

Anterior Abdominal Wall (Continue)

Cutaneous innervations of anterior abdominal wall:

Anterior rami (T7 – L1) .

□ T7-T11 called intercostal nerves.

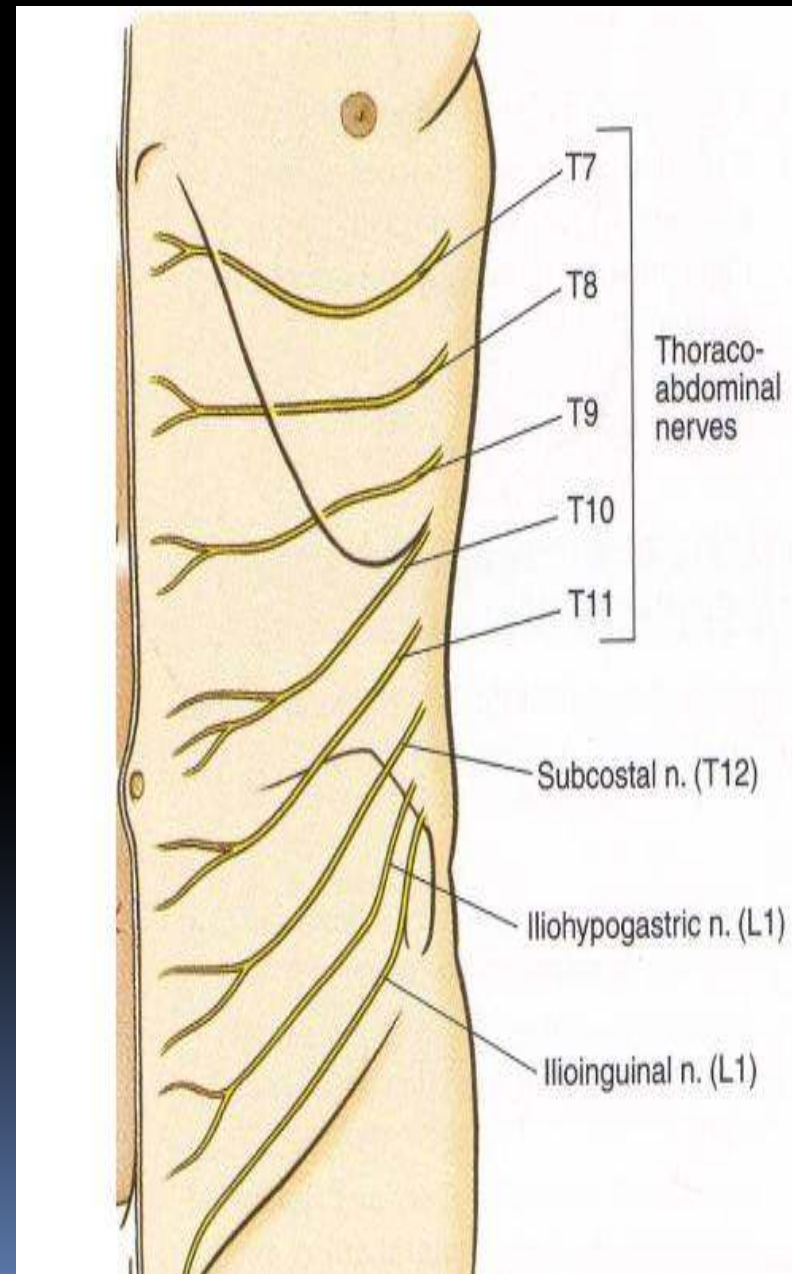
□ T12 called subcostal nerve.

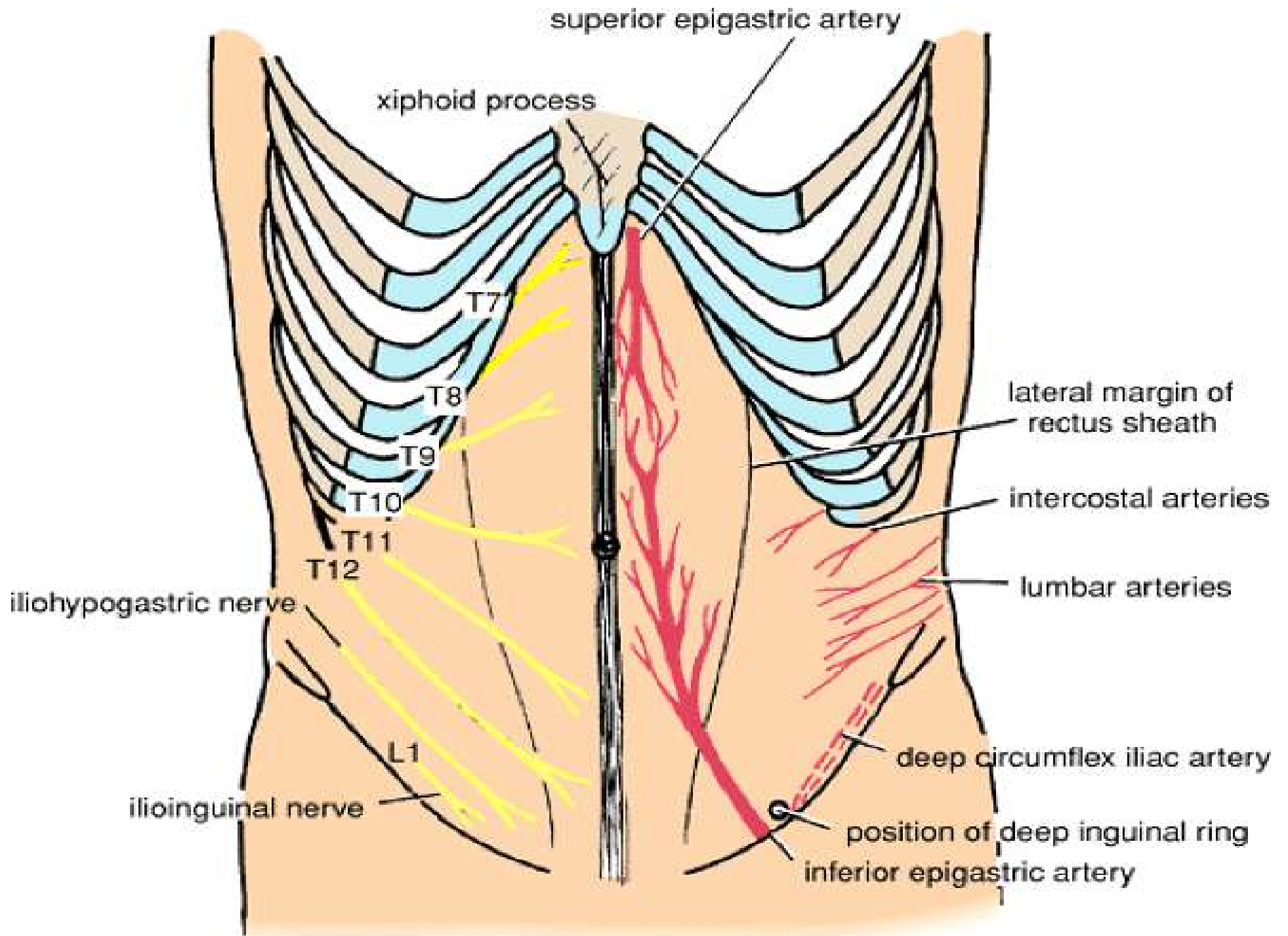
□ L1 through lumbar plexus i.e. ilio inguinal & ilio hypogastric nerves

T7..... Epigastrium

T10.....Umblicus

L1...Above inguinal ligament & symphysis pubis.





