

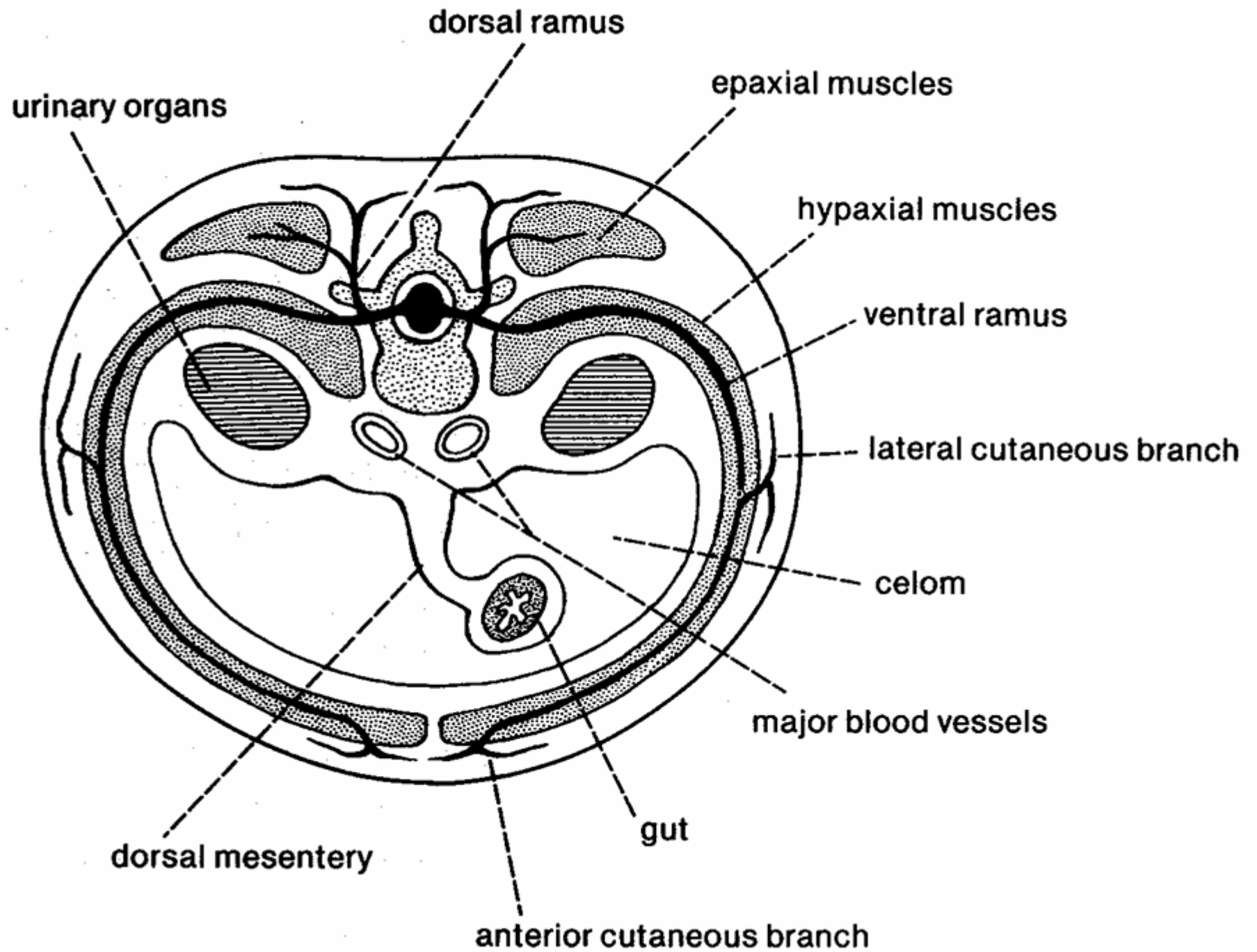
Biology 223

Human Anatomy and Physiology I

Week 5; Lecture 2; Wednesday

Dr. Stuart S. Sumida

Axial Musculature



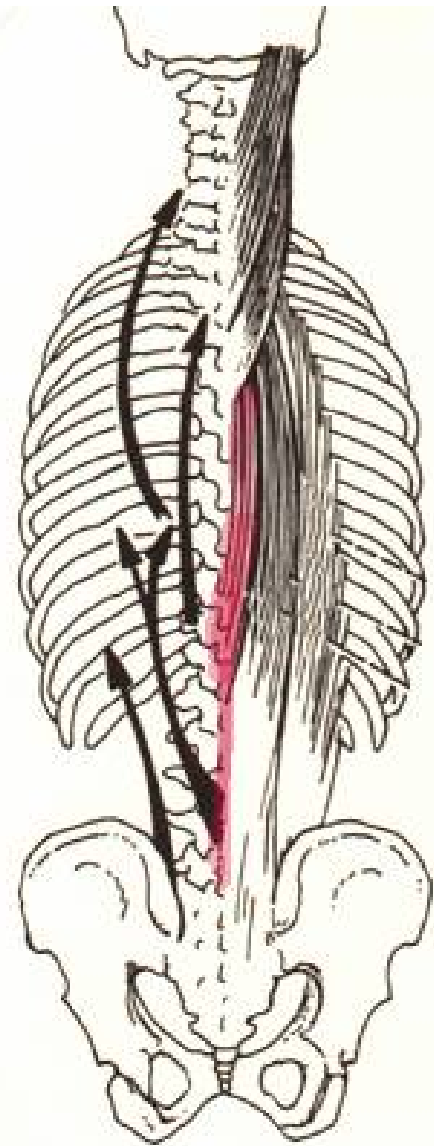
Superficial Layer

Erector Spinae

Origin = sacrum/iliac crest

Spinalis

Insertion = spinous
processes



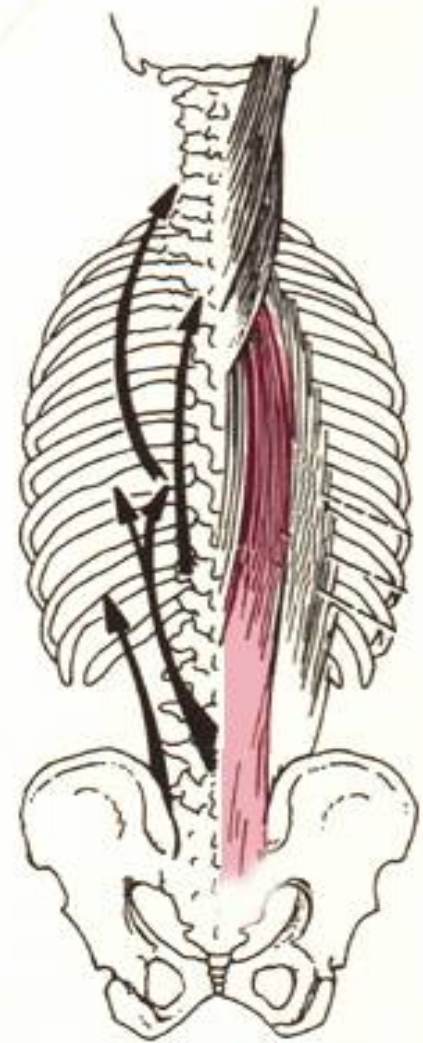
Superficial Layer

Erector Spinae

Origin = sacrum/iliac crest

Longissimus

Insertion = transverse processes



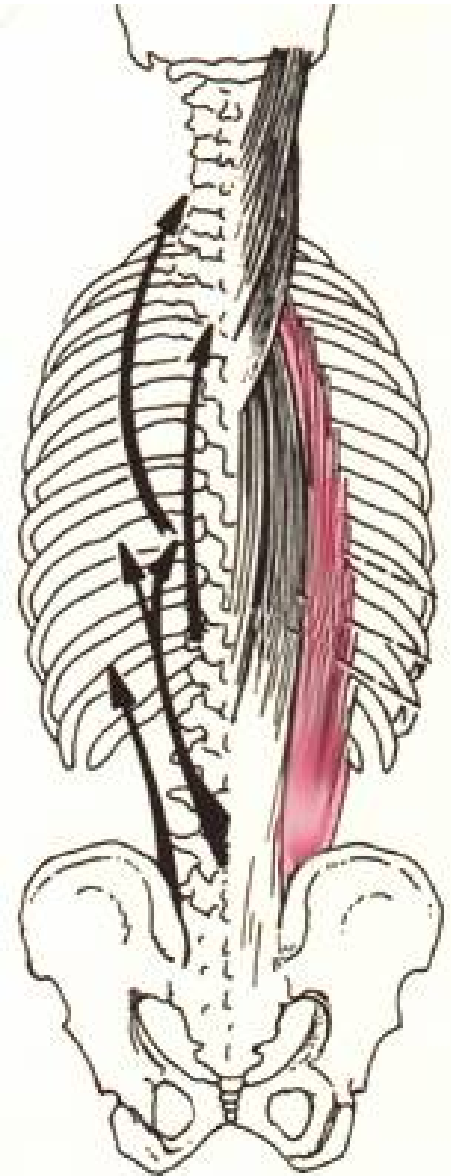
Superficial Layer

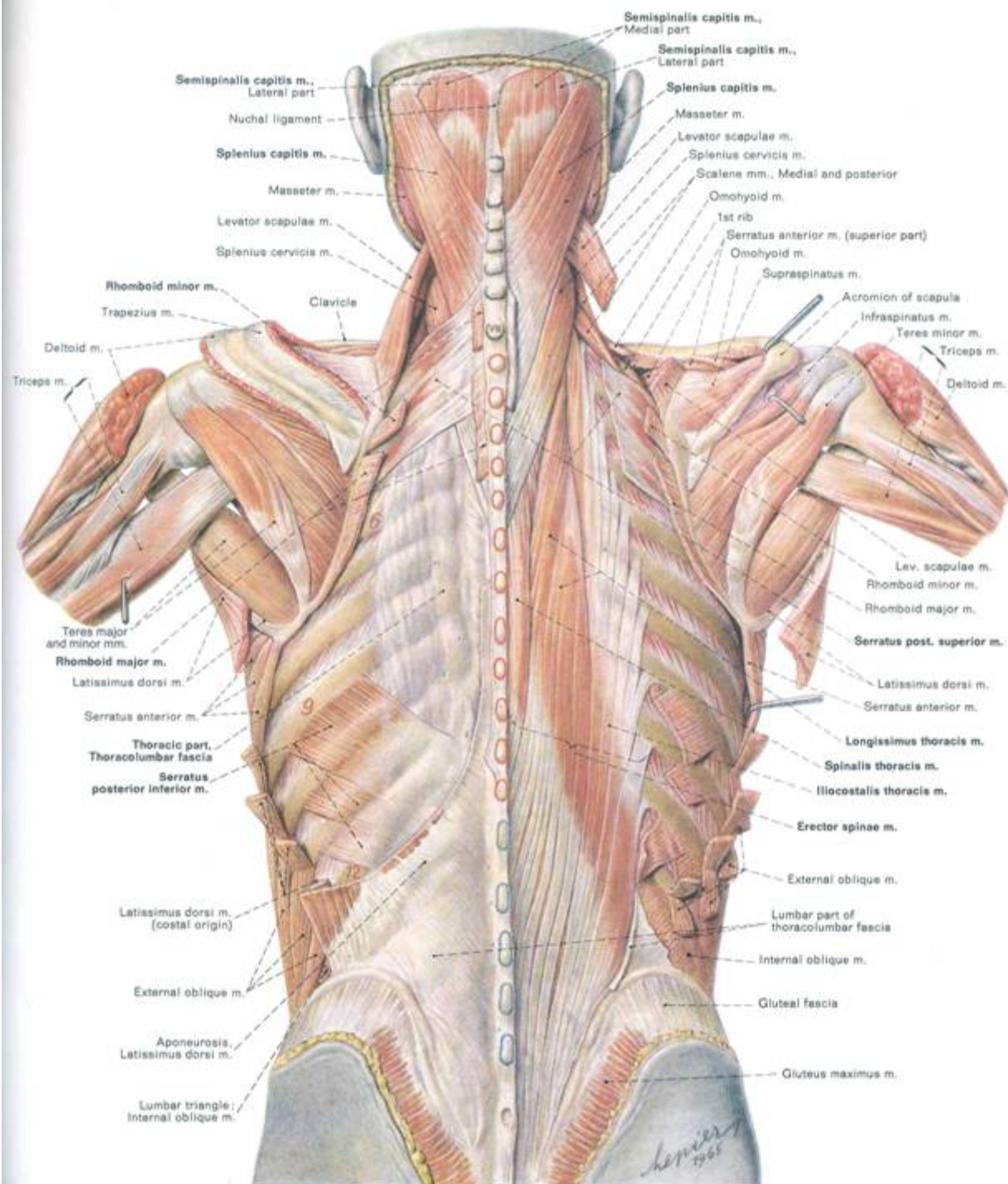
