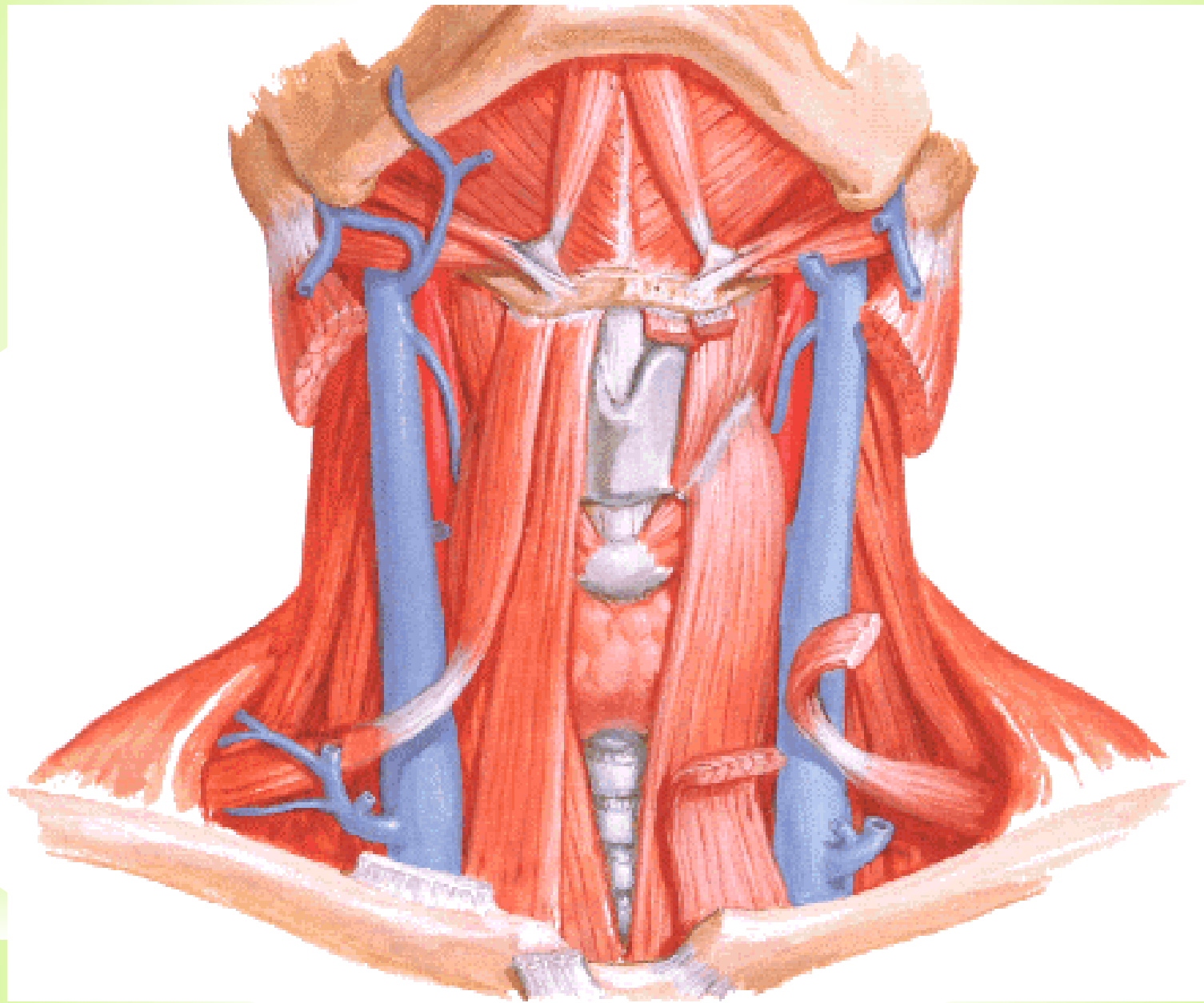


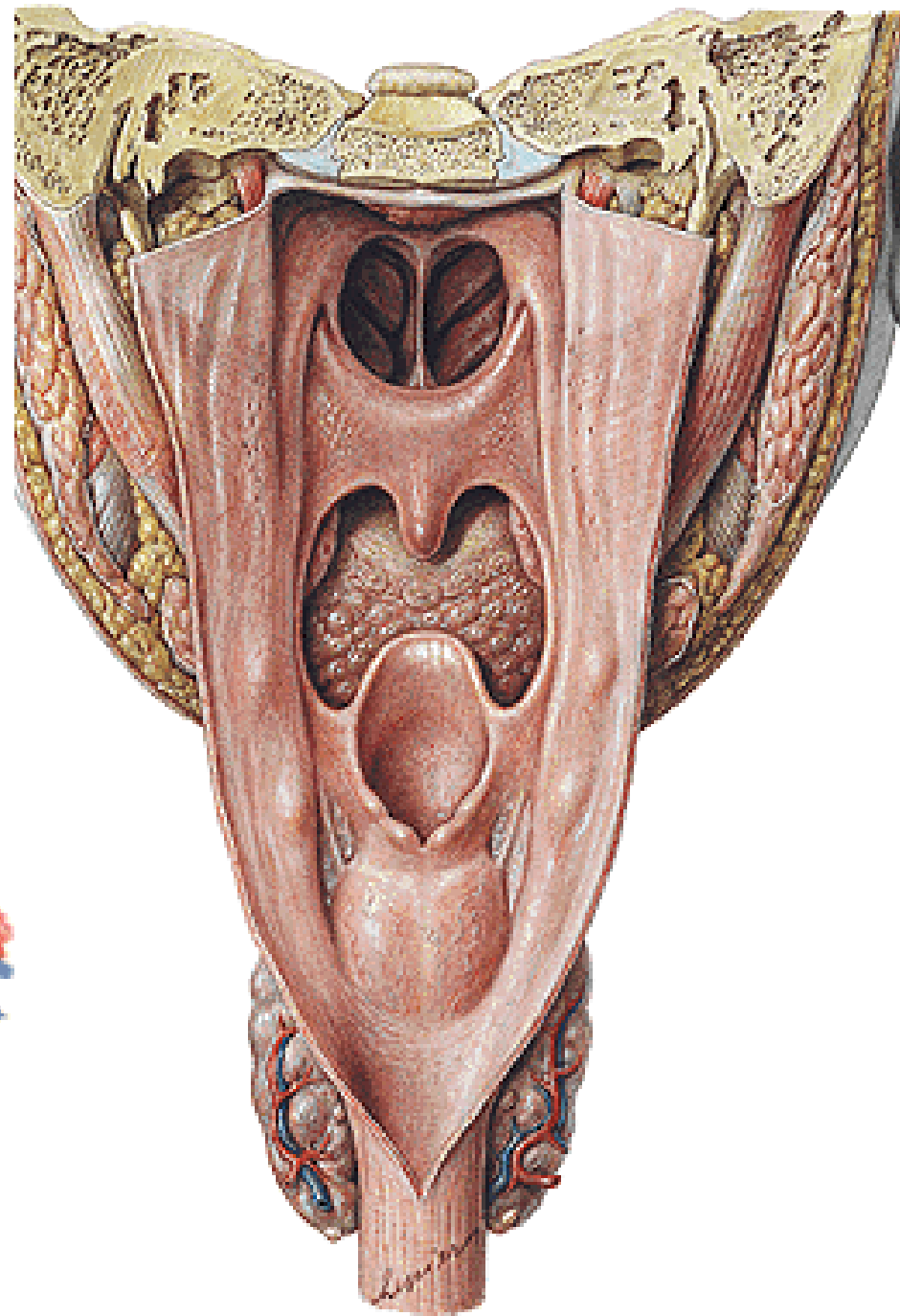
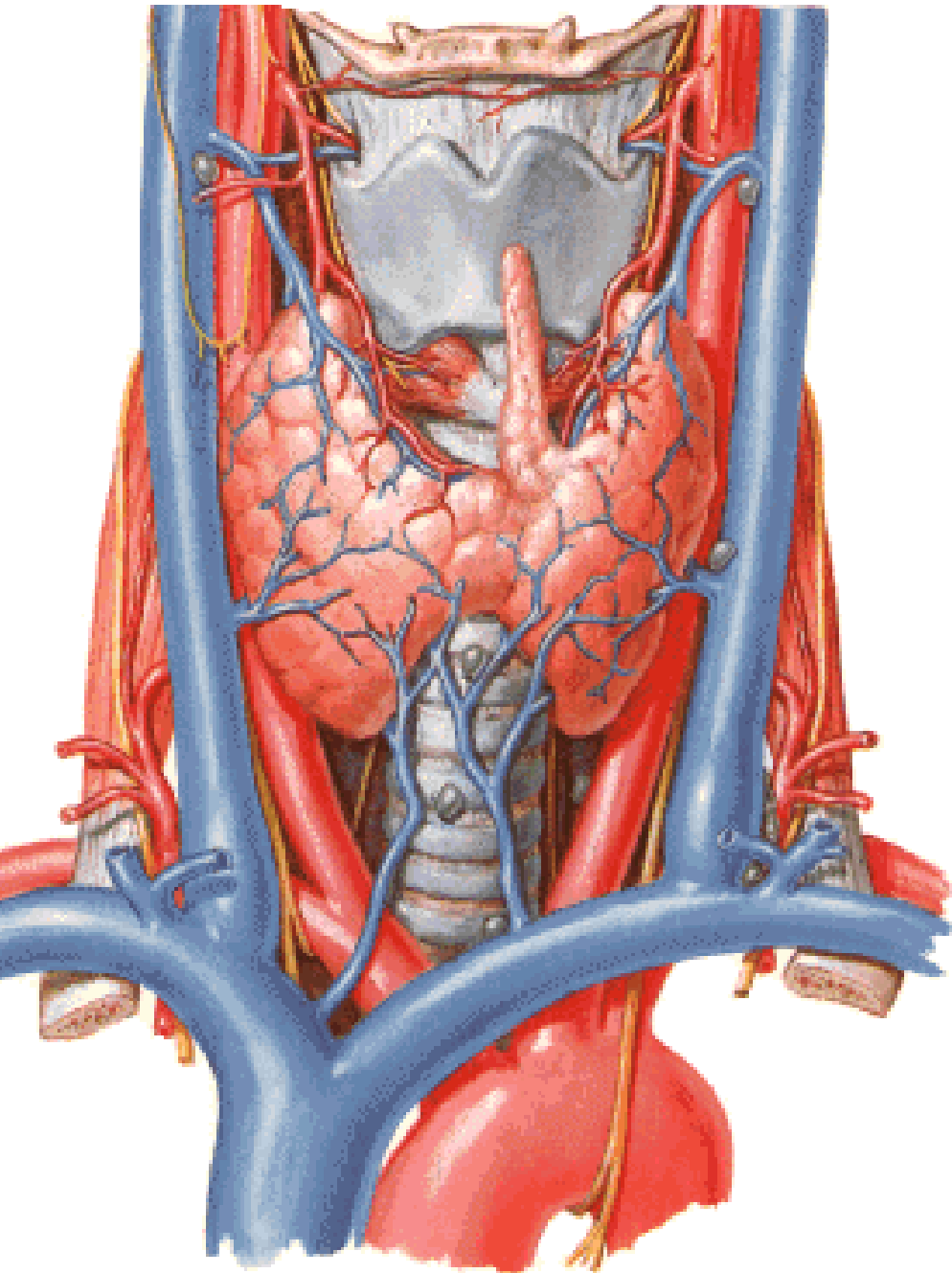
RESPIRATION



PHONATION

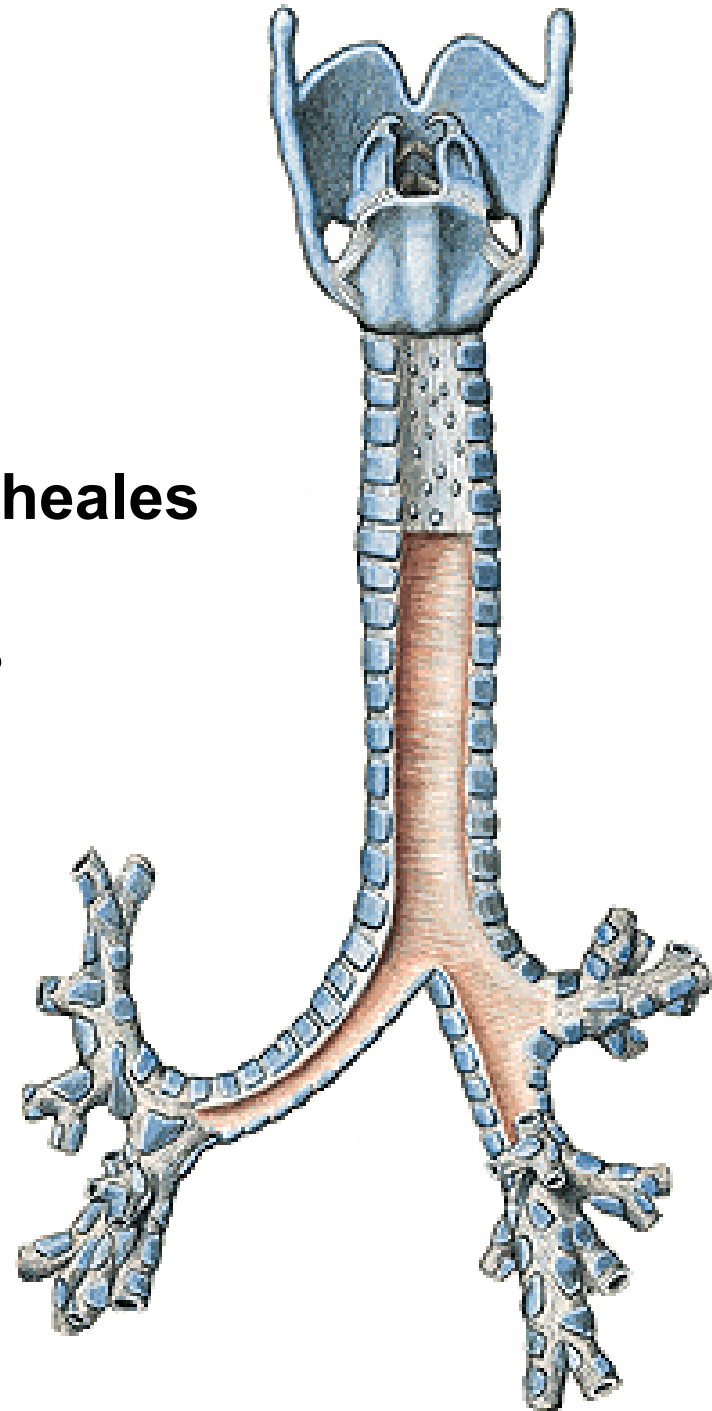
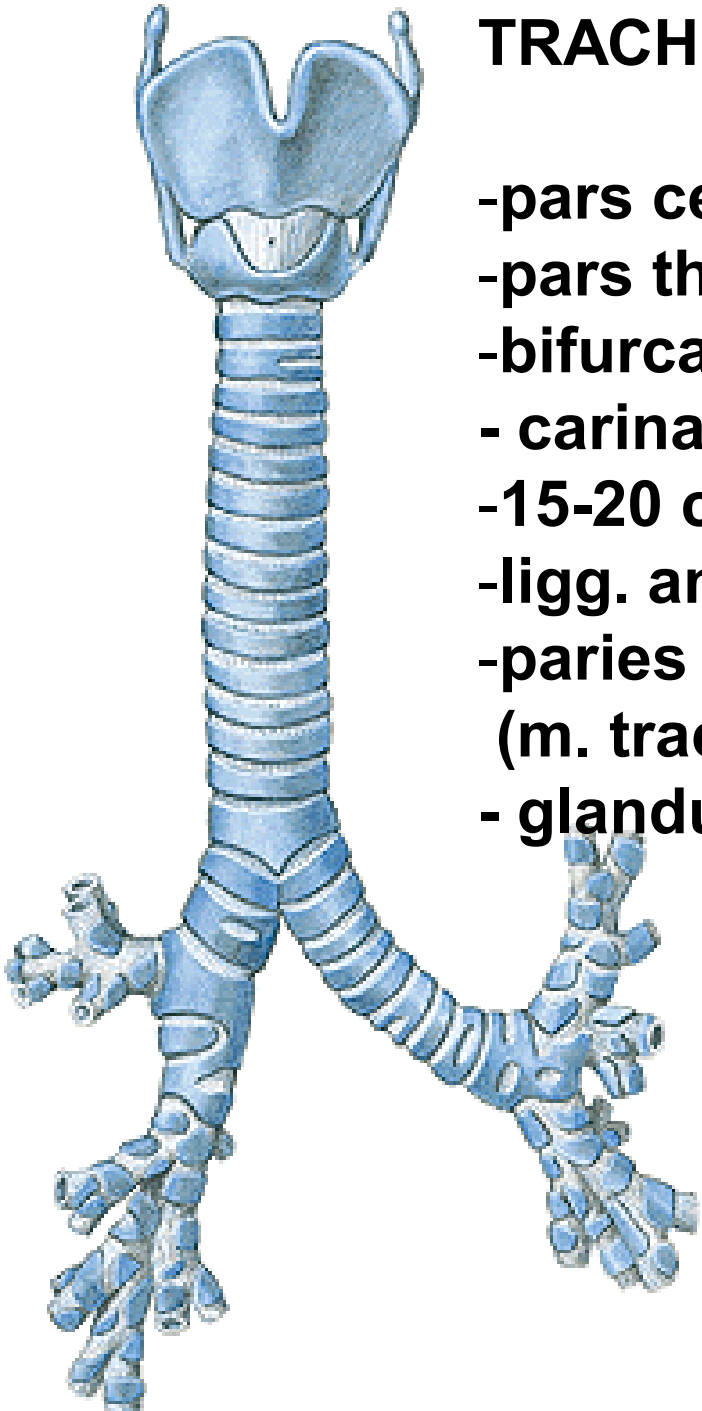




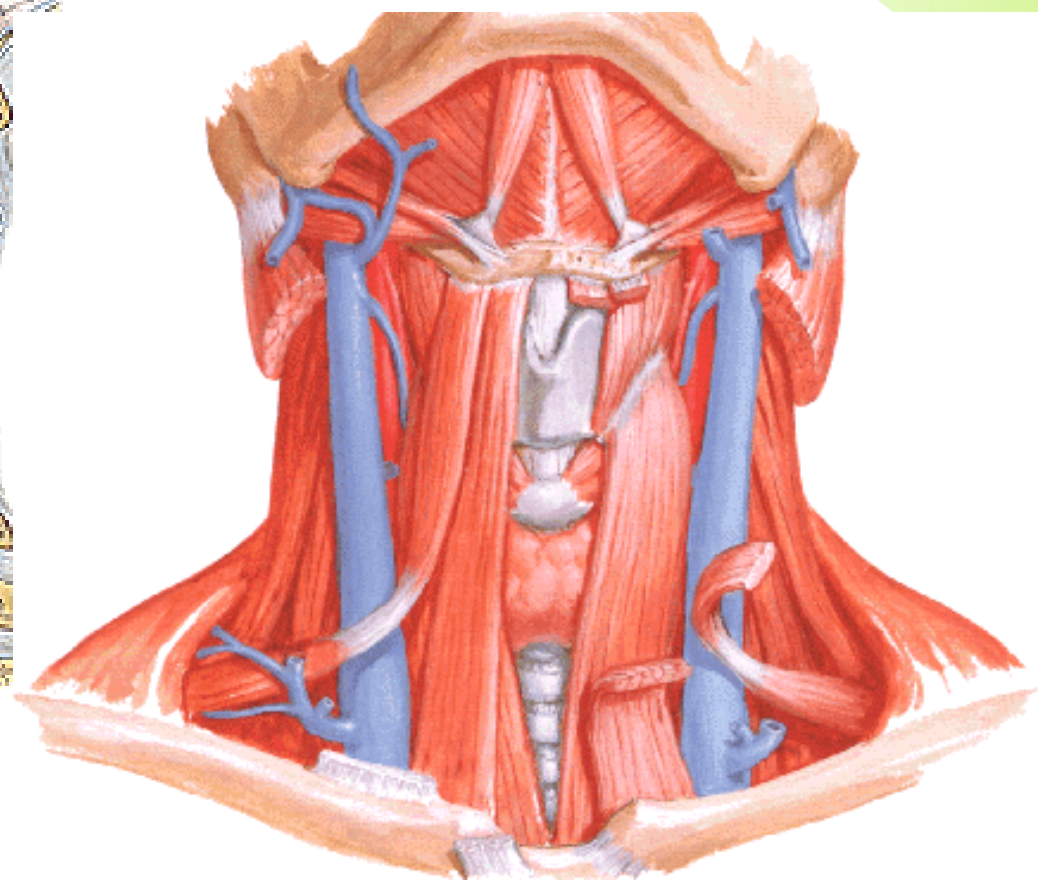
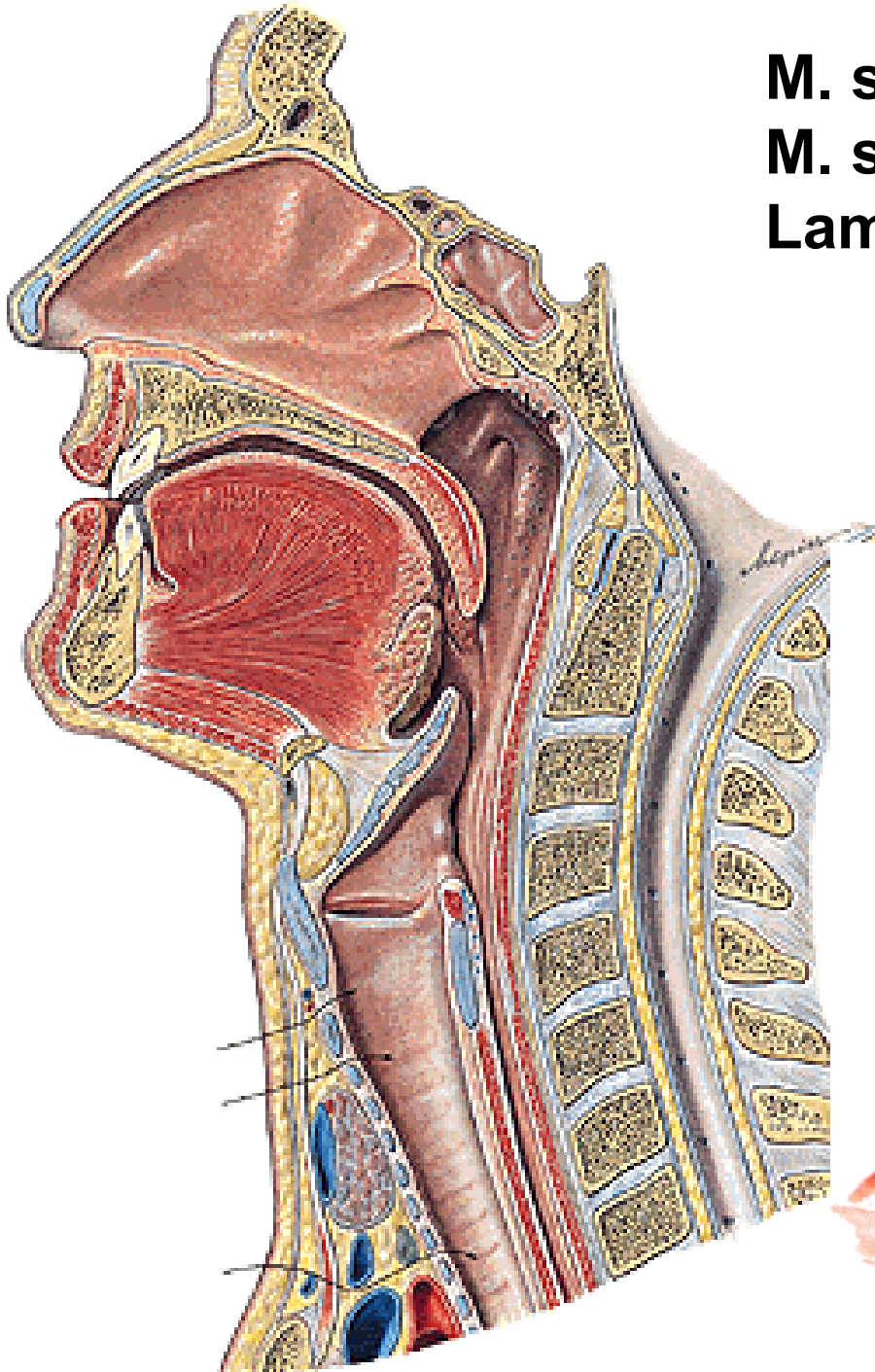