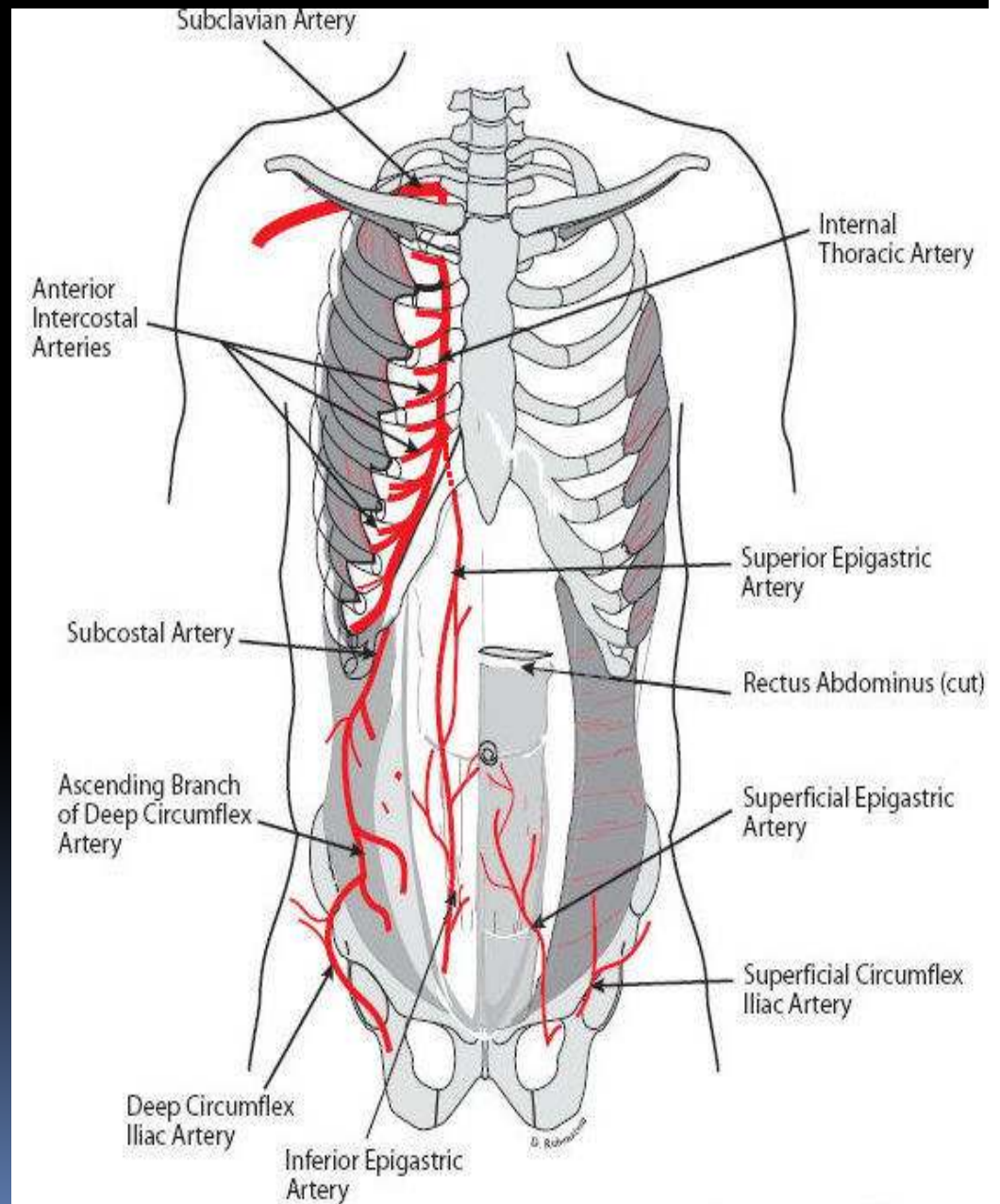
Cutaneous blood supply of anterior abdominal wall

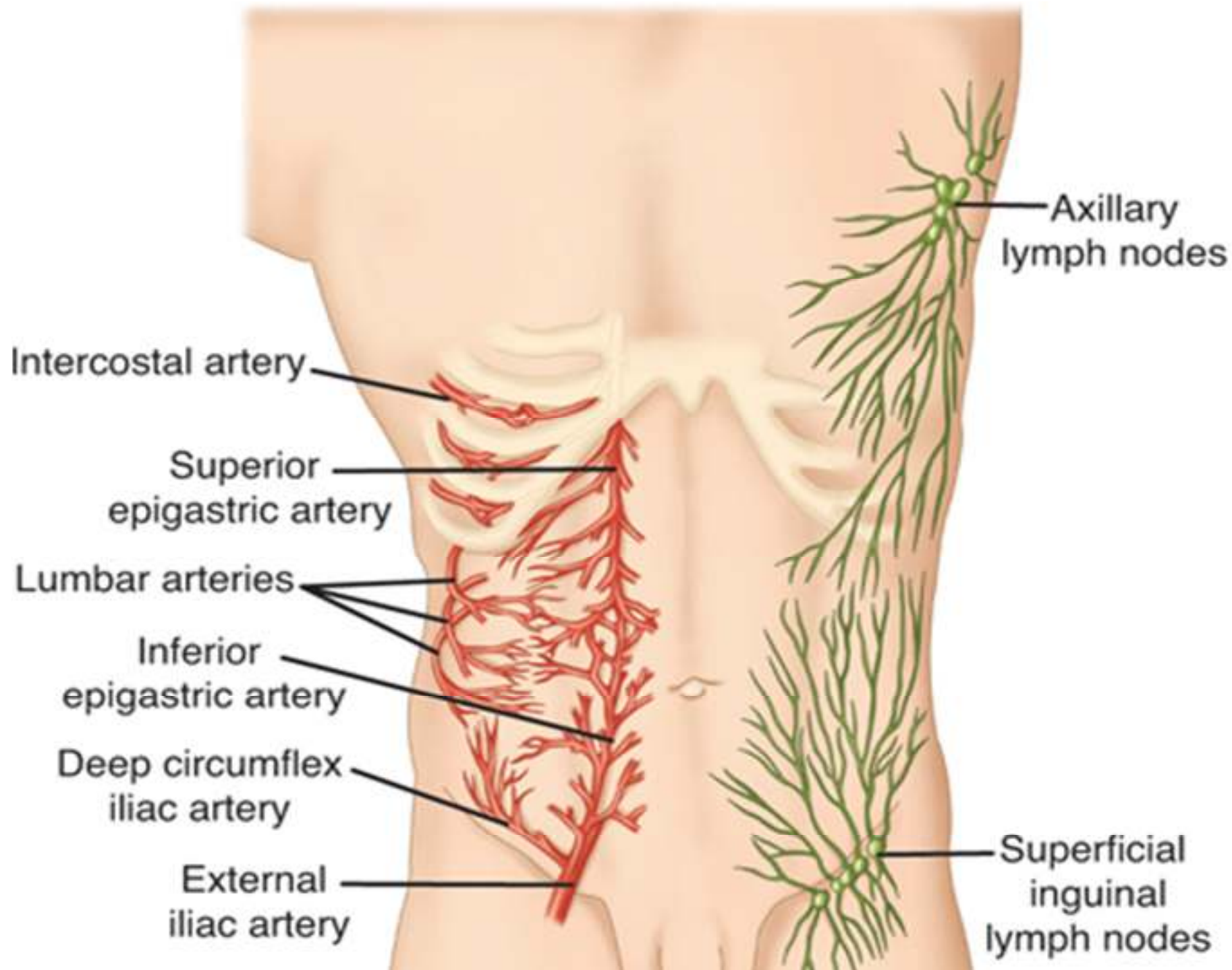
Arterial:

Upper mid line: superior epigastric artery (internal thoracic artery).