Erector Spinae

Origin = sacrum/iliac crest

Iliocostalis

Insertion = ribs



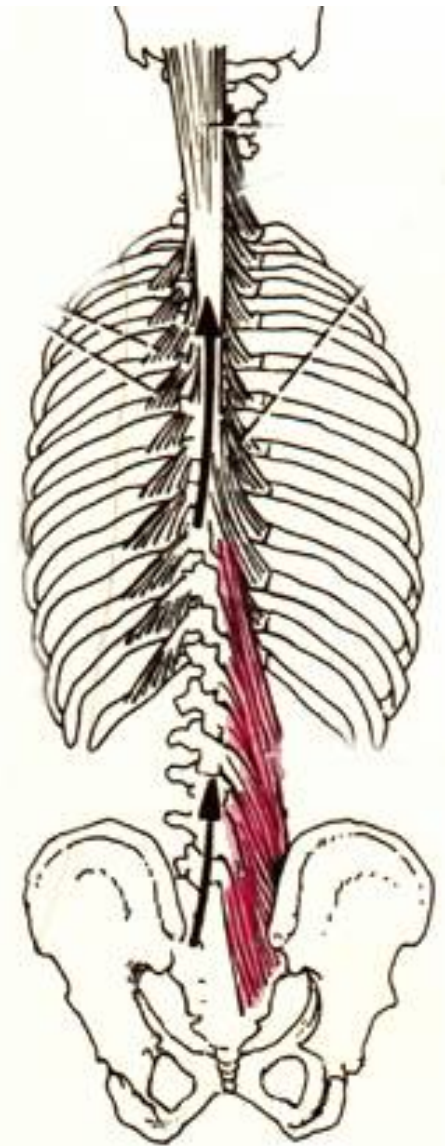


Intermediate Layer

Multifidus

Origin = sacrum/iliac crest

Insertion = spinous processes



Intermediate Layer

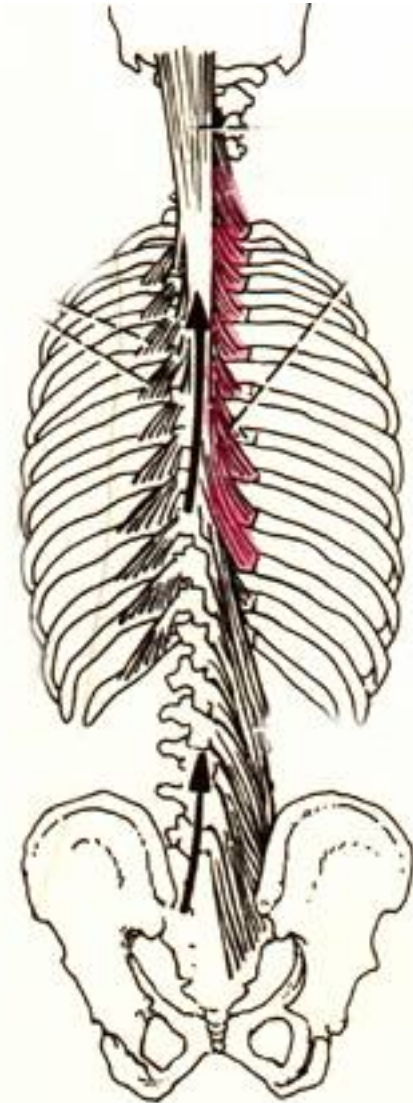
Semispinalis

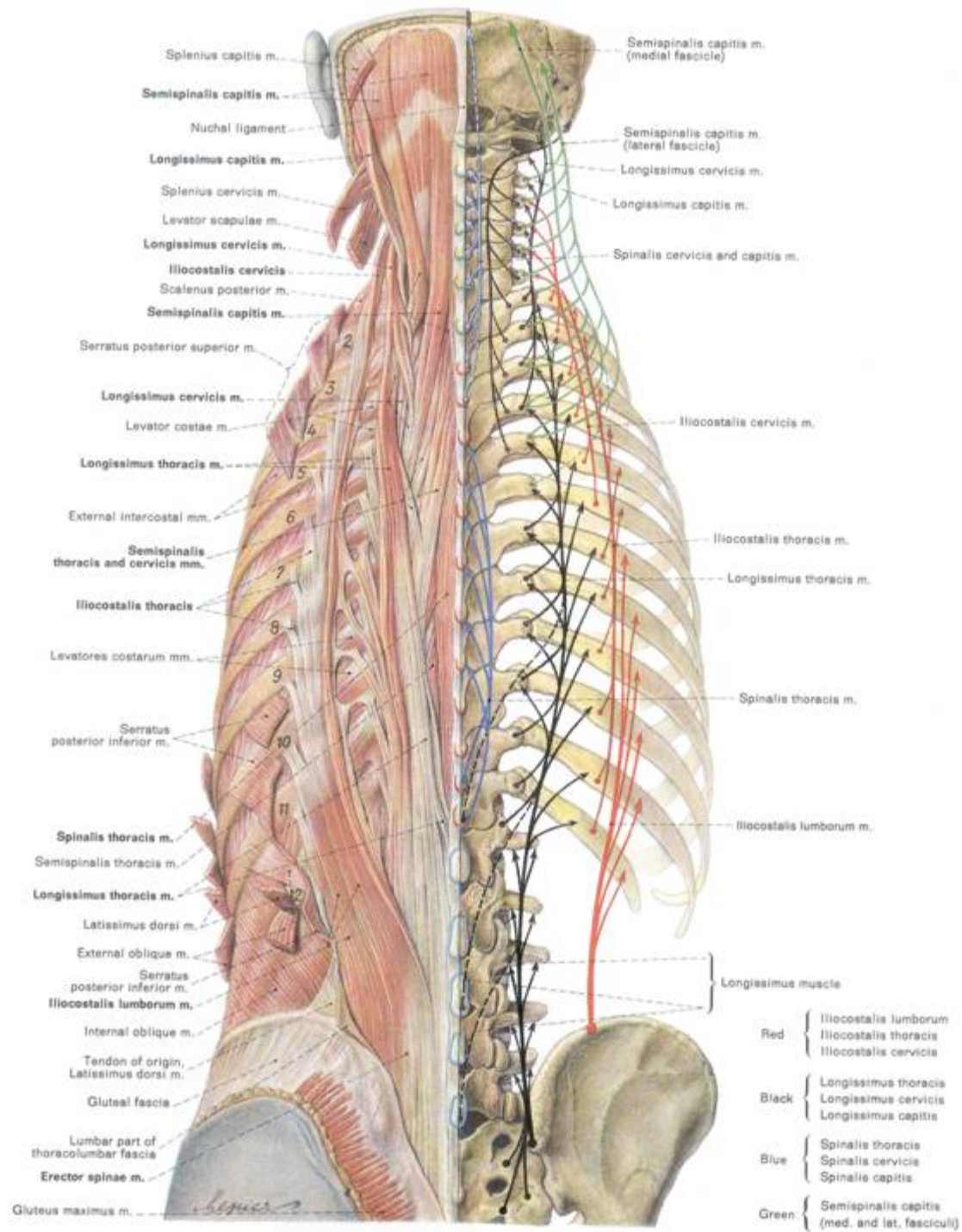
Origin = transverse processes

Insertion = spinous processes

Semispinalis has regional designations:

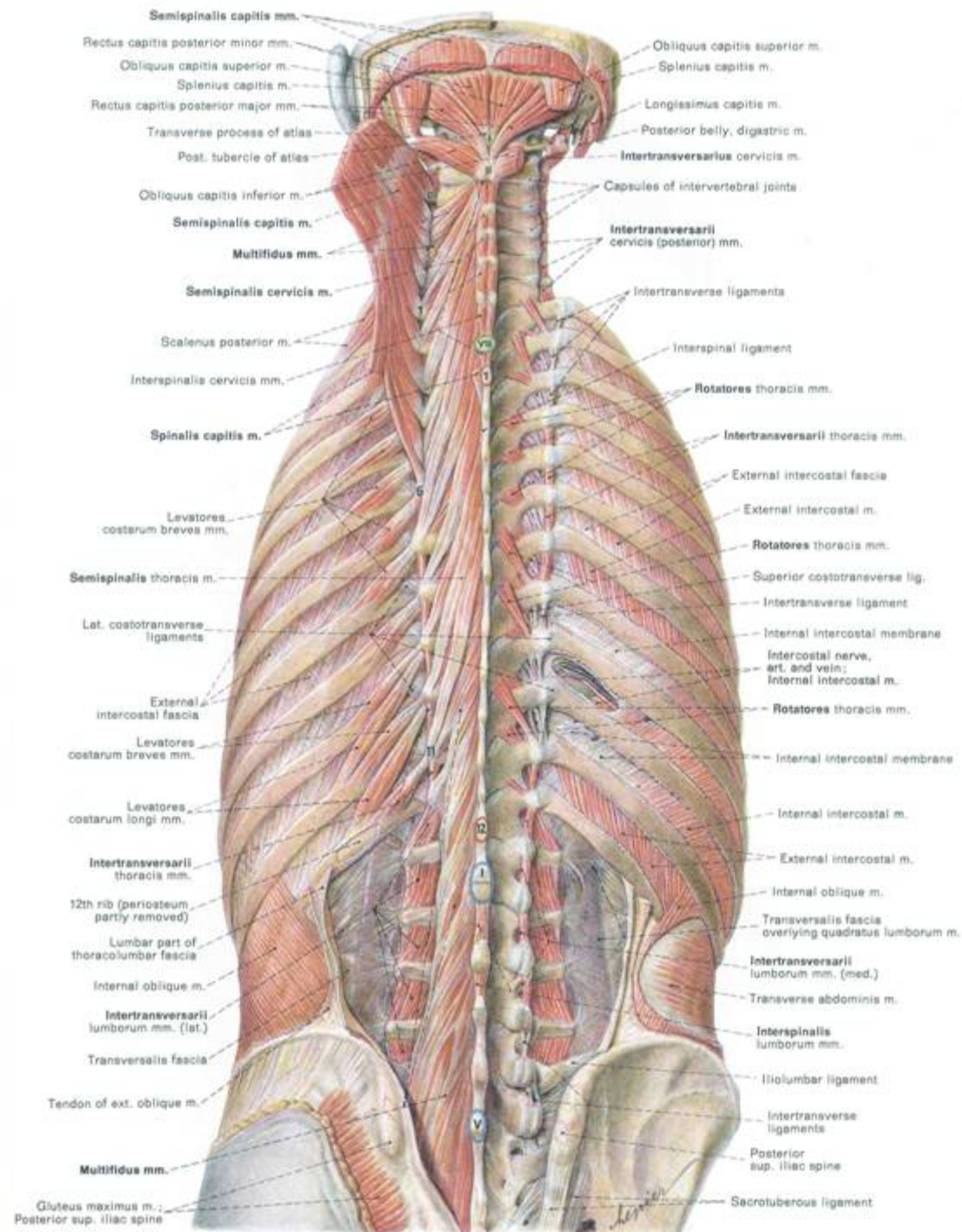
- Semispinalis capitus (head)
- Semispinalis cervicis
- Semispinalis thoracis

