



WITH NOTES

The Perineum

By:

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تسلم إيد اللي بعثت النوتس ألف ومليون مرة ♥



Intended Learning Outcomes (ILOs)

1. Identify the Site and Boundaries of perineum.
2. Recognize Different Parts of the perineum.
3. List attachment of the perineal membrane.
4. Enumerate contents of the superficial and deep perineal pouches.

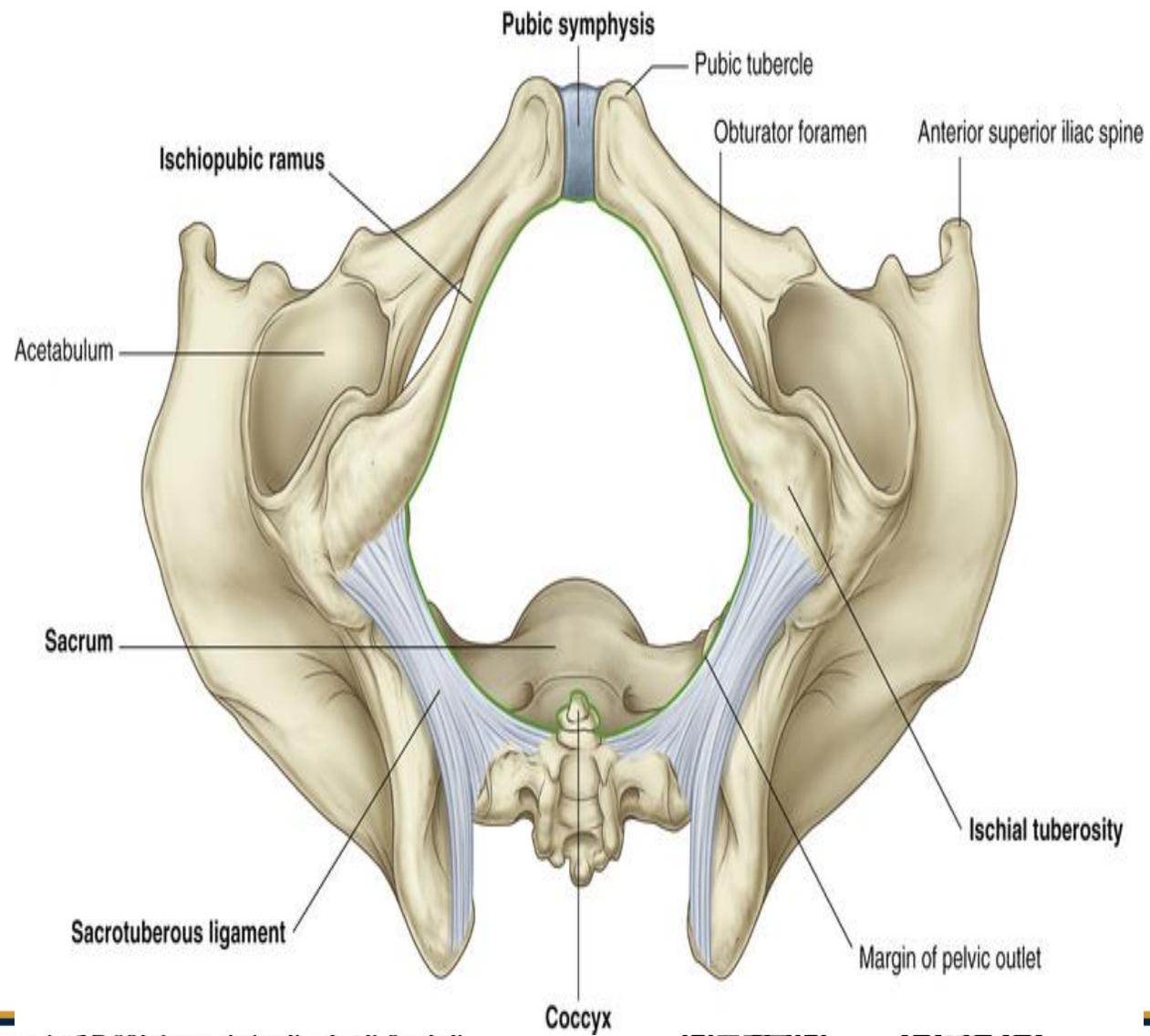
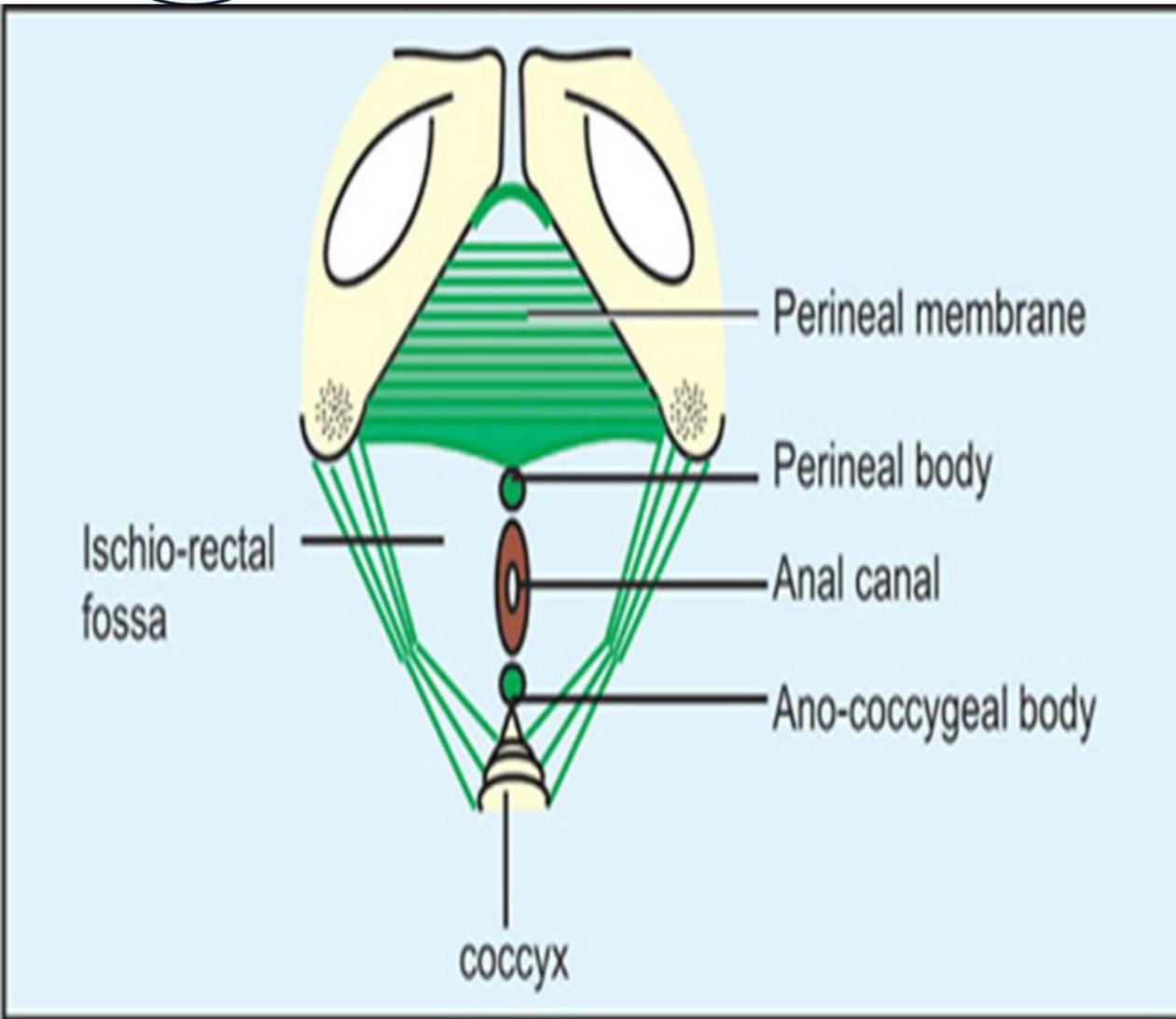
Agenda

1. What are the site and boundaries of perineum?
2. What are different parts of the perineum?
3. What are contents of the superficial and deep perineal pouches?