Lower mid line: inferior epigastric artery (external iliac artery).

Flanks: supplied by branches from intercostal artery, lumbar artery & deep circumflex iliac artery.

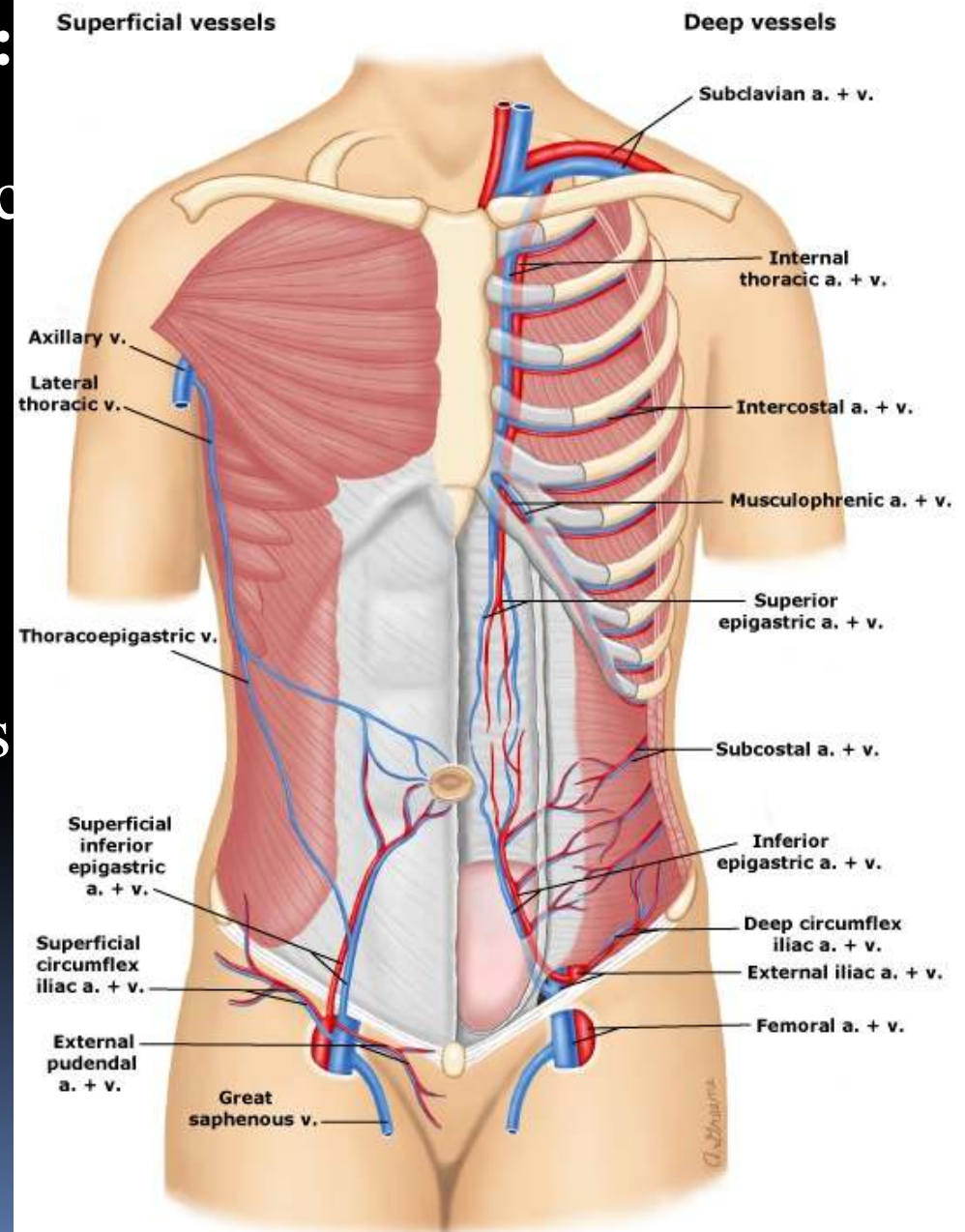




Venous: all venous blood collected into a plexus of veins that radiate from umbilicus toward:

Above : to lateral thoracic vein then to axillary vein.

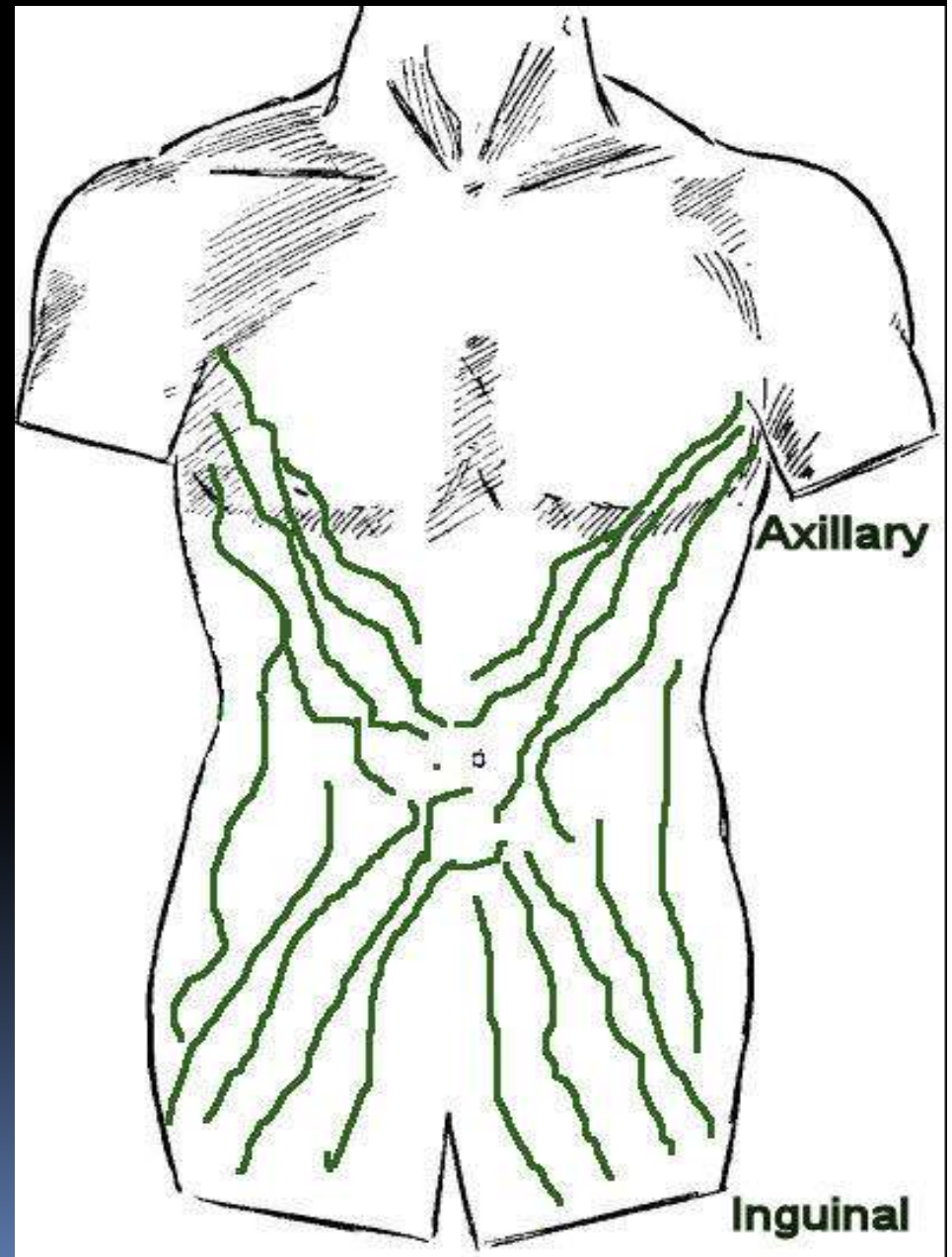
Below : to superficial epigastric & greater saphenous veins then to femoral vein.