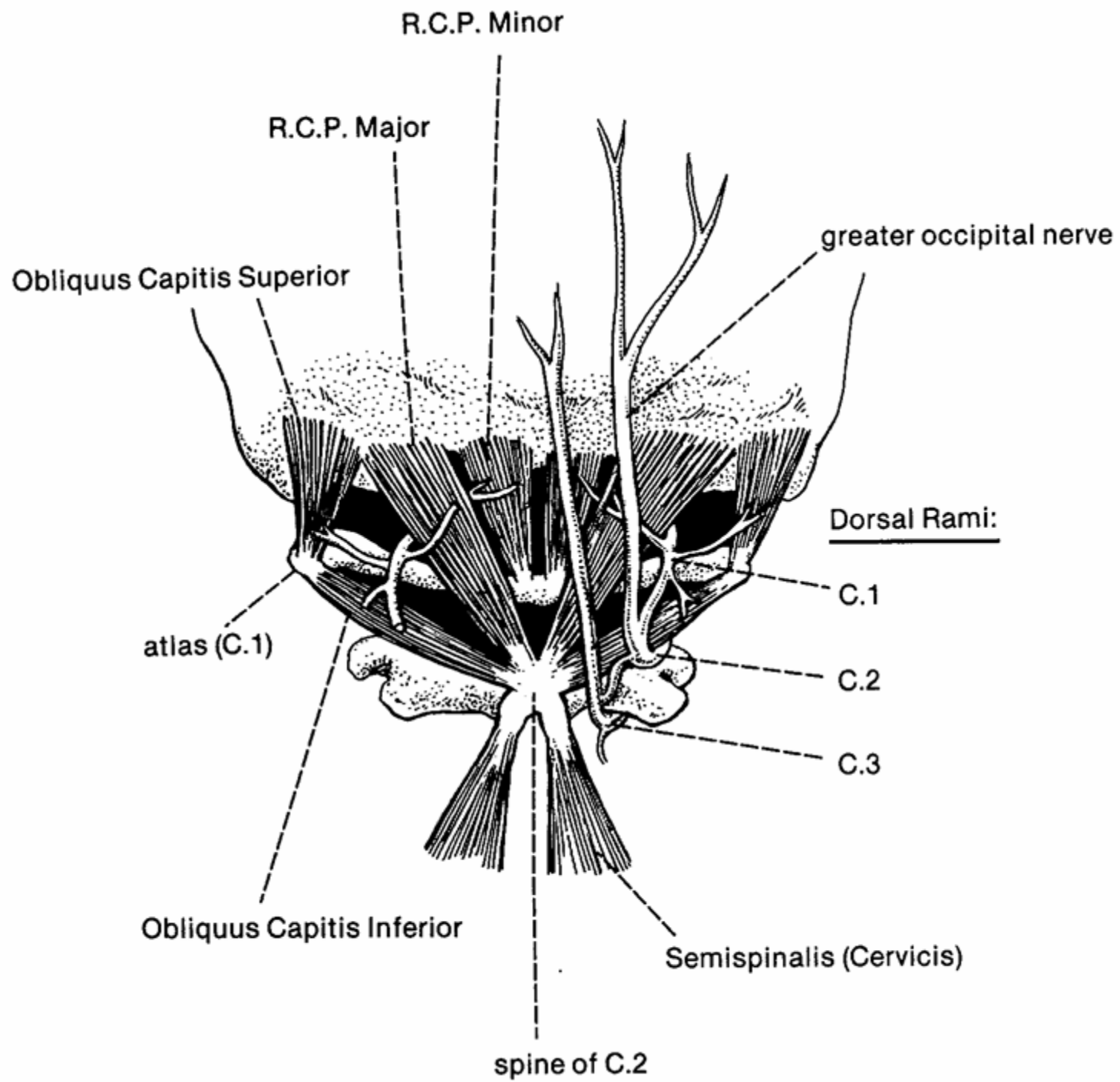




Deep Layer

Short slips of muscle, connecting adjacent vertebrae





Three Divisions

Body Wall

Limbs

Prevertebral

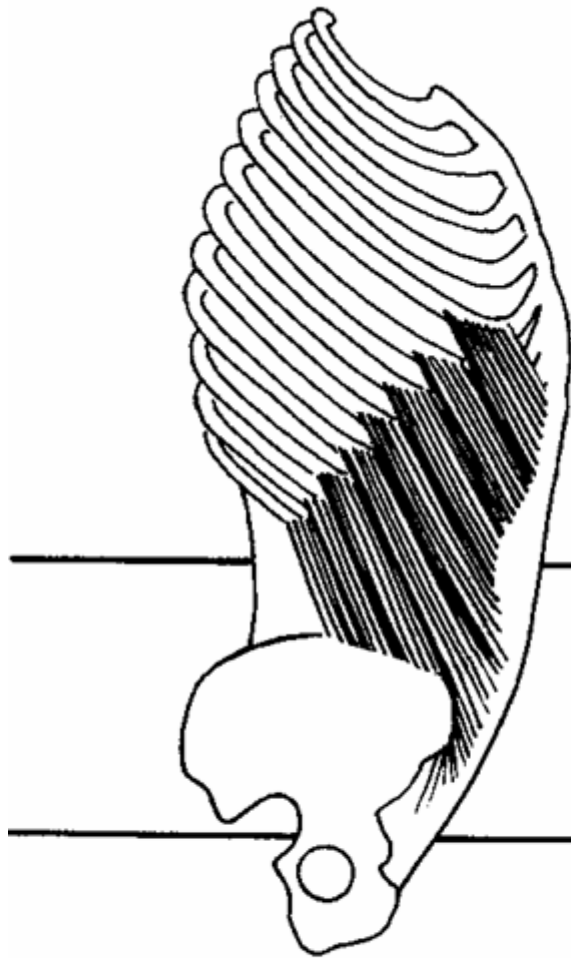
Subdivision of Body Wall Group

Abdominal

Thoracic

Perineal

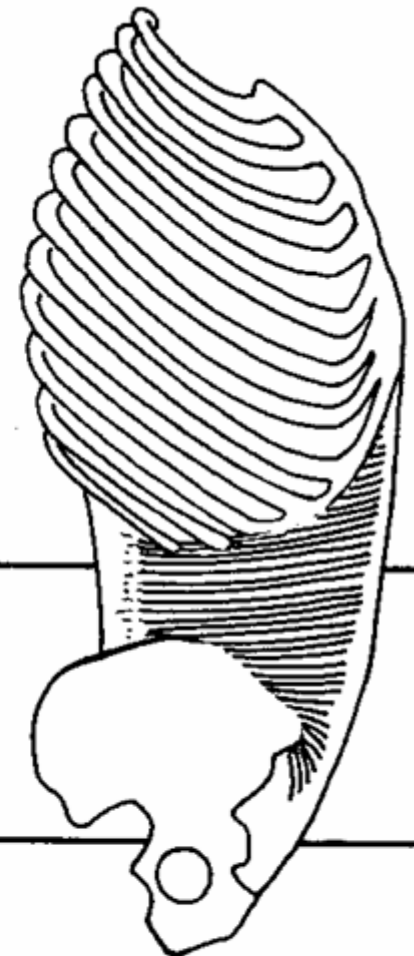
Neck



External Oblique



Internal Oblique



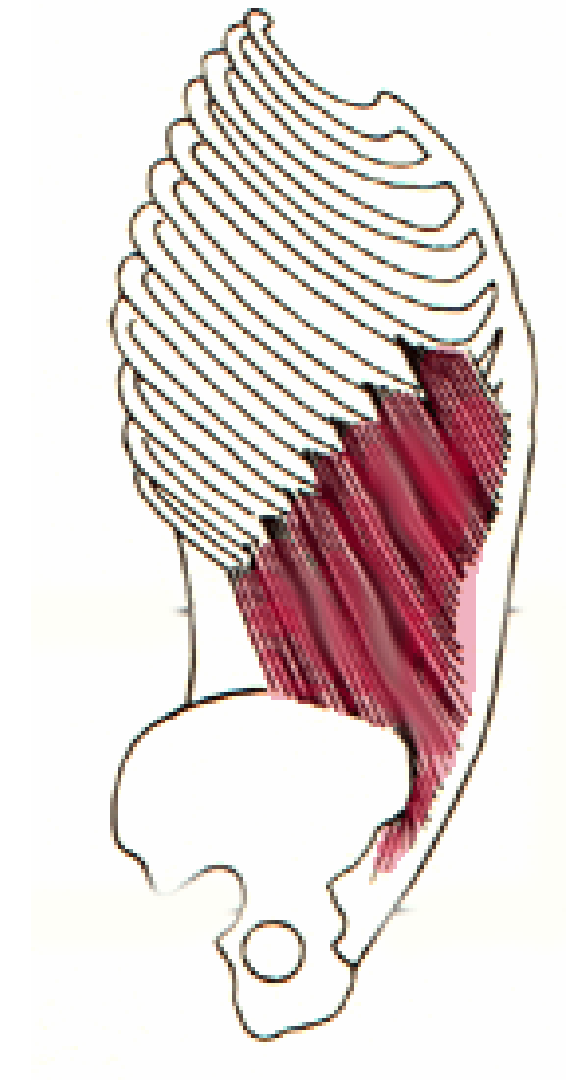
Transversus

Subdivision of the Abdominal Group

Superficial =
external Oblique

Origin: Lower 8 ribs

Insertion: top of rectus sheath