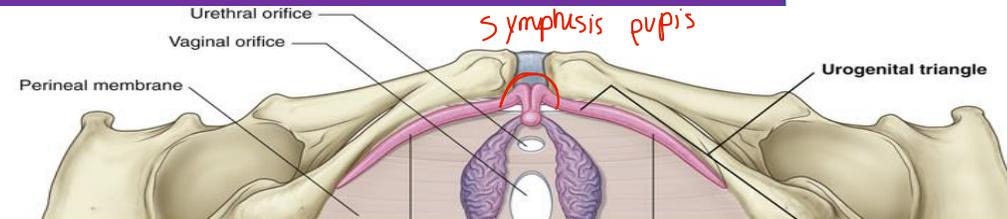
PERINEUM

- ❑ The perineum is a diamond-shaped region positioned inferiorly to the pelvic floor between the thighs.
- ❖ Its peripheral boundary is **the pelvic outlet**; its ceiling is **the pelvic diaphragm** (the levator ani and coccygeus muscles); and **its narrow lateral walls** are formed by the walls of the pelvic cavity below the attachment of the levator ani muscle.
- ❖ The perineum is divided into an anterior urogenital triangle and a posterior anal triangle.
 - The Urogenital Triangle is associated with **the openings** of the urinary systems and the reproductive systems and functions to Anchor The External Genitalia.
 - The Anal Triangle contains the anus and the external anal sphincter.
 - The pudendal nerve (S2 to S4) and the internal pudendal artery are the major nerve and artery of the region.



THE PERINEUM

- ❑ **Definition:** The lower part of pelvic cavity below the pelvic diaphragm
- ❑ **Site:** inferior to pelvic diaphragm between the thighs
- ❑ **Shape:** diamond-shaped when seen from below
- ❑ **Boundaries:**
 - ❑ **Anterior:** lower border of symphysis pubis.
 - ❑ **Posterior:** coccyx.
 - ❑ **Laterally:** Ischiopubic rami, Ischial tuberosity & Sacrotuberous ligament.
 - ❑ **Roof (ceiling):** pelvic diaphragm (levator ani & coccygeus).



فيه كام نقطه الدكتور أكد عليهم نعرفهم قبل ما يدخل ف الشرح العميق :-

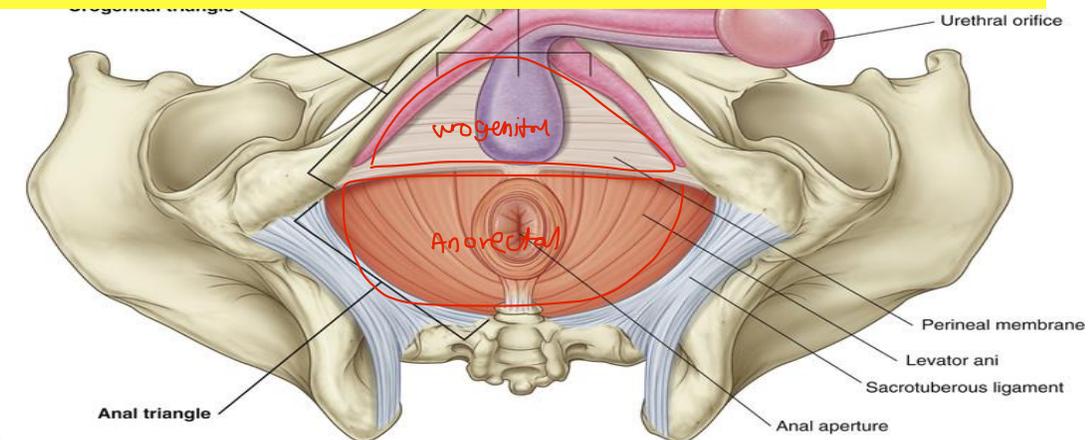
1-the shape of perineum...

2_ the site of perineum...

3_ the perineum divided into...

*خد بالك 😊👉 :-

★ كل ما هو تحت ال pelvic diaphragm لحد ال skin فهو اسمه (perineum).



B

Space below pelvic outlet

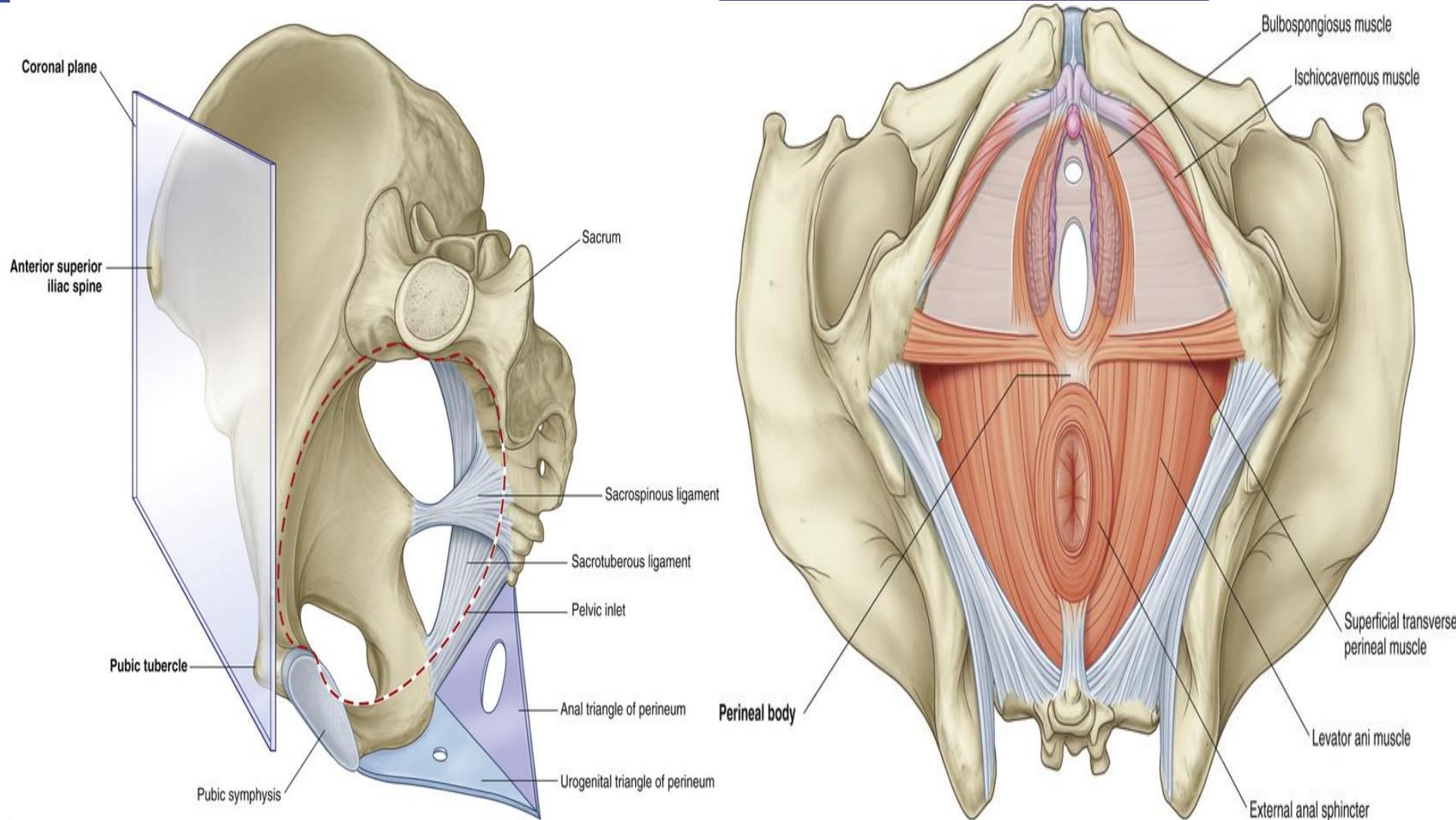


THE PERINEUM

Divisions: by a line between 2 ischial tuberosities into:

Urogenital triangle: (anterior): contain 2 Perineal Pouches and External Genitalia.