Lymphatic Of Anterior abdominal Wall:

Above umbilicus : drain into
anterior axillary lymph
nodes.

Below umbilicus: drain in
to superficial inguinal nodes



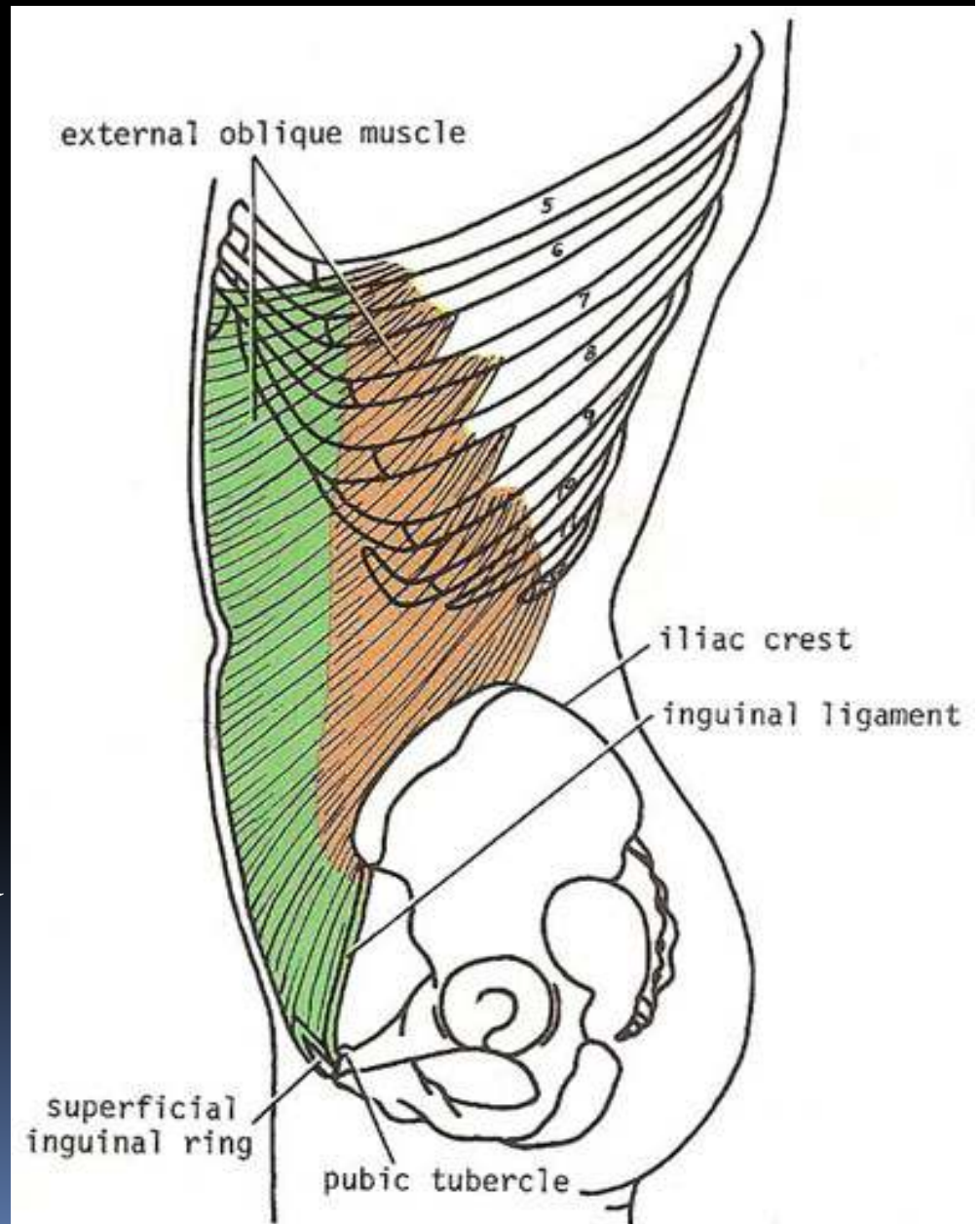
Muscles Of Anterior Abdominal Wall:

- 1) External oblique muscle.
- 2) Internal oblique muscle.
- 3) Transversus abdominis
- 4) Rectus abdominis.
- 5) Pyramidalis.

External Oblique Muscle:

Origin:

The outer surface of lower 8 ribs then directed forward & downward to its insertion.

