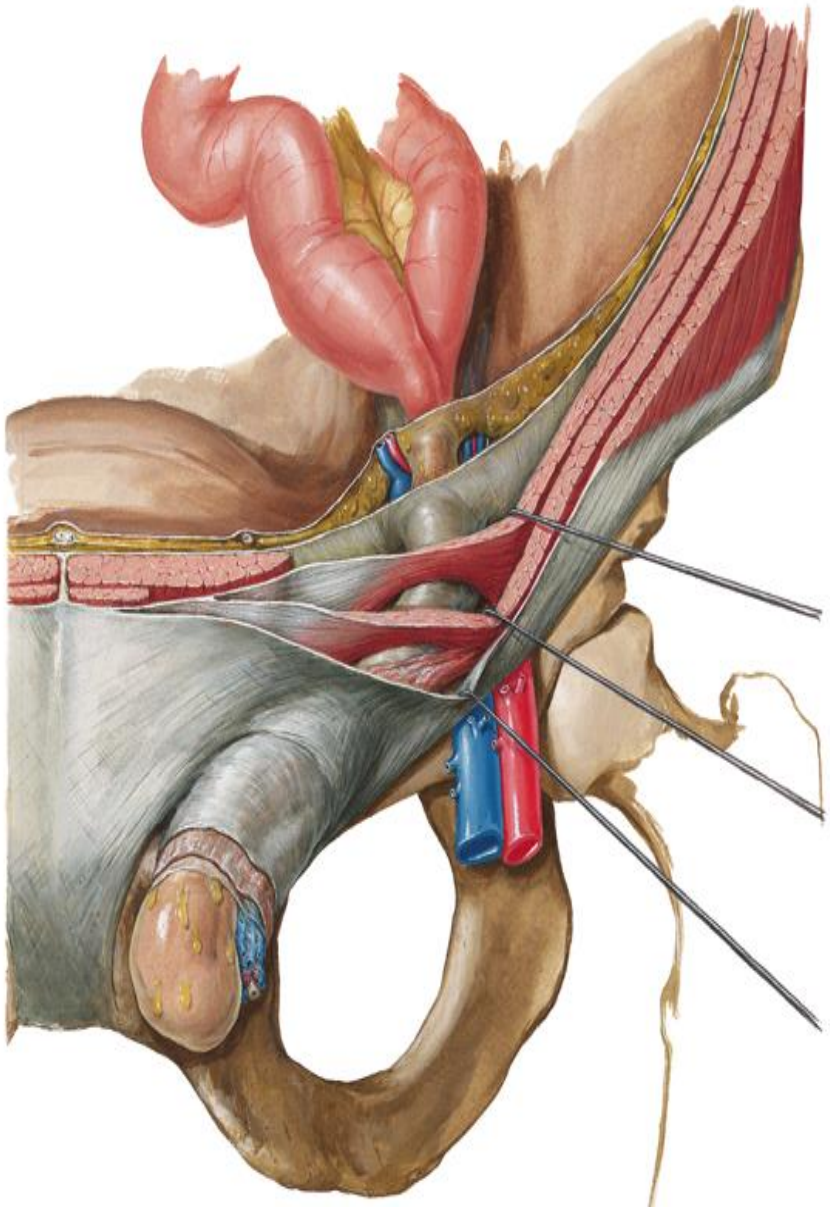
INGUINAL CANAL AND HERNIA



BY

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LUMBAR TRIANGLE

Boundaries:

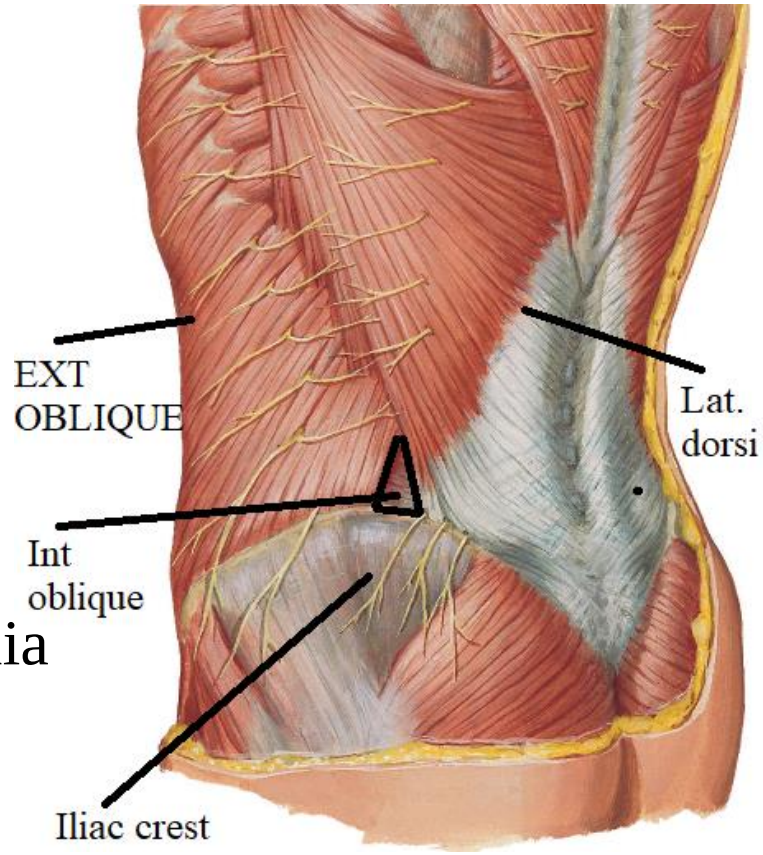
ant. : ext. oblique

post. : latissimus dorsi

below: iliac crest

floor : int. oblique.

significance: site of very rare lumbar hernia



INGUINAL LIGAMENT

DEF.:-Lower border of external oblique aponeurosis folded upwards &backwards

extend from pubic tubercle to ASIS

surfaces:

1-upper concave surface:

2-lower convex surface:

extensions : extend from medial part of inguinal lig.

1- lacunar ligament:- triangular in shape with

•apex: directed medially & attach to pubic tubercle.

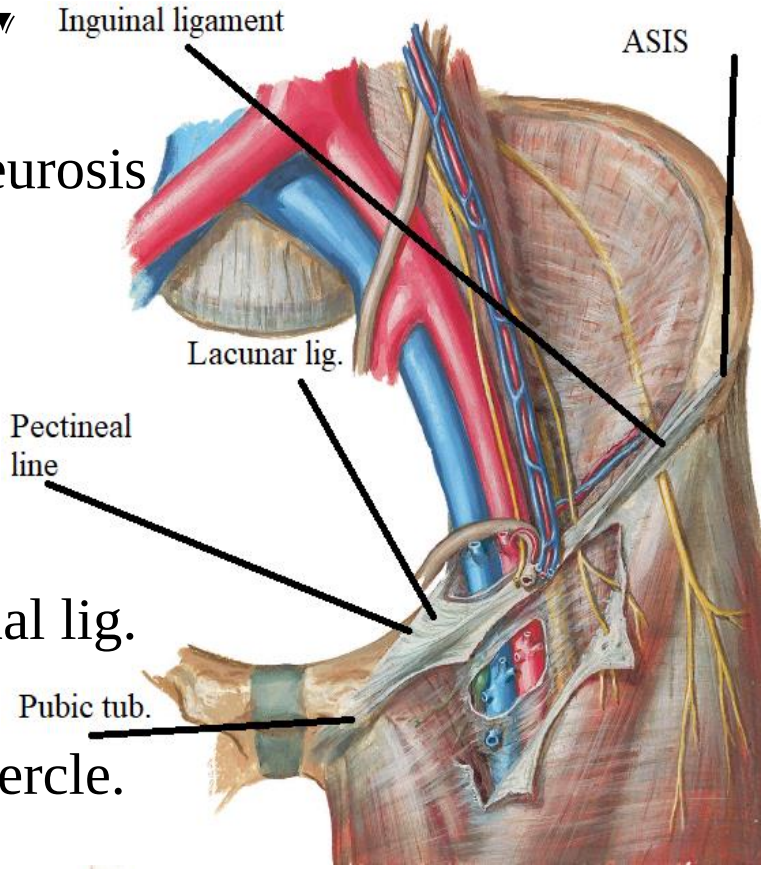
•base: directed laterally

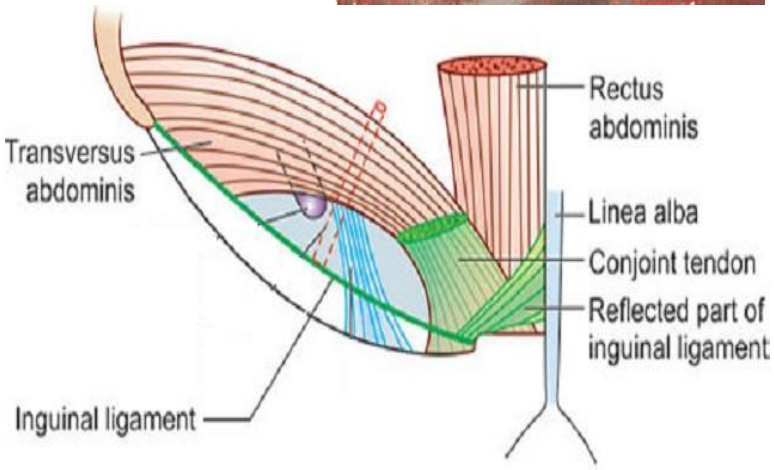
•ant. border: attach to inguinal lig.