Anal triangle: (posterior): contain anal canal & ischiorectal fossa.



The Anal Triangle :

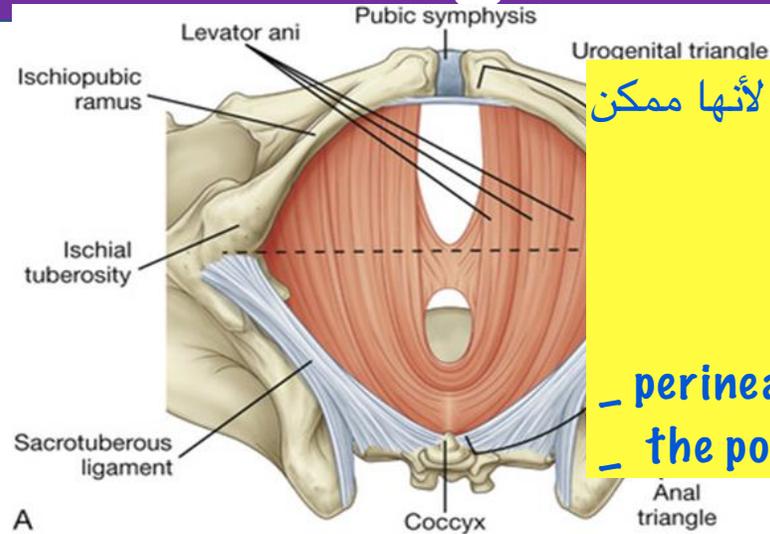
Boundaries:

- ❑ **Anteriorly:** imaginary line between the 2 ischial tuberosities.
- ❑ **Posteriorly:** coccyx.
- ❑ **On each side:** Sacro-tuberous ligament.
- ❑ **Roof:** levator ani and coccygeus.

CONTENTS:

1. Anal canal
2. External anal sphincters
3. Ischio-rectal fossa

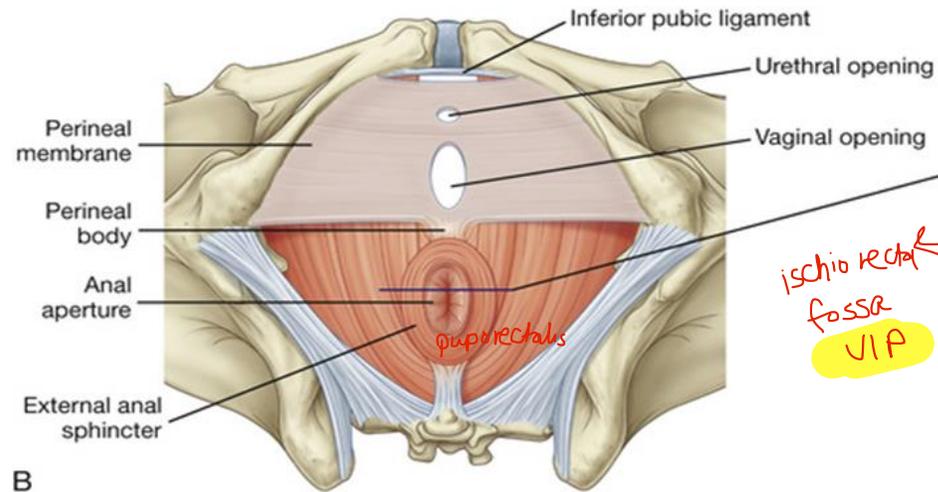
The ischio-anal fossae allow movement of the pelvic diaphragm and **expansion of the anal canal during defecation.**



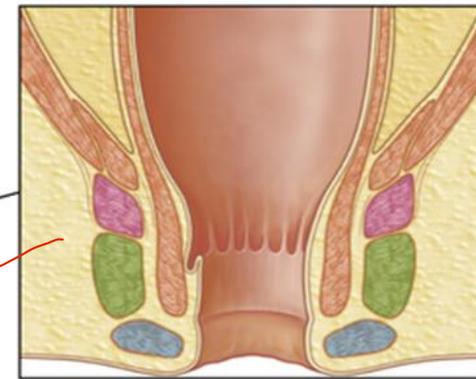
*ناخذ بالنسبة من ال boundaries بتاعته لأنها ممكن تيجي SAQ or MCQ .

نعرف ان :-

- perineal membrane is a thick fibers
- the posterior border is.. (free)



ischio rectal fossa V/A



Deep
 Superficial
 Subcutaneous

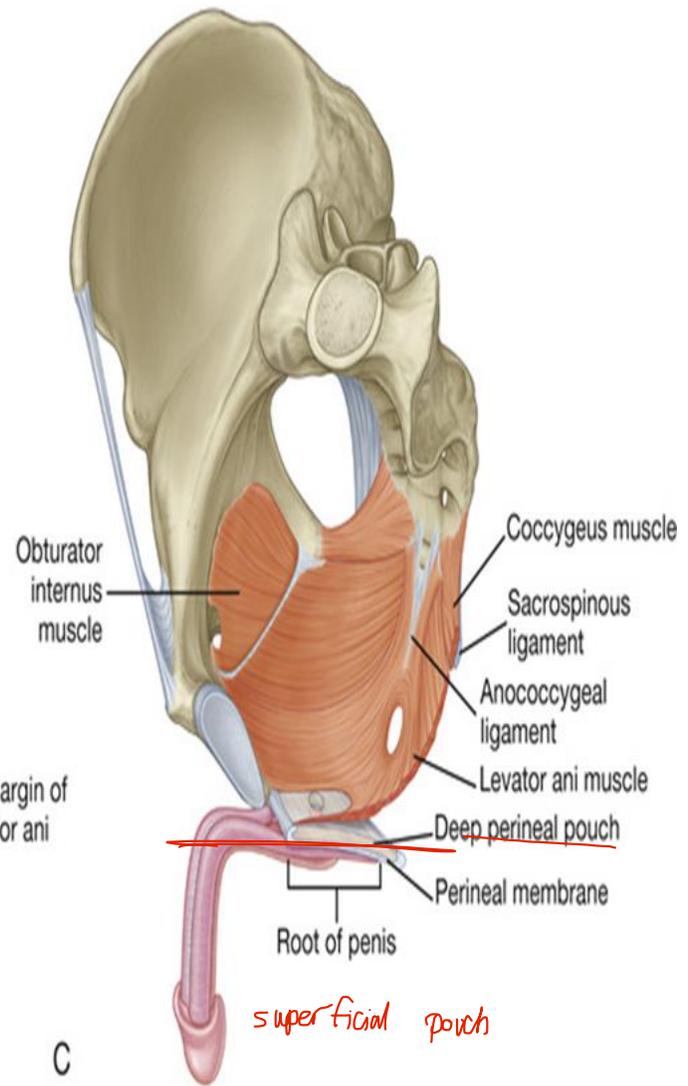
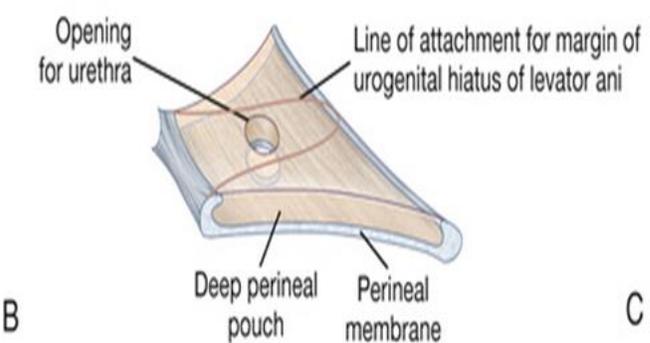
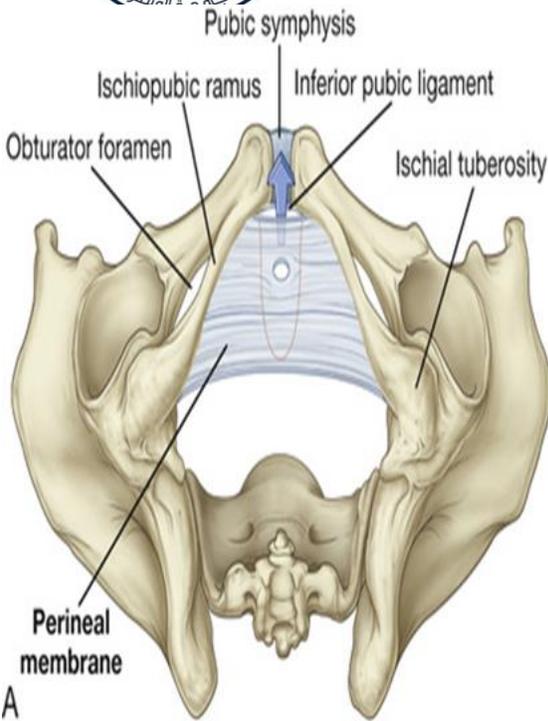
External anal sphincter