TRACHEA

- pars cervicalis
- pars thoracica
- bifurcatio tracheae
- carina tracheae
- 15-20 cartilagineae tracheales
- ligg. anularia
- paries membranaceus (m. trachealis)
- glandulae tracheales

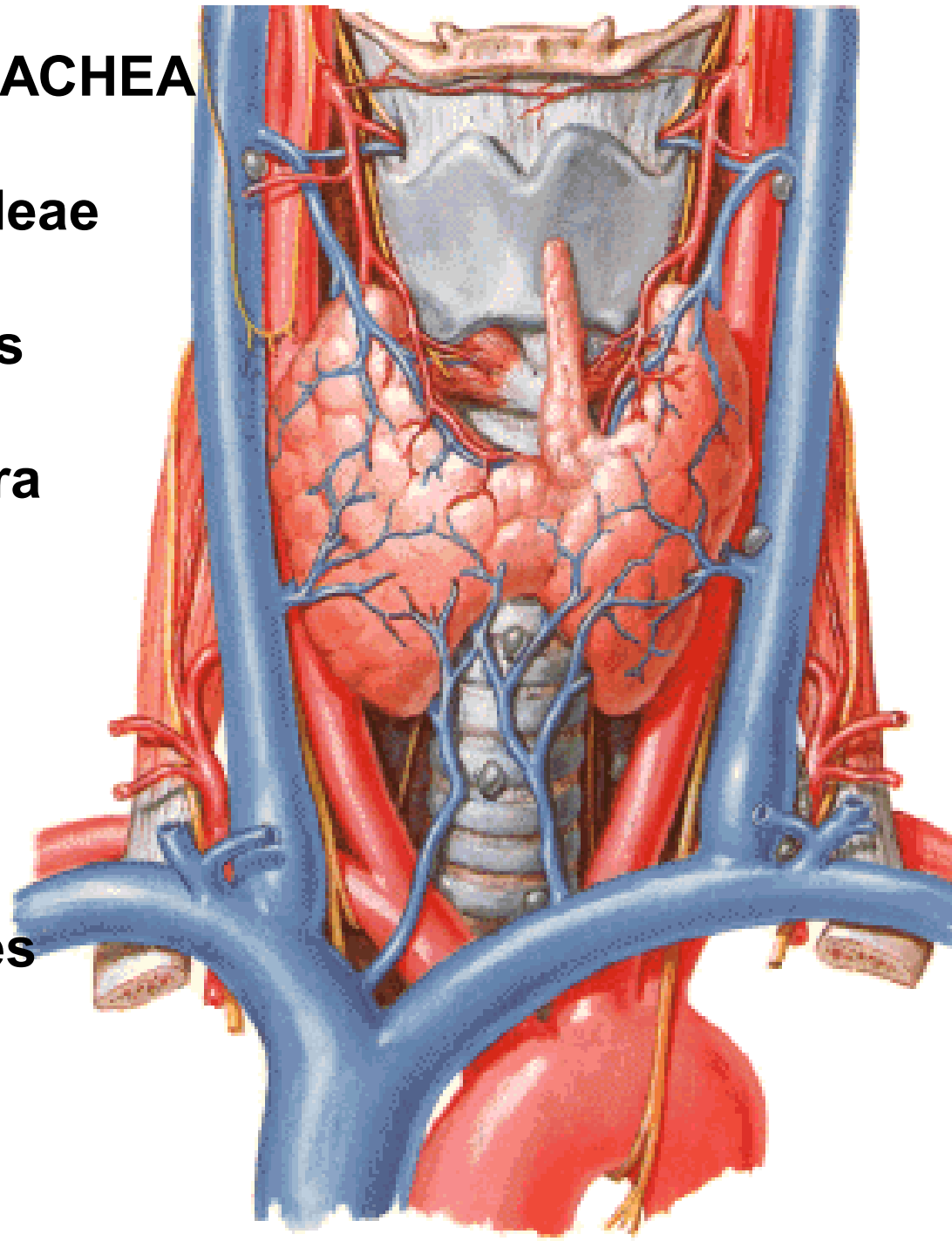


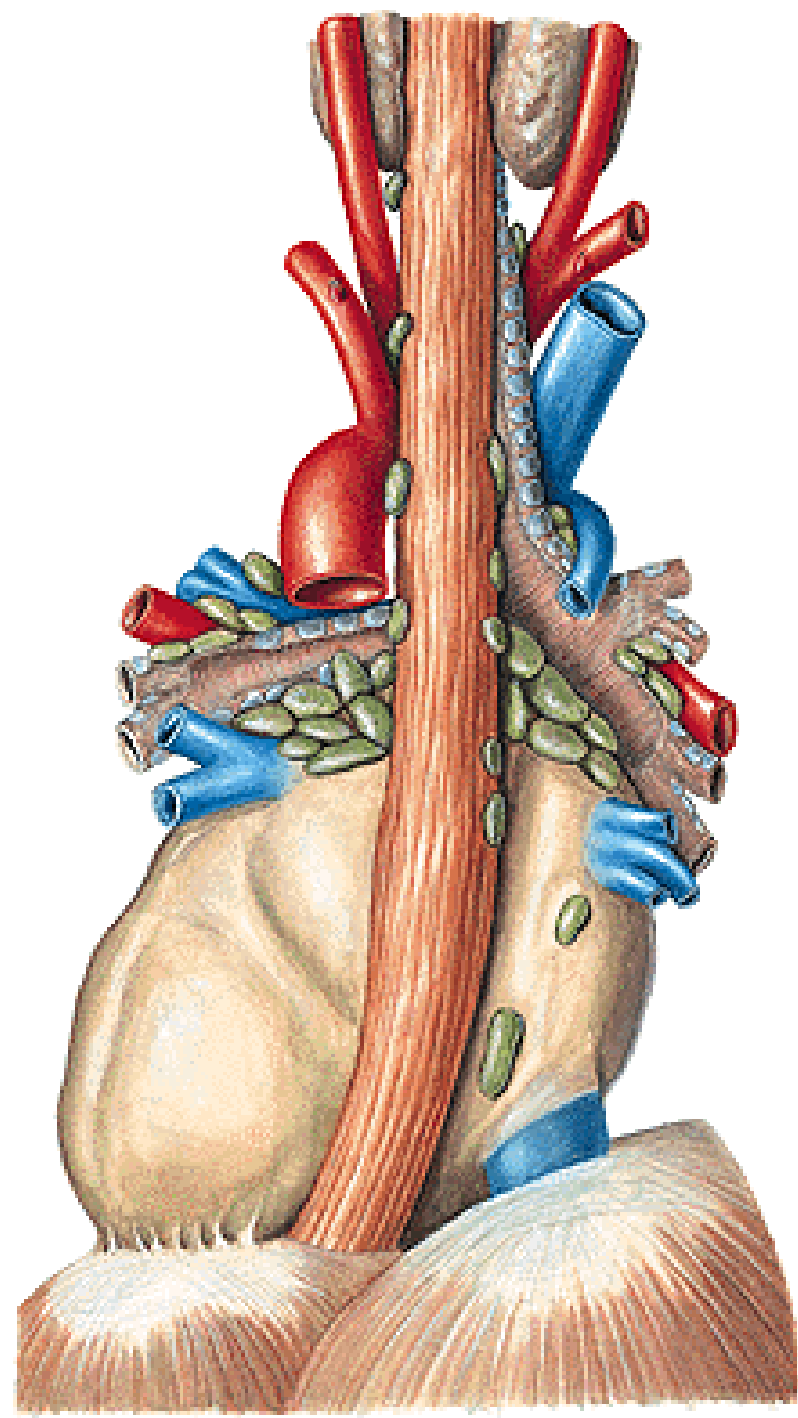
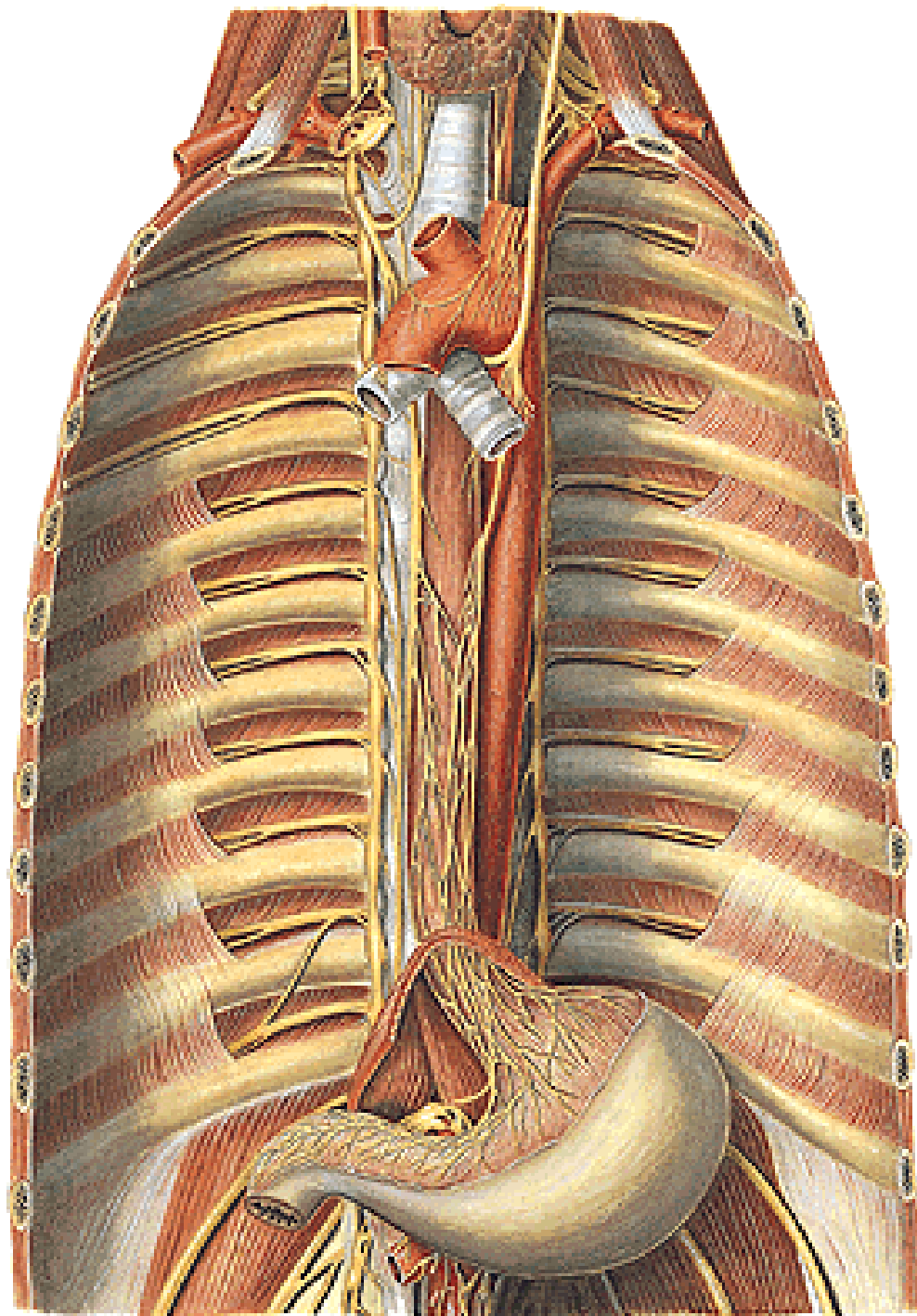
M. sternohyoideus
M. sternothyroideus
Lamina pretrachealis fasciae colli



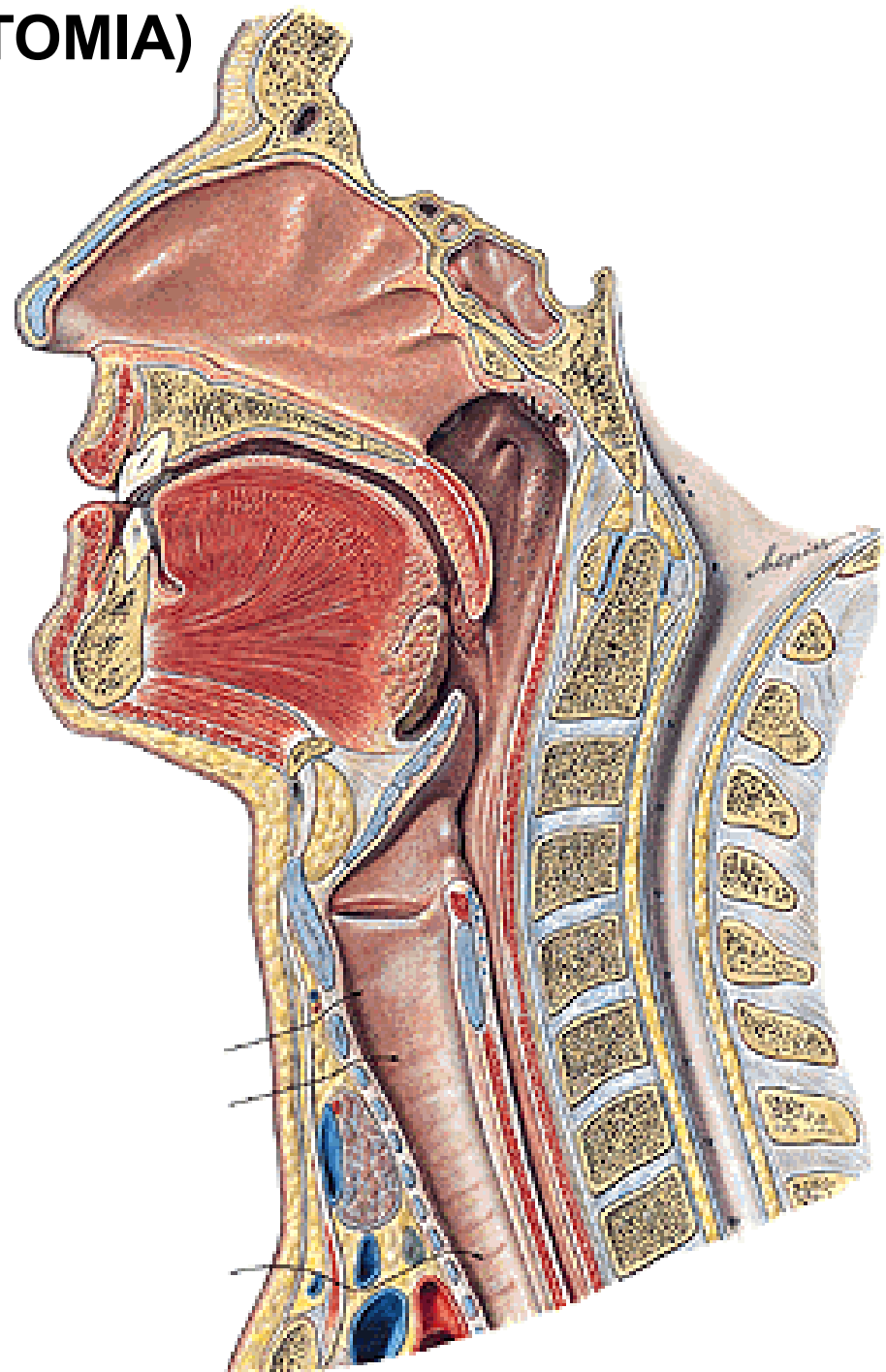
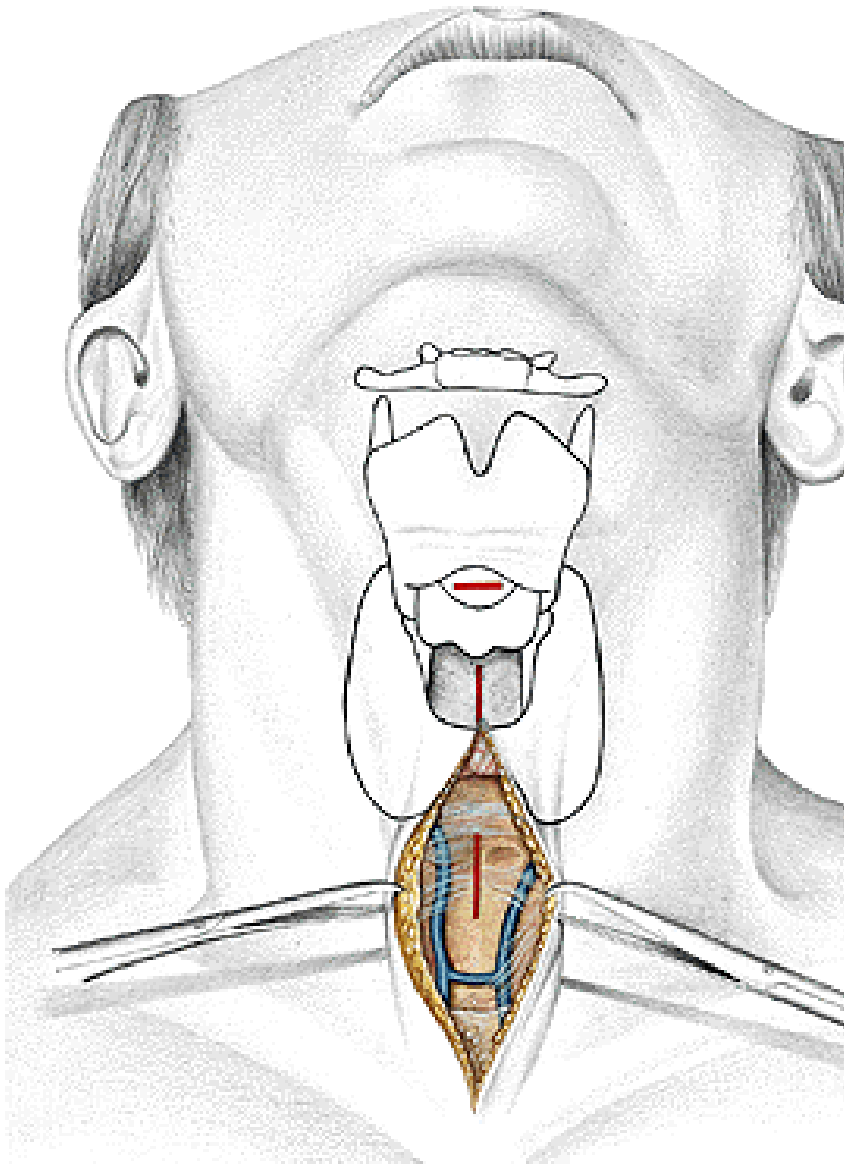
TOPOGRAPHY OF THE TRACHEA

- isthmus glandulae thyroideae
- vv. thyroideae inferiores
- truncus brachiocephalicus
- arcus aortae
- v. brachiocephalica sinistra
- v. cava sup.
- a. carotis communis
- v. jugularis int.
- n. vagus
- oesophagus
- n. laryngeus recurrens
- nodi lymph. paratracheales





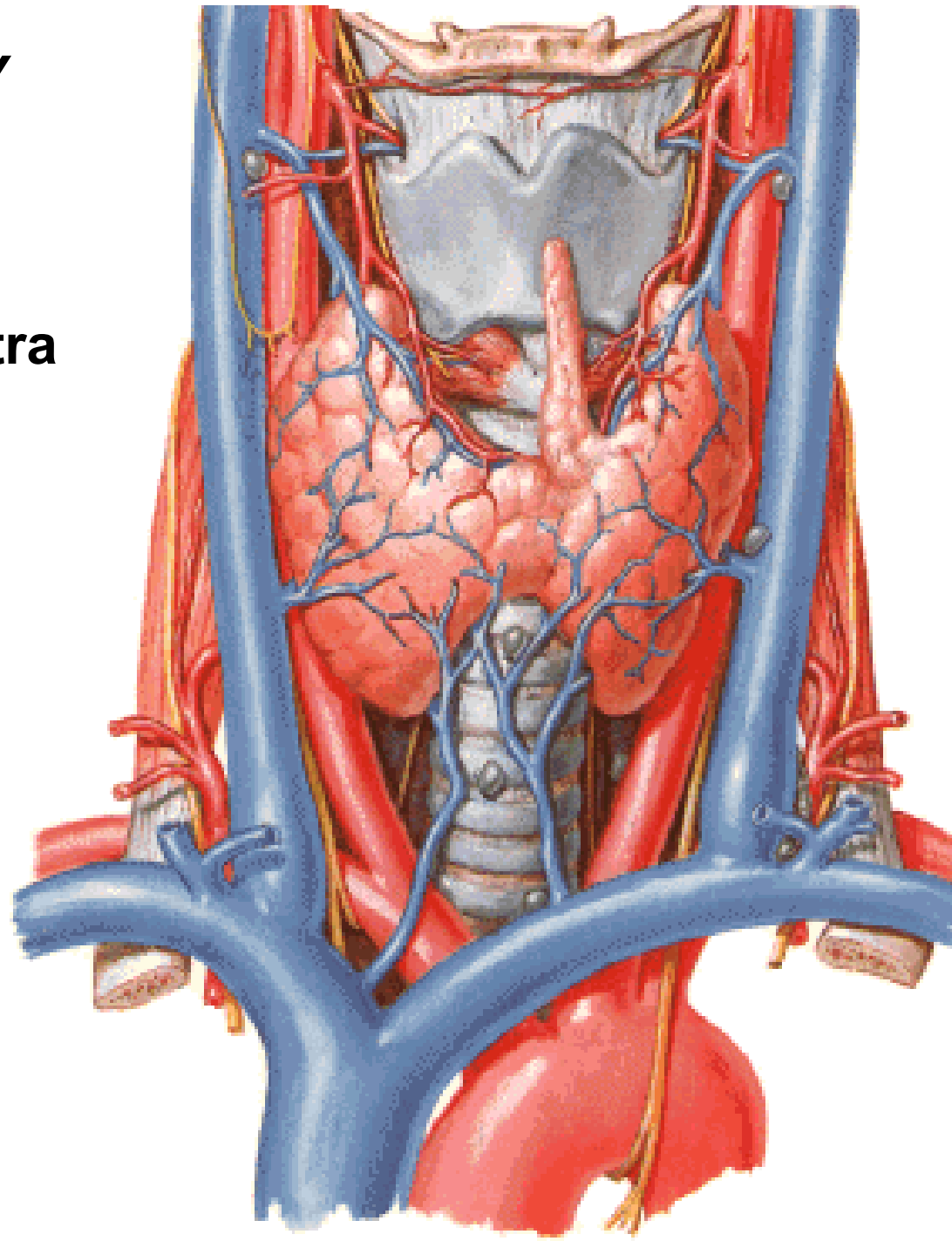
**CONIOTOMIA (CRICOTHYROTOMIA)
TRACHEOTOMIA SUPERIOR
TRACHEOTOMIA INFERIOR**



INFERIOR TRACHEOTOMY

- vv. thyroideae inferiores
- a. thyroidea ima
- v. brachiocephalica sinistra
- arcus venosus juguli
- pleura
- thymus