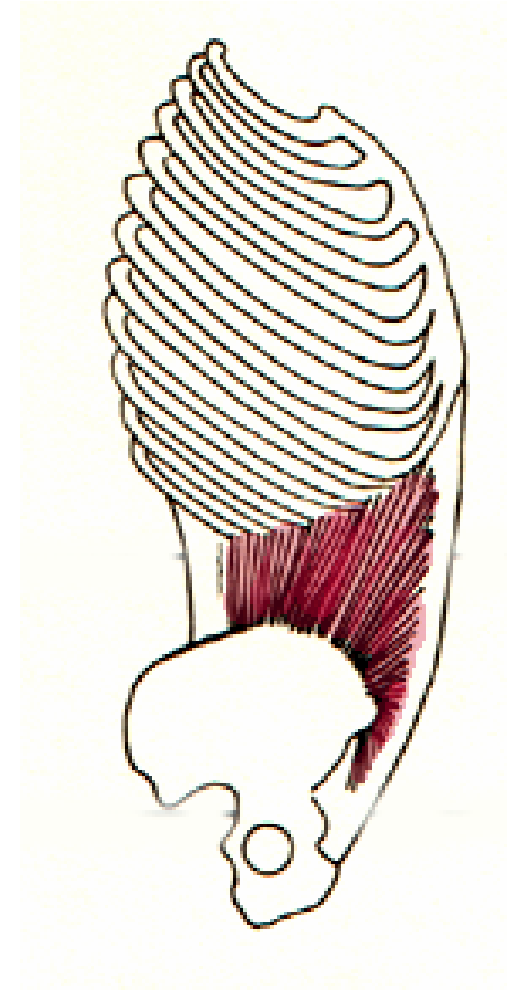
Subdivision of the Abdominal Group

Intermediate =

Internal Oblique

Origin: Iliac crest

Insertion: Rectus sheath

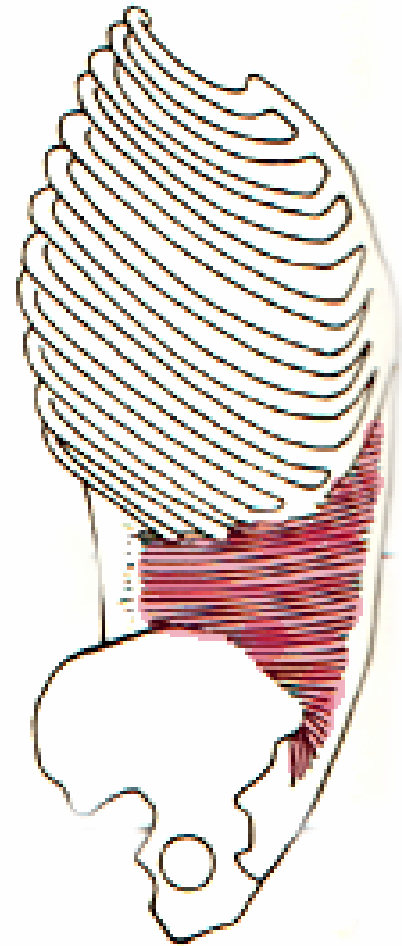


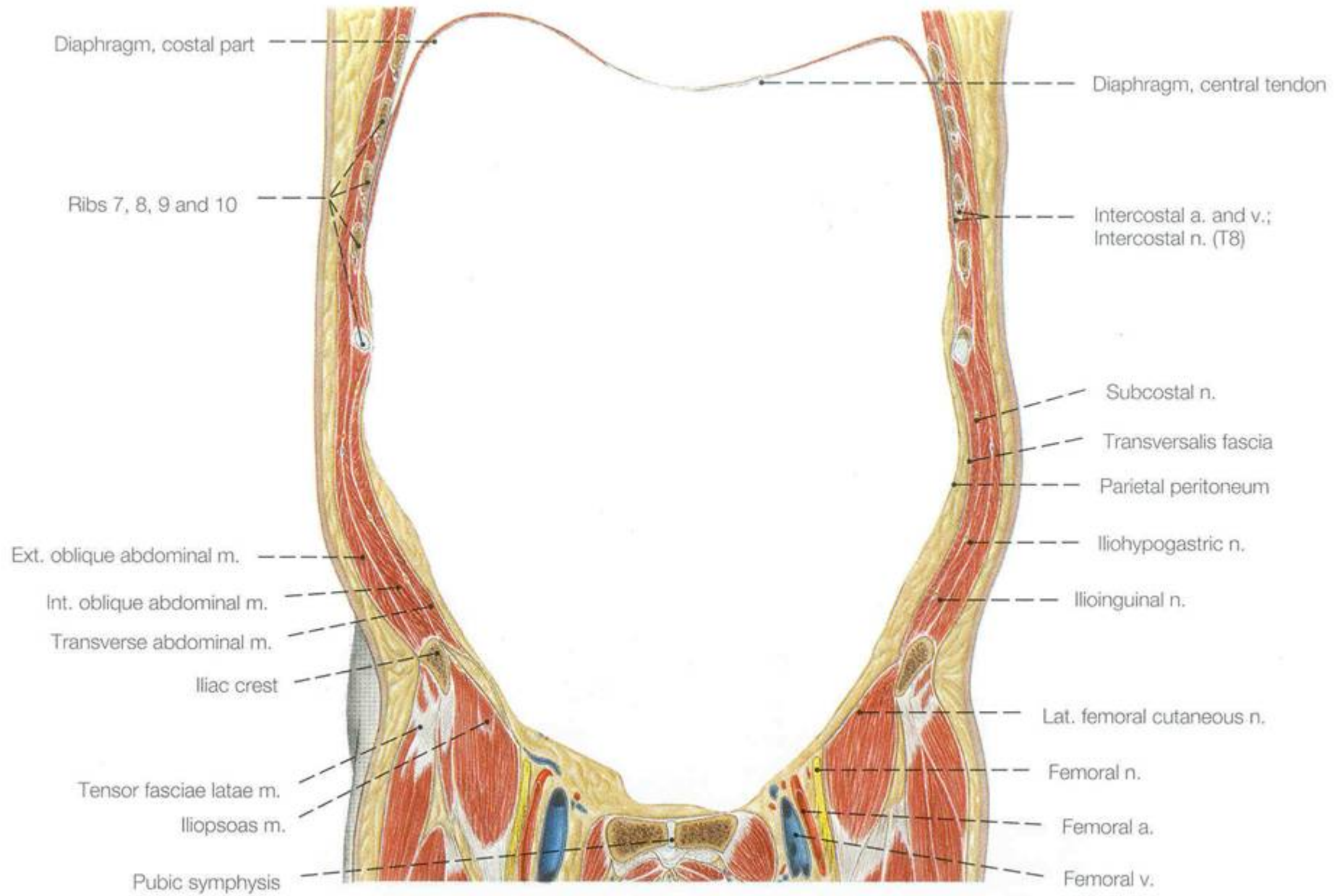
Subdivision of the Abdominal Group

Deep = Transversus

Origin: Thoracolumbar
fascia

Insertion: Sheath below
abdominus rectus



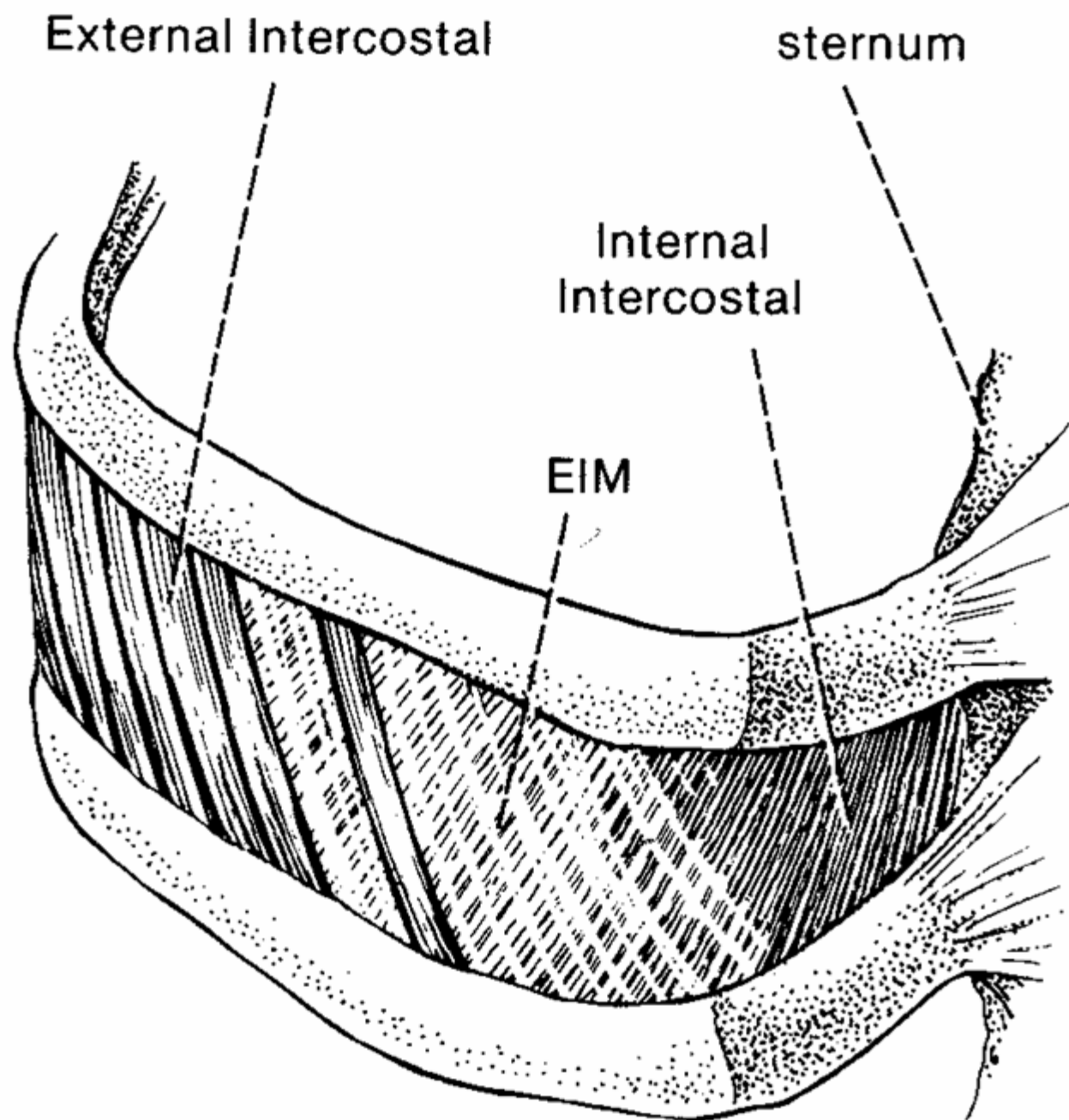


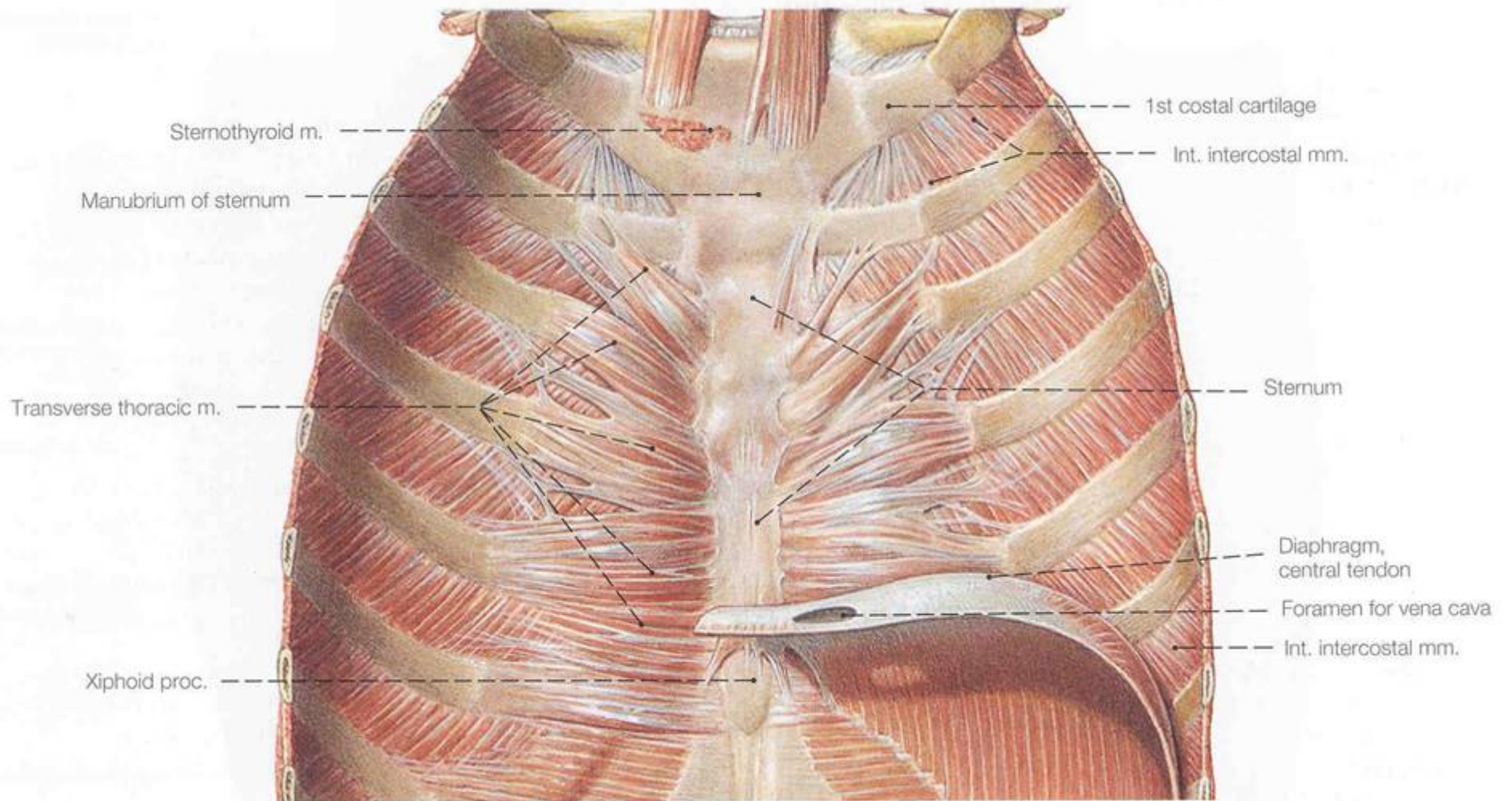
Subdivision of the Thoracic Group

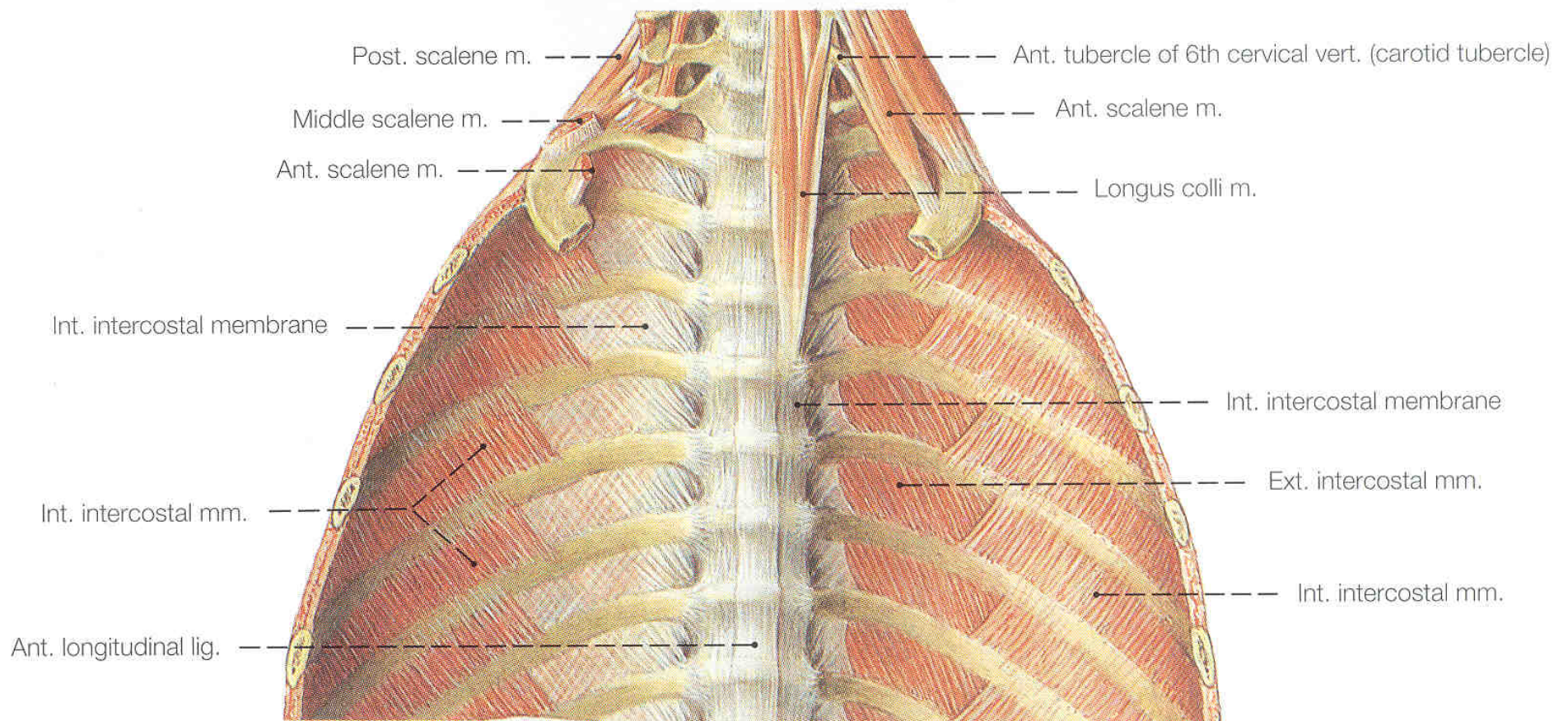
External intercostal

Internal Intercostal