•post. border: attach to pectineal line

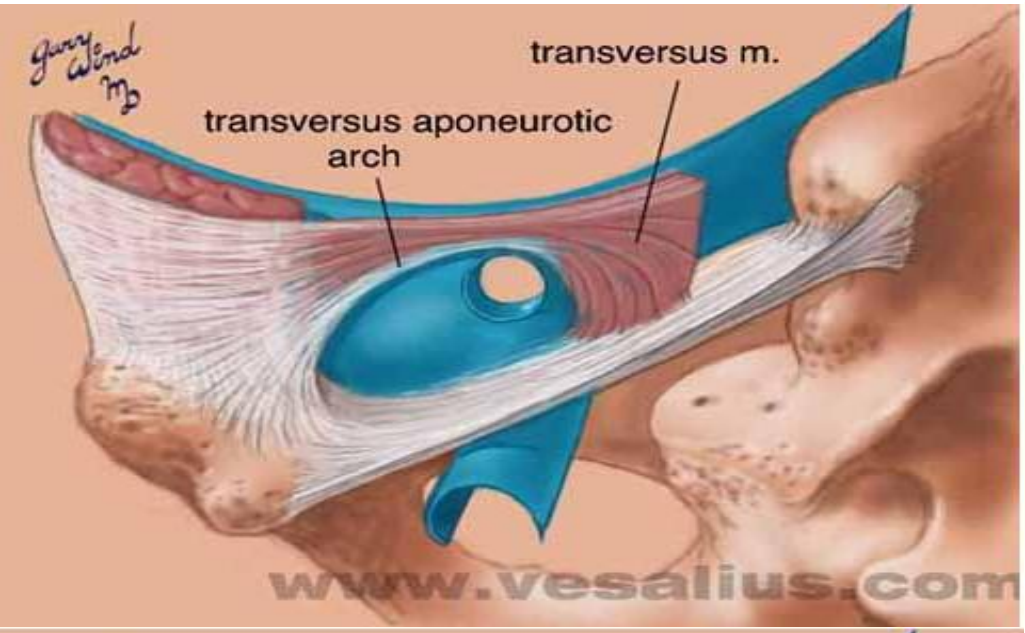
2- reflected part:

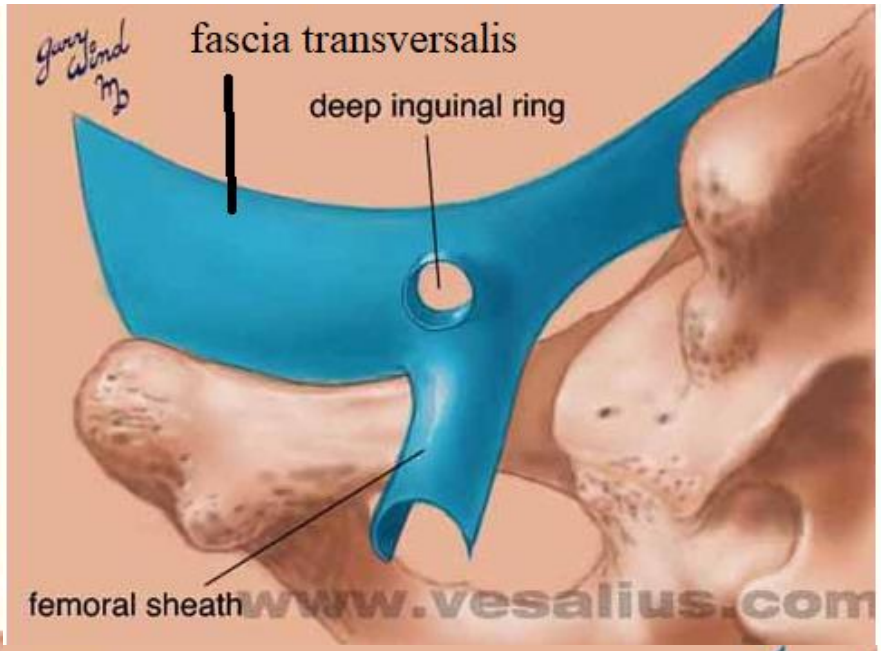
extends upward & medially
in front conjoint tendon to attach to linea alba

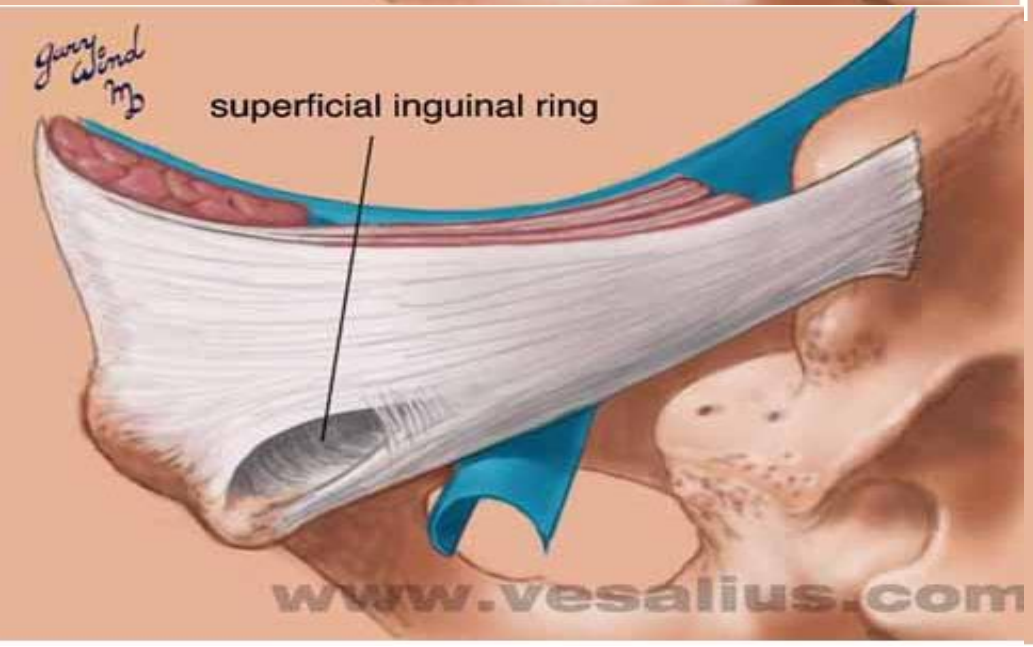


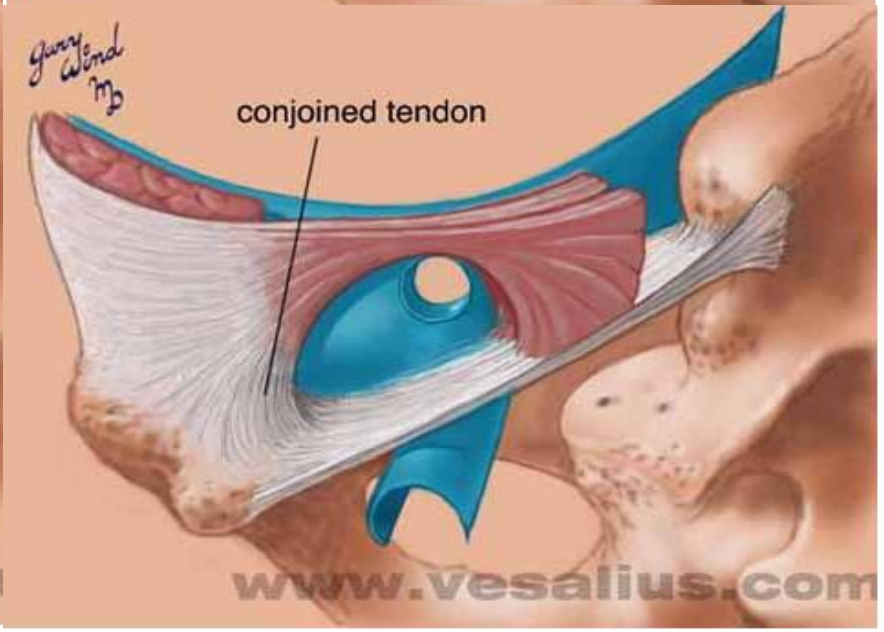


INGUINAL CANAL









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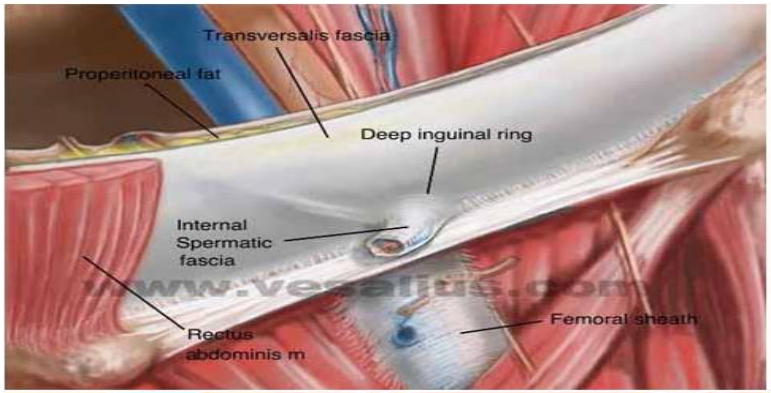