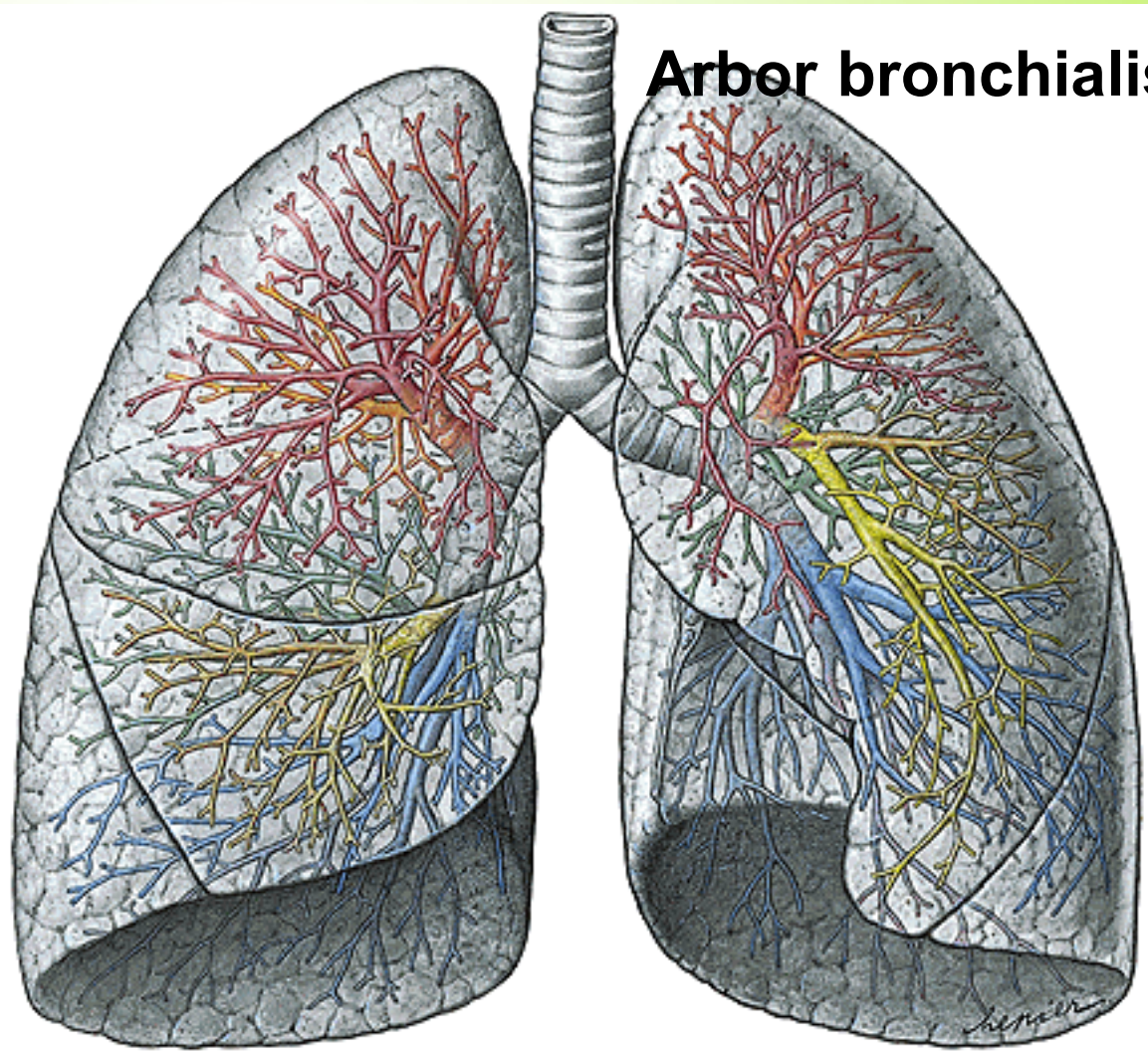
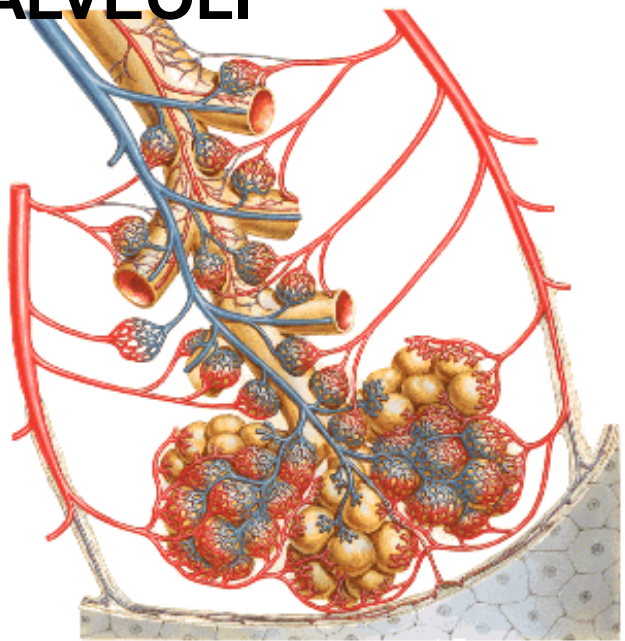
TRACHEOSTOMY



BRONCHI

- principales
- lobares
- segmentales

BRONCHIOLI ALVEOLI



Arbor bronchialis

PULMO DEXTER
Lobus superior,
medius et inferior
Fissura obliqua
et horizontalis



Apex pulmonis
Basis pulmonis
(facies diaphragmatica)
Facies costalis
Facies mediastinalis
Margo anterior
inferior
posterior

PULMO SINISTER
Lobus superior et
inferior
Fissura obliqua
Incisura cardiaca
Lingula



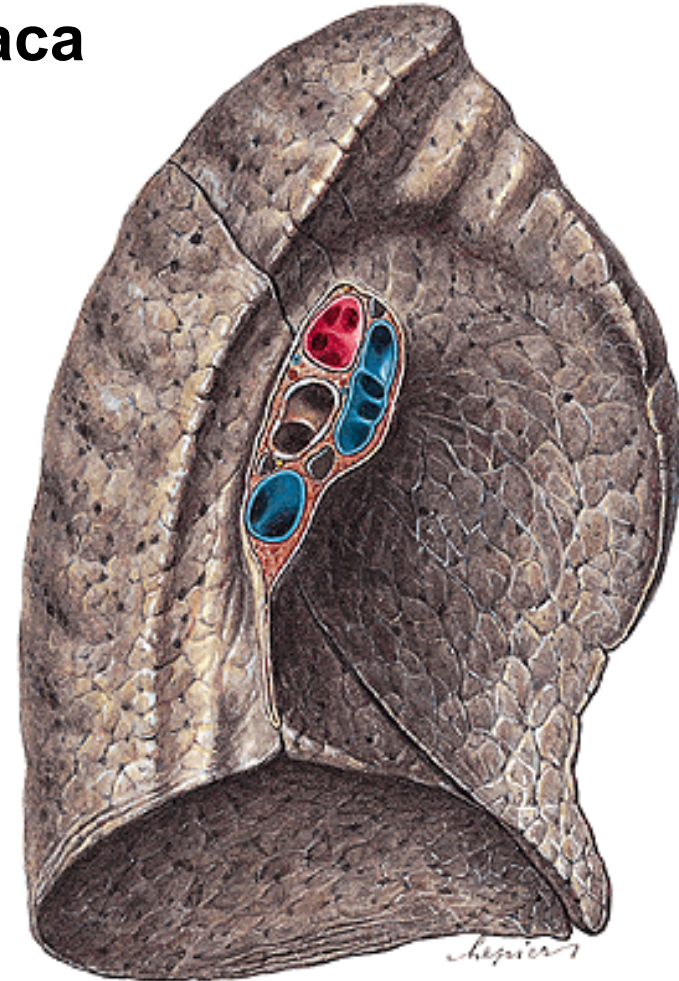
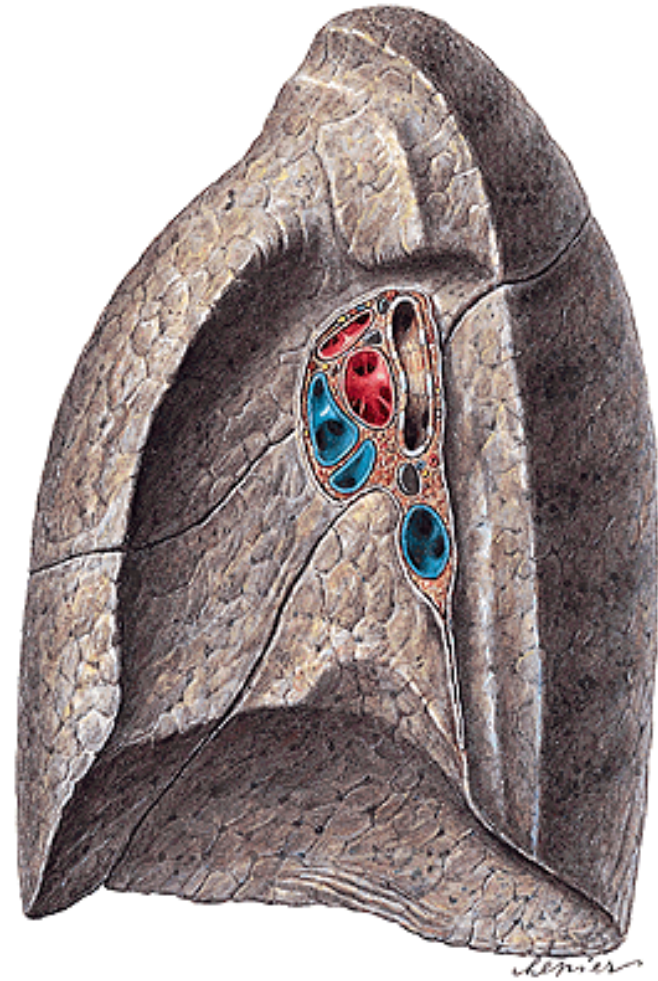
FACIES MEDIASTINALIS

hillum pulmonis

radix pulmonis

lig. pulmonale

impressio cardiaca

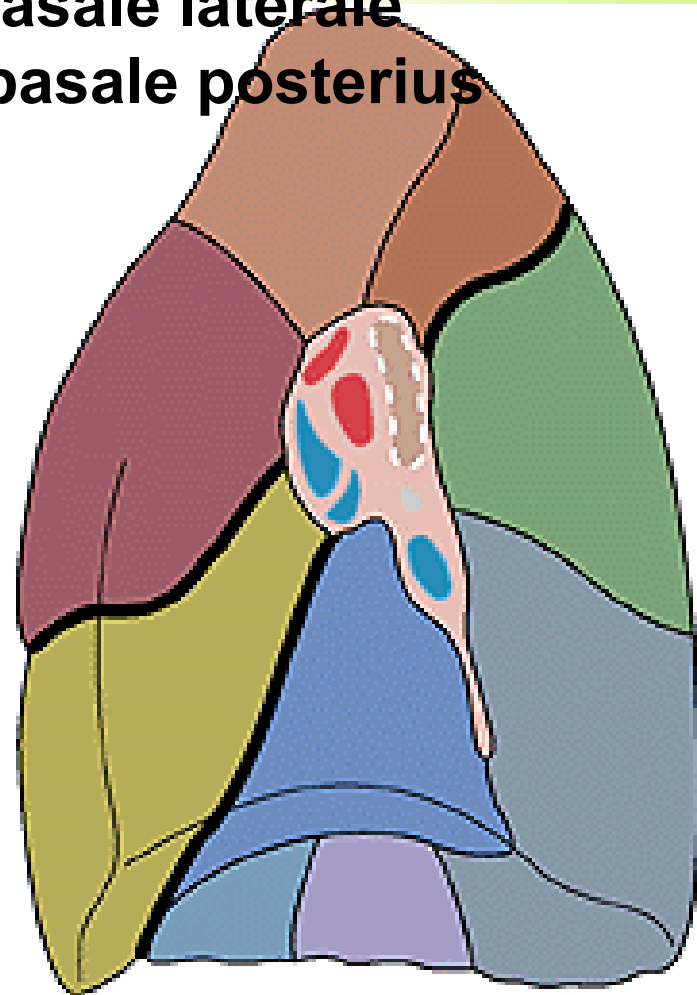
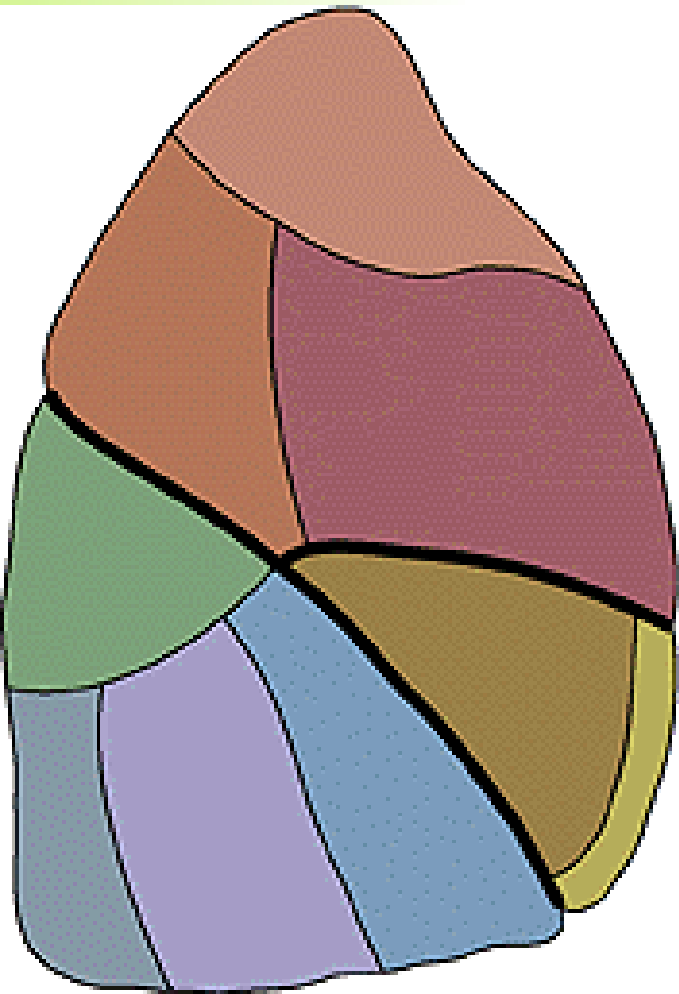


SEGMENTA BRONCHOPULMONALIA DEXTRA

- 1. s. apicale
- 2. s. posterius
- 3. s. anteriorus

- 4. s. laterale
- 5. s. mediale

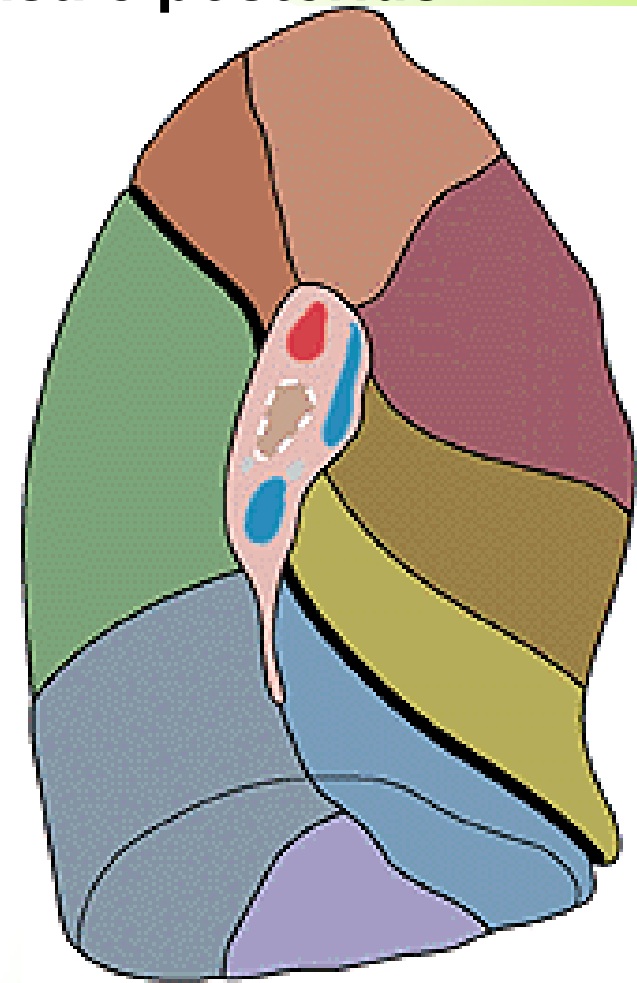
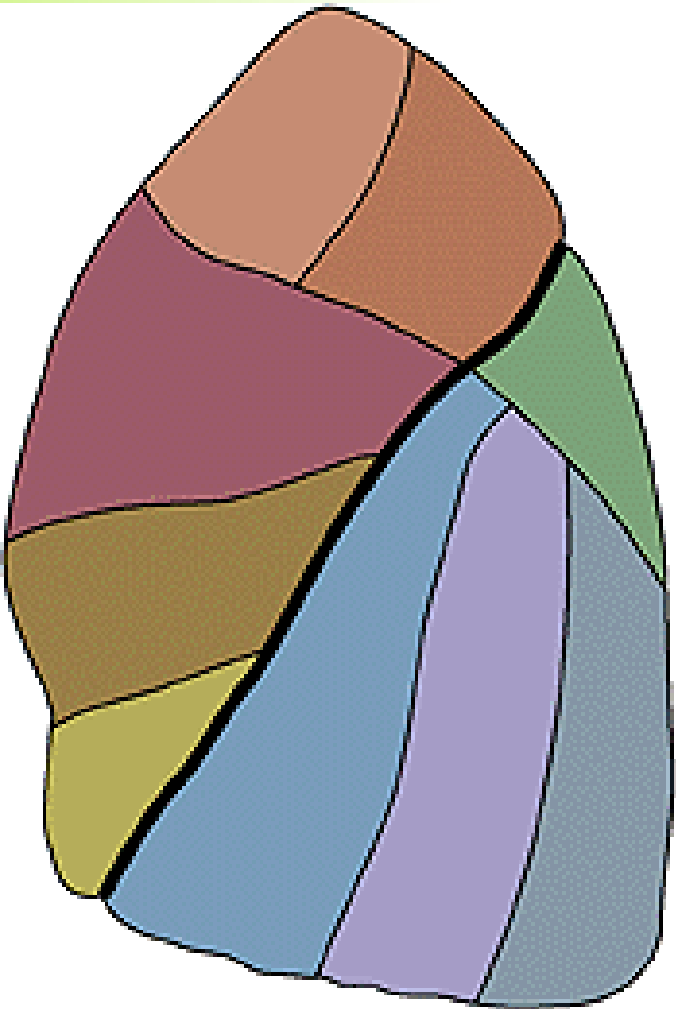
- 6. s. apicale
- 7. s. basale mediale
- 8. s. basale anteriorus
- 9. s. basale laterale
- 10. s. basale posterius



SEGMENTA BRONCHOPULMONALIA SINISTRA

- 1+2. s. apicoposterius
- 3. s. anterior
- 4. s. lingulare superius
- 5. s. lingulare inferius

- 6. s. apicale
- (7. s. basale mediale)
- 8. s. basale anterior
- 9. s. basale laterale
- 10. s. basale posterius