Transversus thoracis







Subdivision of the Perineal Group

Superficial = Urogenital/anal

-External sphincters

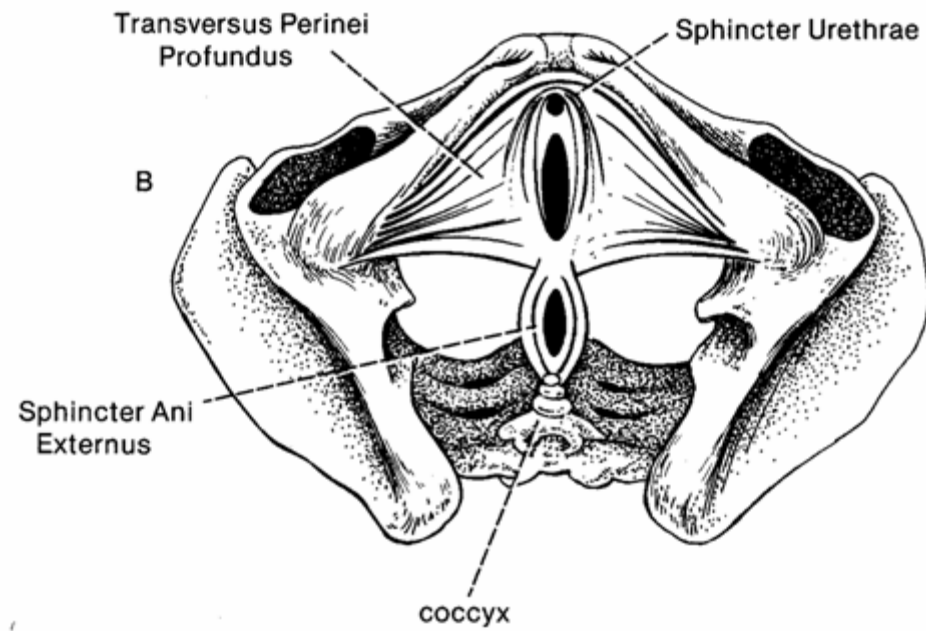
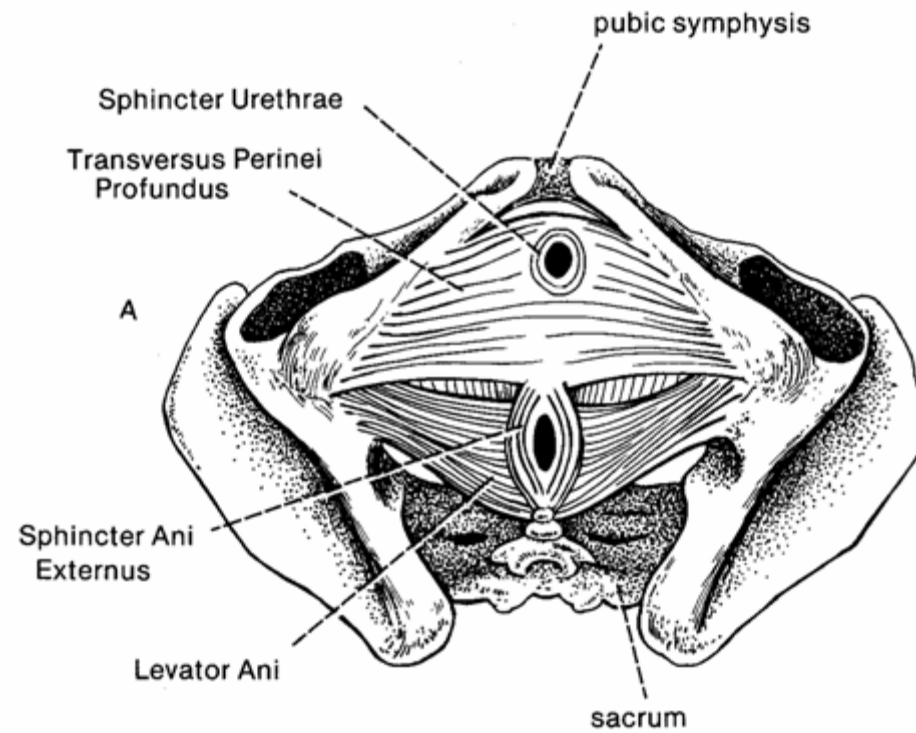
Subdivision of the Perineal Group

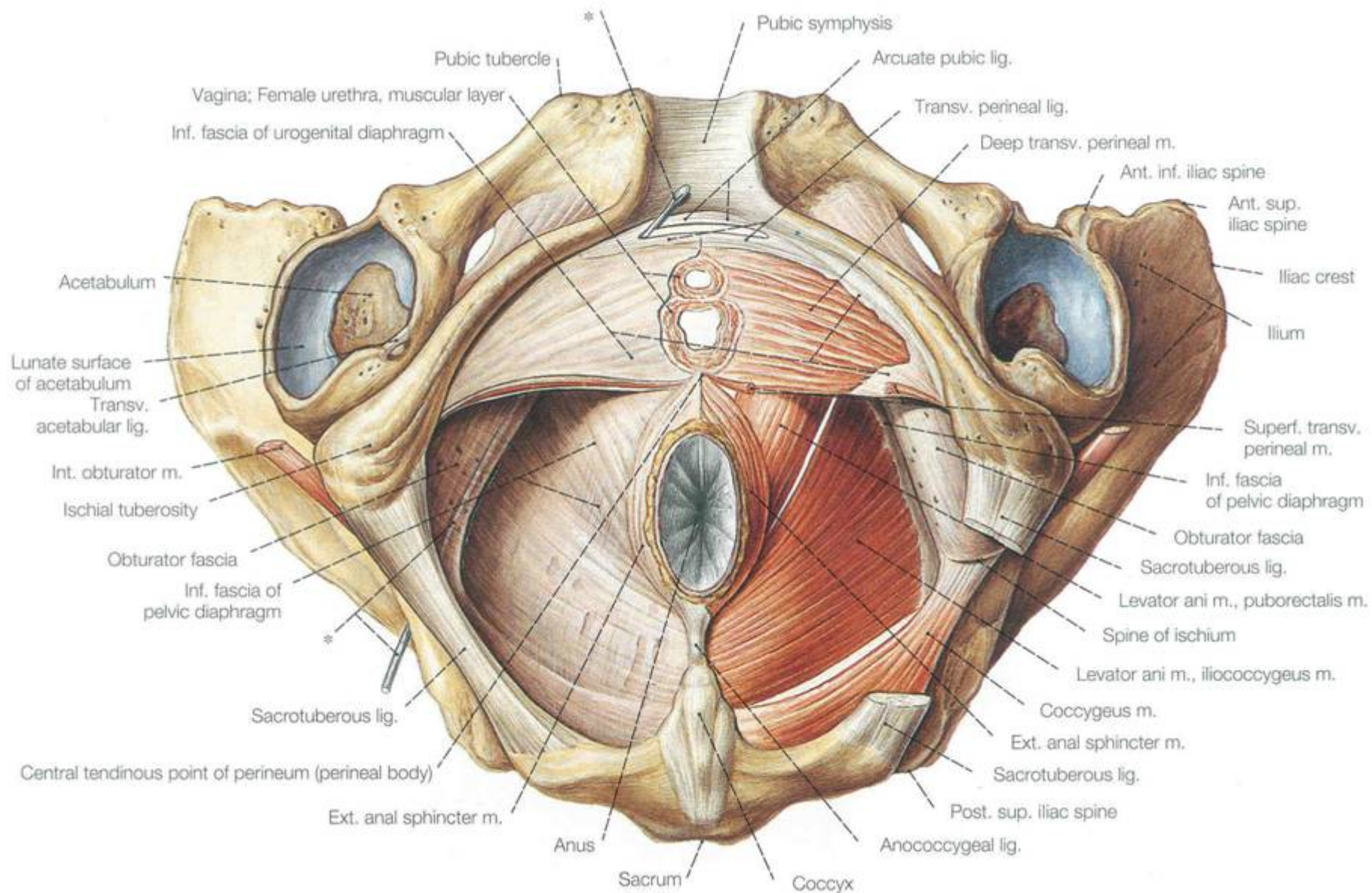
Intermediate = Pelvic Diaphragm:

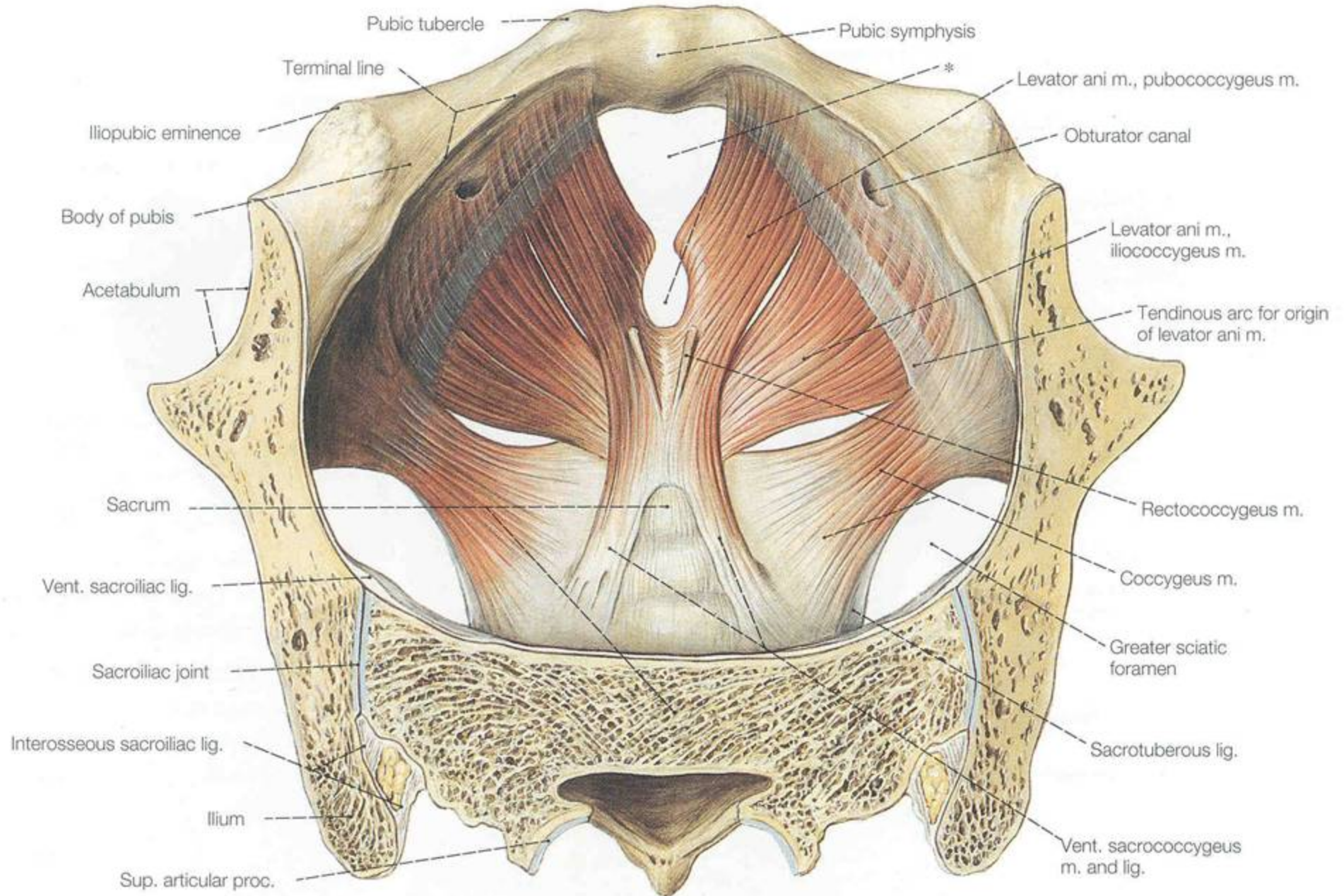
- Coccygeus
- Levator ani

Subdivision of the Perineal Group

Deep = Transversalis Fascia







Subdivision of the Neck Region

**Diaphragm ripped out early in
development**

Scalenes are what are left.