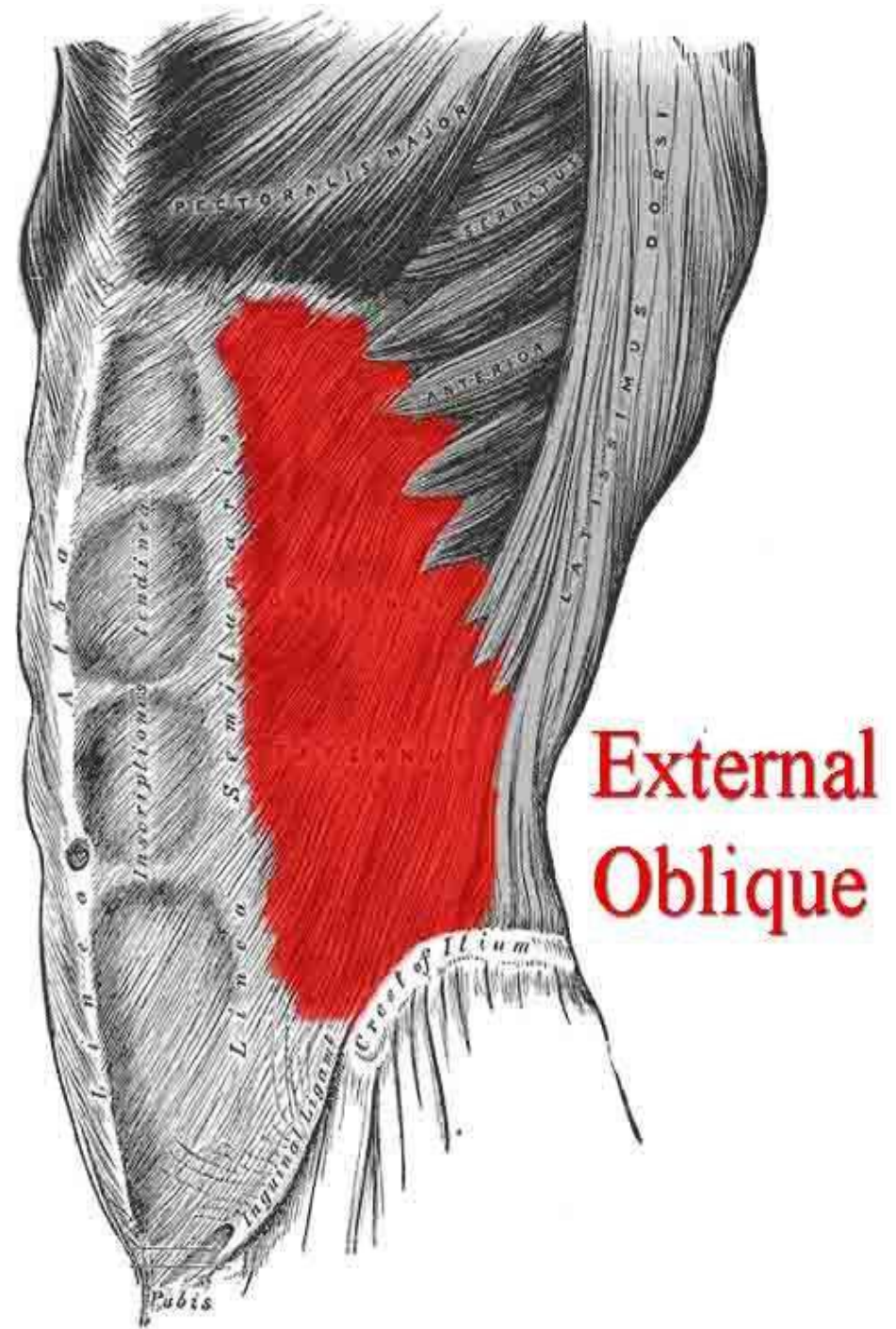


- Upper four slip interdigitate with **seratus anterior muscle**.
- Lower four slip interdigitate with **latissimus dorsi muscle**.

Insertions:

As a flat aponeurosis into:

- * Xiphoid process.
- * Linea alba
- * Pubic crest.
- * Pubic tubercle.
- * Anterior half of iliac crest .



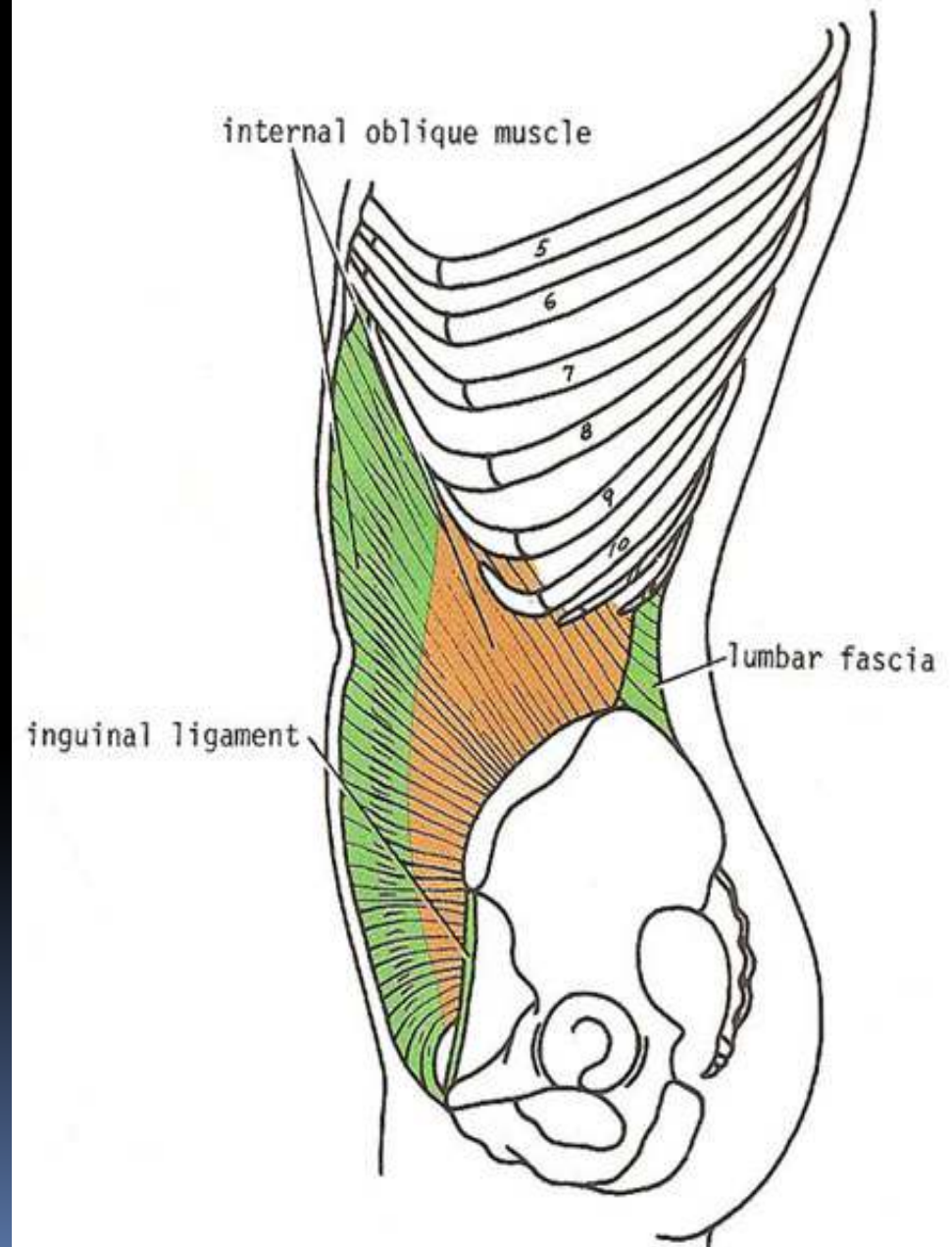
Internal Oblique Muscle:

Origin:

- * Lumber fascia
- * Anterior 2/3 of iliac crest.
- * Lateral 2/3 of inguinal ligament.

Insertion:

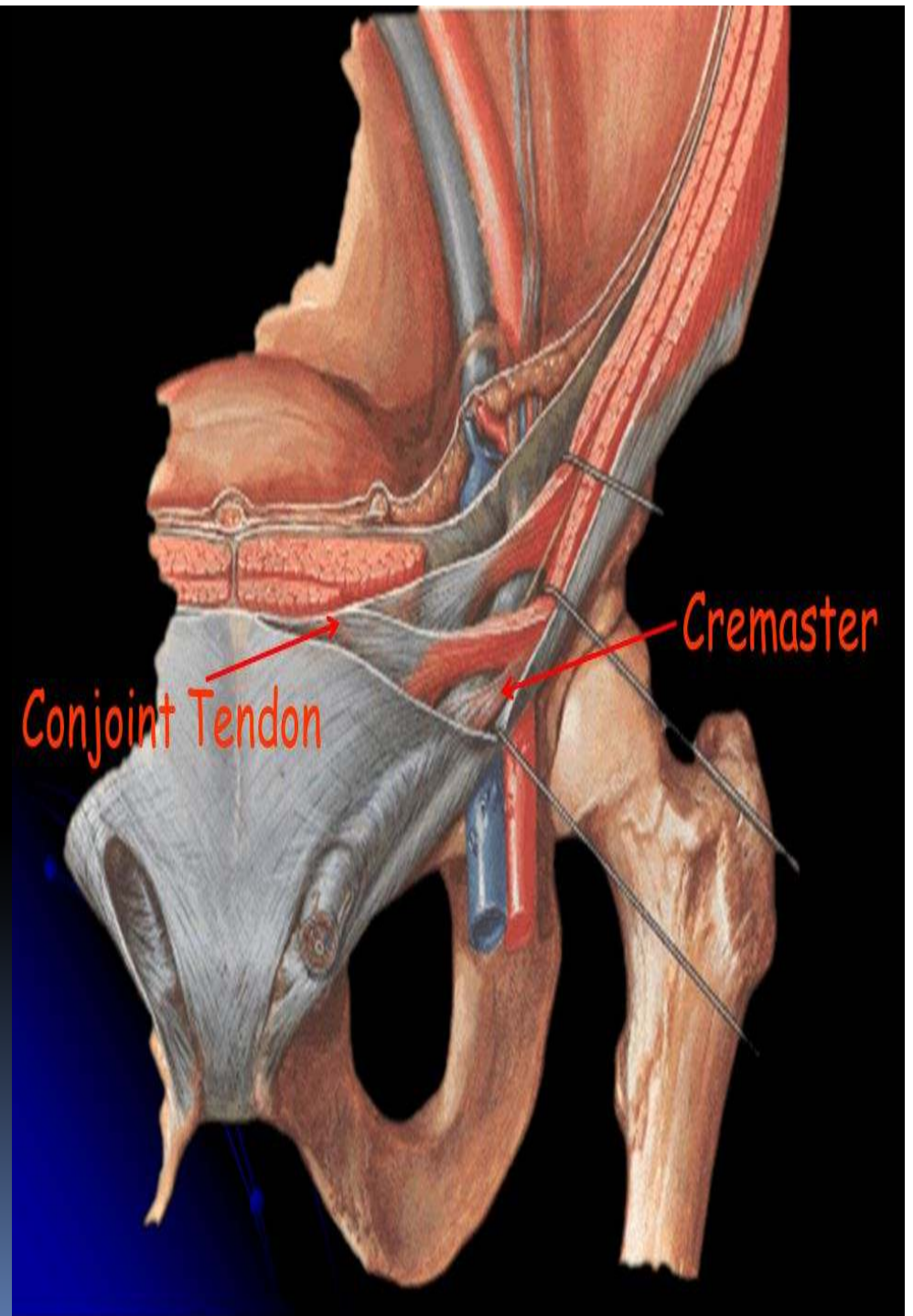
The fibers passes upward & foreword & inserted to lower 3 ribs & their costal cartilages, xiphoid process, linea alba & symphysis pubis.



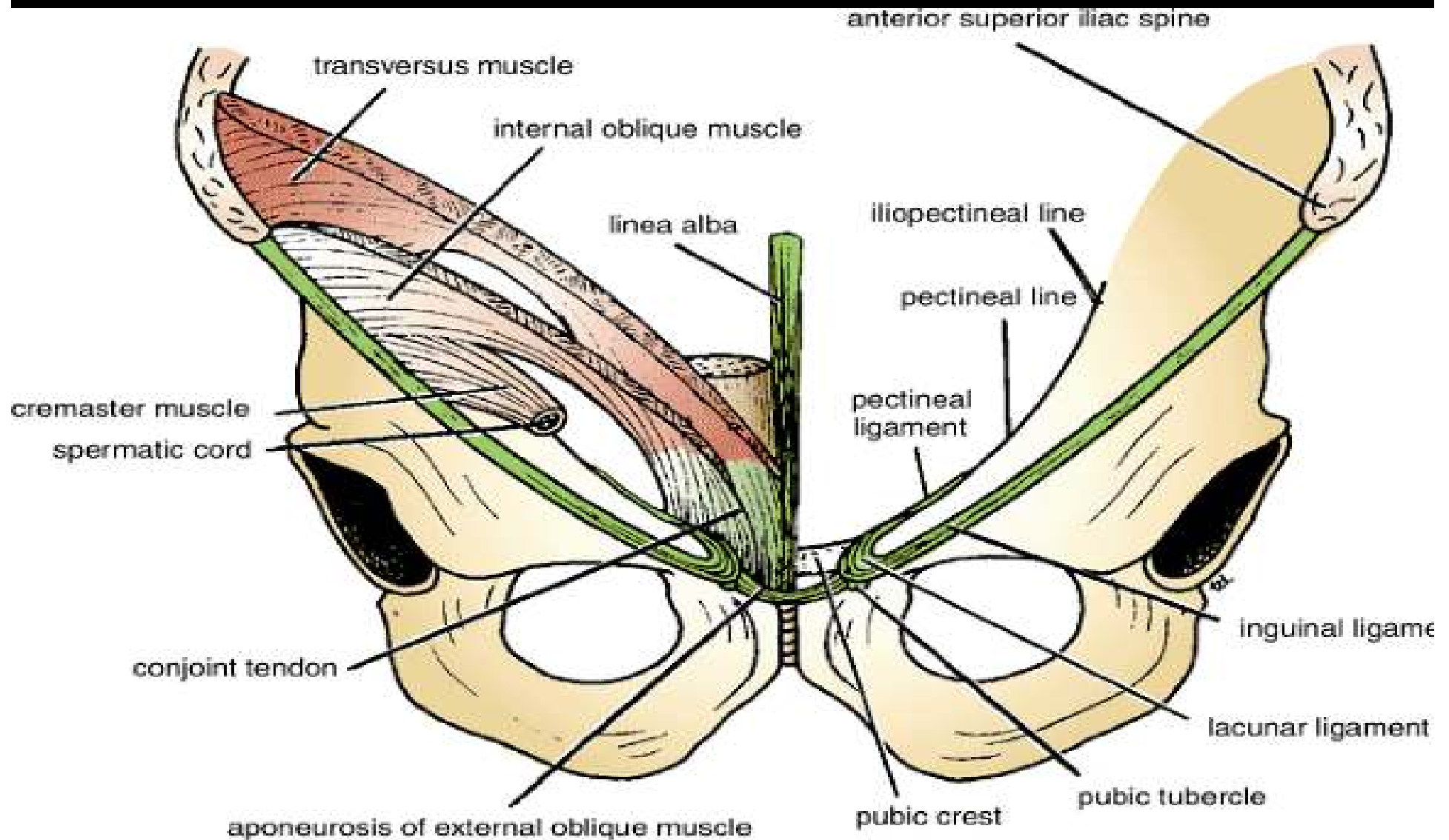
Conjoint Tendon:

Form from lower tendon of internal oblique joined to similar tendon from transversus abdominis.

Its is attached medially to linea alba ,pubic crest & pectineal line but has a lateral free border.