PLEURA - visceralis

- parietalis - costalis

- diaphragmatica

- mediastinalis

Cavitas pleuralis

Cupula pleurae

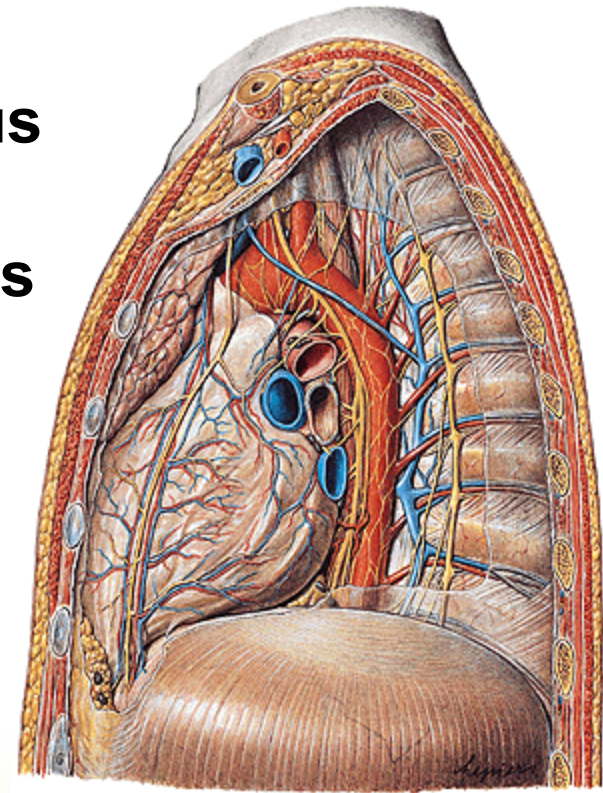
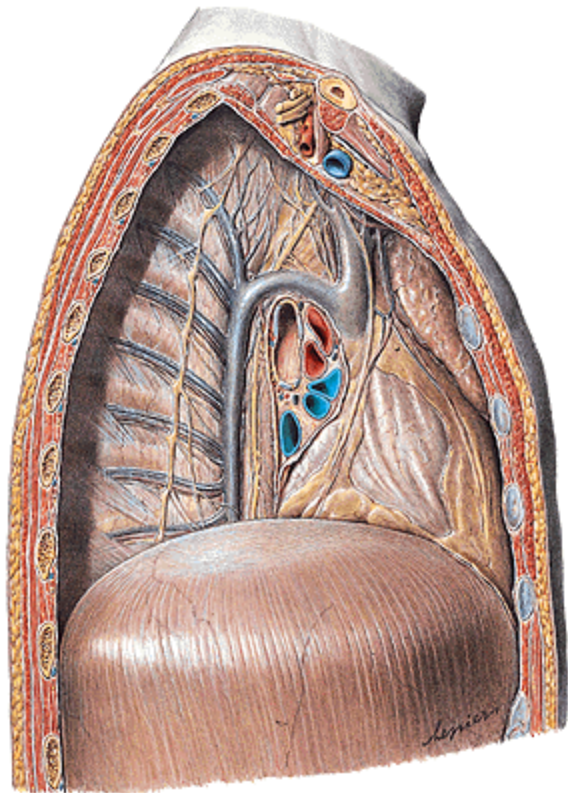
Recessus pleurae:

r. costodiaphragmaticus

r. costomediastinalis

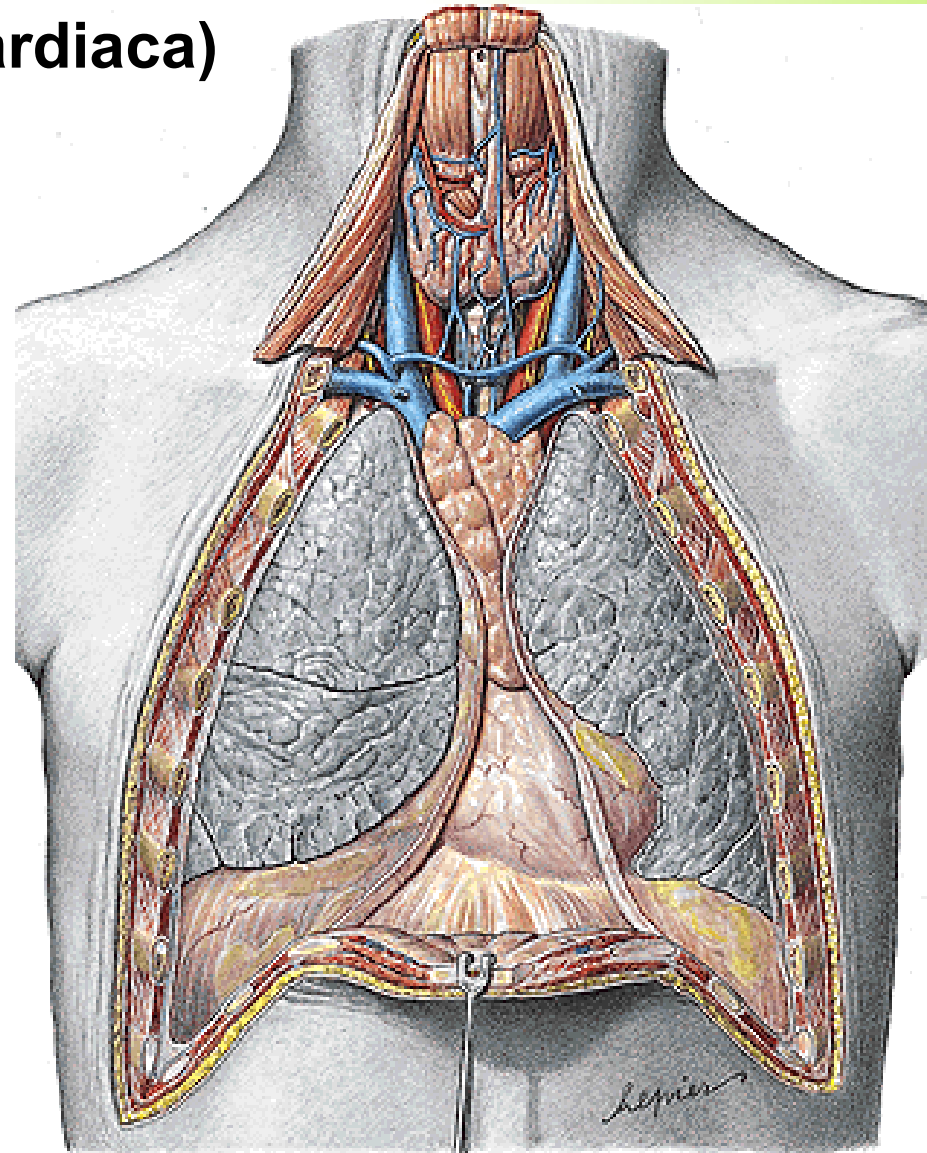
r. phrenicomediastinalis

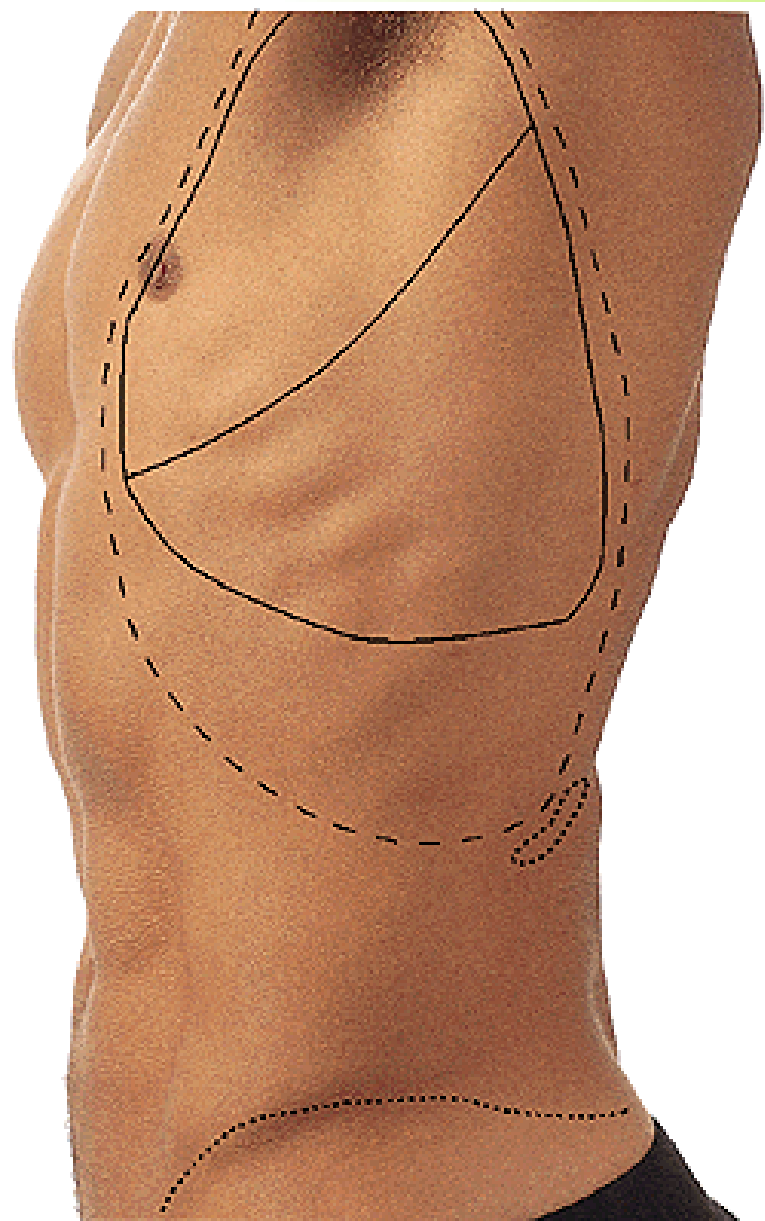
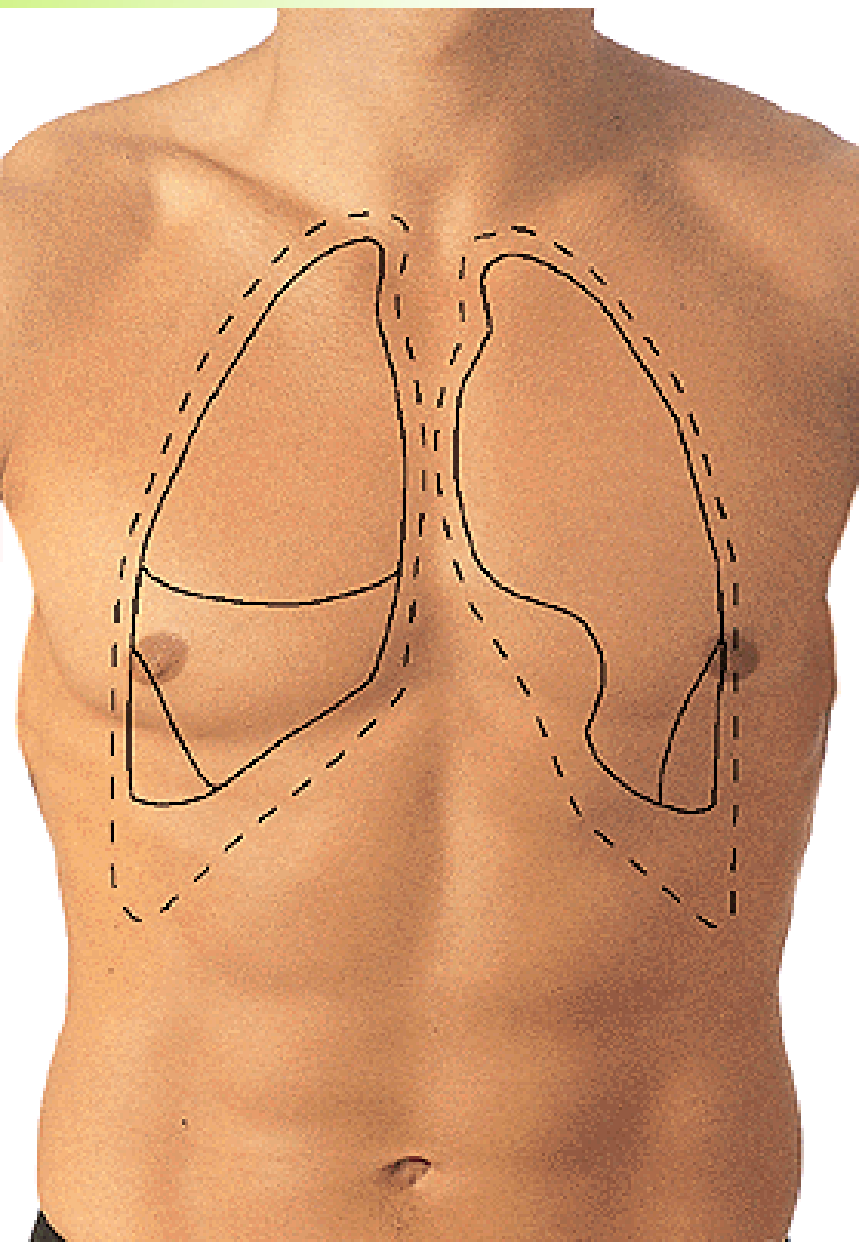
Pneumothorax

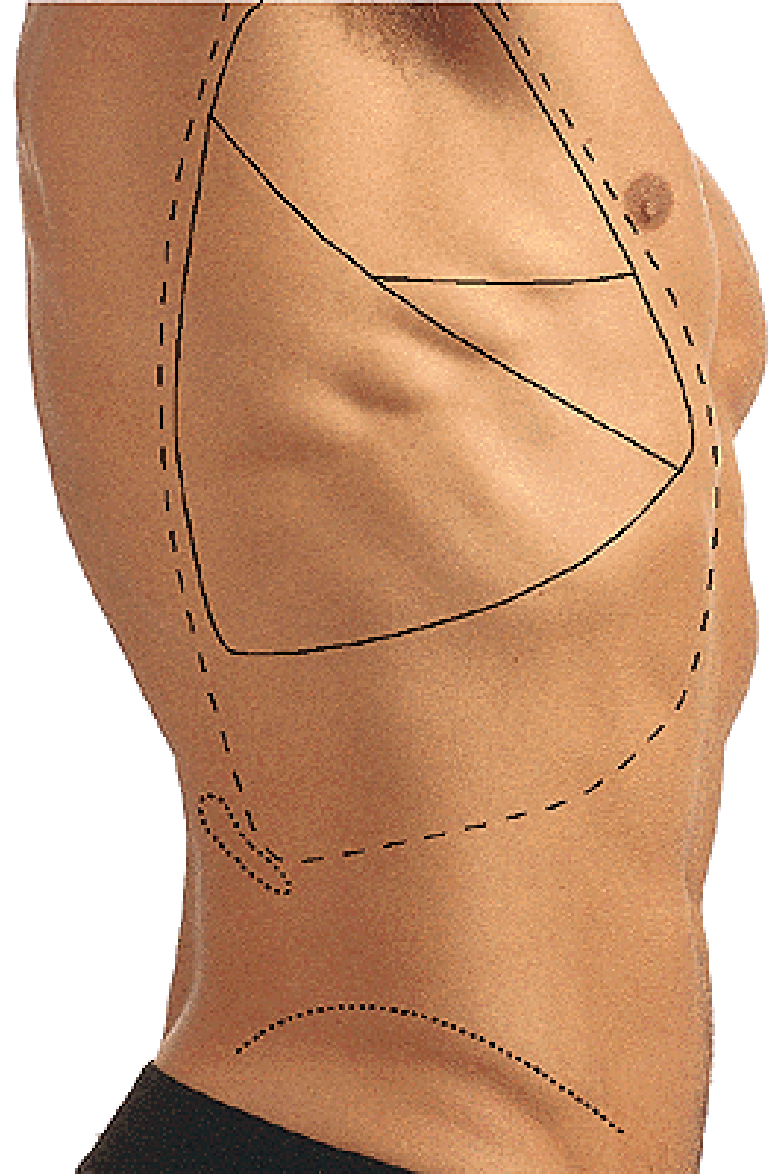


Area interpleuralis sup. (thymica)

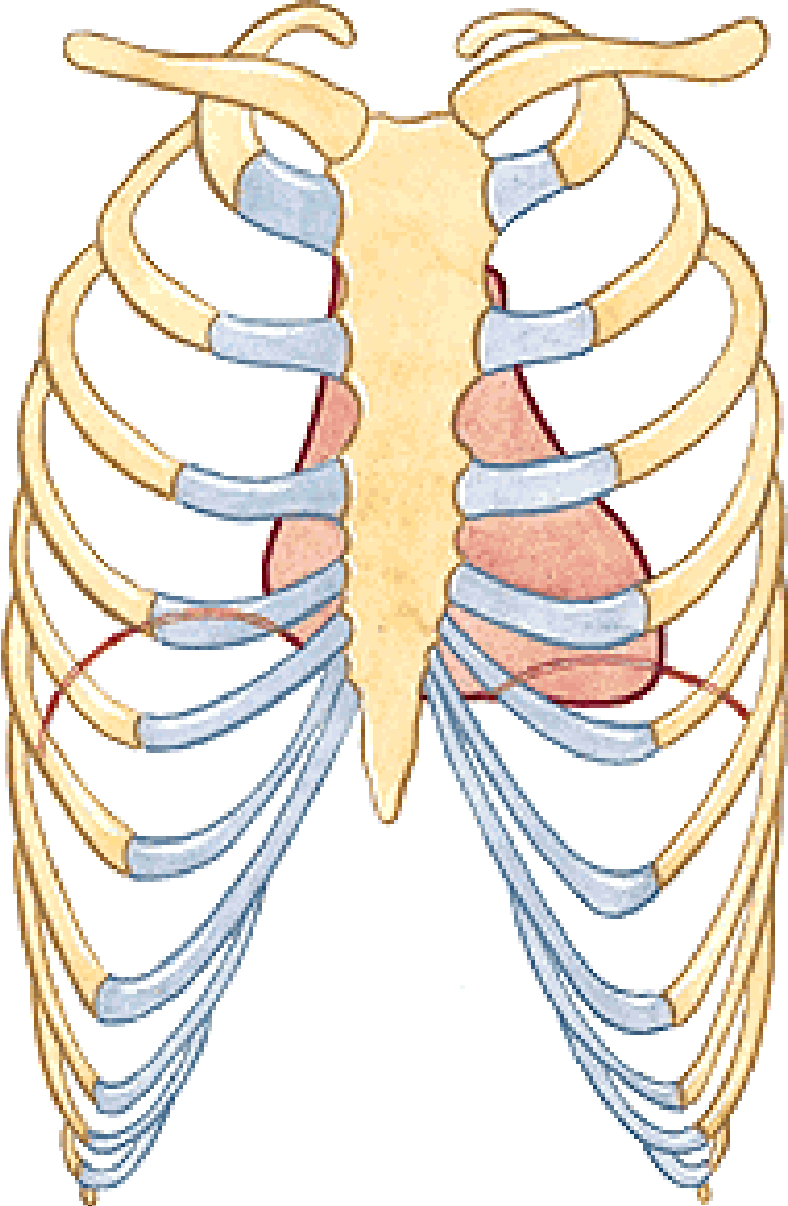
Area interpleuralis inf. (pericardiaca)