The Perineal Membrane is a thick fibrous sheet that fills the urogenital triangle .

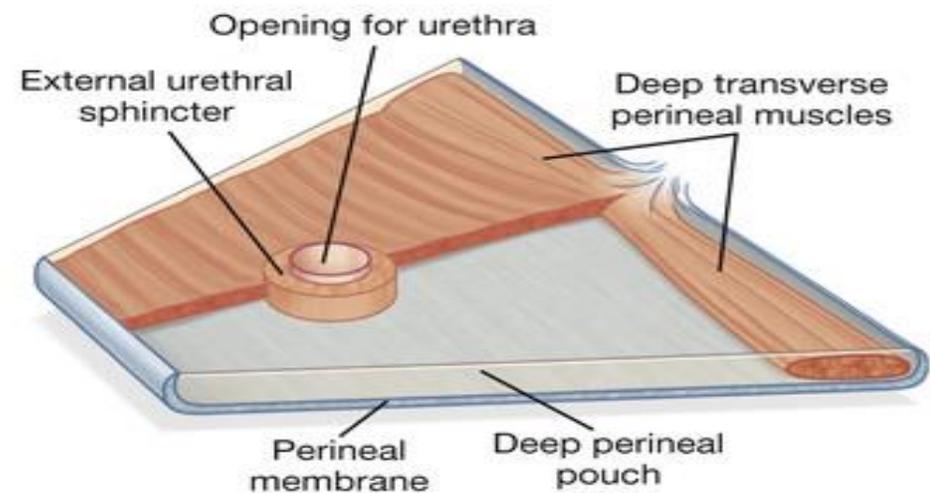
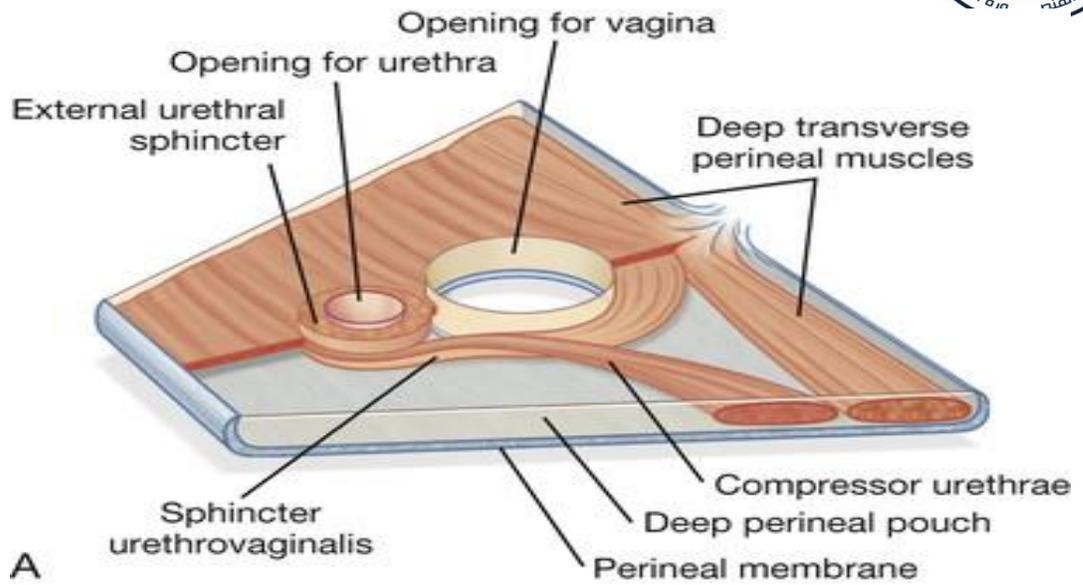
- ❖ It has **a free posterior border**, which is anchored in the midline to the **perineal body** and is attached **laterally to the pubic arch**.
- ❖ Immediately **superior to the perineal membrane** is a thin region **termed the deep perineal pouch**, containing a layer of **skeletal muscle and neurovascular tissues**.
- ❖ Among the skeletal muscles in the pouch is **the external urethral sphincter**.
- ❖ The perineal membrane and deep perineal pouch provide **support for the external genitalia, which are attached to its inferior surface**.
- ❖ Also, the parts of the perineal membrane and deep perineal pouch also **provide support for pelvic viscera**.
- The urethra leaves the pelvic cavity and enters the perineum by passing through the deep perineal pouch and perineal membrane. **In women**, the **vagina** also passes through these structures posterior to the urethra.

***function of perineal membrane is*:-**

(support for the external genitalia + attached to its inferior surface + provide support for pelvic viscera)