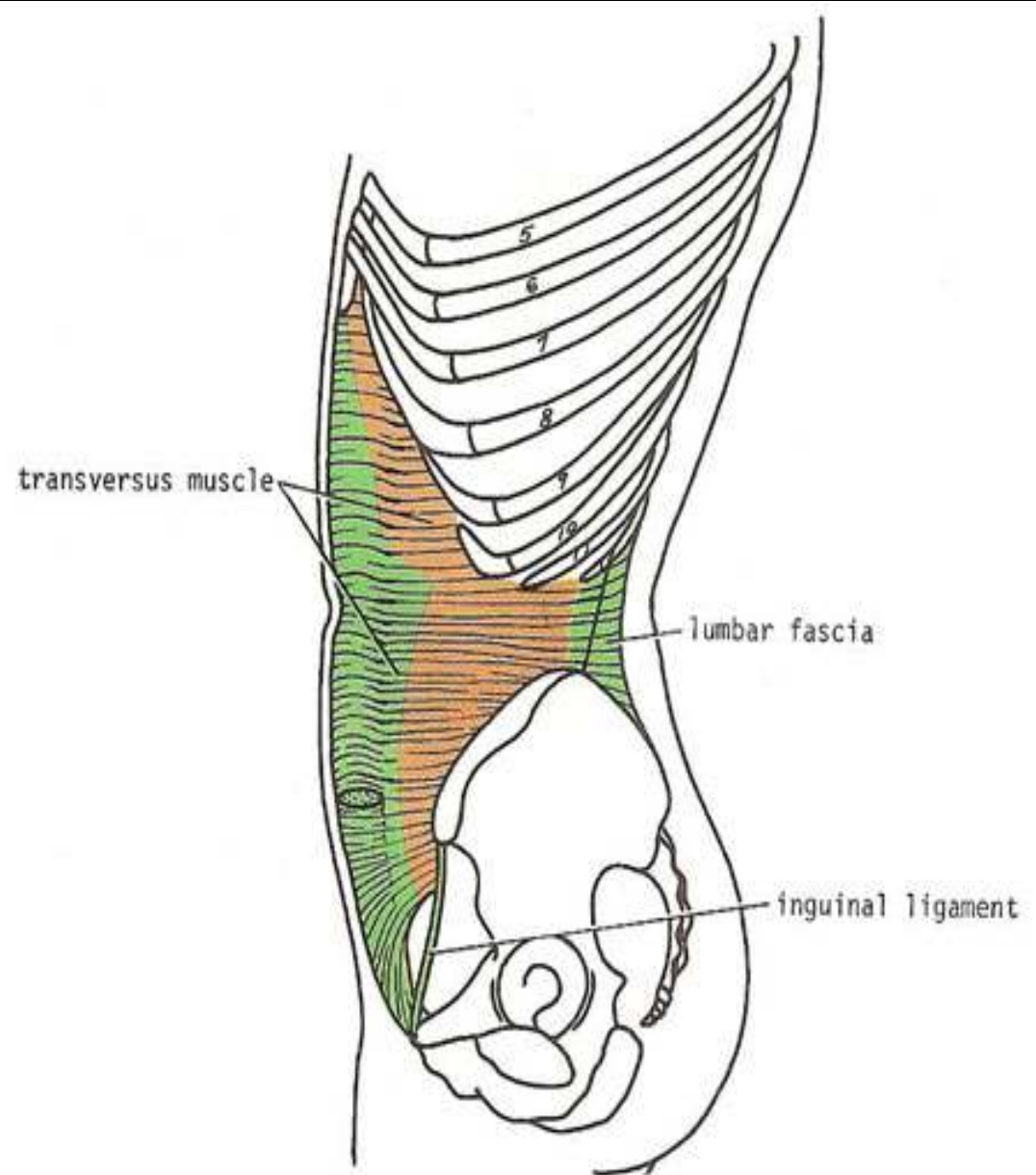
The spermatic cord, as it passes below this muscle, it gains a muscular cover called "**Cremaster muscle**" which composed of muscle & fascia.



Transversus Abdominis Muscle:

Origin:

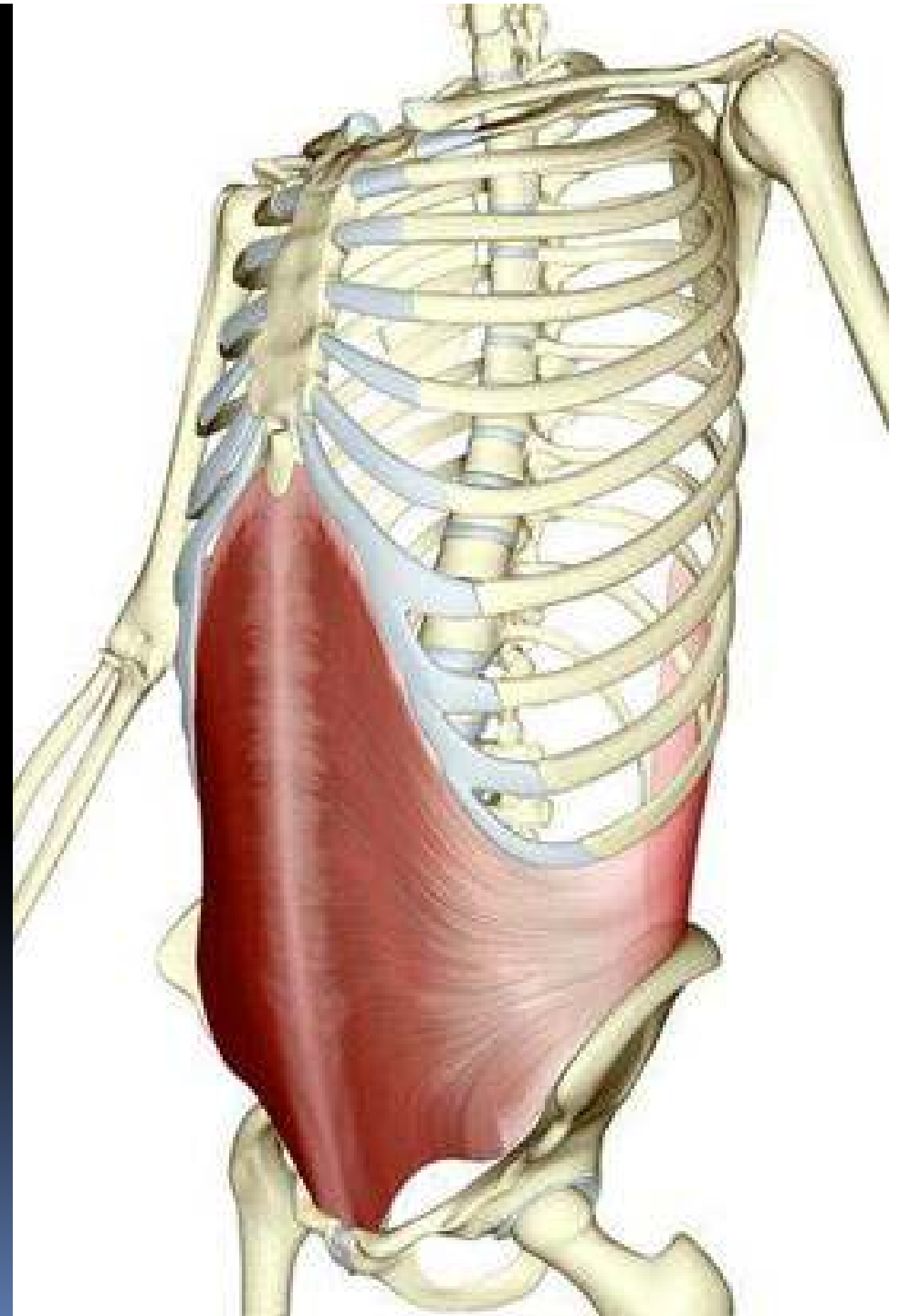
- * lower 6 costal cartilages.
- * Lumbar fascia.
- * Anterior 2/3 of iliac crest.
- * Lateral 1/3 of inguinal ligament.