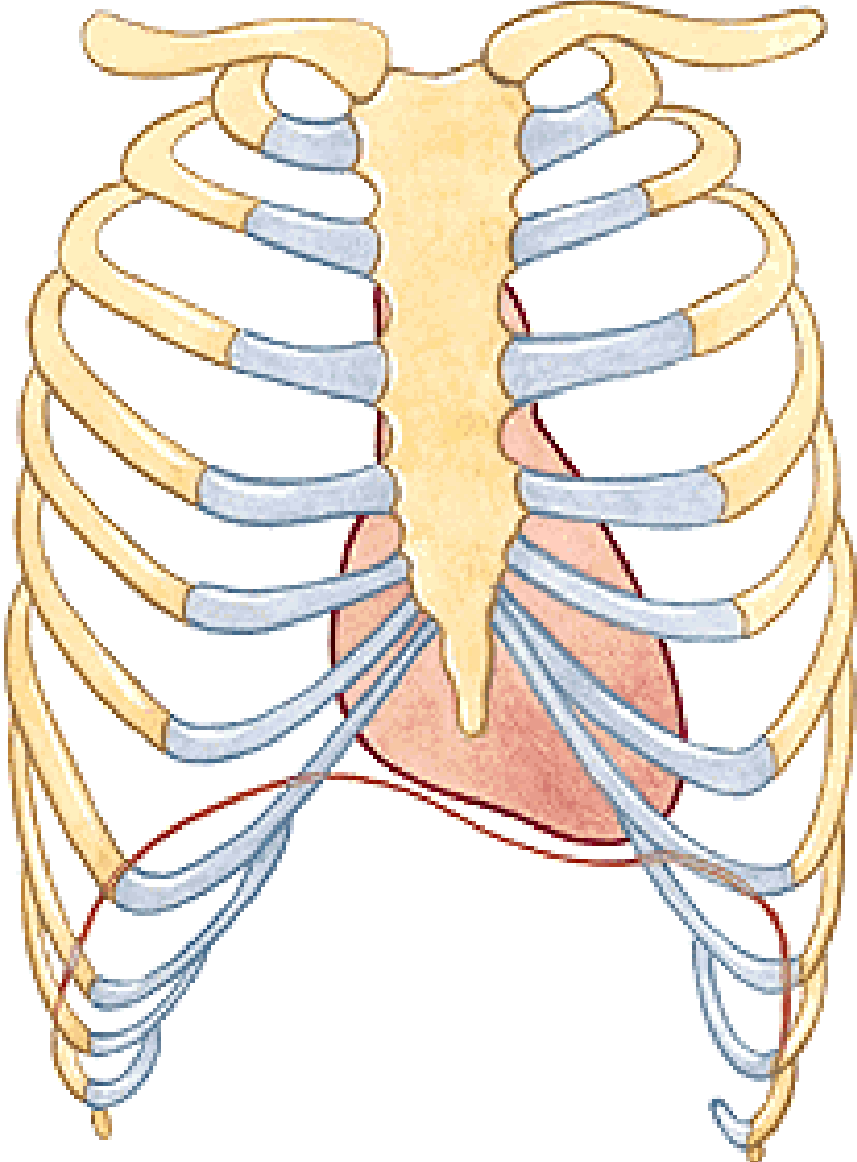


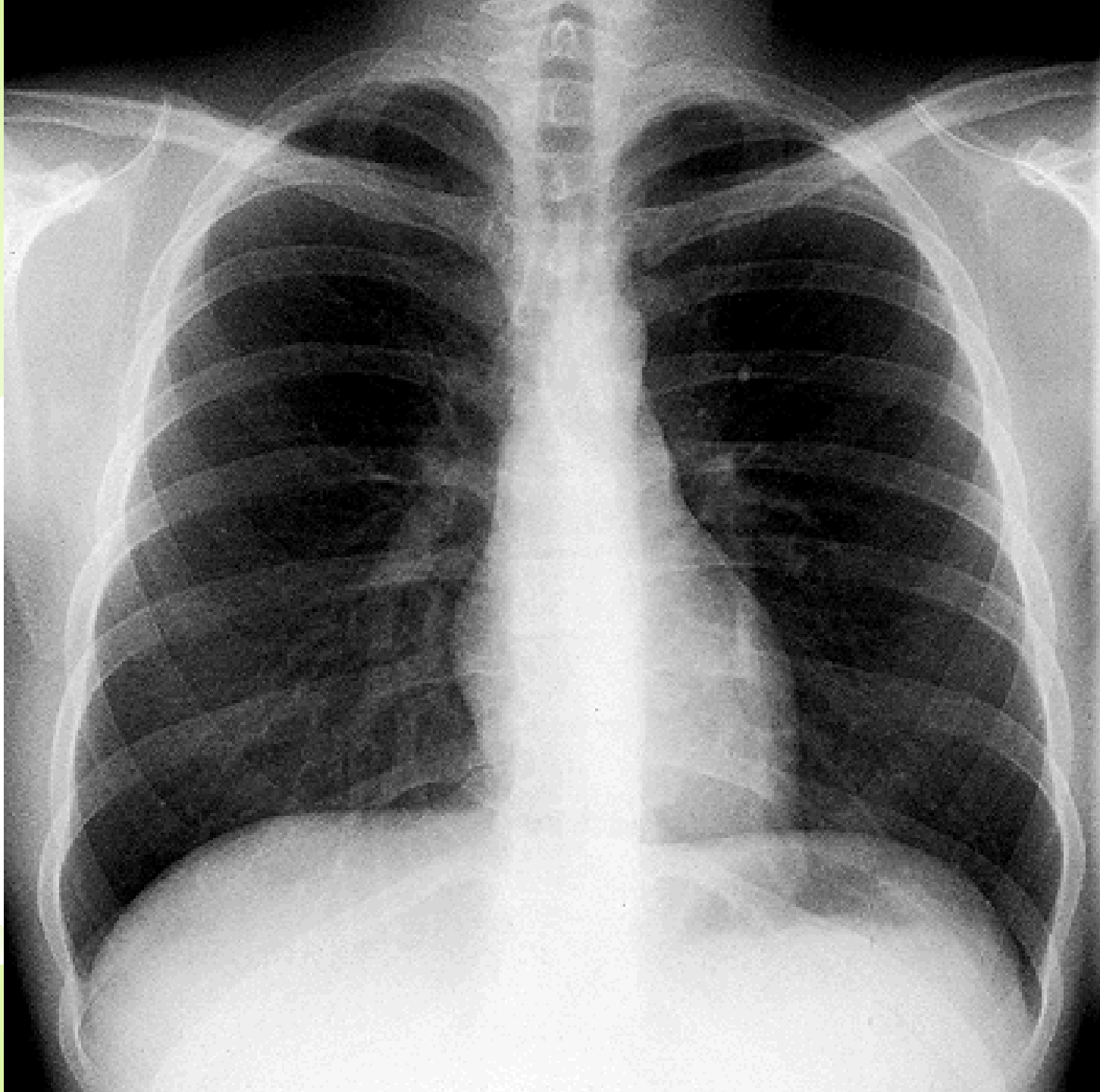


EXPIRATION

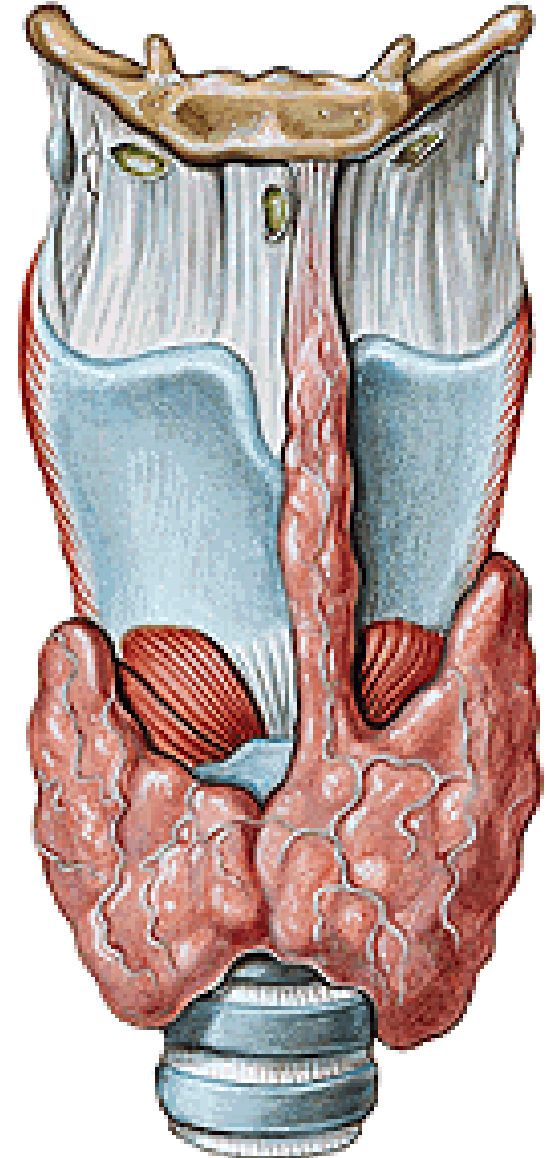
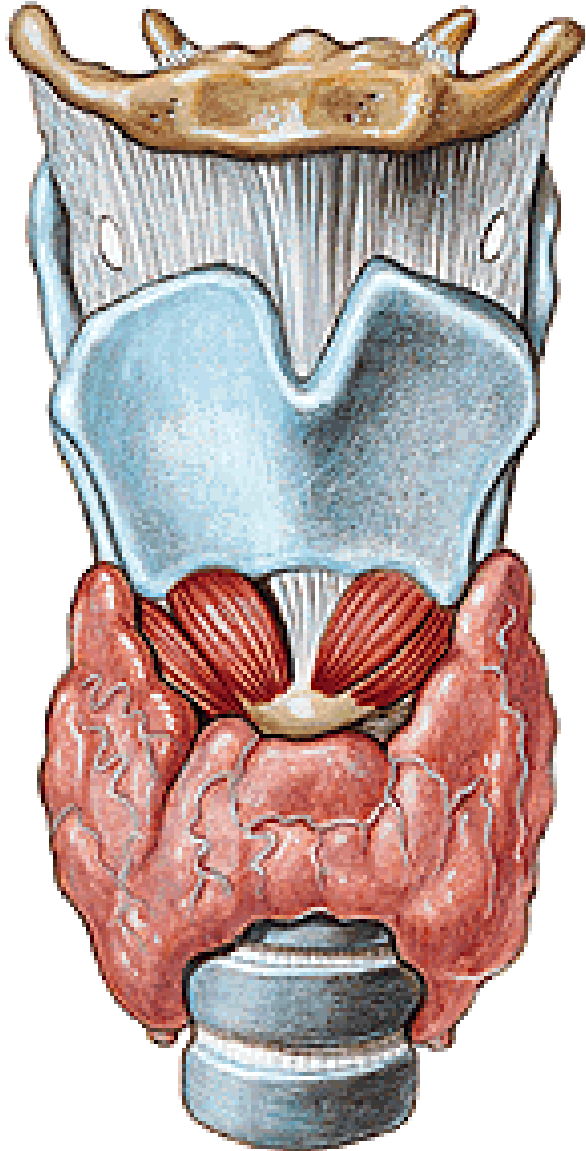


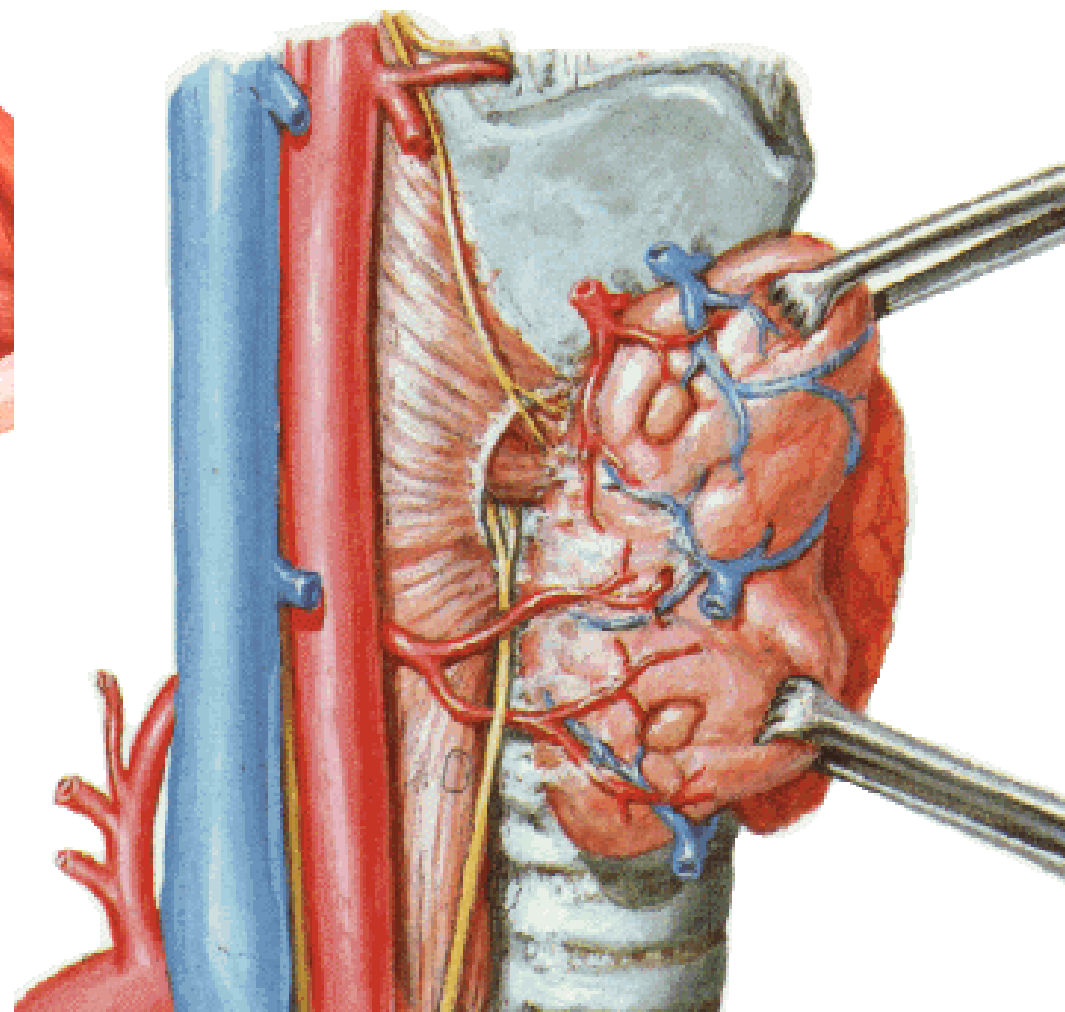
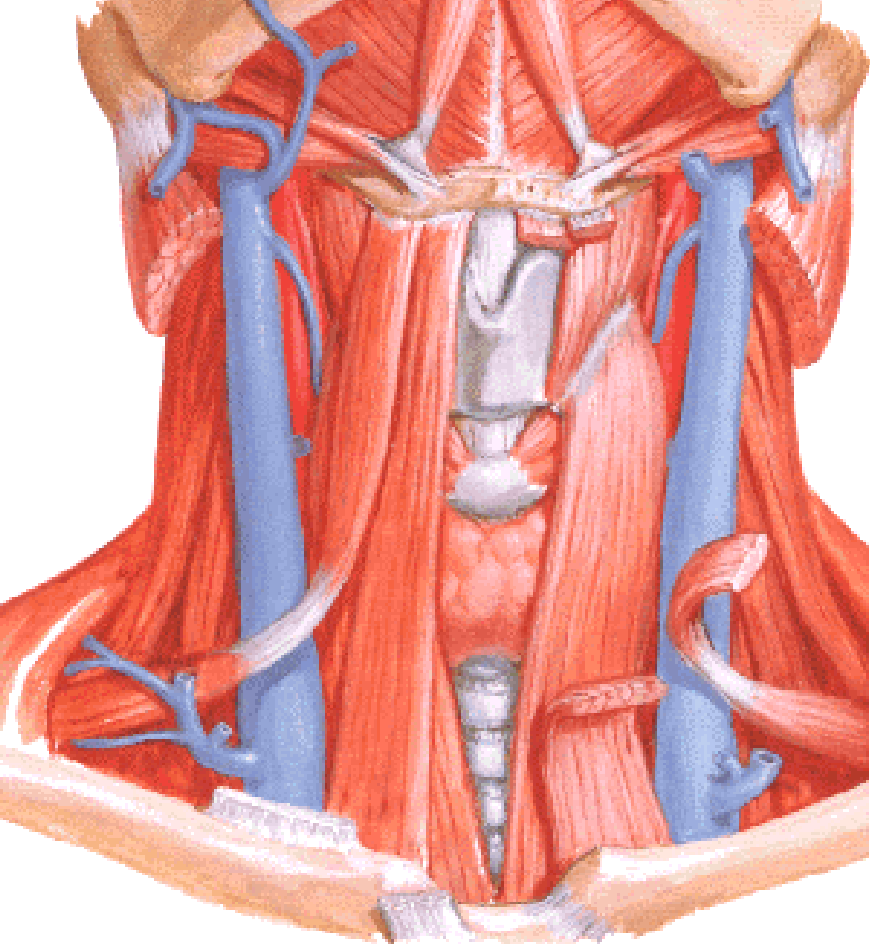
INSPIRATION



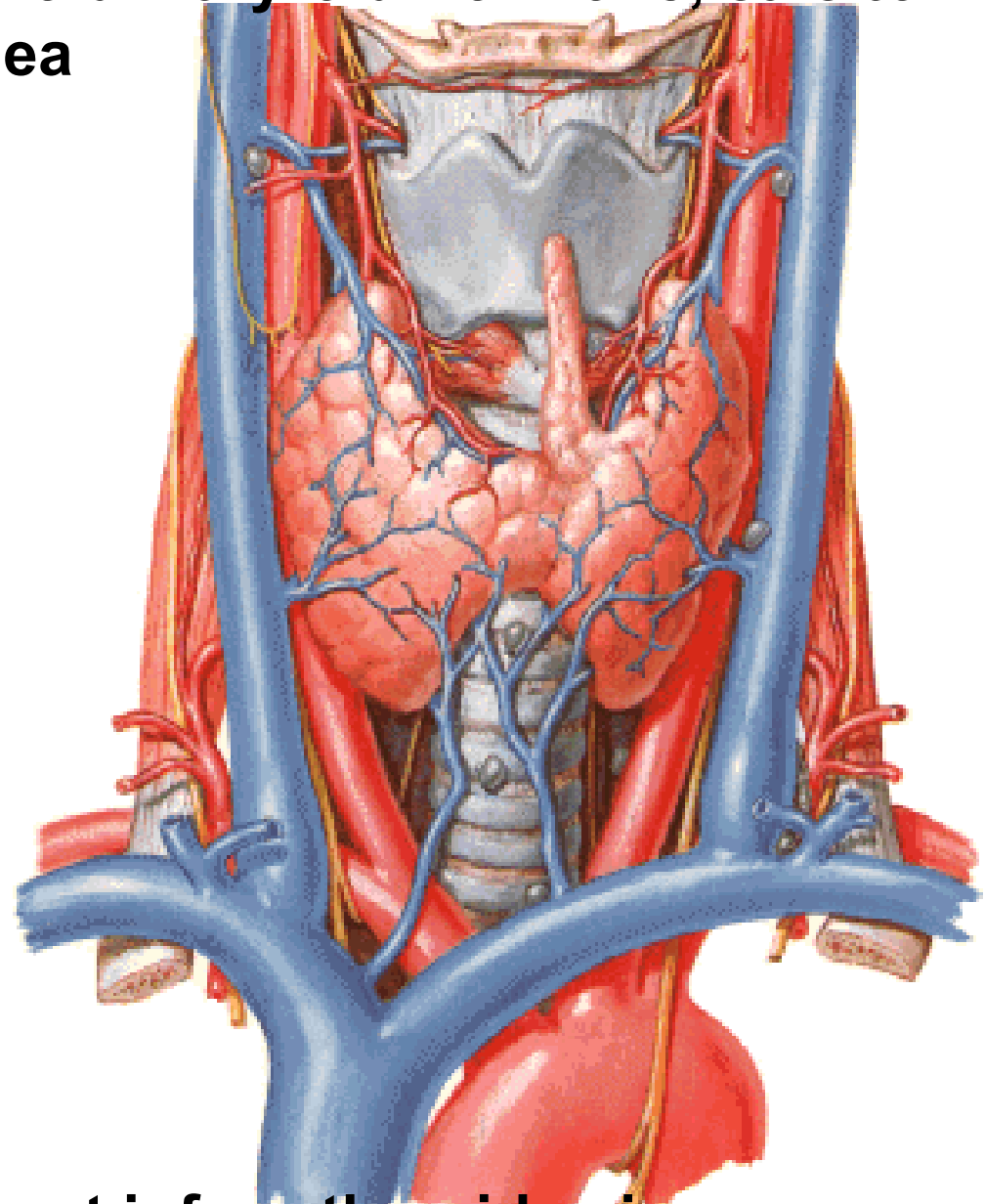
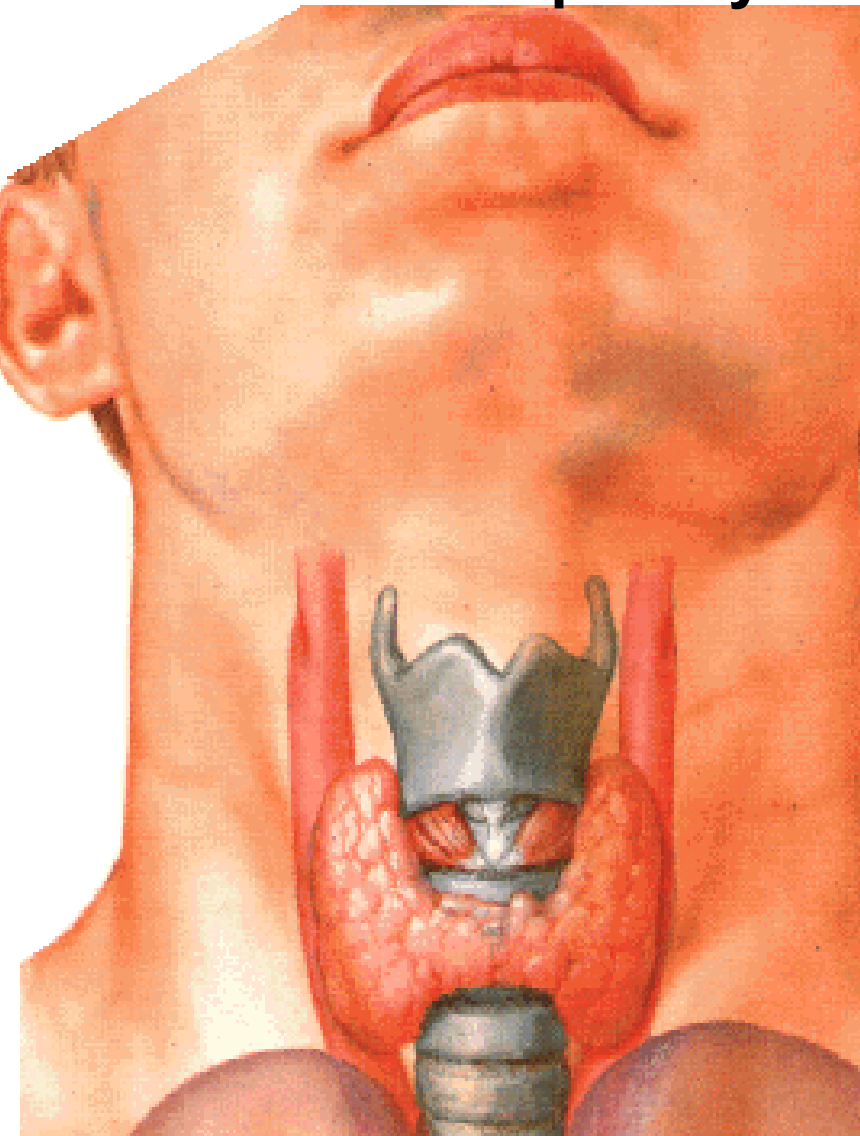


GLANDULA THYROIDEA – lobus dexter
- lobus sinister
- isthmus
- lobus
pyramidalis



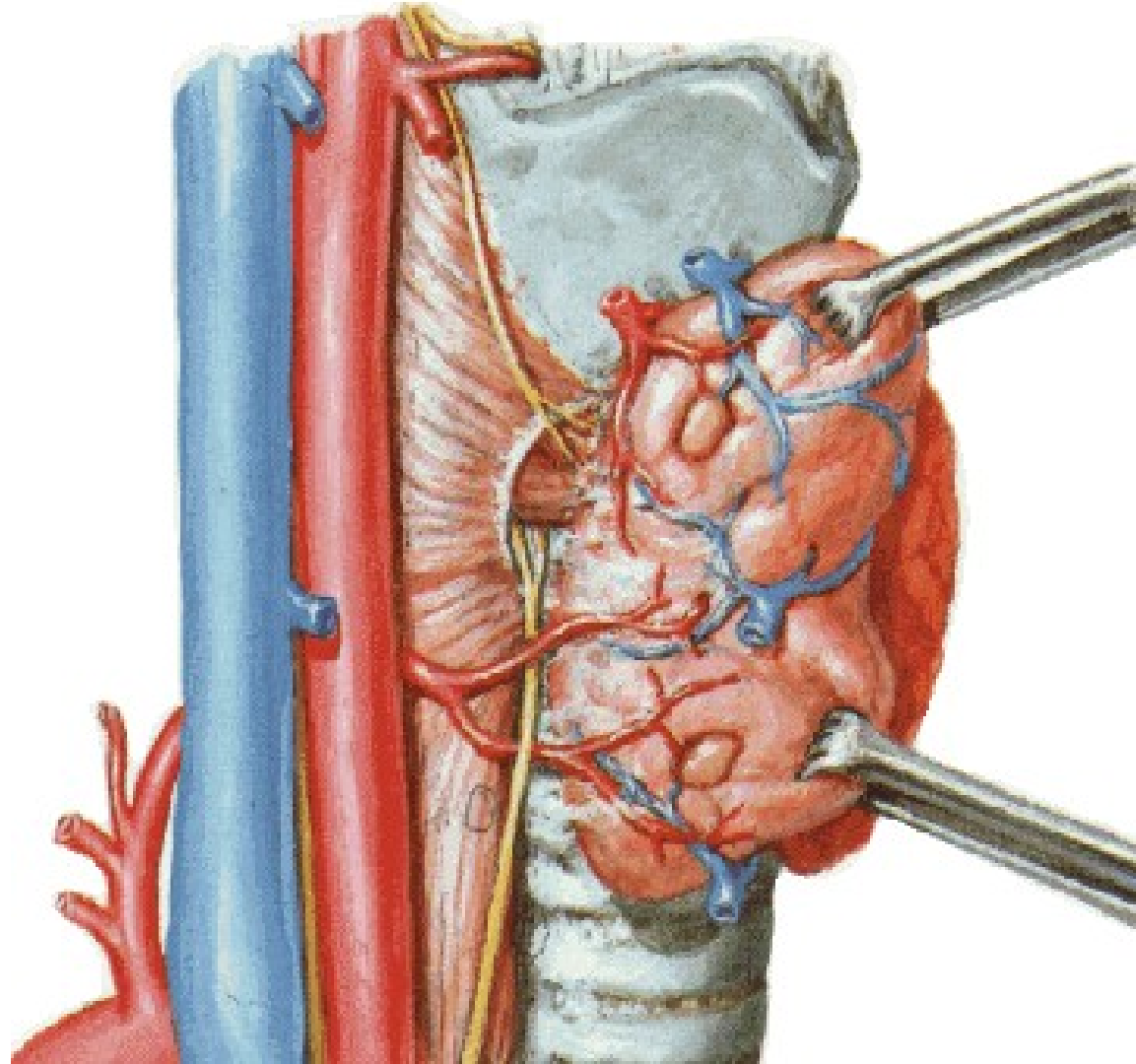
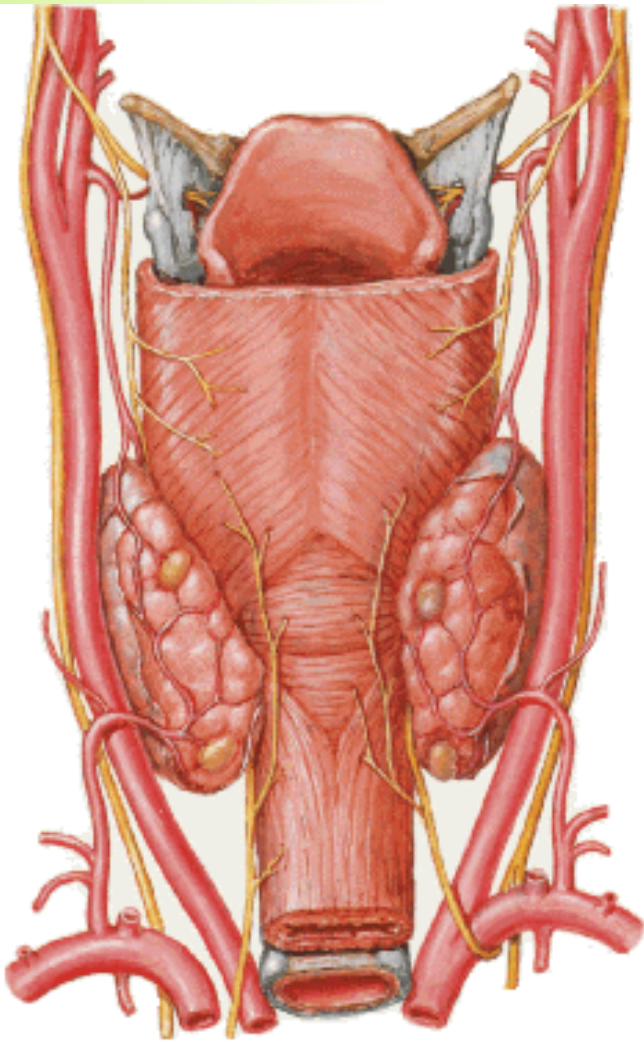