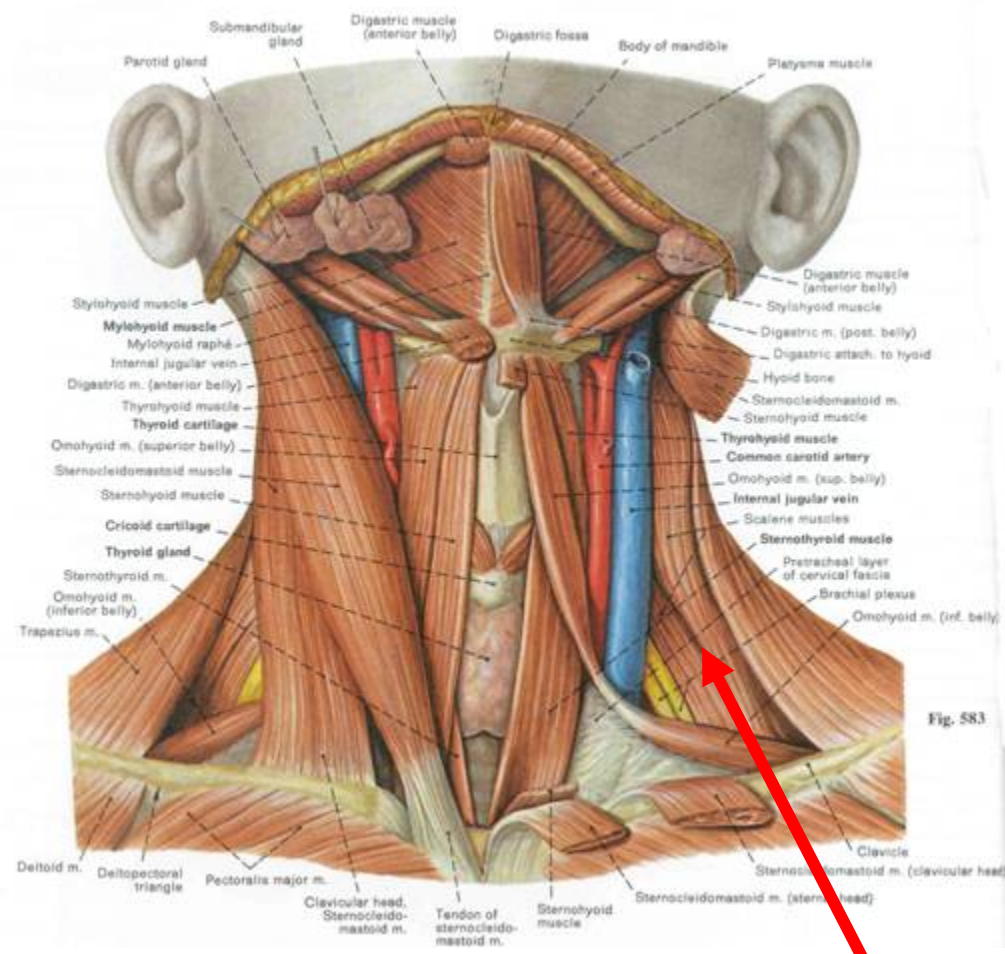
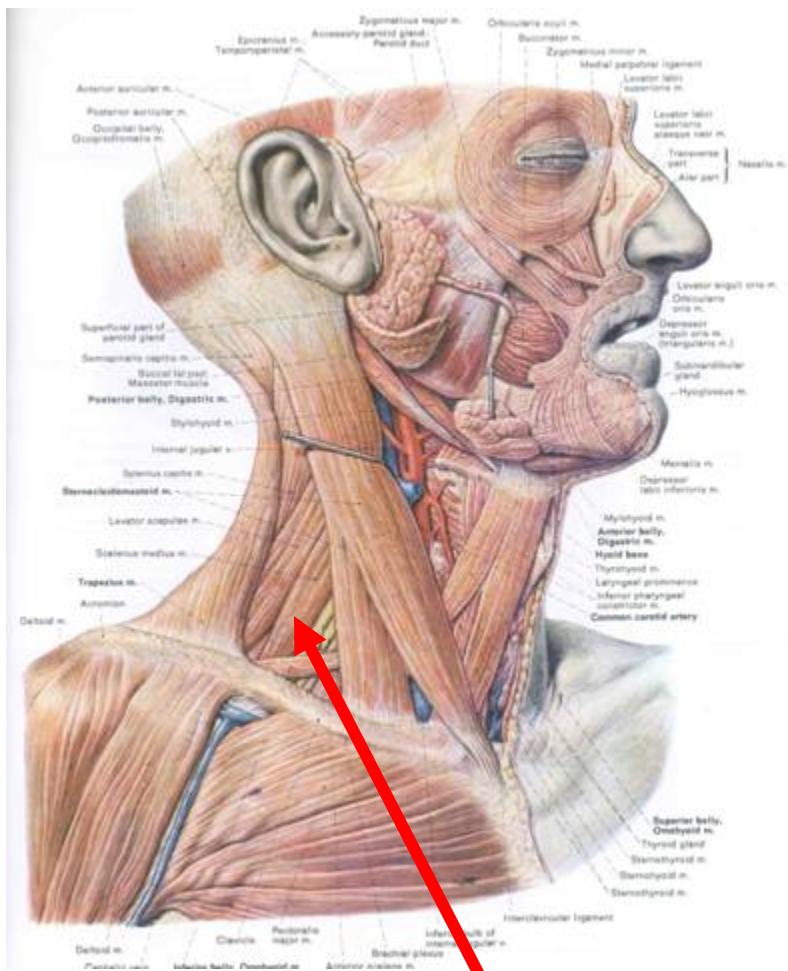
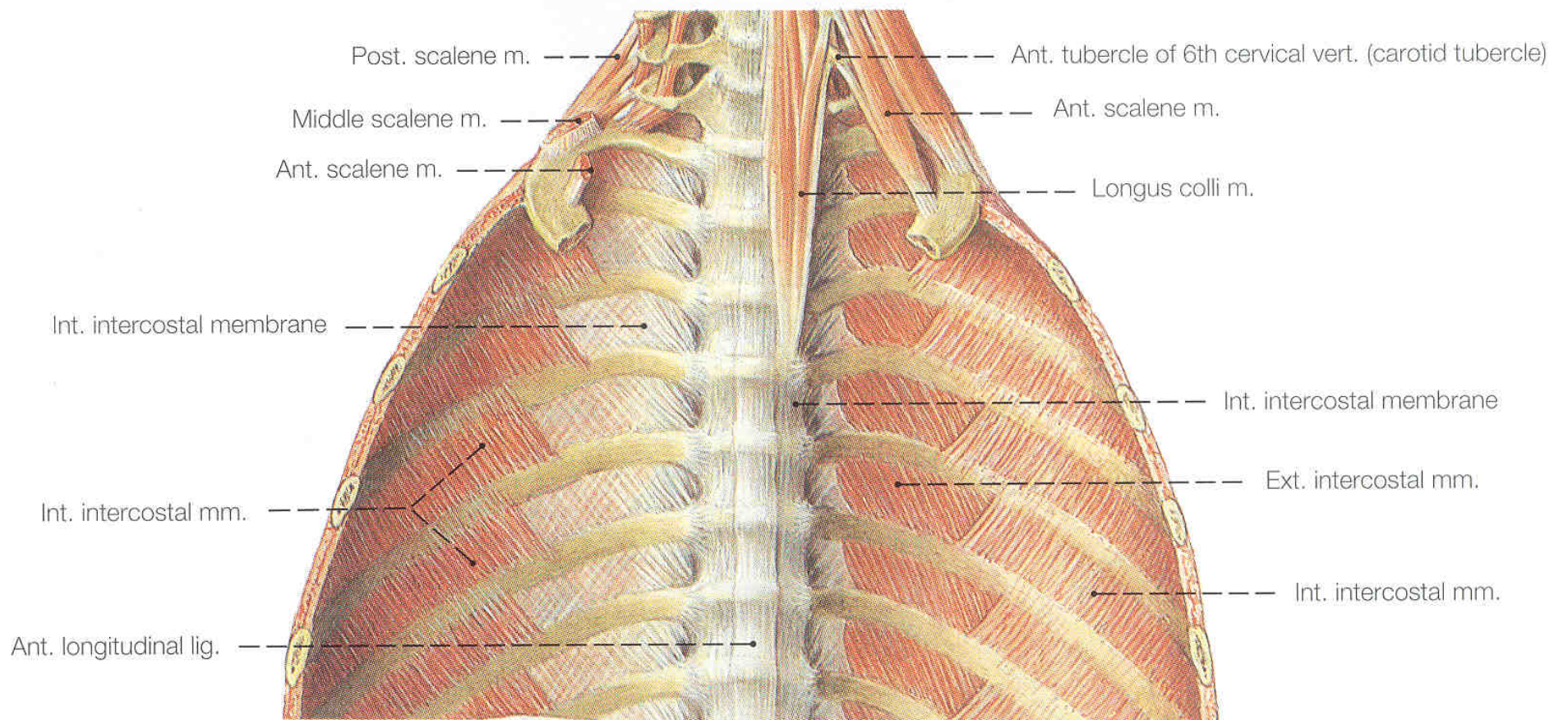
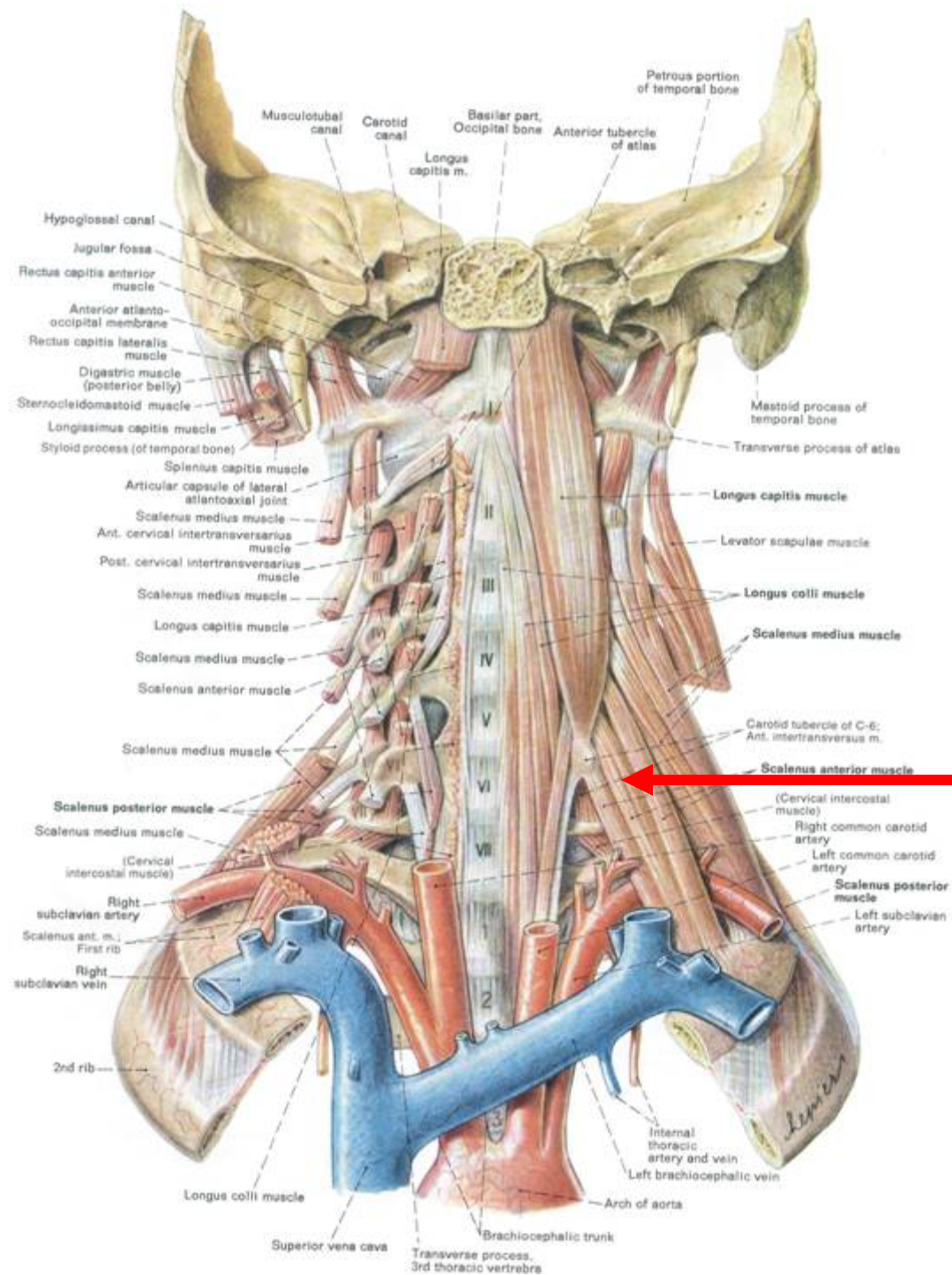