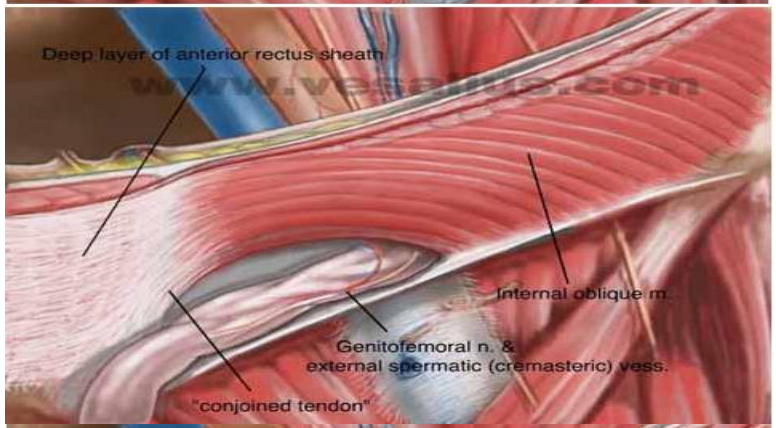

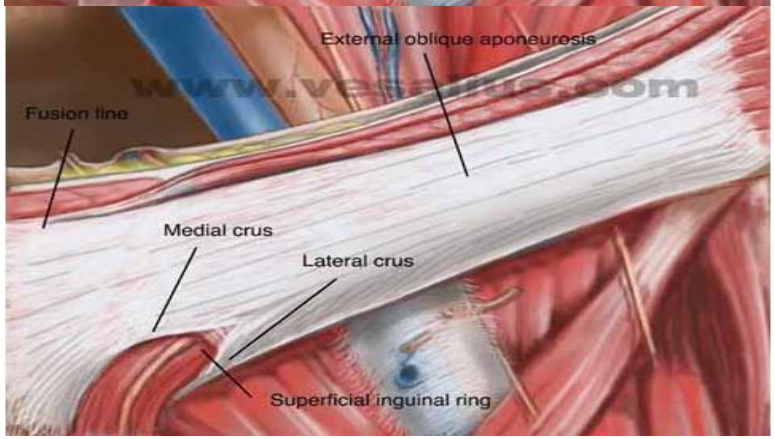

1. deep inguinal ring (site of oblique hernia).
2. inferior epigastric art
3. site of lateral direct hernia.
4. transversalis fascia.
5. site of medial direct hernia.
6. conjoint tendon.
7. reflected part of inguinal ligament.
8. cremaster muscle and fascia.
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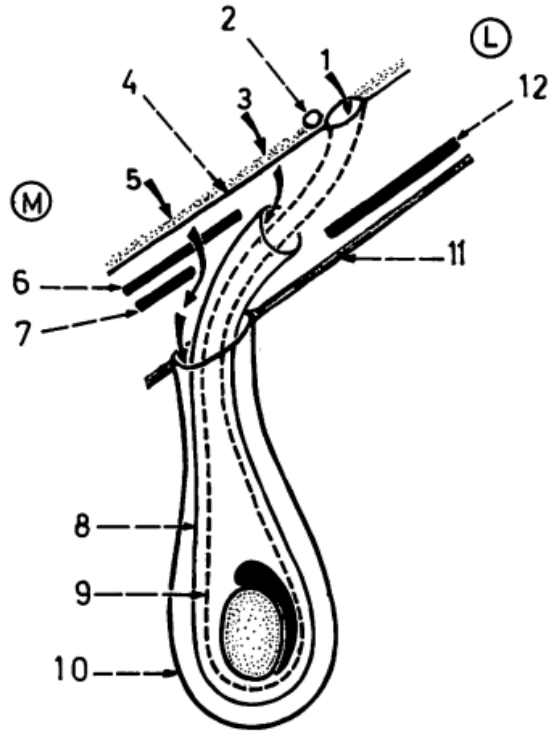
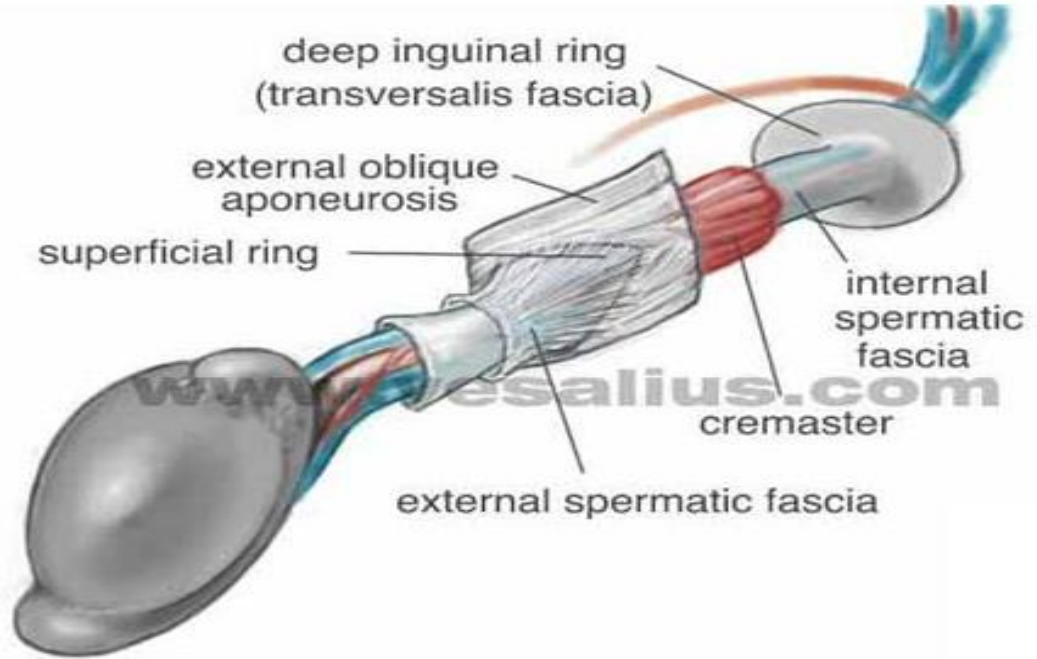




INGUINAL CANAL

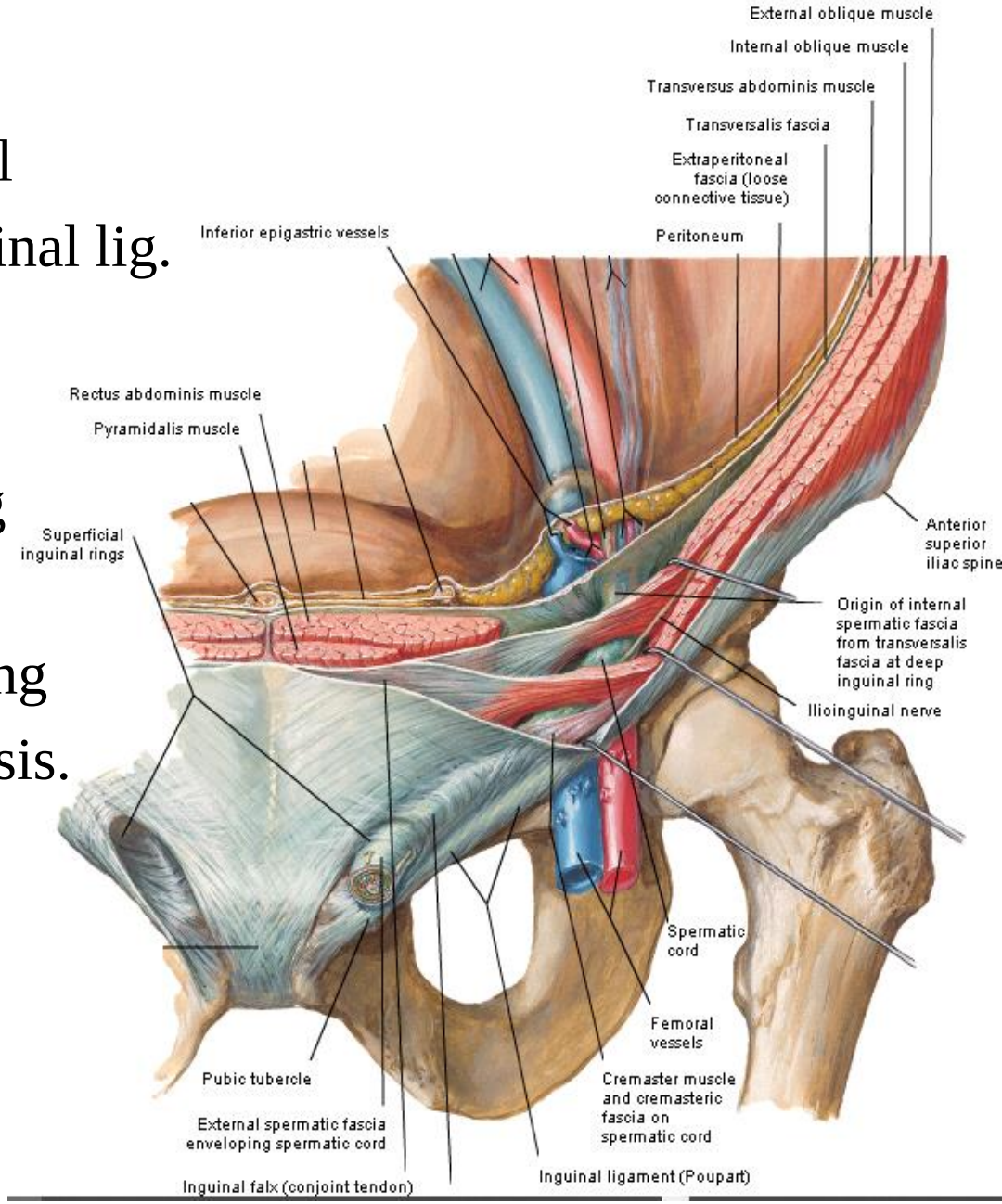
Def.: intermuscular passage in lower part of ant. ab. wall