Capsula propria, folliculi, colloid – thyroid hormone, calcitonin
Fascia externa s. perithyroidea

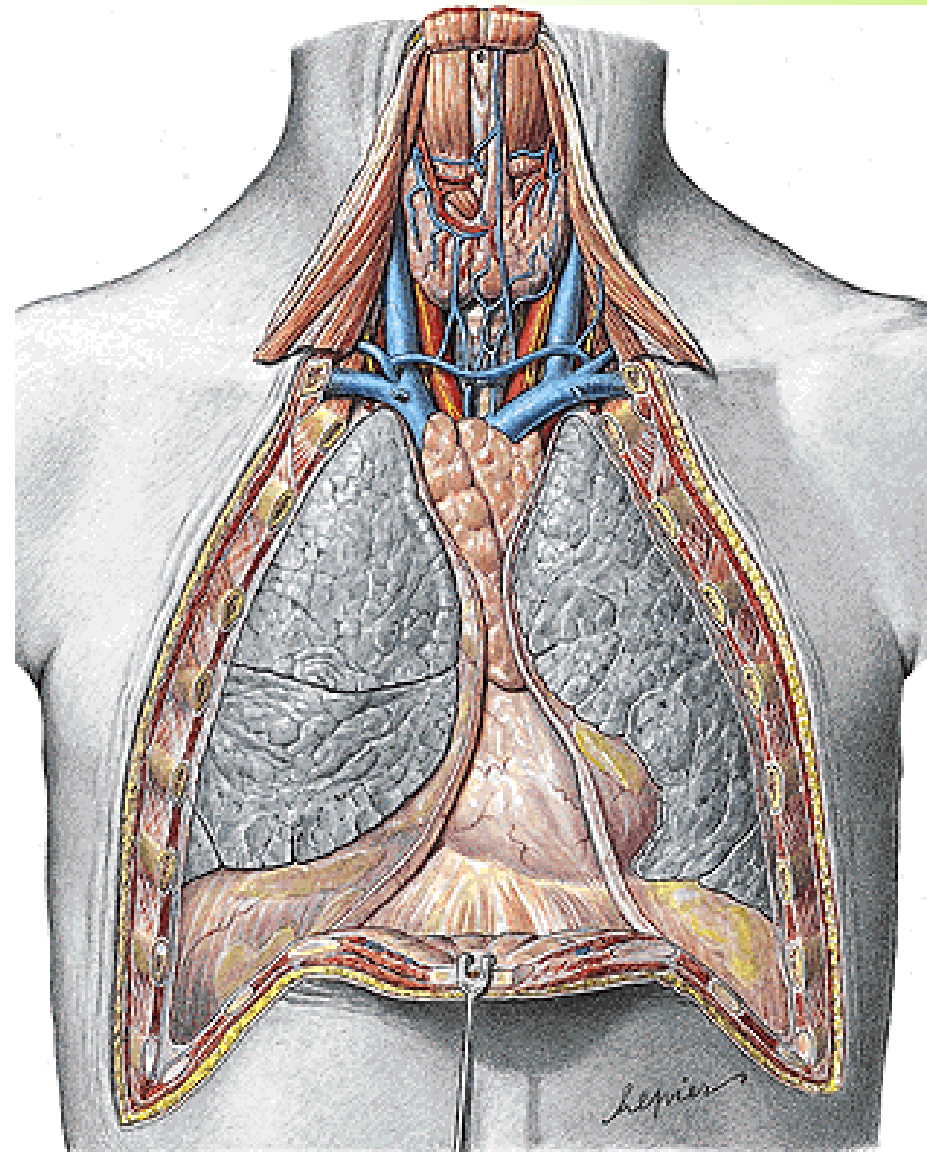
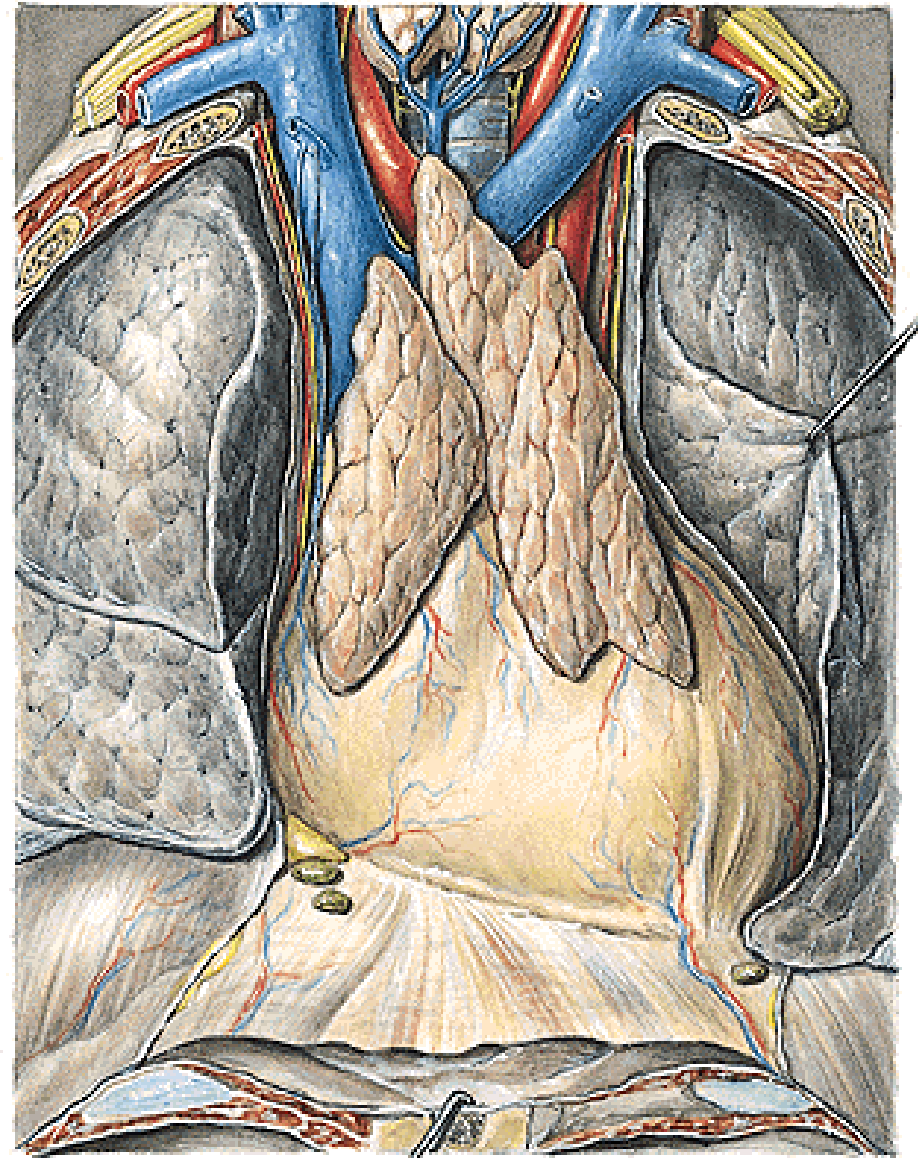


**A. et v. thyroidea sup. et inf., a. thyroidea ima,
nll. cervicales prof., nll. paratracheales**

GLANDULAE PARATHYROIDEAE –sup. et inf. Parathormone (parathyroid hormone; PTH)

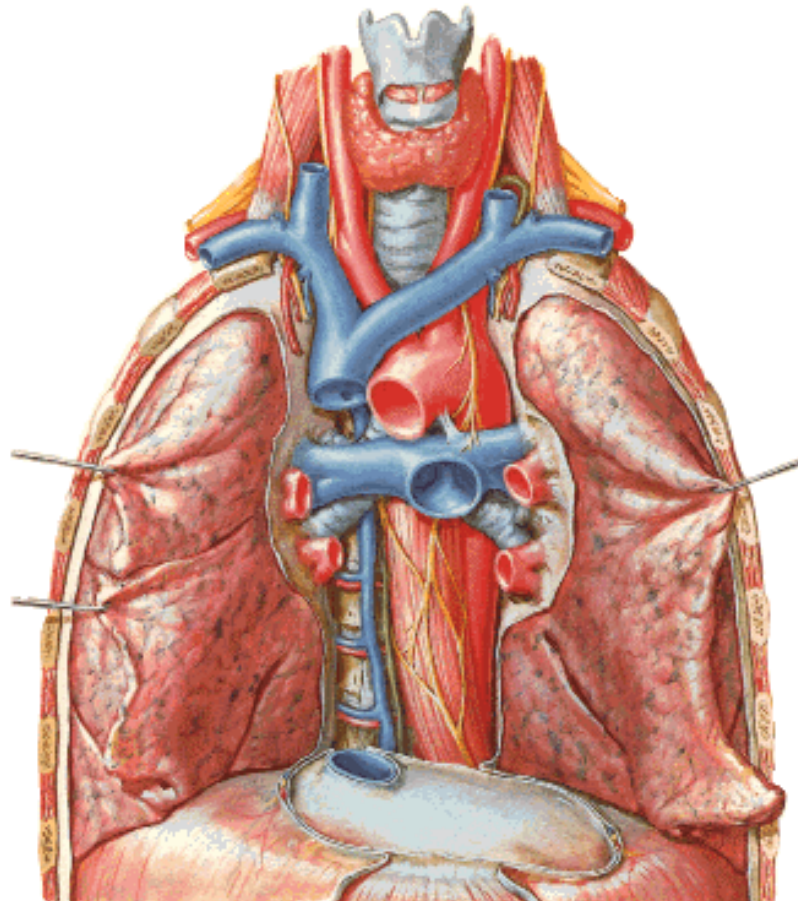
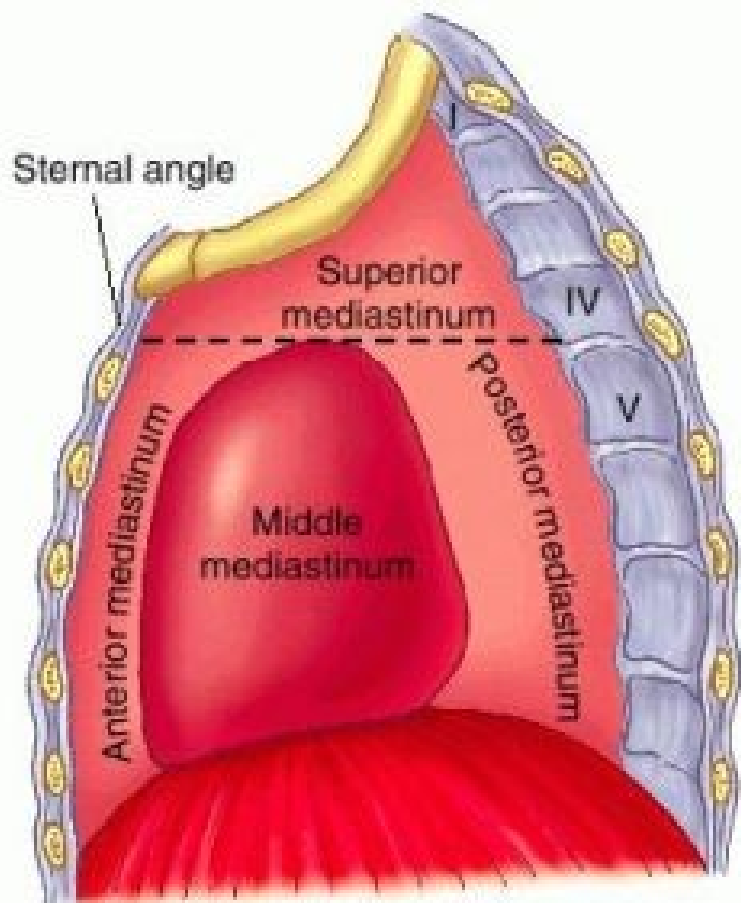
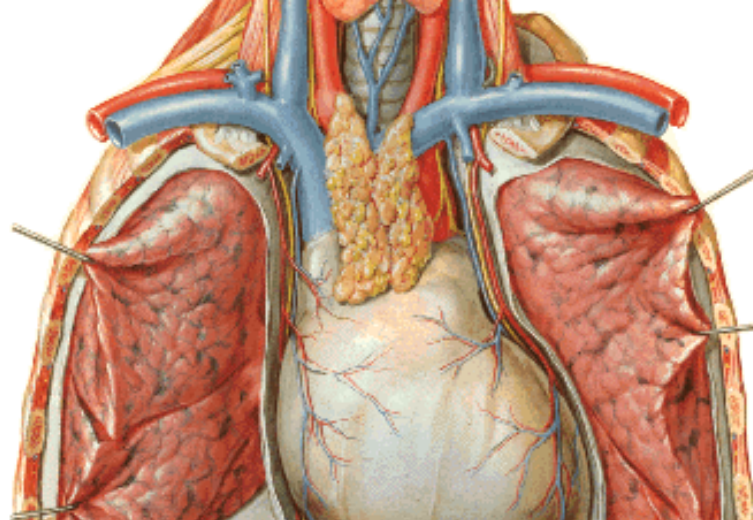


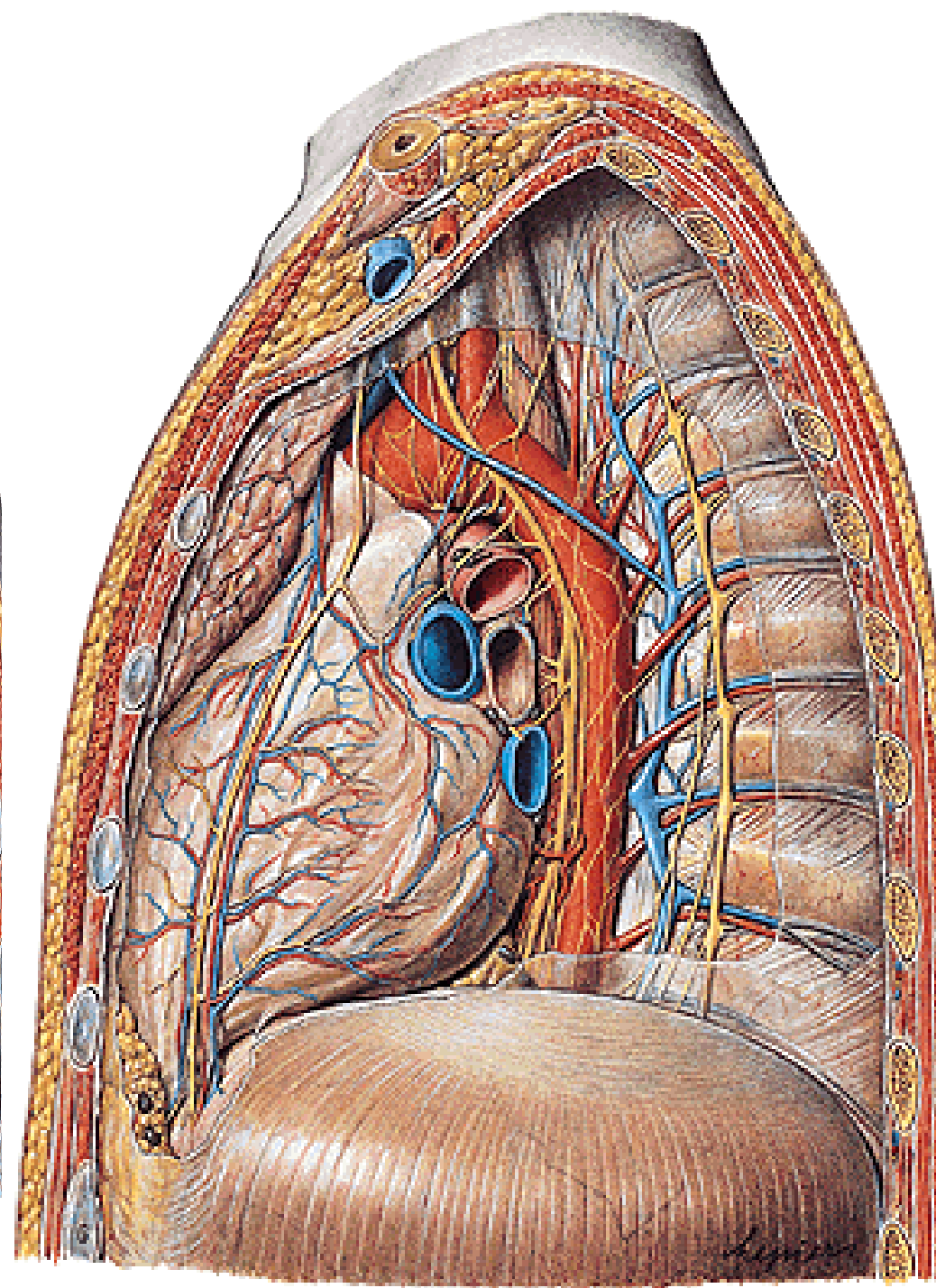
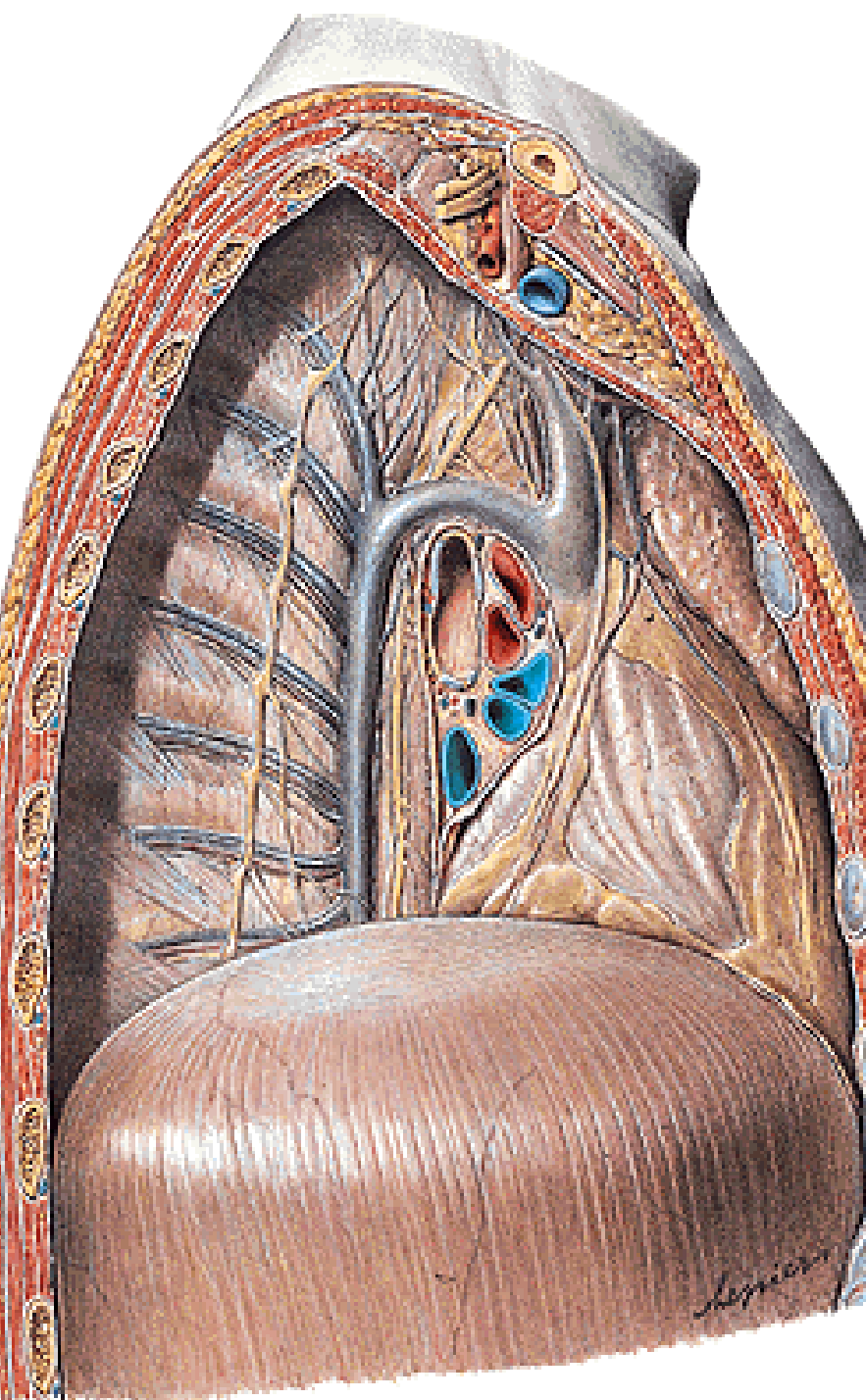
THYMUS