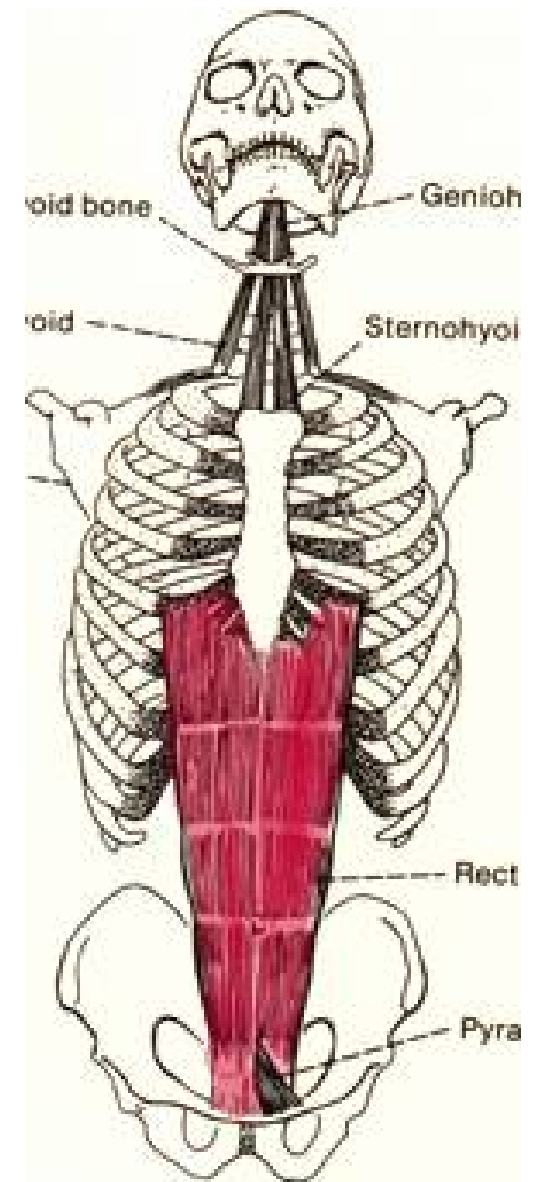
Fig. 583

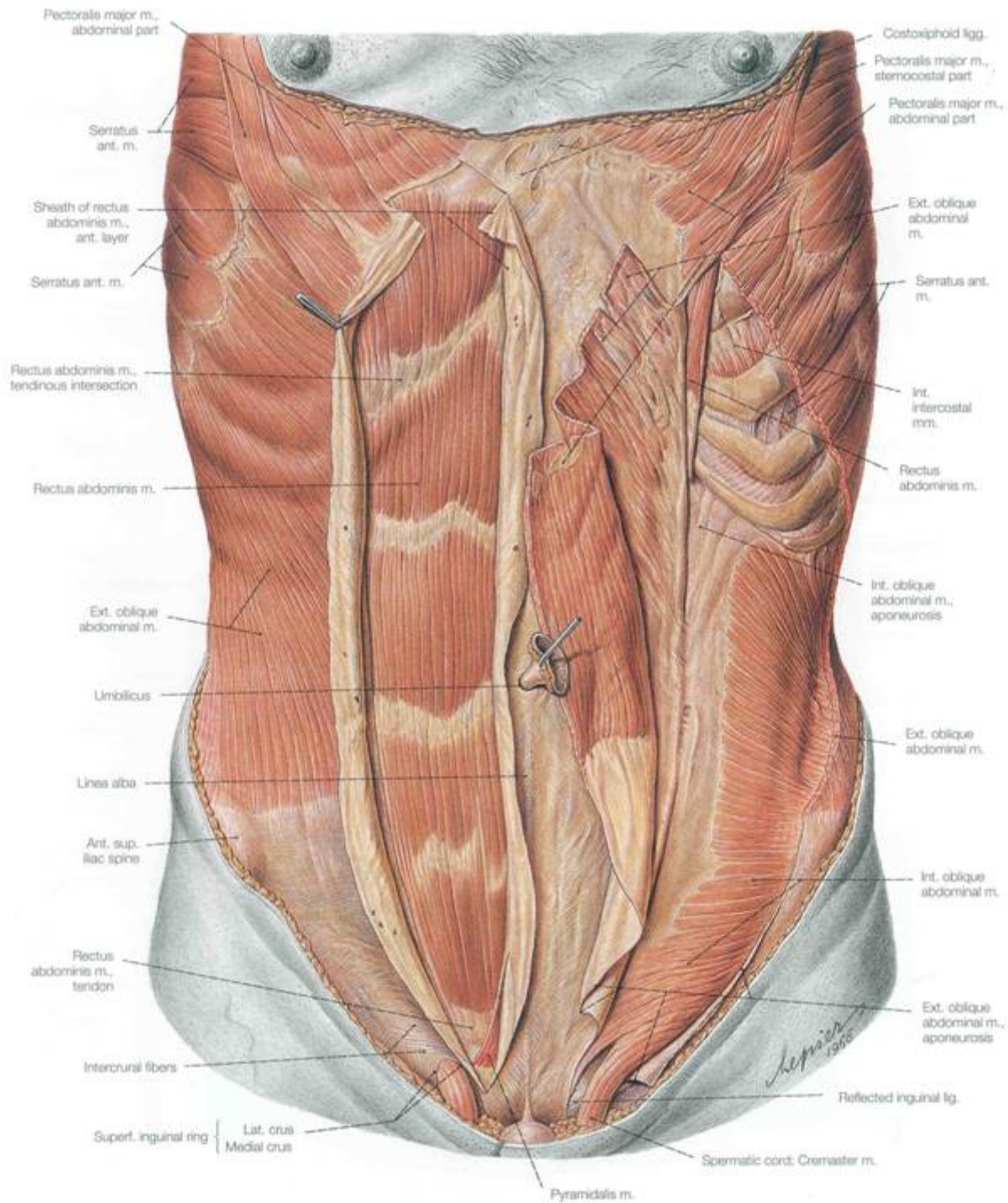




Strap muscles

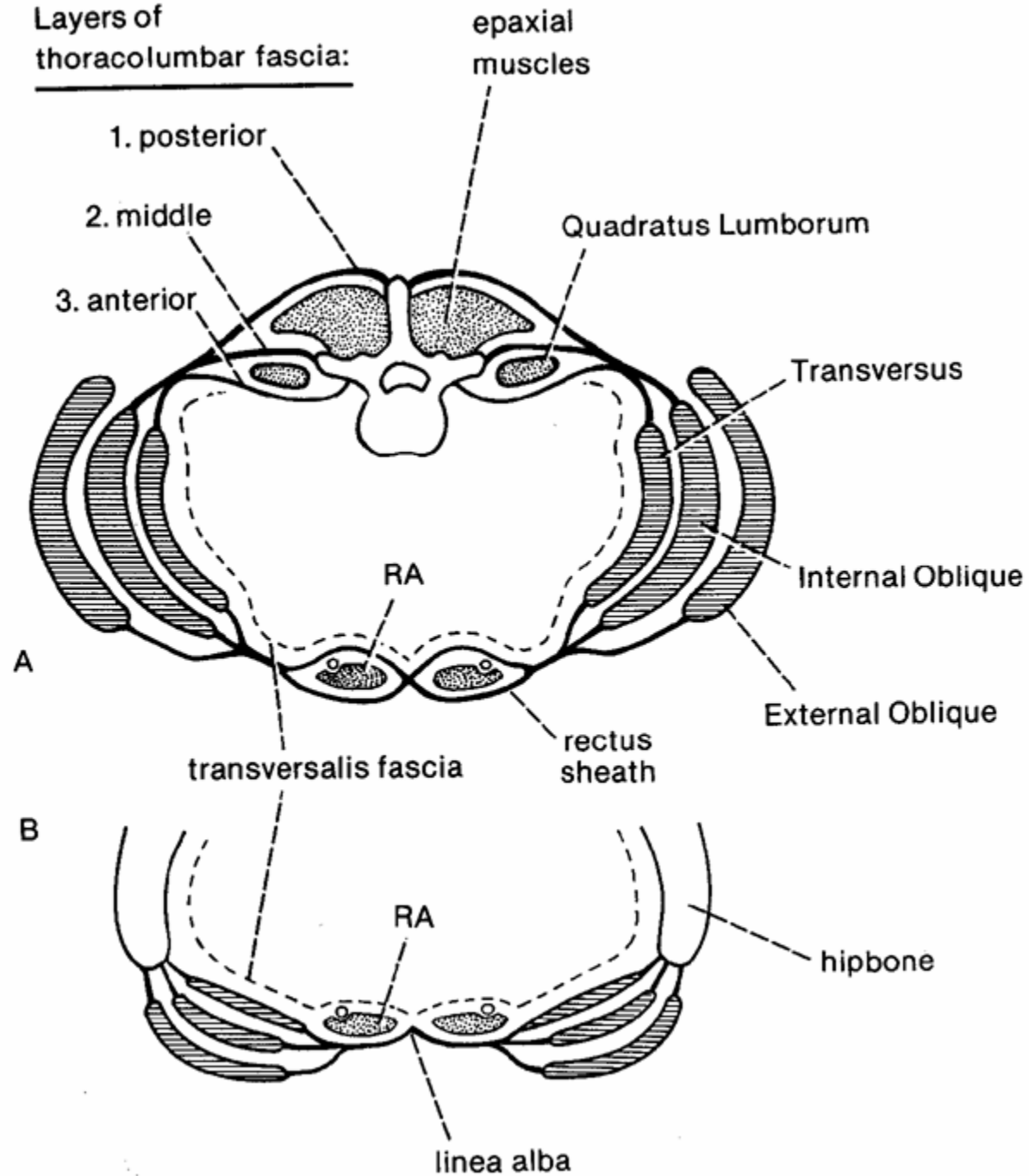
Rectus Abdominus

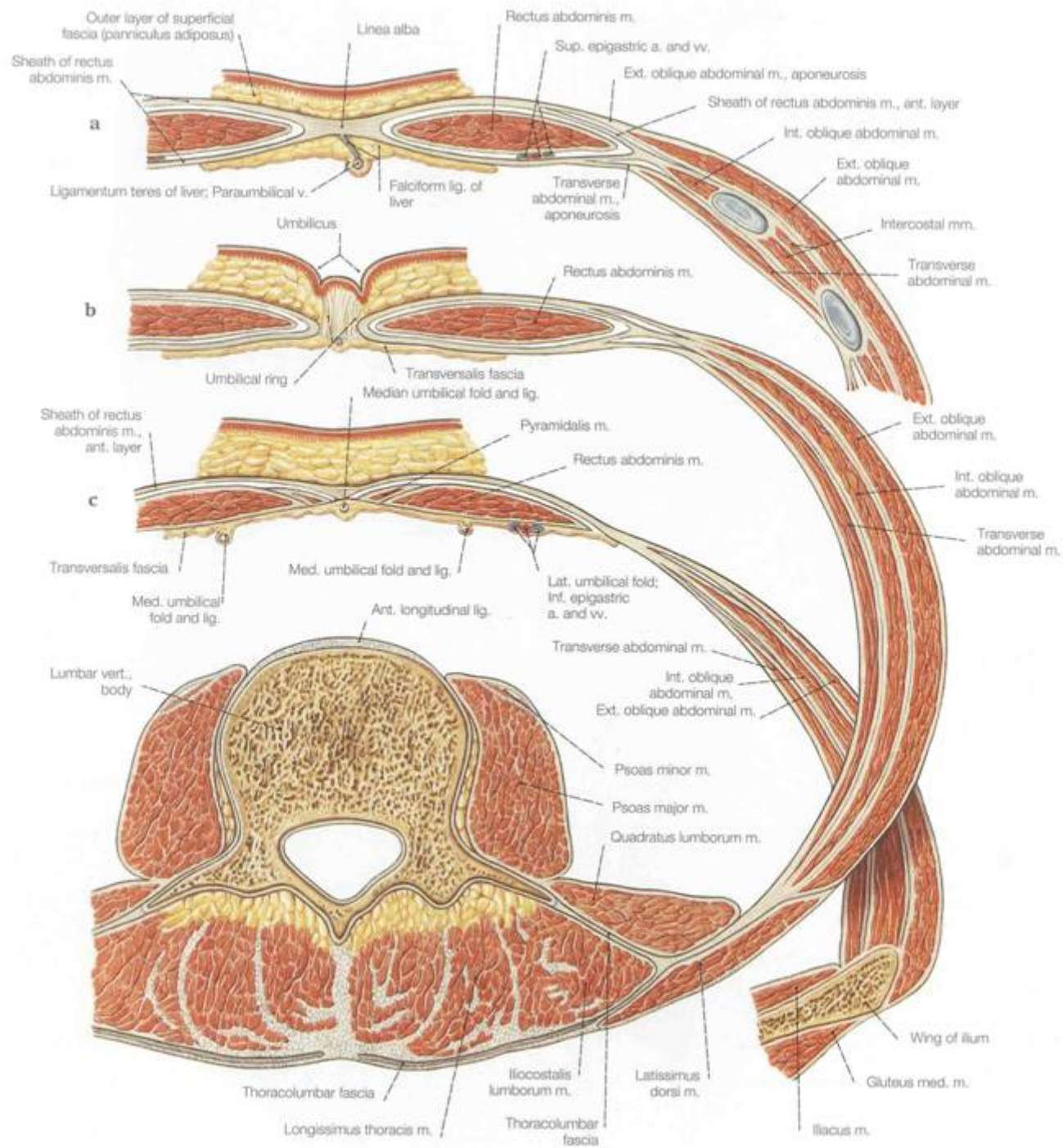


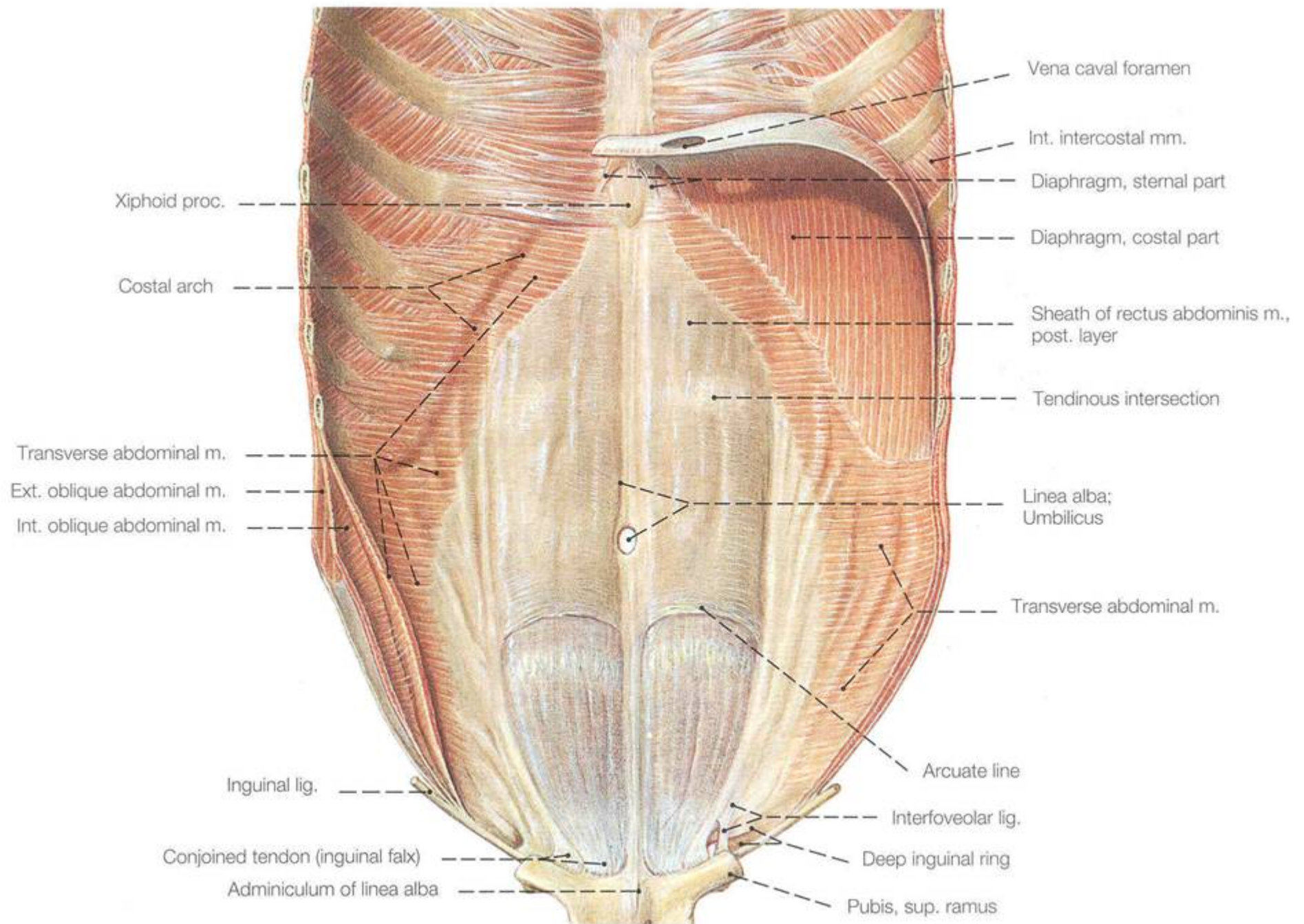




Layers of
thoracolumbar fascia:







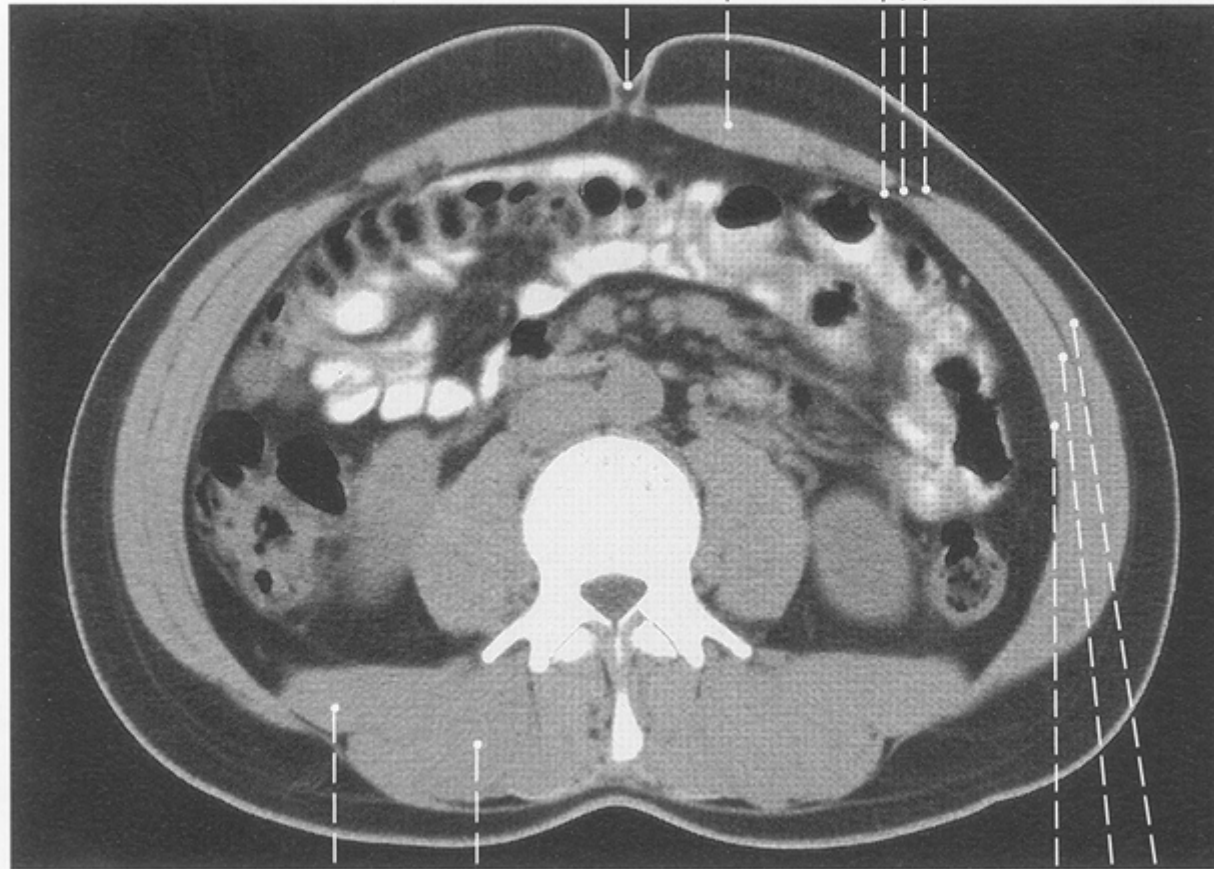
Ext. oblique abdominal m., aponeurosis

Int. oblique abdominal m., aponeurosis

Transverse abdominal m., aponeurosis