site: above medial part of inguinal lig.

direction: downward, forward & medially.

extent: from deep inguinal ring in fascia transversalis to superficial inguinal ring in ext. oblique aponeurosis.

length: 1 1/2 inches (4 cm)



INGUINAL CANAL

Boundaries:

Deep inguinal ring

Site:-

in fascia transversalis

1/2 inches above midinguinal point

(midway ( ) ASIS & symphysis pubis)

Shape:- oval

Transmits:-

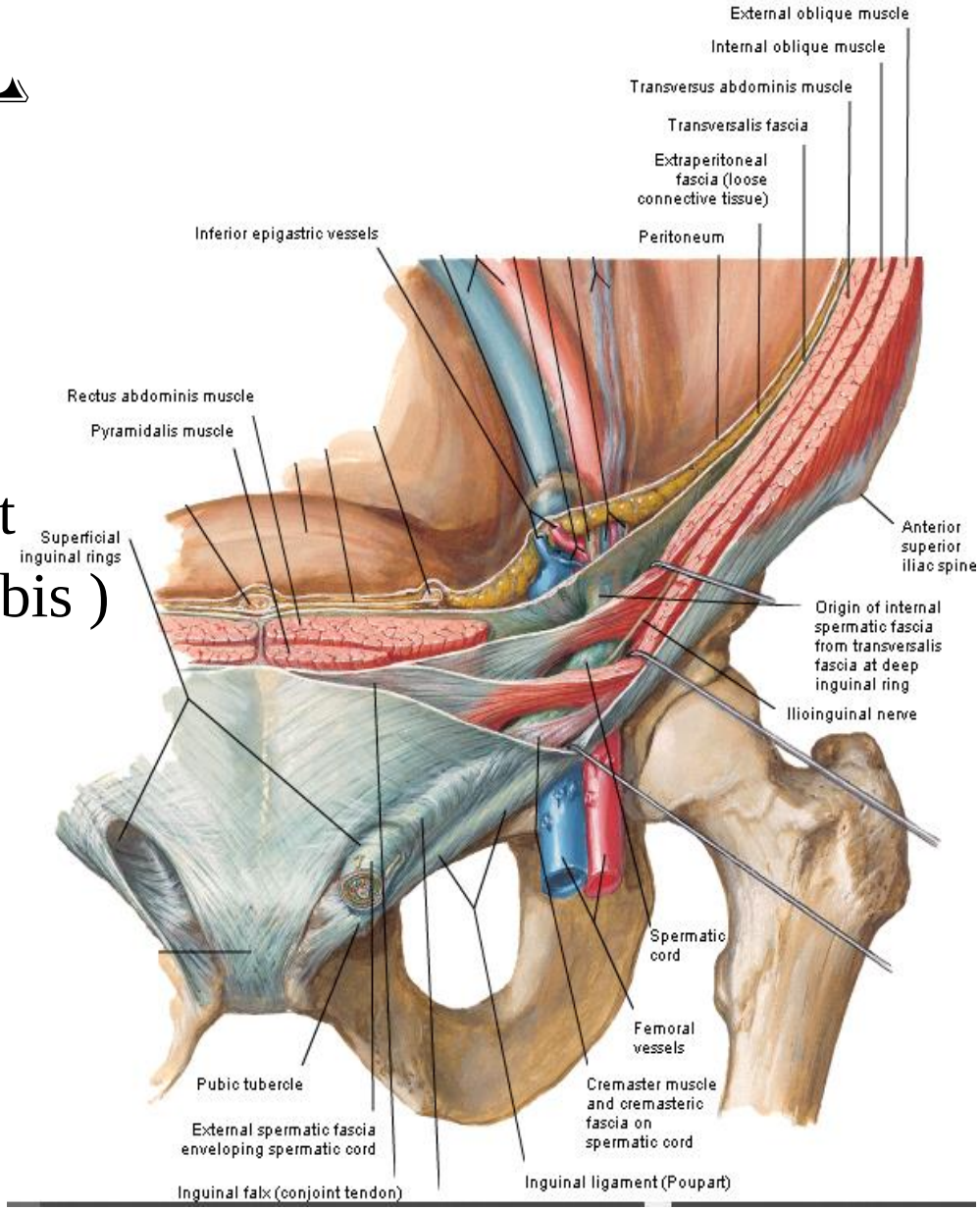
spermatic cord in male

round lig. of uterus in female

At its margin:-

int. spermatic fascia is formed

around the spermatic cord



Relations:- inferior epigastric art. lies medial to the ring

INGUINAL CANAL

Boundaries:

Superficial inguinal ring

Site:- in ext. oblique aponeurosis above pubic crest

Shape:- triangular with

•base: pubic crest

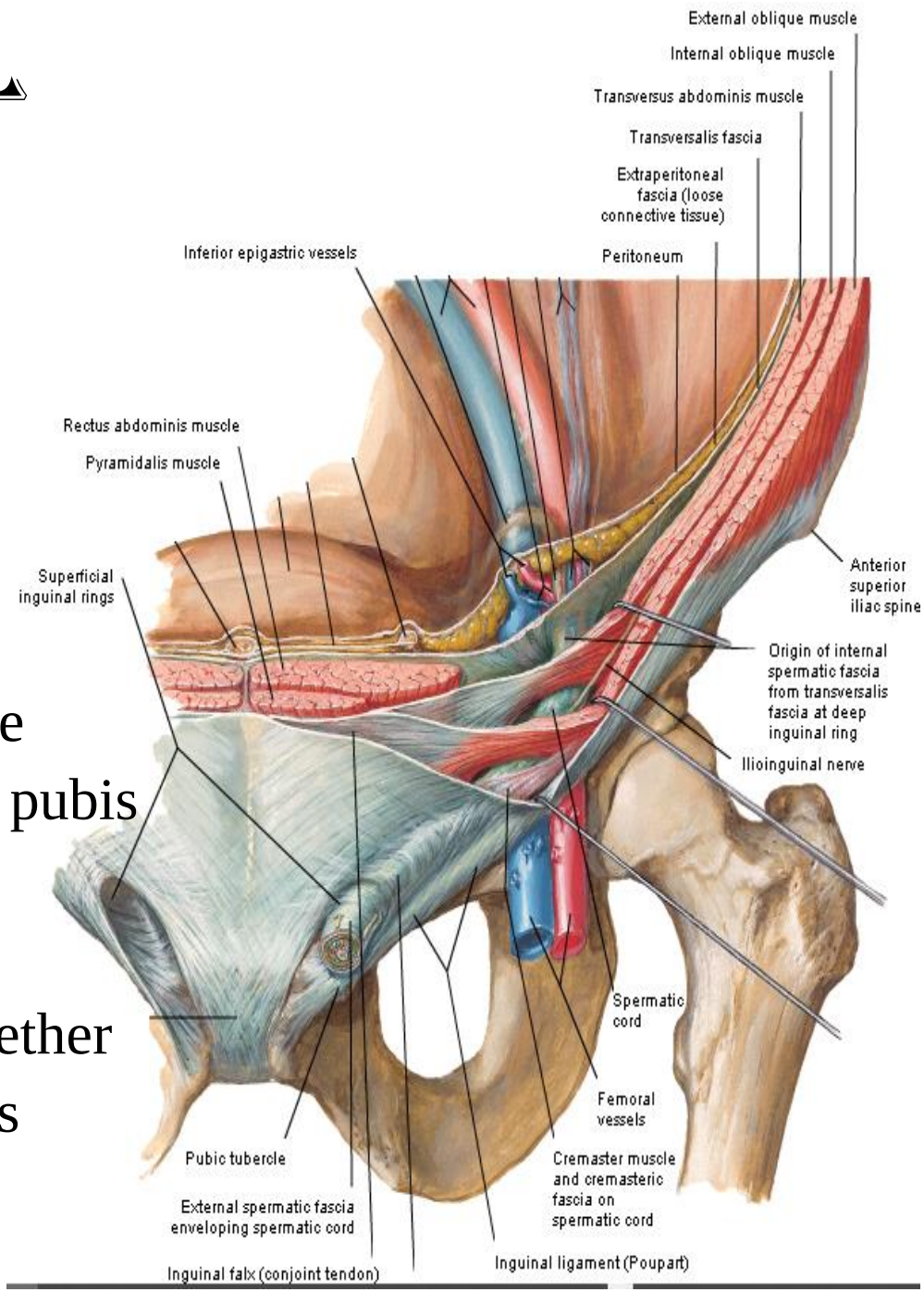
•sides:

lateral crus attach to pubic tubercle

medial crus attach to symphysis pubis

•apex: meeting of 2 crura and is directed upward & laterally

N.B: the 2 crura are connected together above the apex by intercrural fibers that prevent their separation



INGUINAL CANAL

Boundaries:

Superficial inguinal ring

Transmits:-

Ilioinguinal nerve

spermatic cord in male

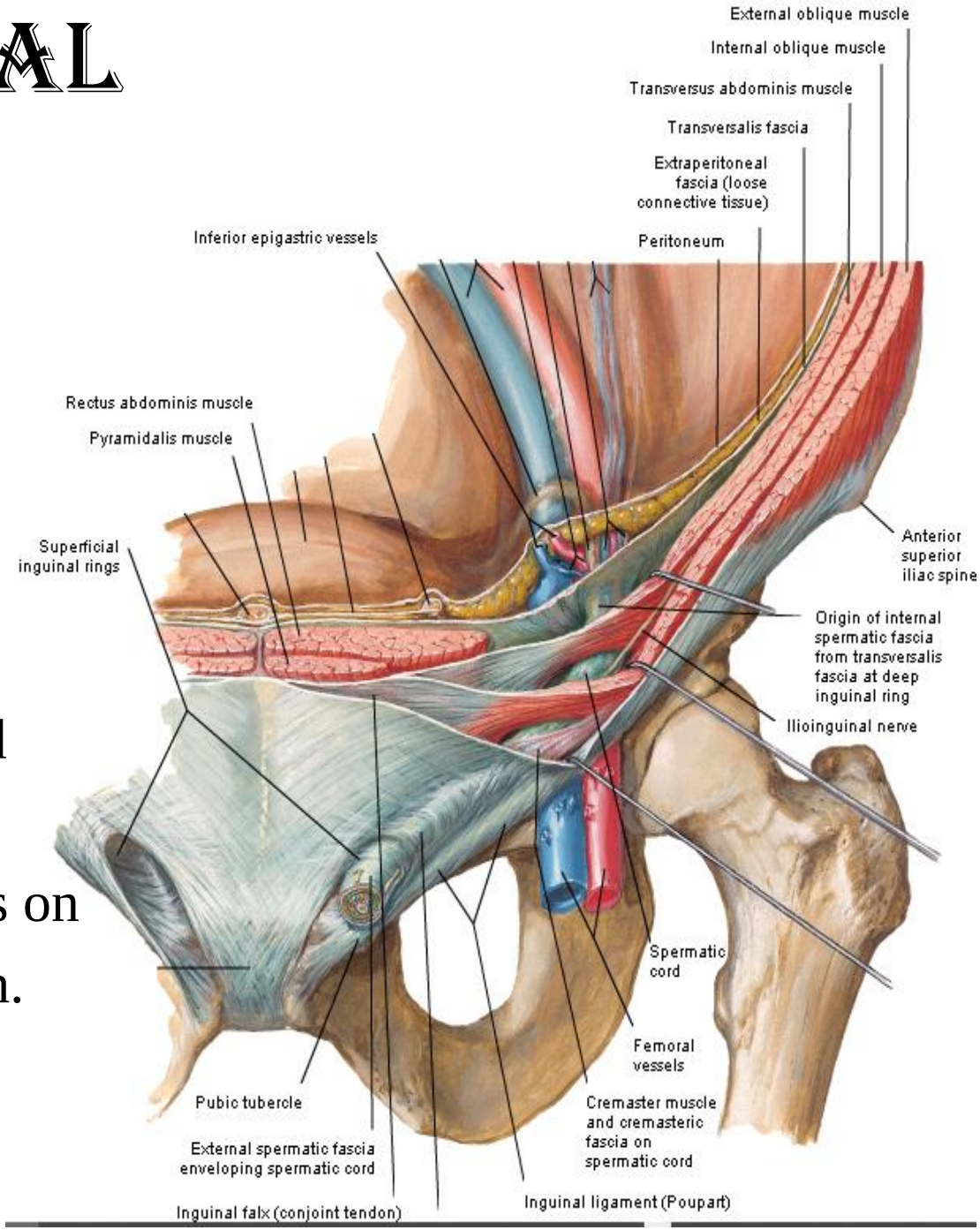
round lig. of uterus in female

At its margin:-

ext. spermatic fascia is formed around the spermatic cord

Relations:-spermatic cord pass on lateral crus with ilioinguinal n.

in ( ) it & the crus



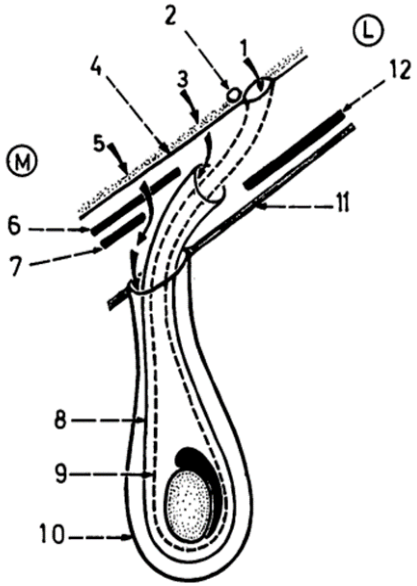
INGUINAL CANAL

Boundaries:

Anterior wall

- ext. oblique aponeurosis
- int. oblique in front

deep inguinal ring



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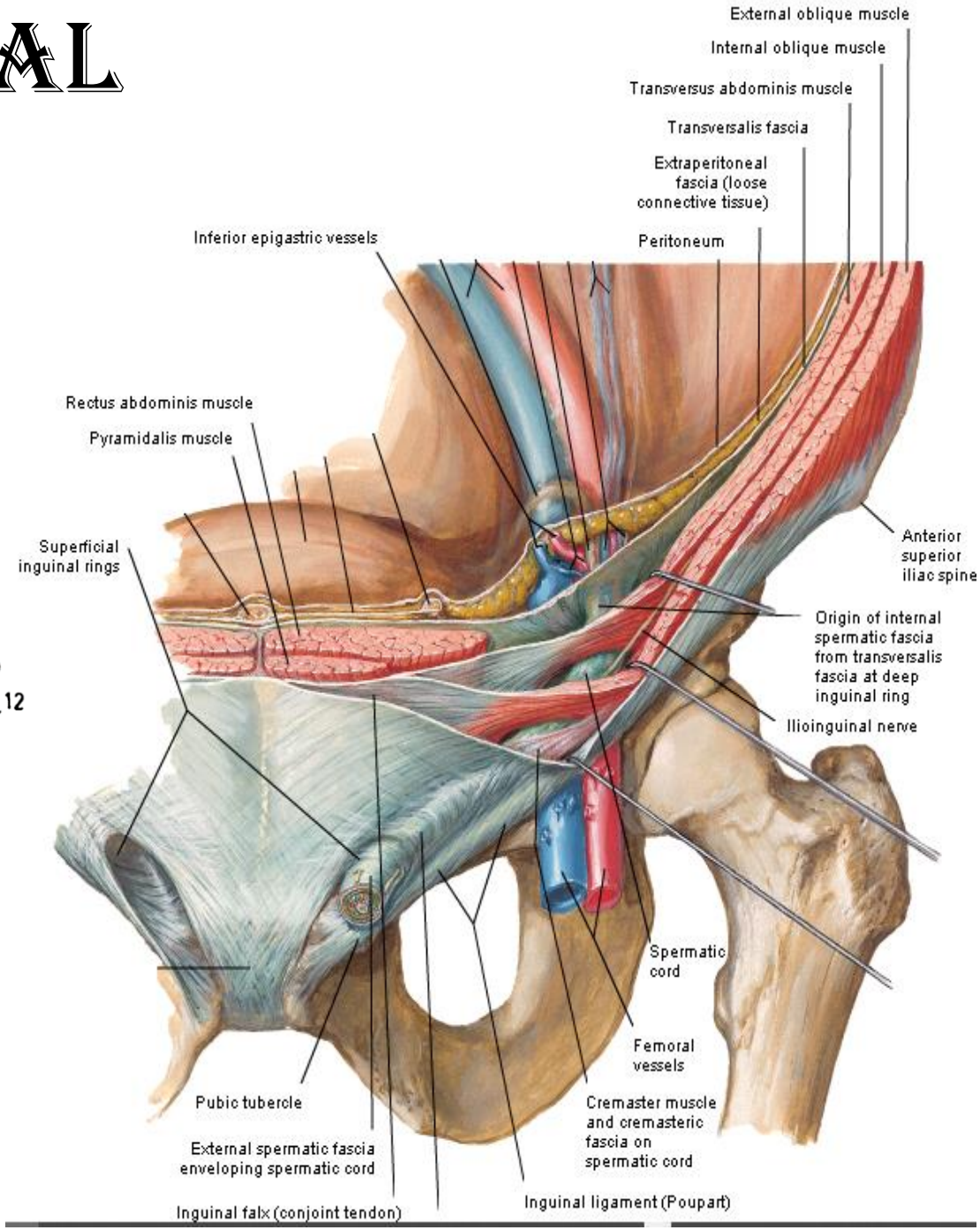