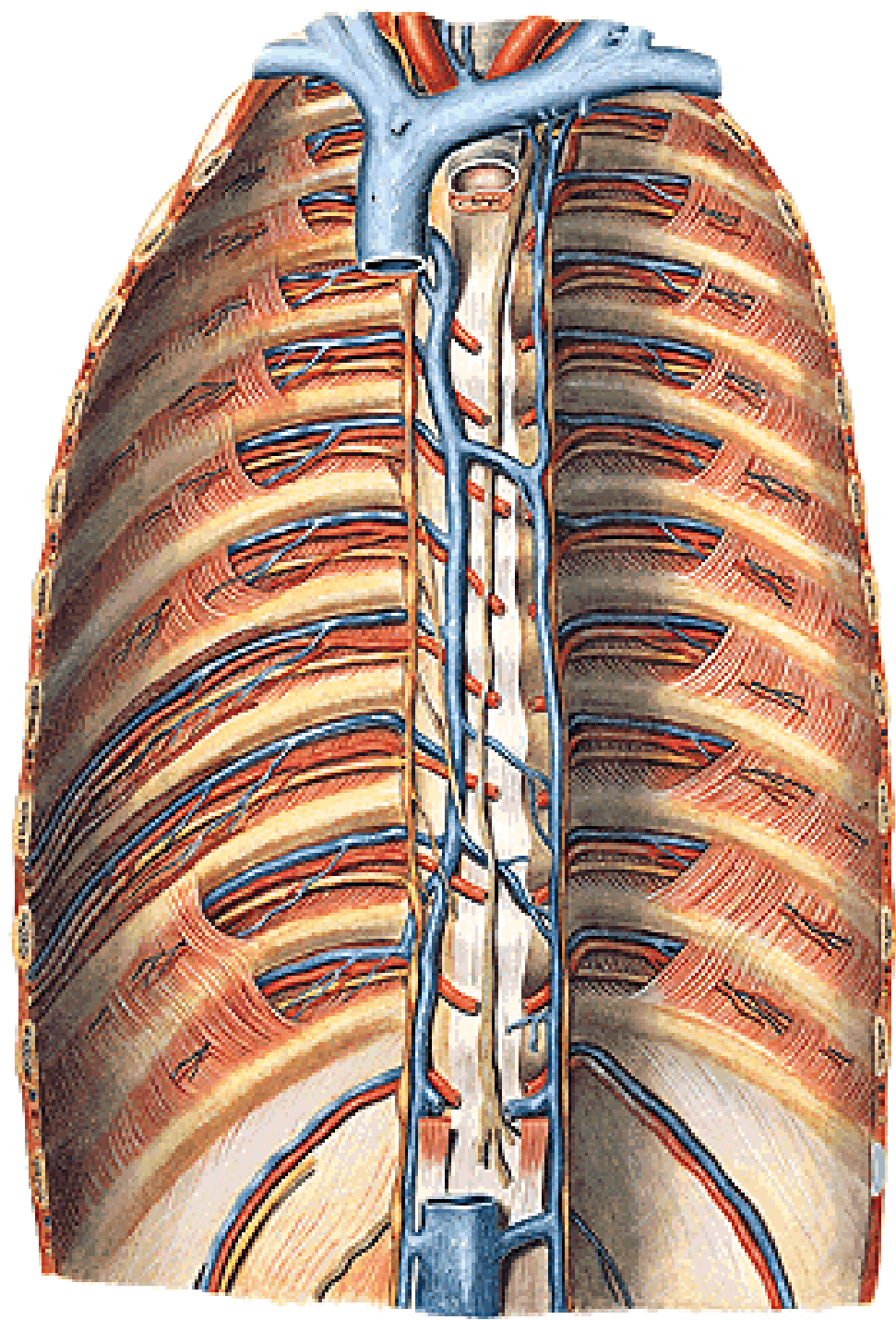
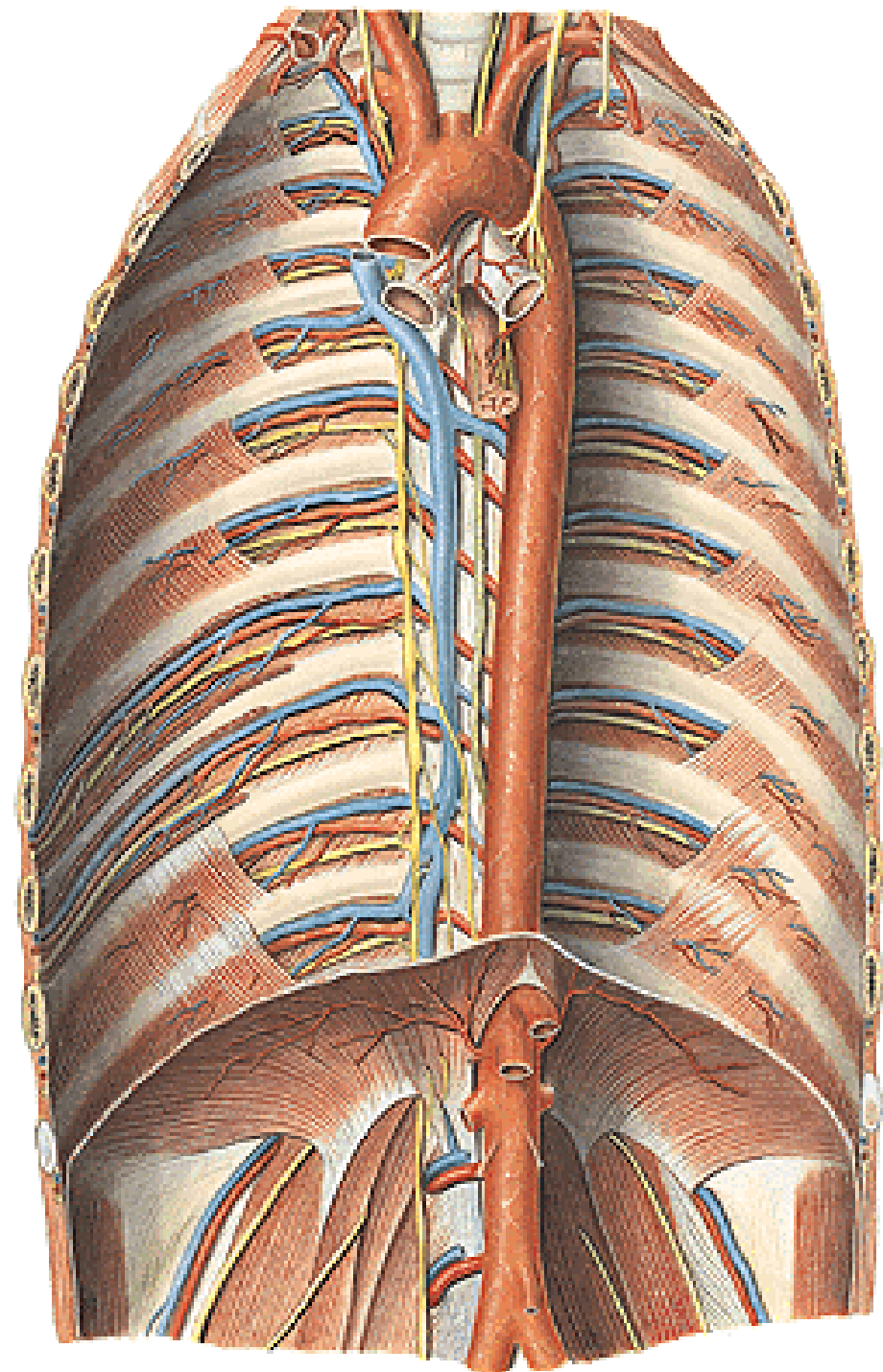


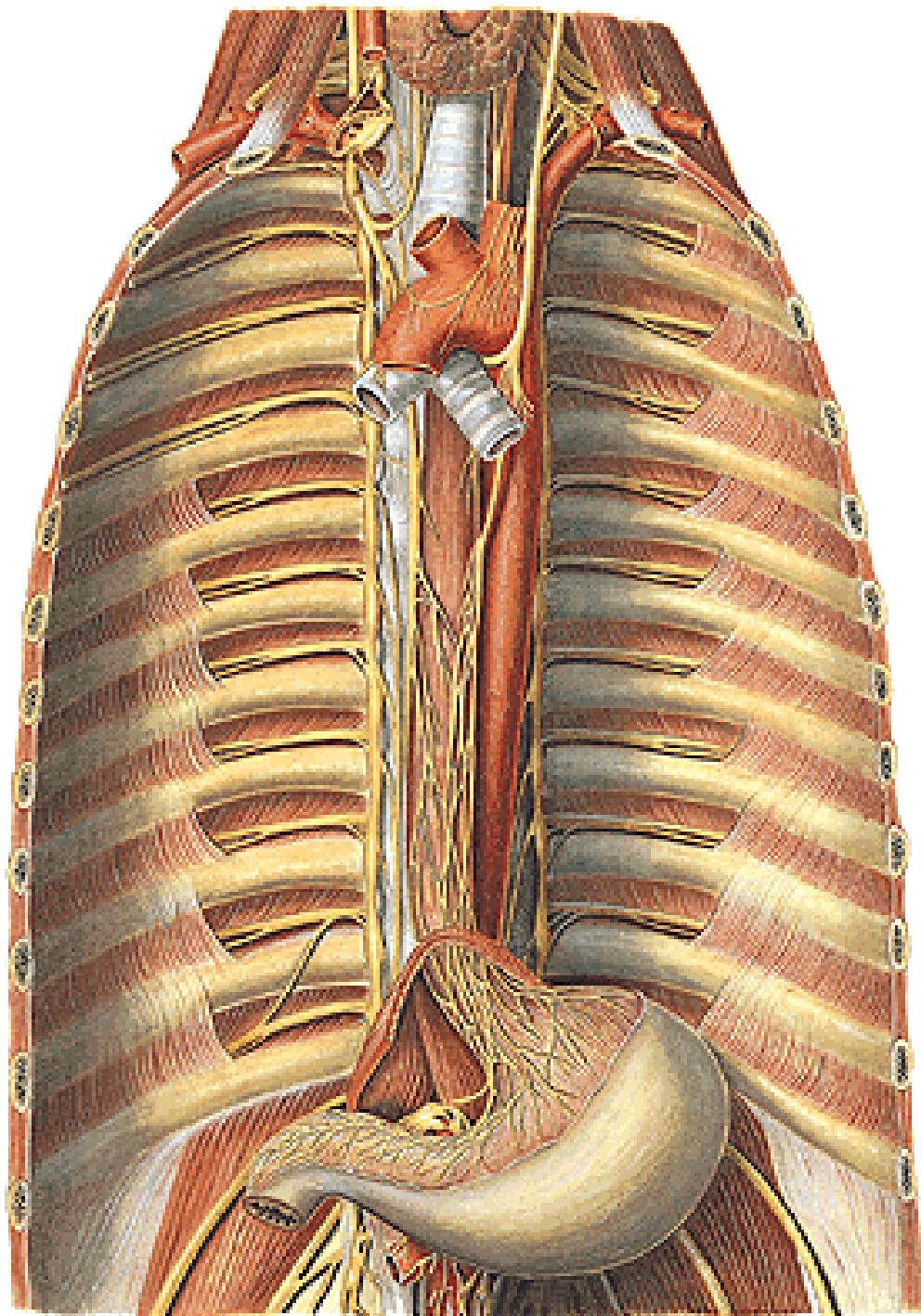
MEDIASTINUM

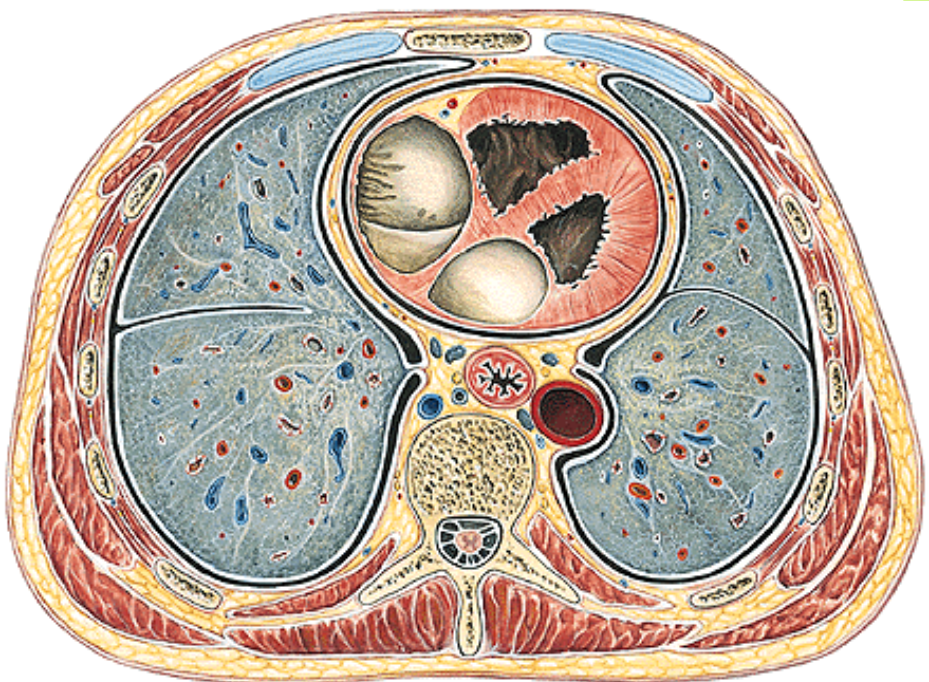
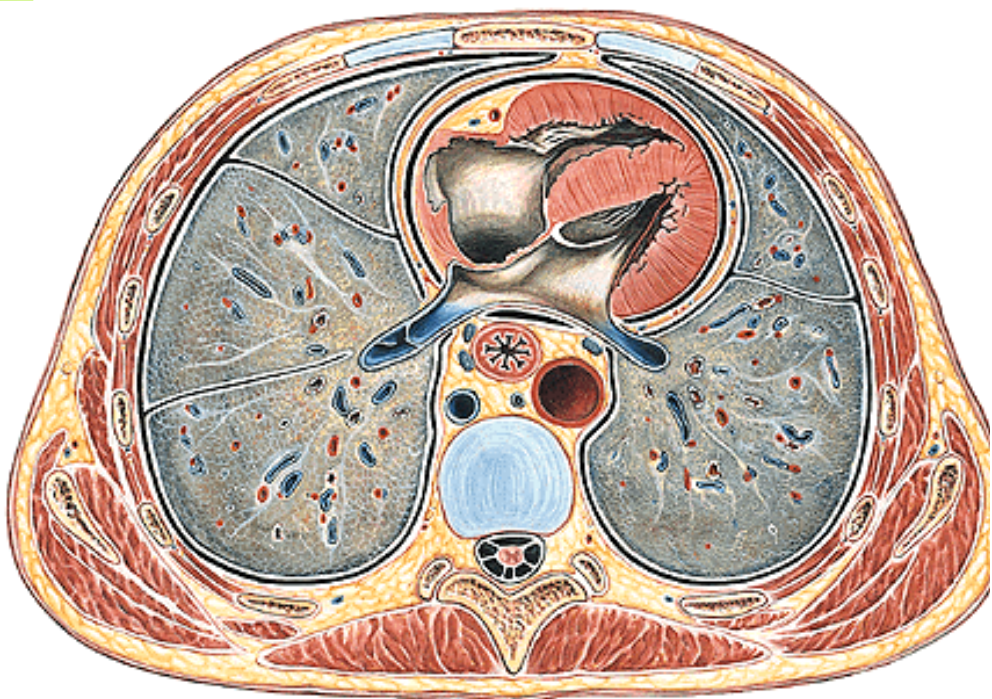
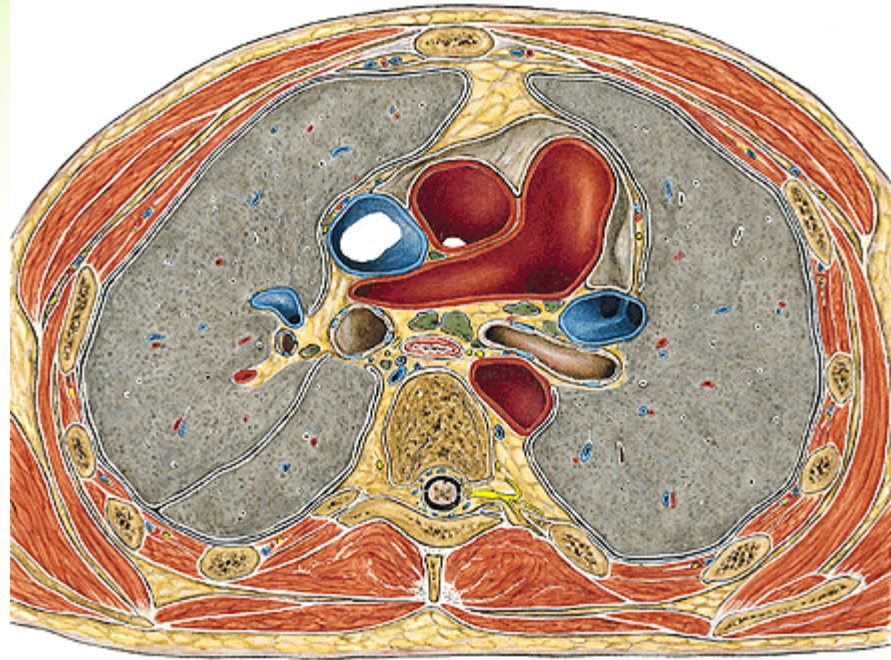
- superius
- inferius - anterius
 - medium
 - posterius