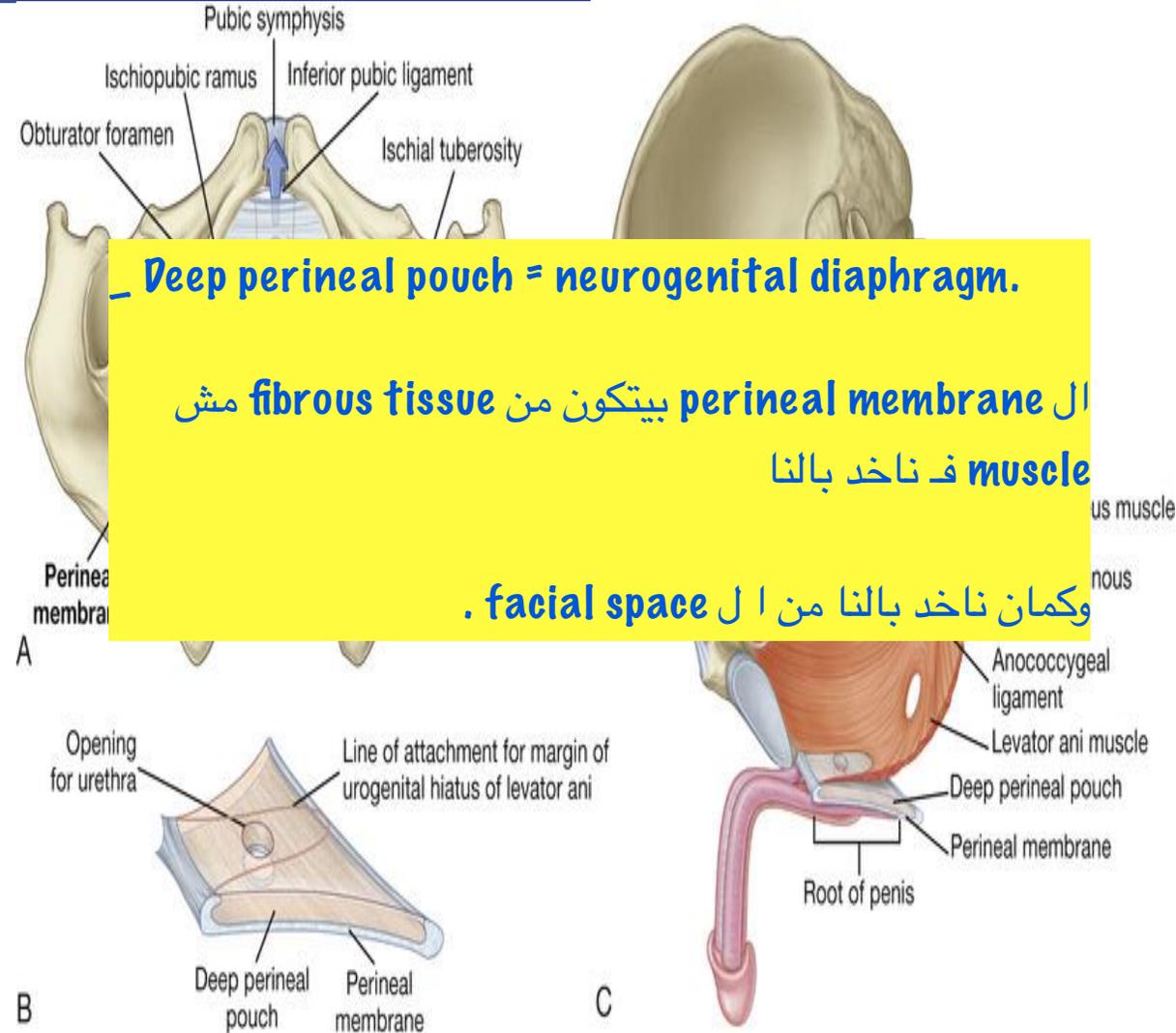


superficial pouch



The Perineal Membrane

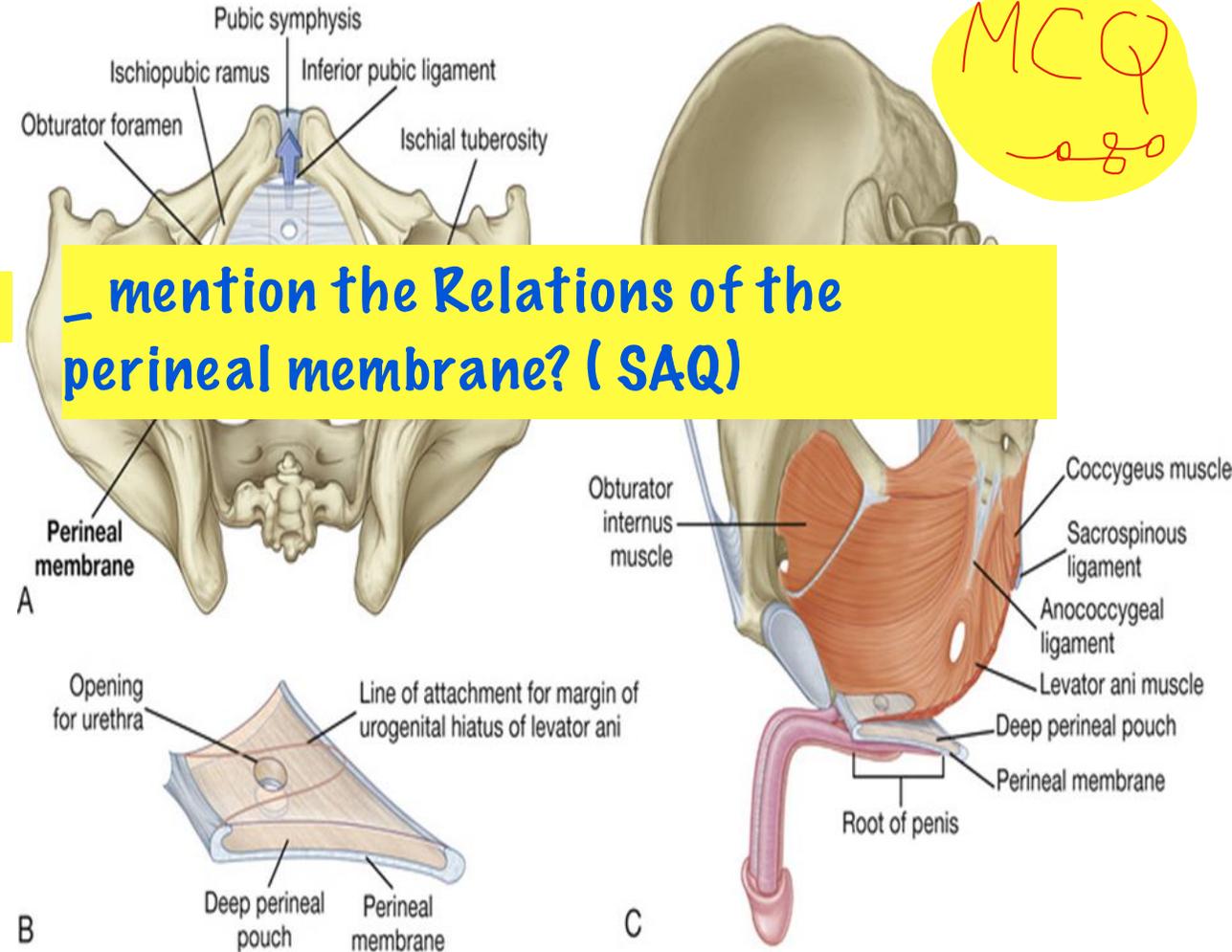
- ❑ It is a **triangular sheet of fibrous tissue** stretches across the pubic arch.
- ❑ The **middle of its posterior surface** is attached to the perineal body.
- ❑ These are **2 fascial spaces** in relation with each of the superior and inferior surfaces of the perineal membrane in the urogenital triangle.
- ❑ The **2 fascial spaces** are named superficial and deep perineal pouches.



The Perineal Membrane

In Relation With The Superior Surface:
the pelvic fascia attaches to all its sides forming a completely closed space.
This space is called the **DEEP PERINEAL POUCH.**

In Relation With The Inferior Surface:
the membranous fascia of the anterior abdominal attaches to the sides and posterior border, but not to its apex, forming an incompletely closed space called the **SUPERFICIAL PERINEAL POUCH.**



mention the Relations of the perineal membrane? (SAQ)