INGUINAL CANAL

Boundaries:

Posterior wall

- fascia transversalis
- conjoint tendon &

reflected part of inguinal lig.

behind superficial inguinal ring

Roof: arching fibers of

int. oblique & transversus abdo

Floor: inguinal lig.

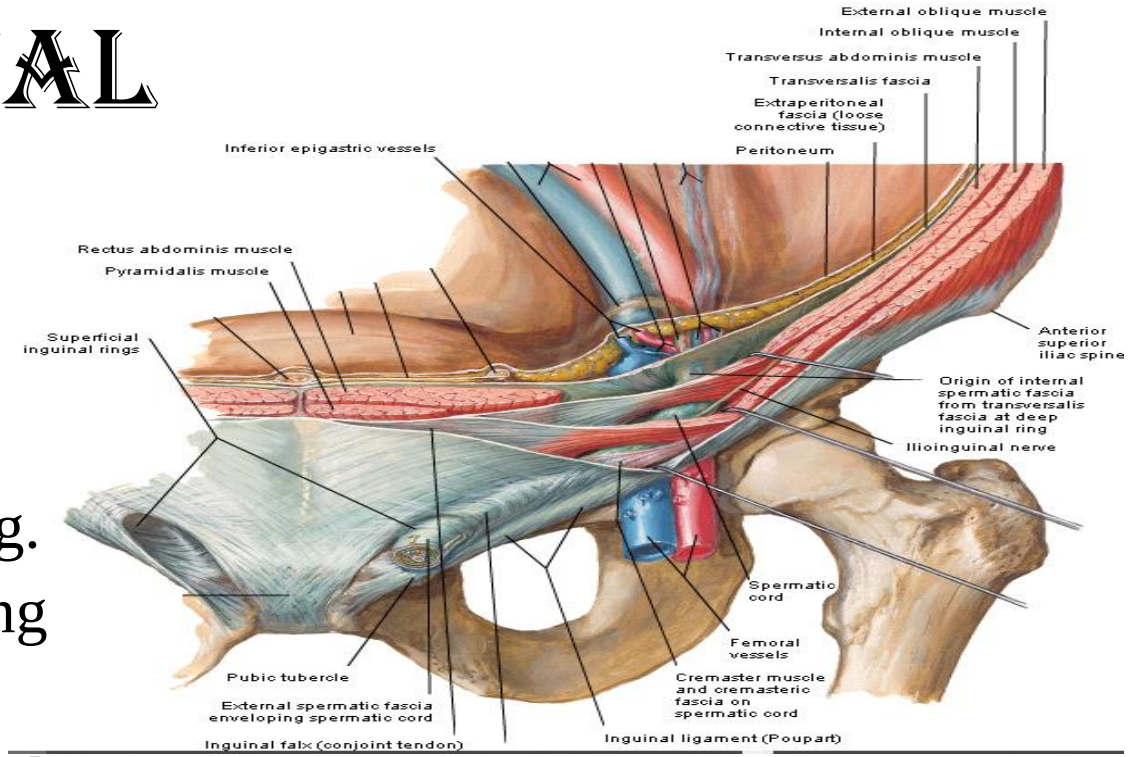
lacunar lig.

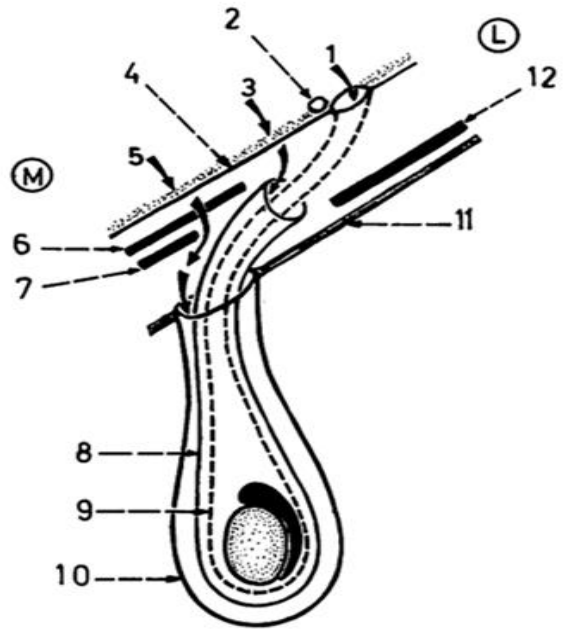
Contents:

1- ilioinguinal n.

2- spermatic cord in male

round lig. of uterus in female





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INGUINAL CANAL

Compensatory mechanisms:

compensate weakness in the wall at site of the canal.

1-superficial ring

is compensated by conjoint tendon & reflected lig.

2-deep ring

is compensated by int. oblique.

3-contraction of int. oblique & transversus obdominis

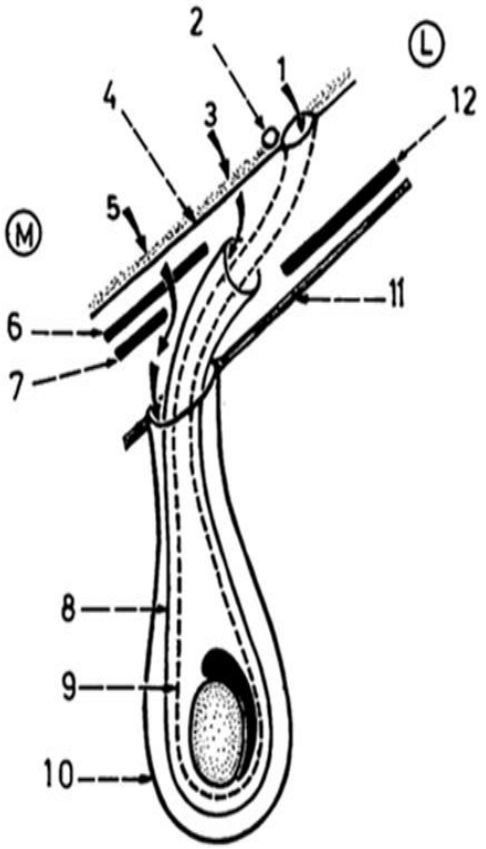
descent of arching fibers & closure of canal.

4-contraction of ext. oblique

aproximate - the 2 crura & closure of superficial ring.

5-increased intra abdominal pressure

approximate ant. & post. walls & closure of canal (because the canal is oblique).