MUSCULI THORACIS

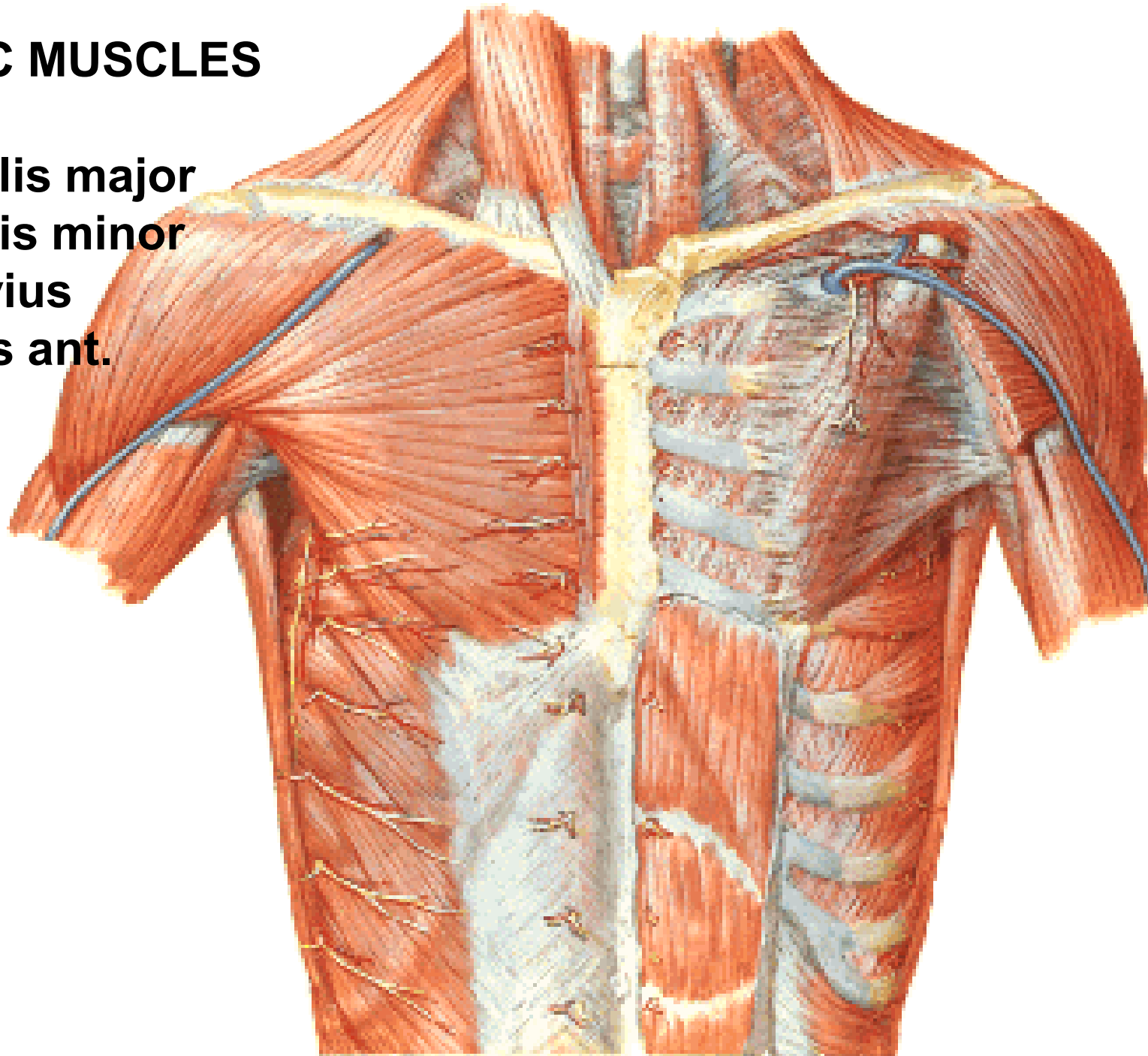
EXTRINSIC MUSCLES

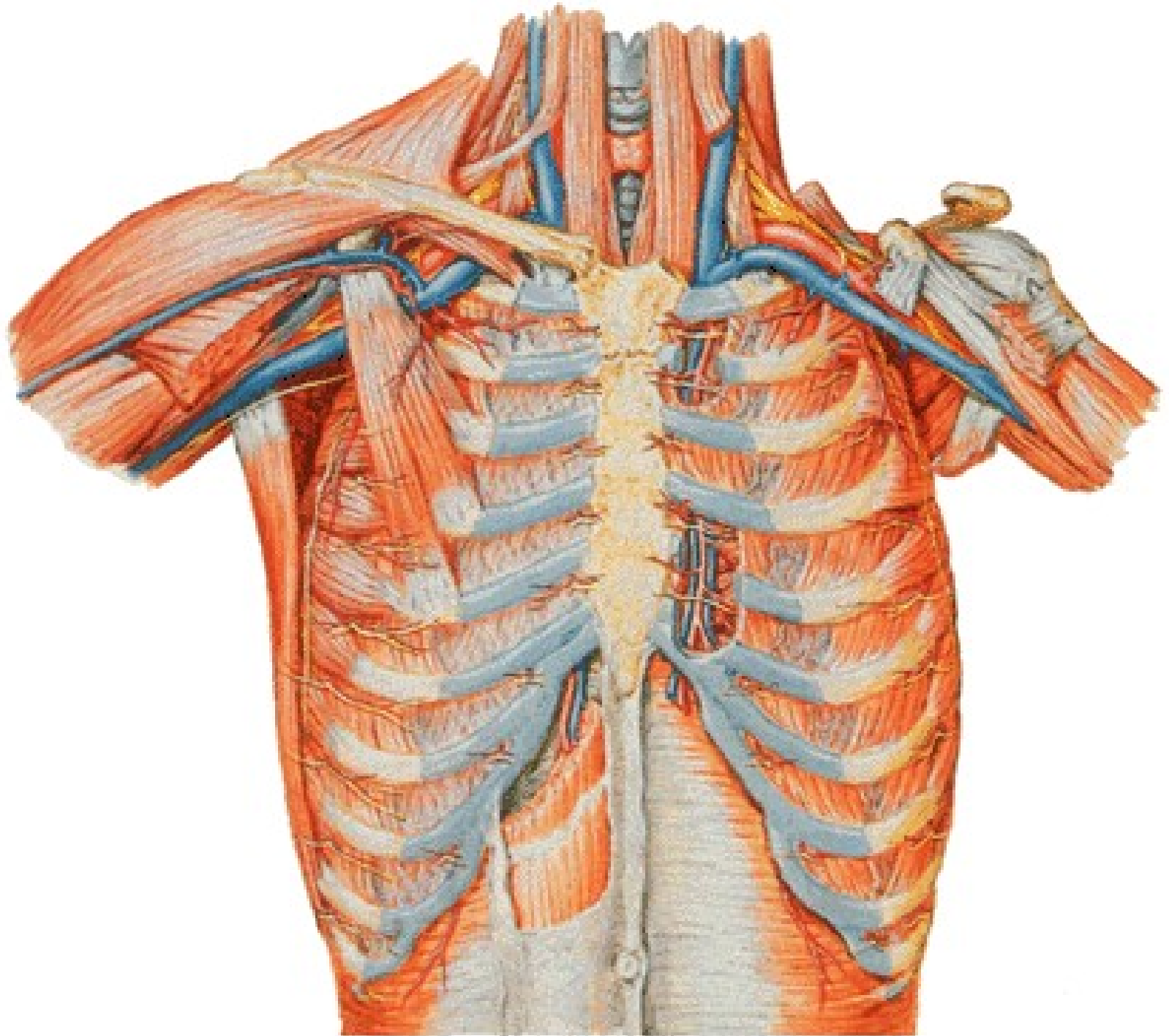
M. pectoralis major

M. pectoralis minor

M. subclavius

M. serratus ant.





INTRINSIC MUSCLES

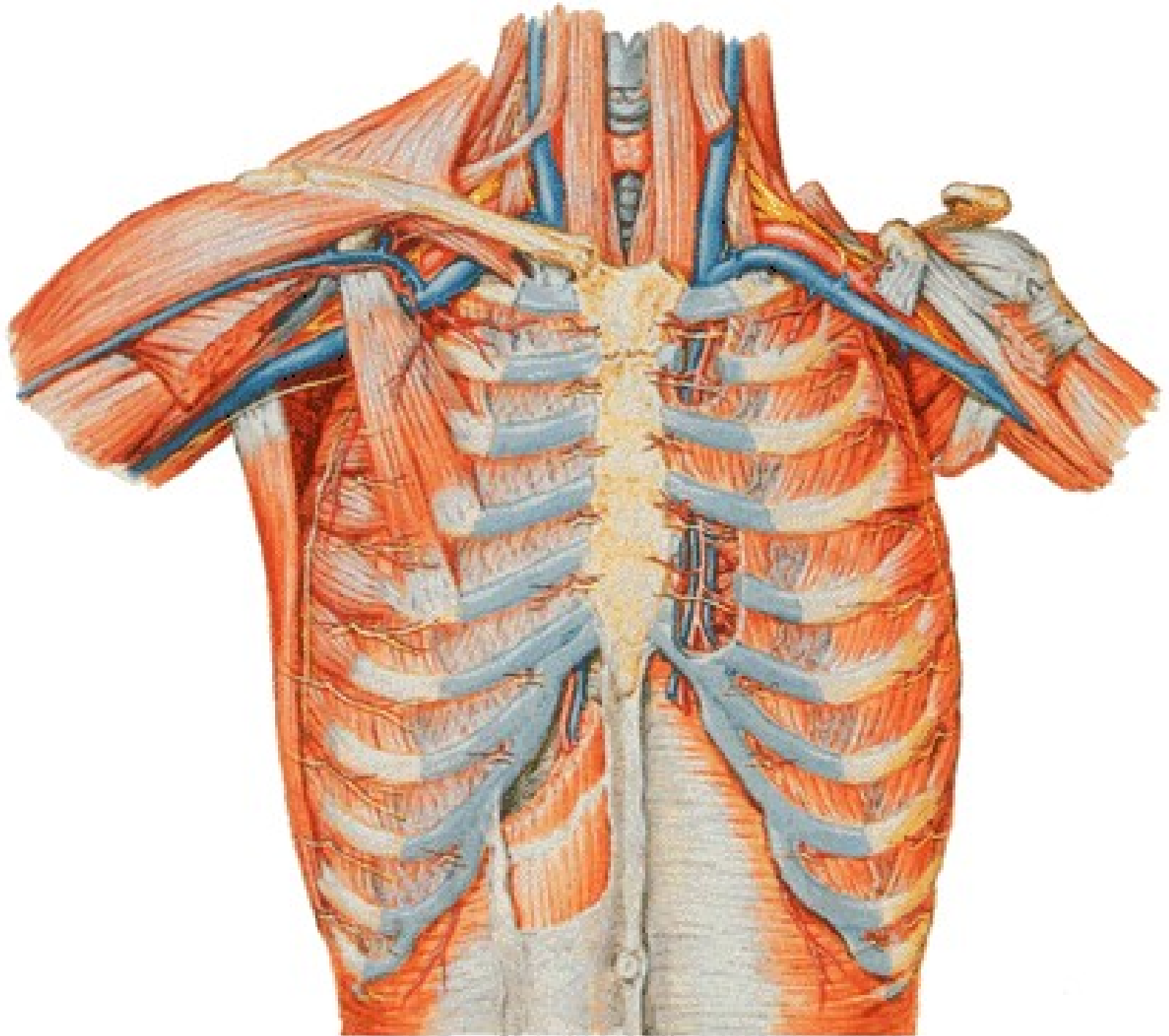
M. intercostales externi

M. intercostales interni

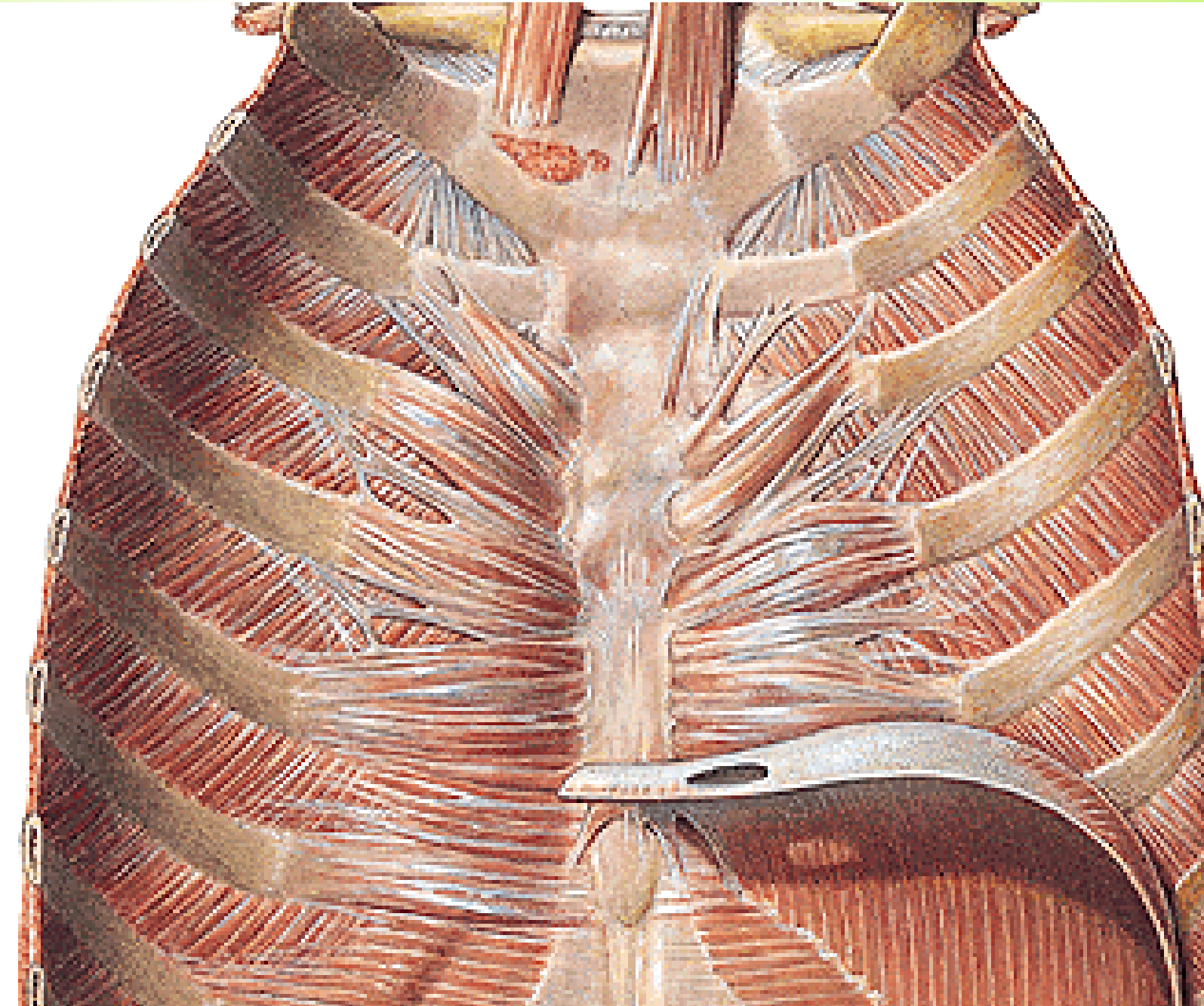
M. intercostales intimi

M. subcostales





M. transversus thoracis



DIAPHRAGM

Centrum tendineum

- foramen VCI

Pars sternalis

Pars costalis

Pars lumbalis

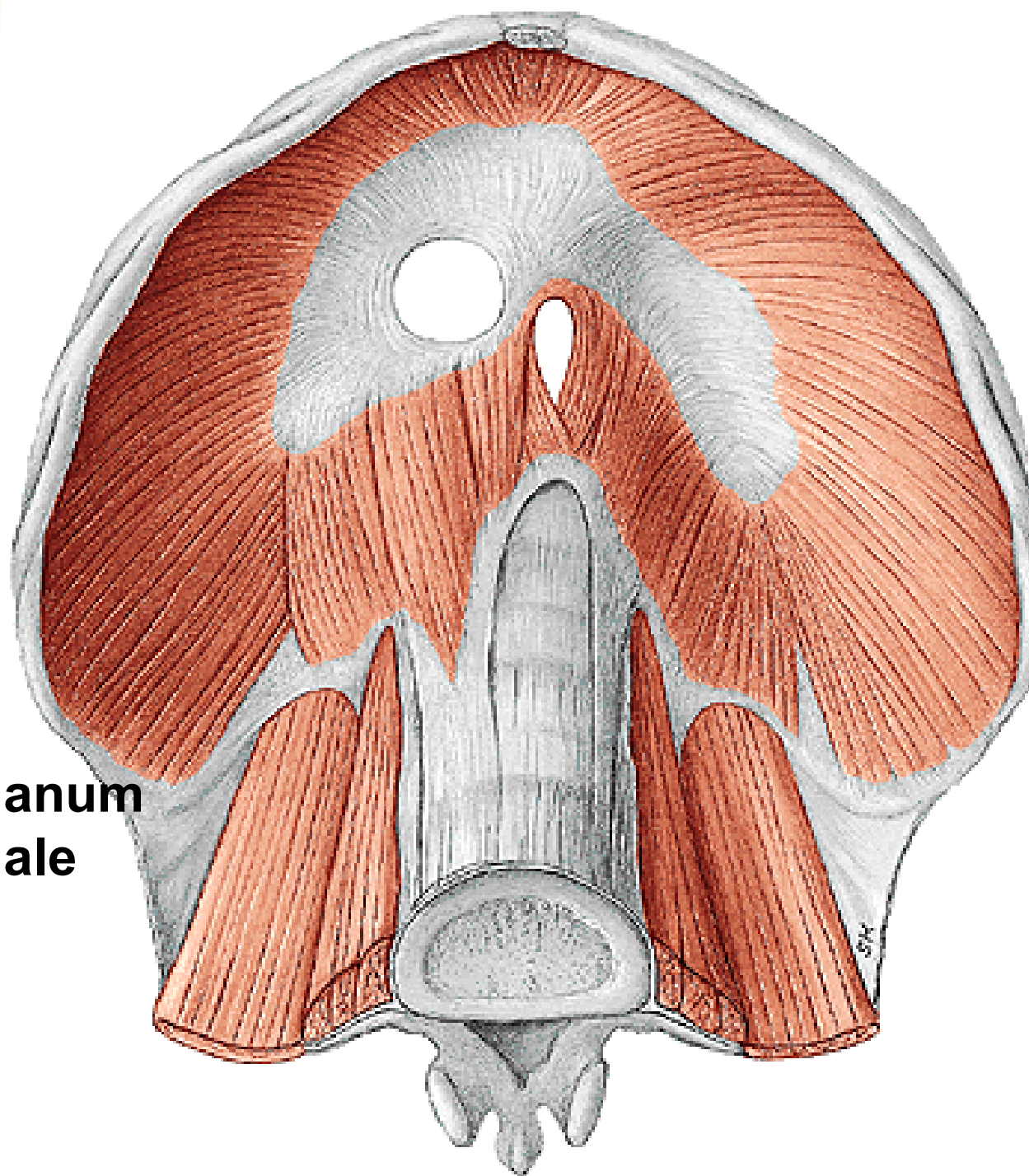
- crus dextrum

- crus sinistrum

- lig. arcuatum medianum

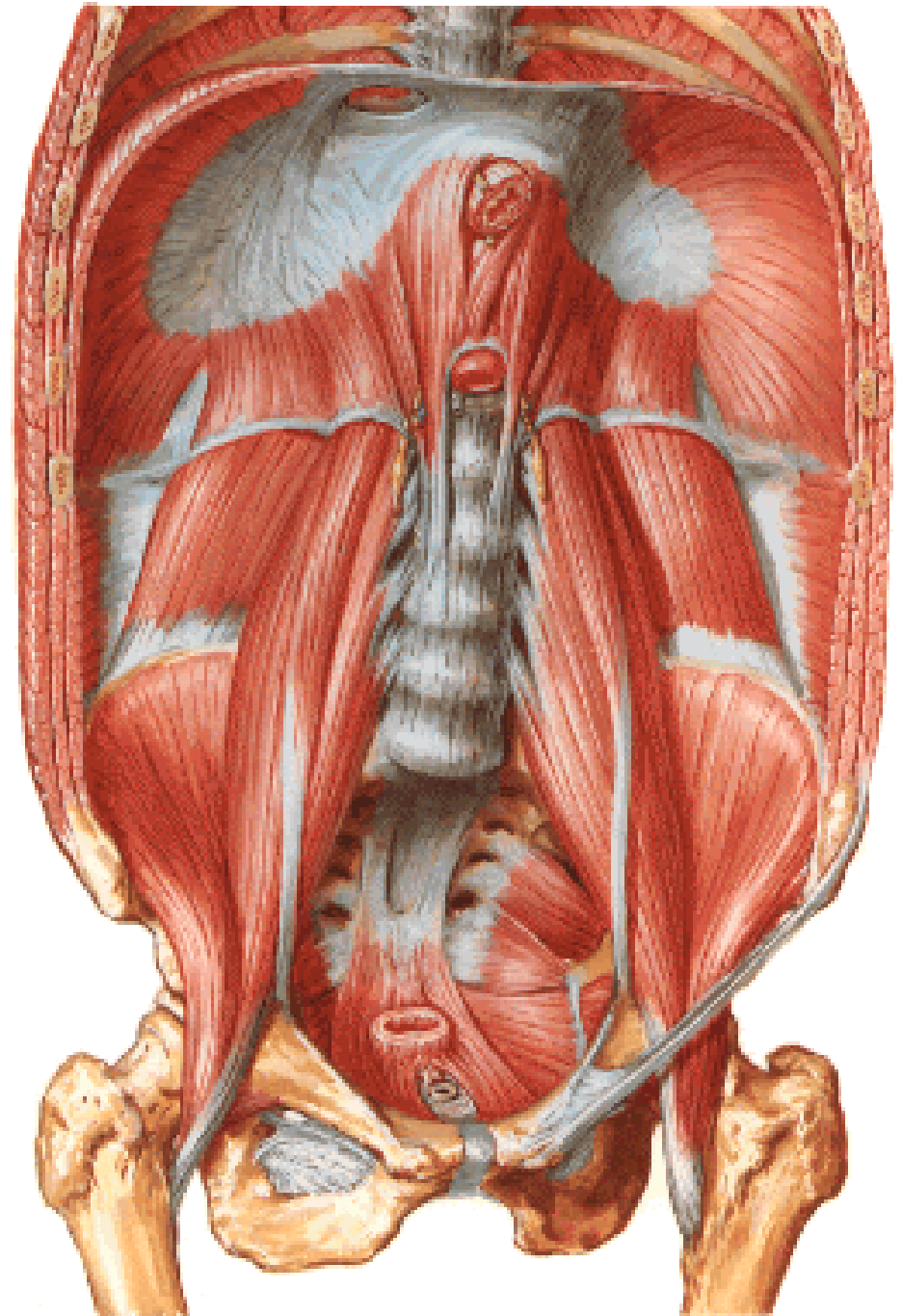
- lig. arcuatum mediale

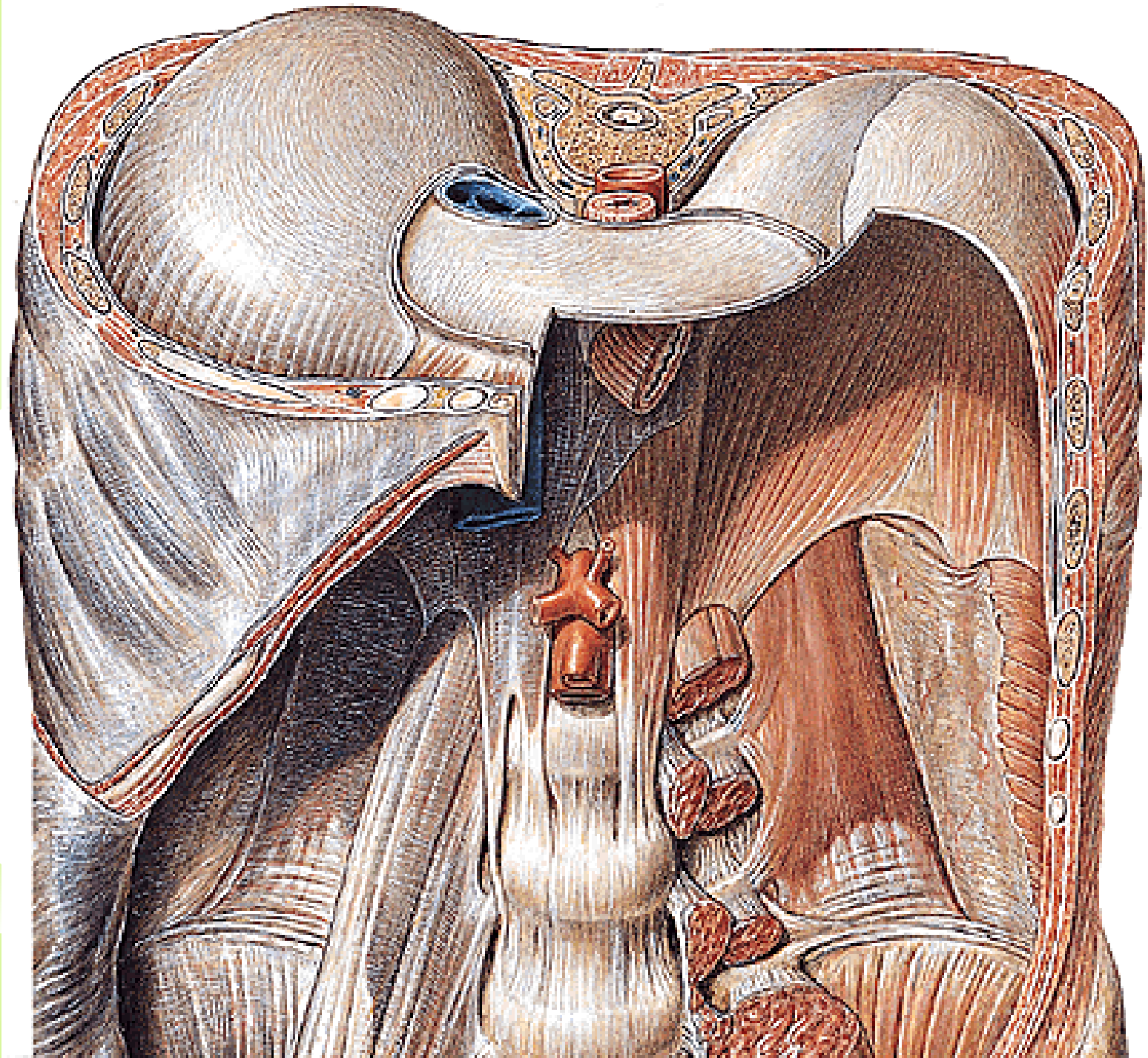
- lig. arcuatum lat.



Hiatus esophageus

Hiatus aorticus





**Illustrations and photographs were copied from:
Atlas der Anatomie des Menschen/Sobotta.
Putz,R., und Pabst,R. 20. Auflage. München:
Urban & Schwarzenberg, 1993
Netter: Interactive Atlas of Human Anatomy.
Windows Version 2.0**