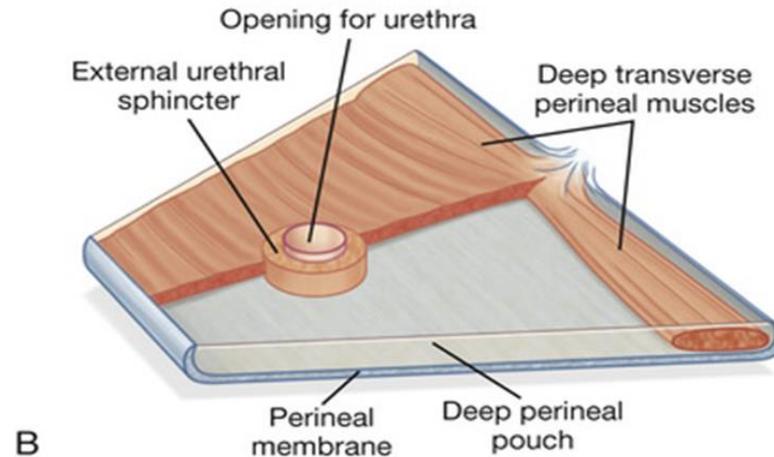
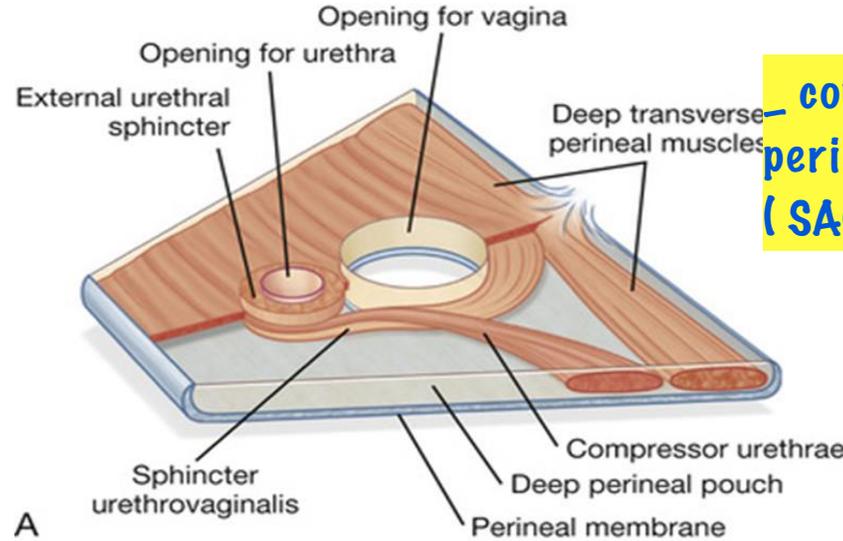
Structures piercing the perineal membrane:

In both male and female

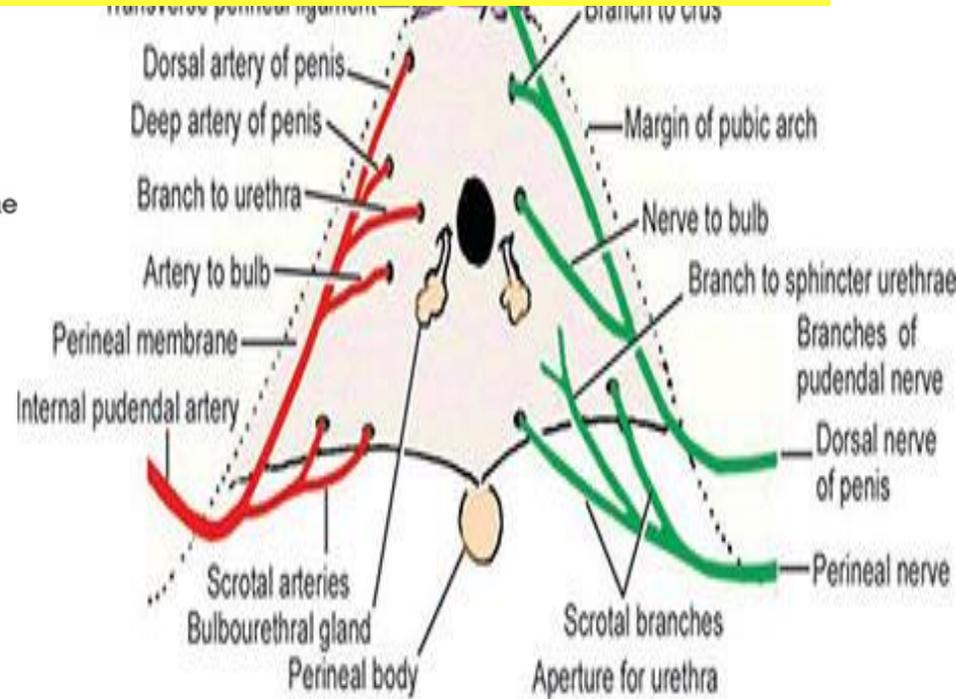
1. Urethra
2. Artery of bulb of penis (clitoris)
3. Internal pudendal artery termination
4. Dorsal nerve of penis (clitoris)
5. Bulbourethral ducts (male only)
6. Vagina (female only)

Therefore, the structures passing out of the pelvis should pass through:

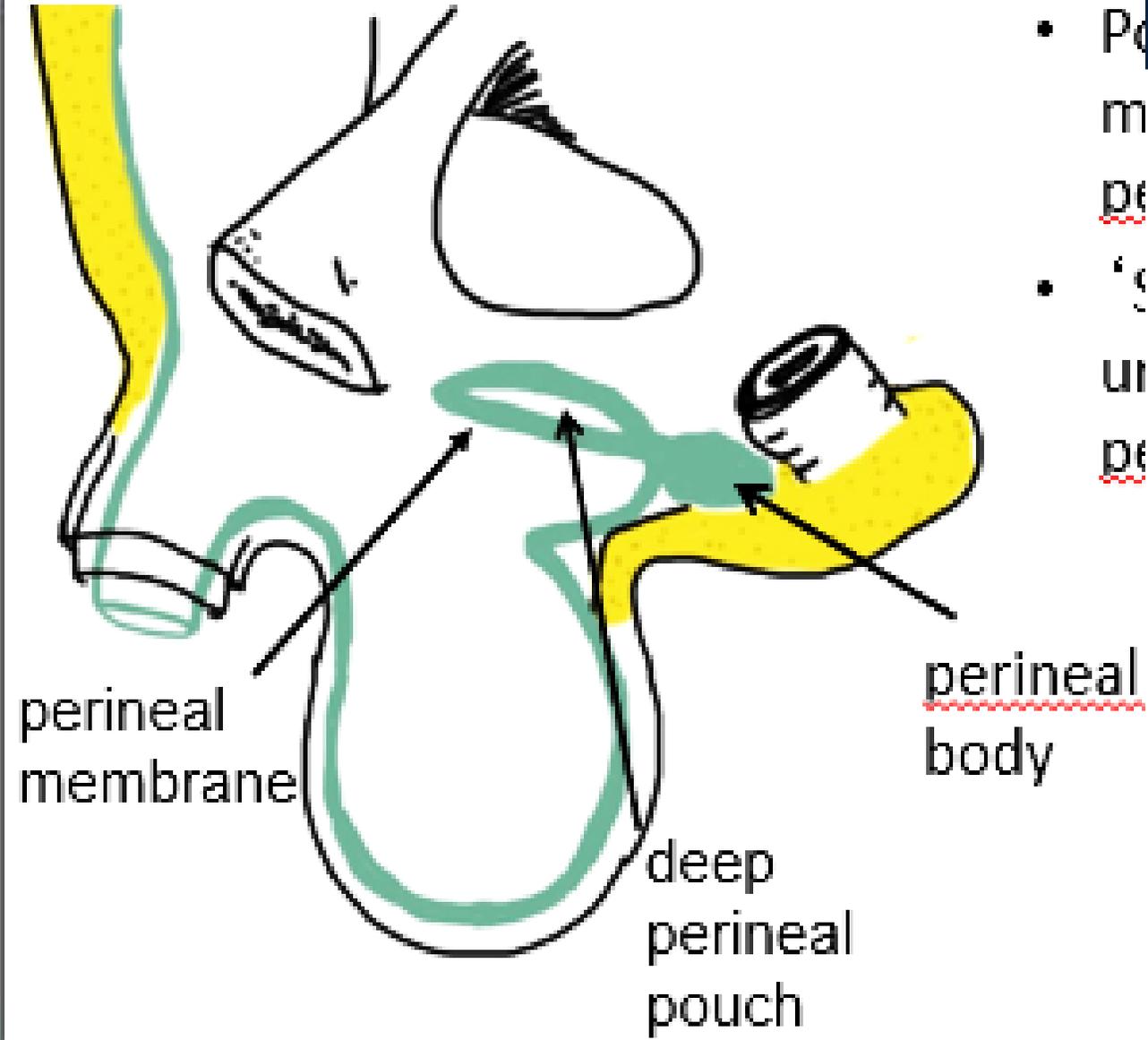
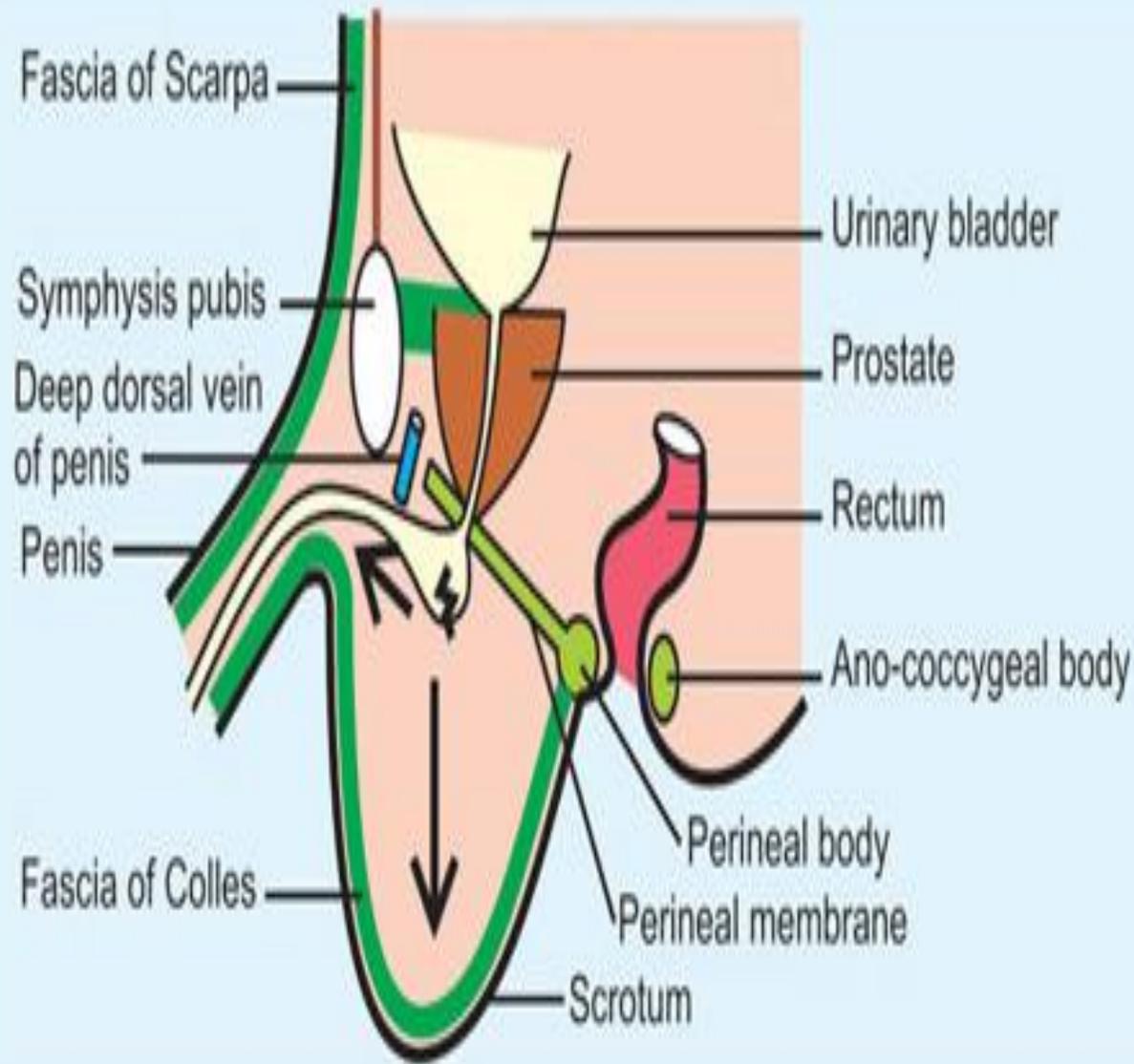
1. Deep pouch
2. Perineal membrane
3. Superficial pouch.