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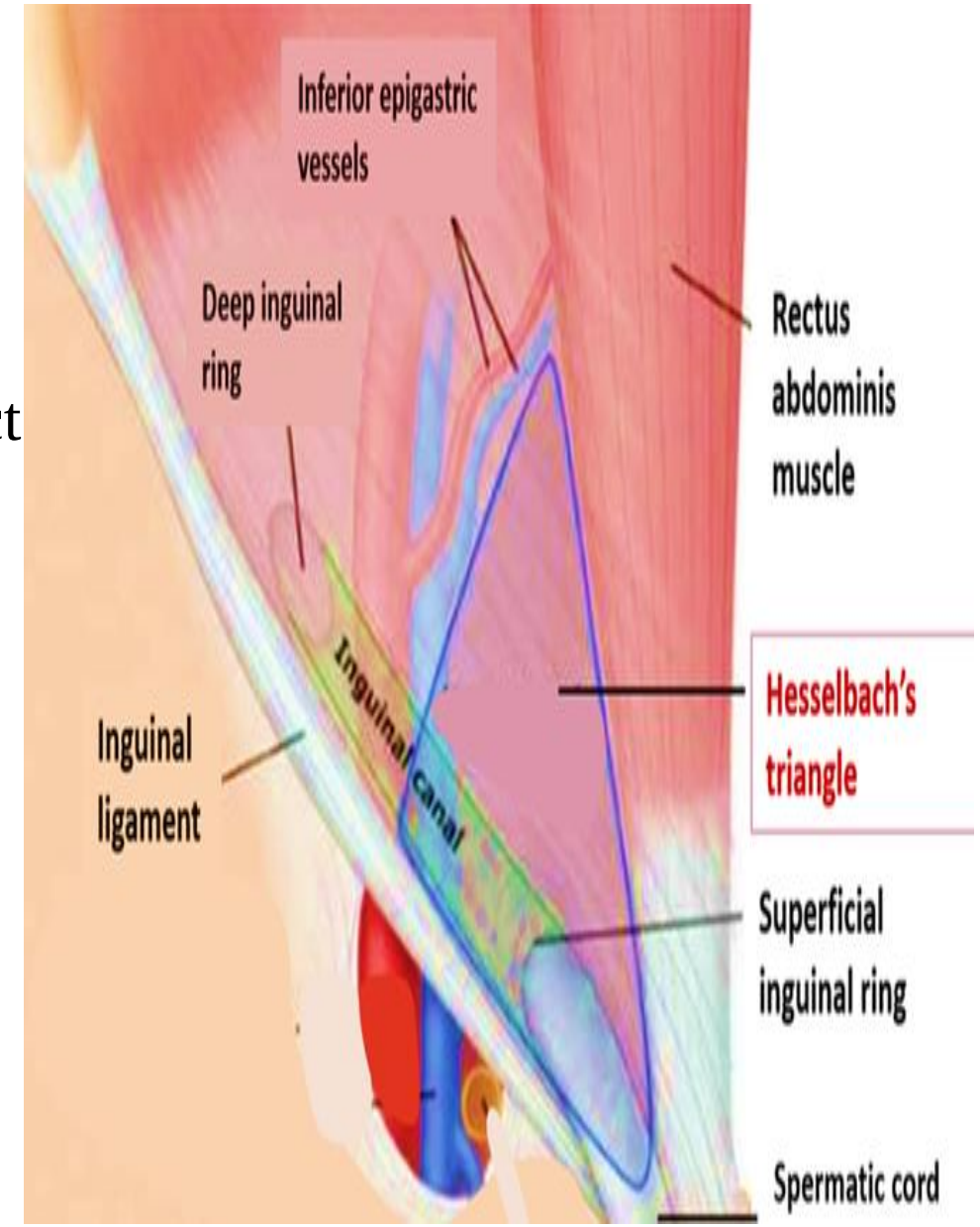
INGUINAL (HASSELBACH'S) TRIANGLE

Boundaries:

- medial: rectus abdominis.
- lateral: inferior epigastric art.
- base: inguinal lig.

surgical importance: site of direct inguinal hernia.



INGUINAL HERNIA

Def.: protrusion of an abdominal content through week point in abd. wall .

Causes:

1-waek abd. muscles

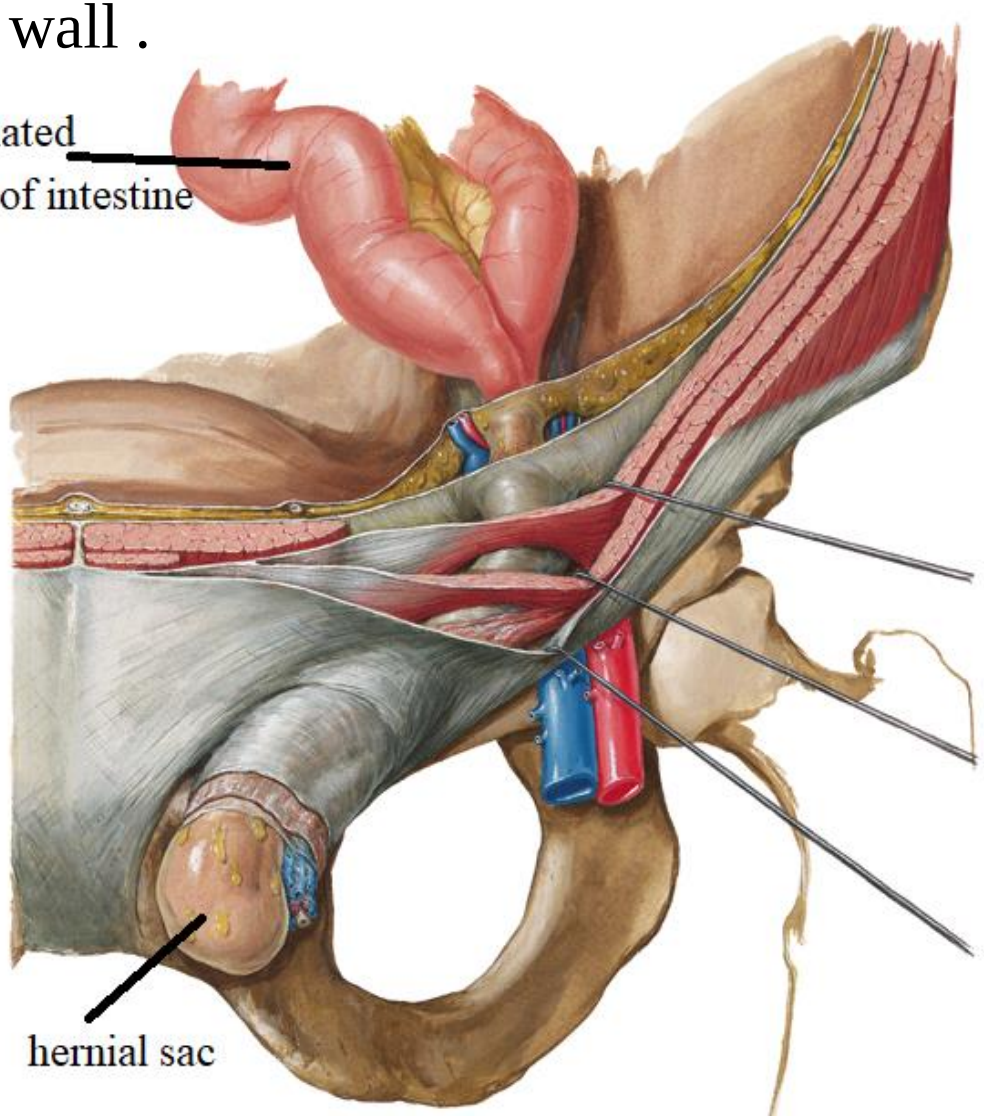
2- marked increase in intra-abdominal pressure as raising heavy objects.

Structure:

1-Sac: formed of peritoneum

2-Contents: organ.

3-Coverings: layers of abd. Wall pushed by the sac.



INGUINAL HERNIA

Types:

Oblique(indirect) inguinal hernia

Age:- common in young

Sac

1-pass through deep inguinal ring lateral to inferior epigastric art.