Rectus abdominis m.

Umbilicus



a

Quadratus
lumborum m.

Erector spinae m.

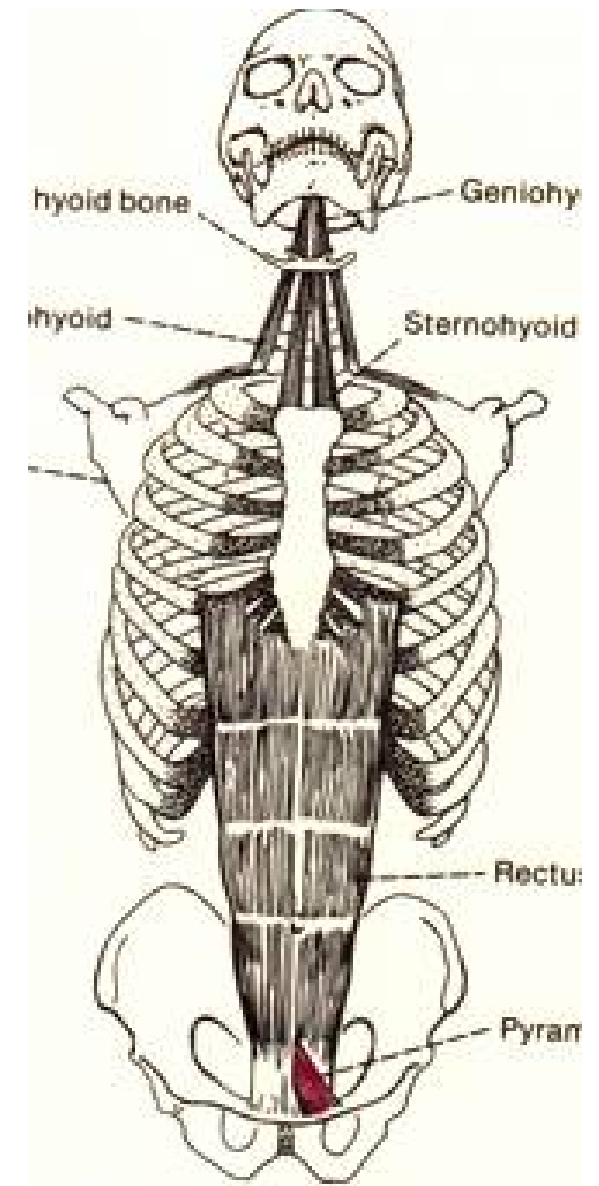
Transverse abdominal m.

Int. oblique abdominal m.

Ext. oblique abdominal m.

Strap muscles

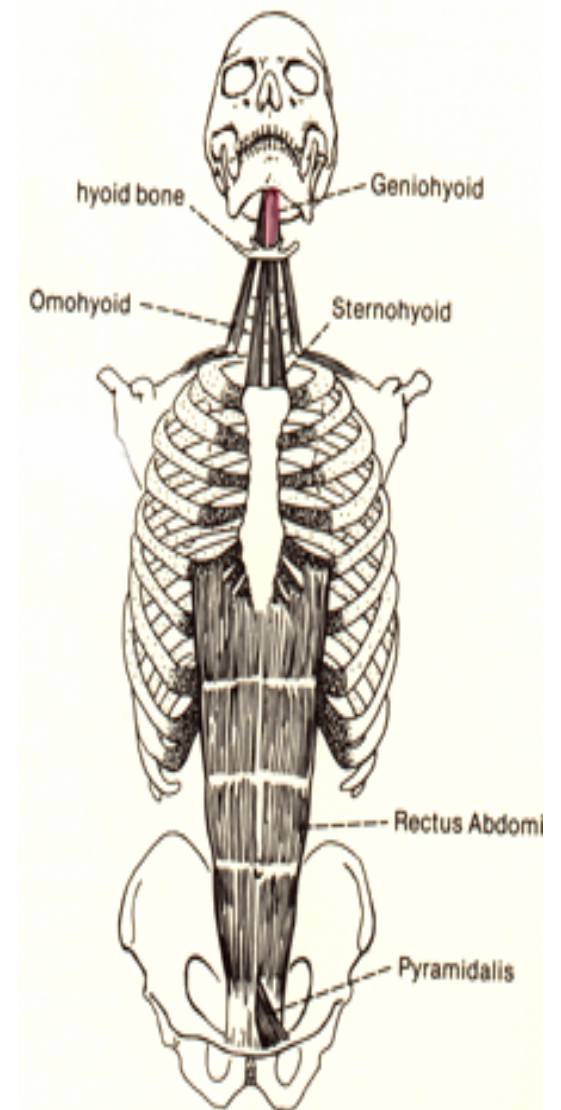
Pyramidalis



Strap muscles

Rectus Series

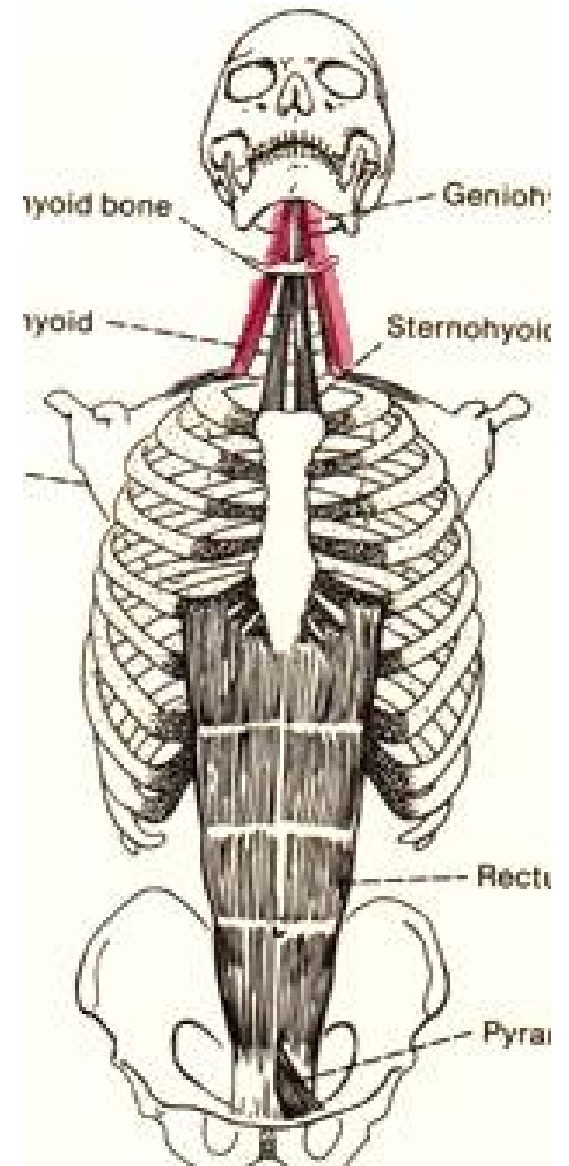
Geniohyoid



Strap muscles

Rectus Series

Omohyoid



Strap muscles

Rectus Series

Sternohyoid

Sternothyroid