compare between structures which pierces perineal membrane in both male & female? (SAQ)



SAQ : مهم جدا : Enumerate structures that pierced perineal membrane ?



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The Superficial Fascia Of Perineum :

Like that of the inferior anterior abdominal wall consists of : **1.**

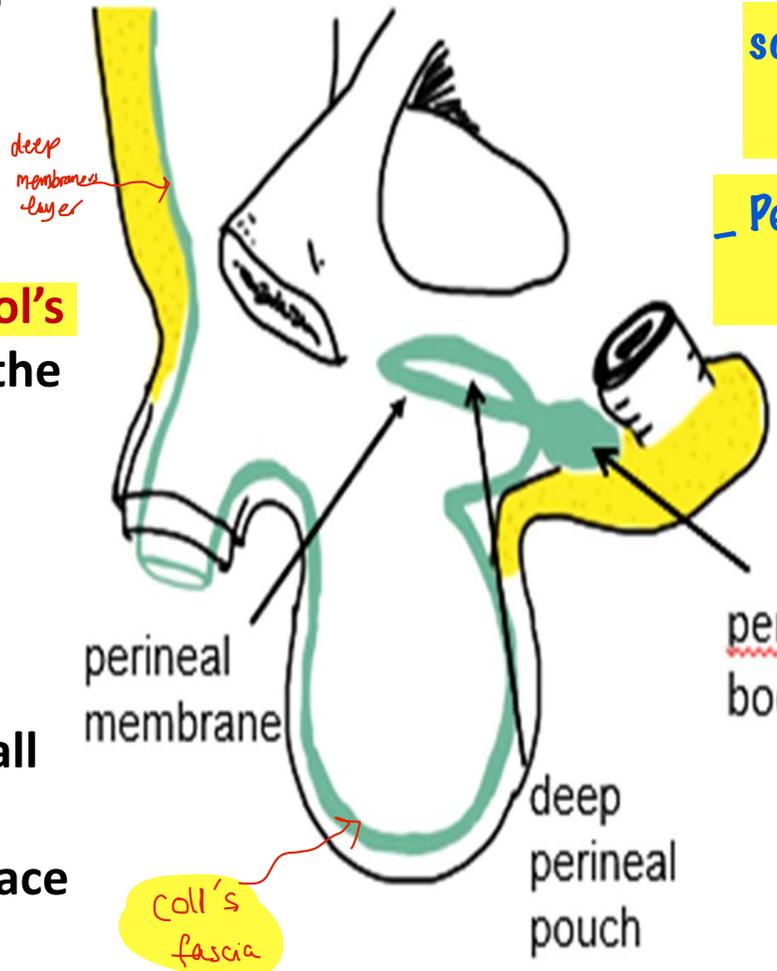
Superficial fatty layer.

In male: it is replaced by **dartos muscle** in the scrotum.

2. Deep membranous layer (Cool's fascia):

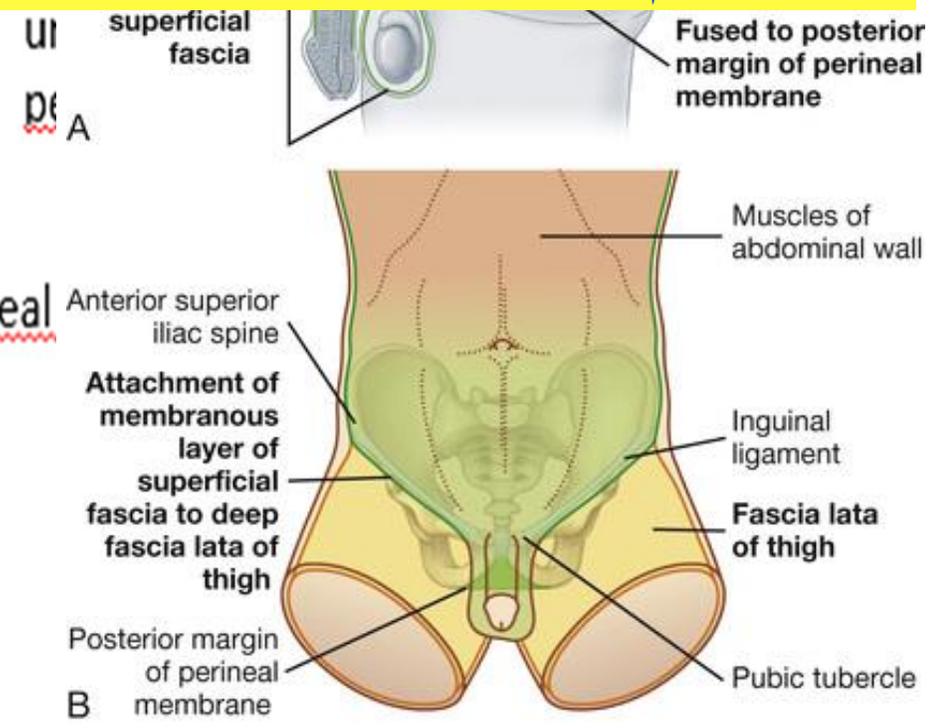
attaches posteriorly to the posterior border of perineal membrane forming **THE SUPERFICIAL PERINEAL POUCH** (which is opened anteriorly).