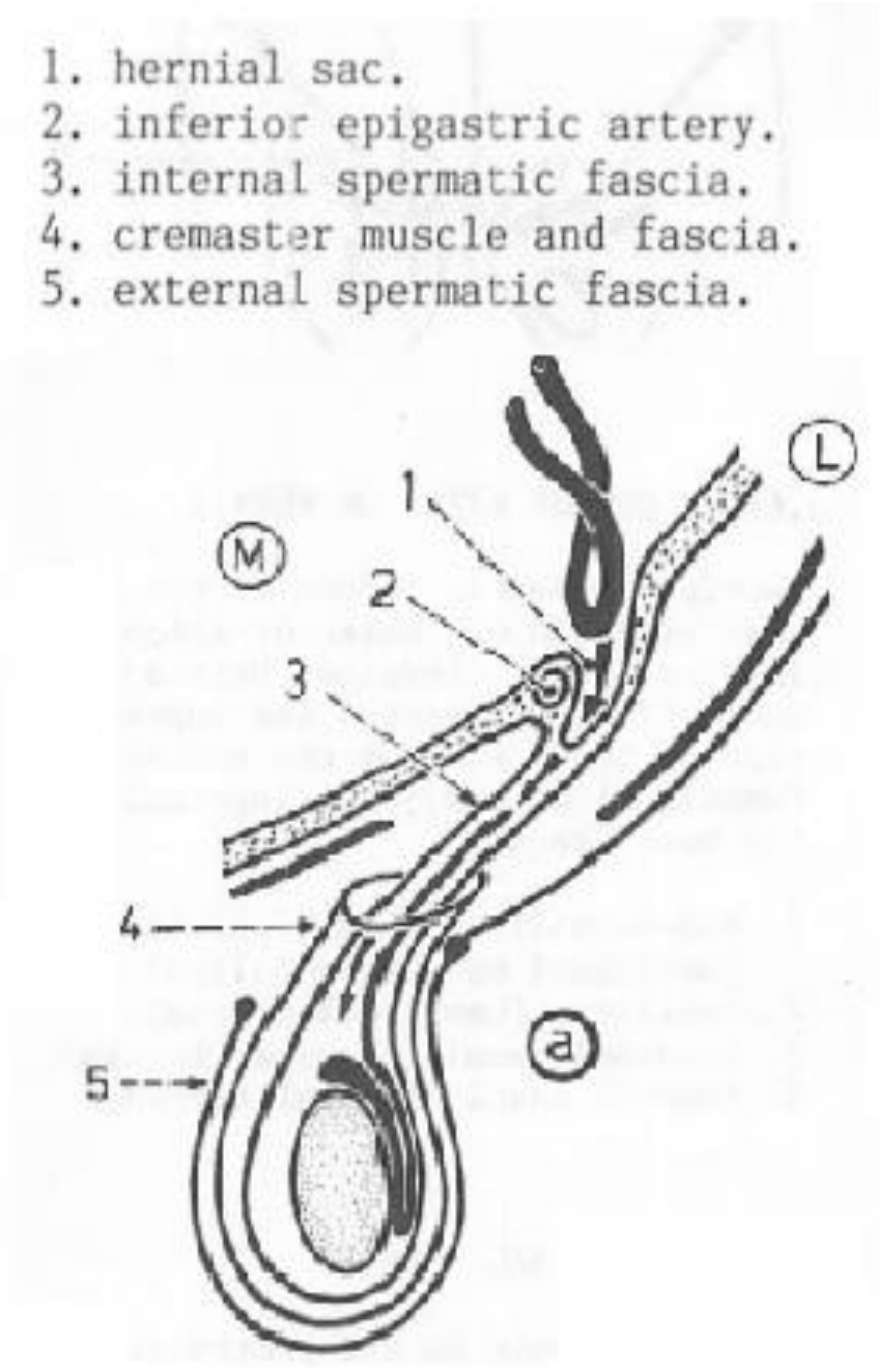
2-ant. to spermatic cord

3-May reach scrotum

Covering

sac is covered by int. spermatic fascia & cremastric ms and fascia & external spermatic fascia

not covered by fascia transversalis



INGUINAL HERNIA

Types:

Direct inguinal hernia

Age:- common in old age

Sac

1-pass through inguinal triangle

Medial to inferior epigastric art.

2-posterior to spermatic cord

3-Doesn't reach scrotum

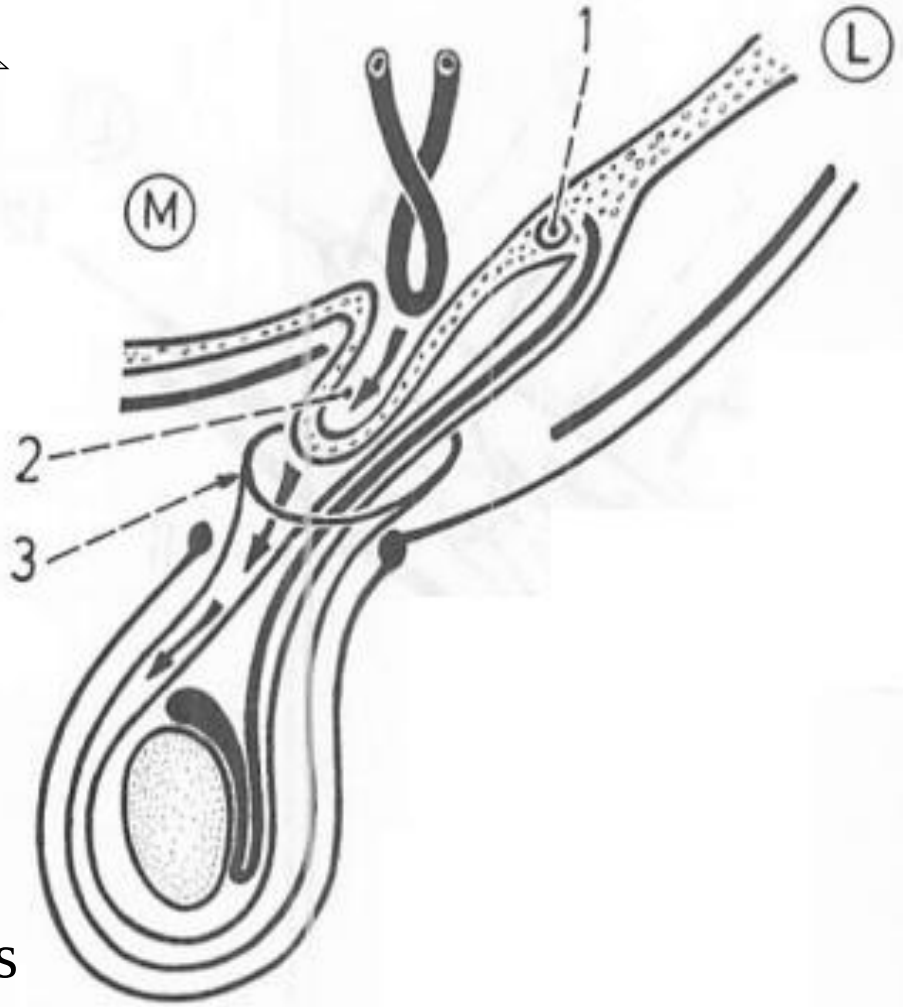
Covering

sac is covered by fascia transversalis

& cremastric ms and fascia

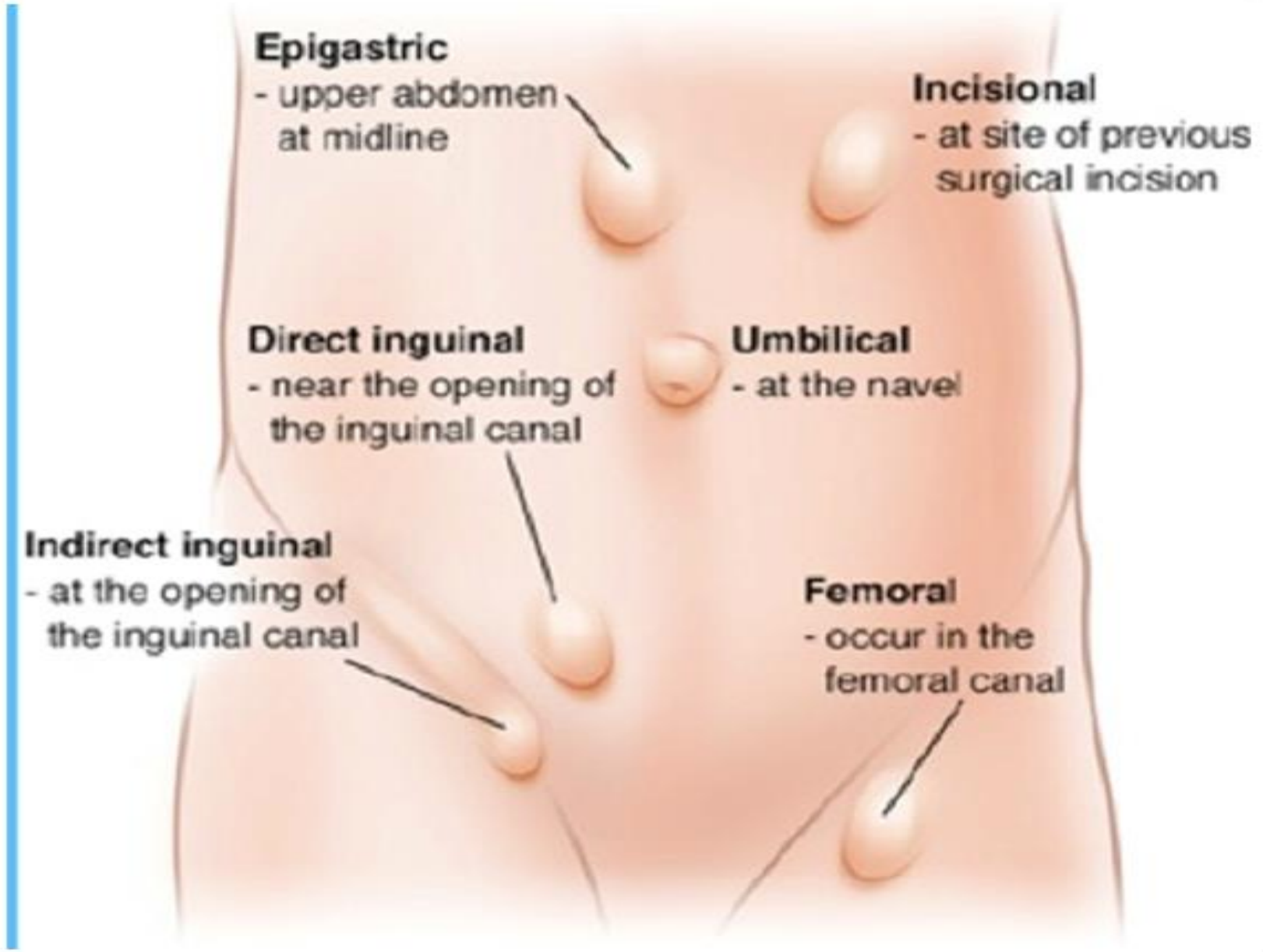
& external spermatic fascia

not covered by internal spermatic fascia



1. inferior epigastric artery.
2. hernial sac.
3. cremaster muscle and fascia.

OTHER TYPES OF HERNIA



THANQ