Insertion:

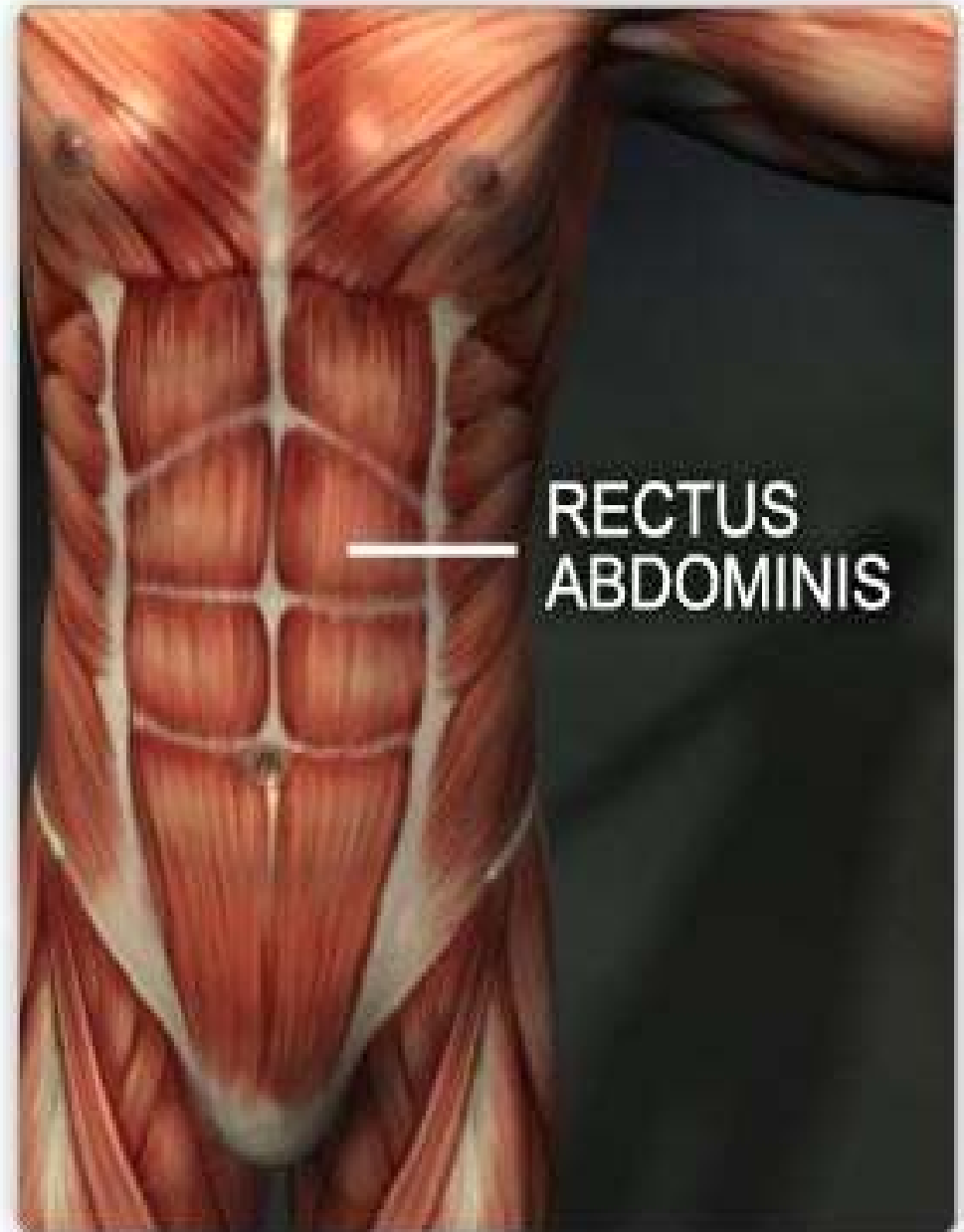
- * Xiphoid process.
- * Linea alba.
- * Symphysis pubis.

Its lower most fibers share in formation of **conjoint tendon**.



Rectus Abdominis Muscle:

- ❖ This muscle lies close to mid line separated by linea alba.
- ❖ Its lateral margin forms a curved ridge called "**linea semilunaris**"
- ❖ The muscle is enclosed by a rectus sheath



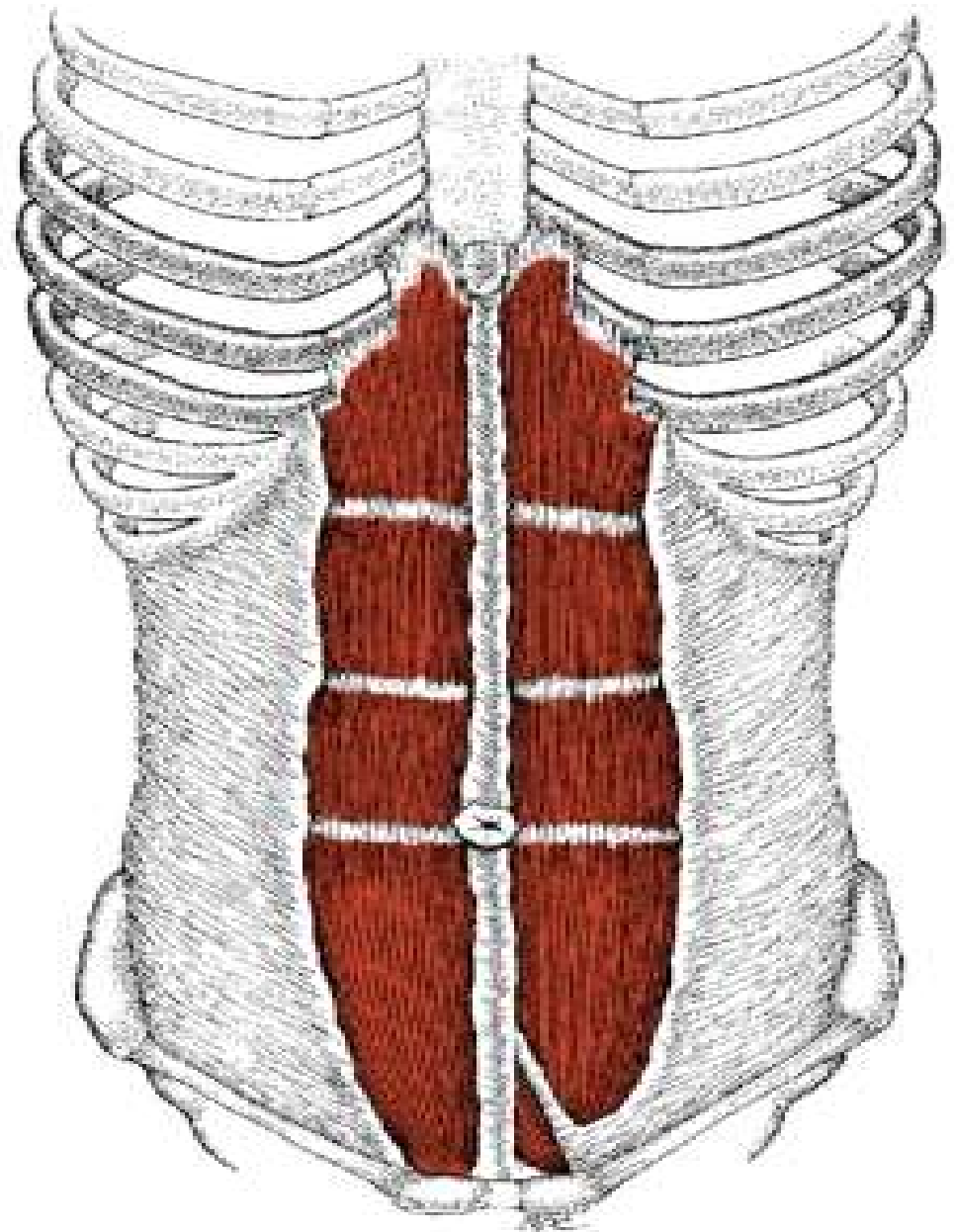
Origin:

- Medial head: symphysis pubis
- Lateral head: pubic crest.

Insertion:

- ❖ 5th, 6th & 7th costal cartilage.
- ❖ Xiphoid process.
- Rectus muscle is divided into segments by **transverse tendinous intersections** which located at:

Rectus Abdominis



- level of Xiphoid process .
- level of umbilicus
- One at half way.

Pyramidalis Muscle:

Small pyramidal shape muscle, often absent, lies in front of lower part of rectus muscle.

Origin: anterior surface of pubis.

Insertion: linea alba