THE PELVIC FASCIA : Lies above perineal membrane. Attach to all side of the perineal membrane forming a completely closed space called **DEEP PERINEAL POUCH.**



*ناخذ بالنسبة لسؤال جالي وقال أي جزء من ال **scrotum** في تركيب ال **perineum** هيكون **(colle's facial)**

Perineum membrane fuse with colle's → **both sides** وال **space** بينهم اسمها **superfacail pouch**



MCQ : Coll's fascia corresponds to : deep membranous layer

The perineal body

Definition: fibromuscular mass at midline of perineum

Site: IN MALES: between anal canal and bulb of penis.

IN FEMALES: between anal canal and lower part of vagina.

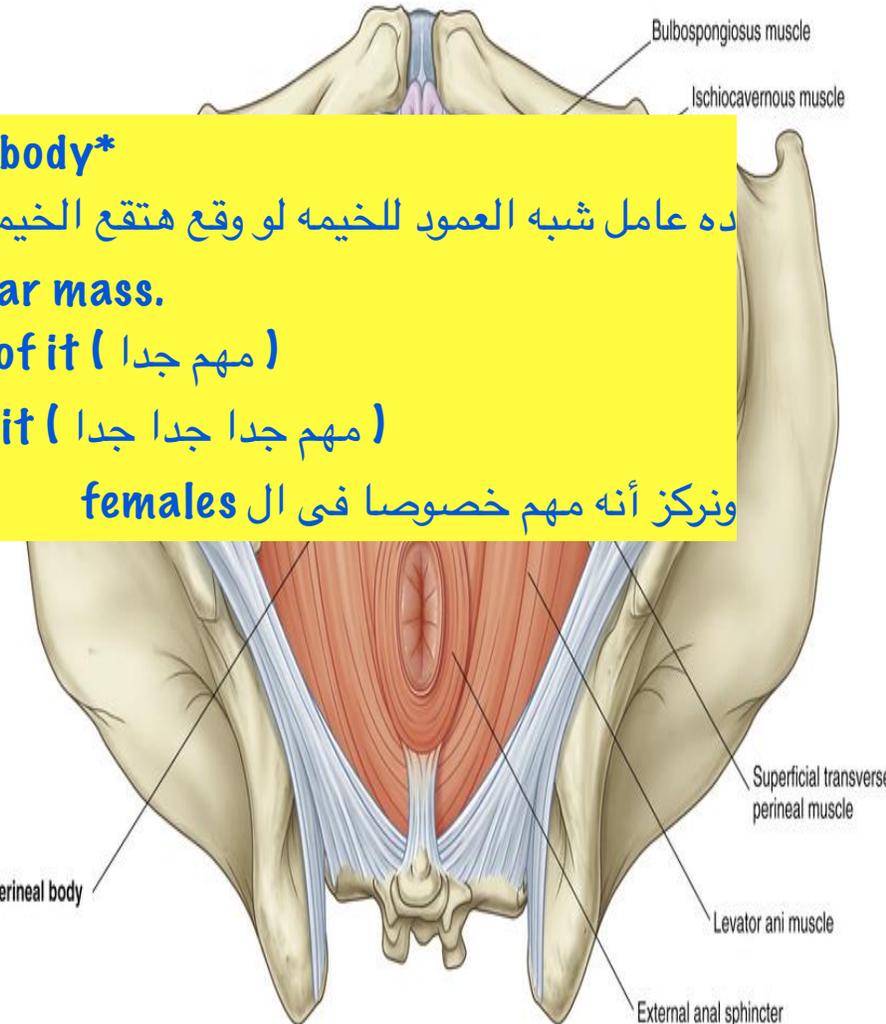
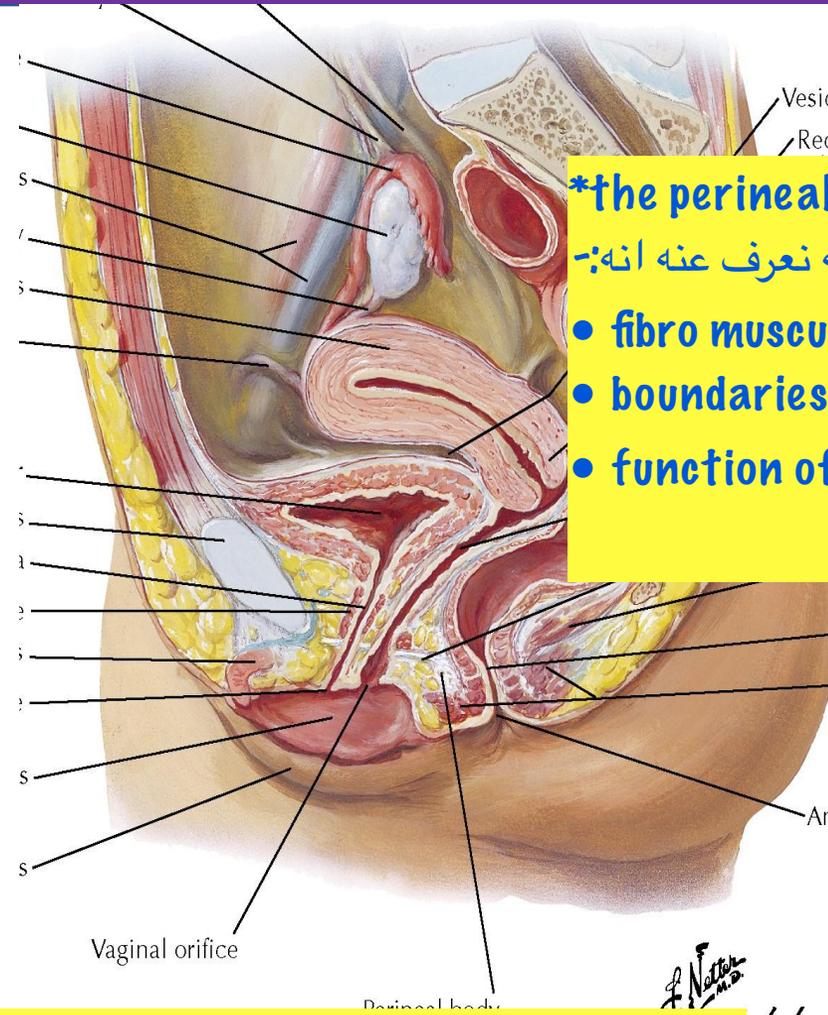
Muscles attached to it:

On each side: transverse perineal muscles

Posterior: external anal sphincter (superficial and deep parts).

ANTERIOR: bulbo-spongiosus.

SUPERIOR: levator ani.



the perineal body

ده عامل شبيه العمود للخيمه لو وقع هتقع الخيمه نعرف عنه انه:-

- fibro muscular mass.
- boundaries of it (مهم جدا)
- function of it (مهم جدا جدا جدا)

ونركز أنه مهم خصوصا في ال females

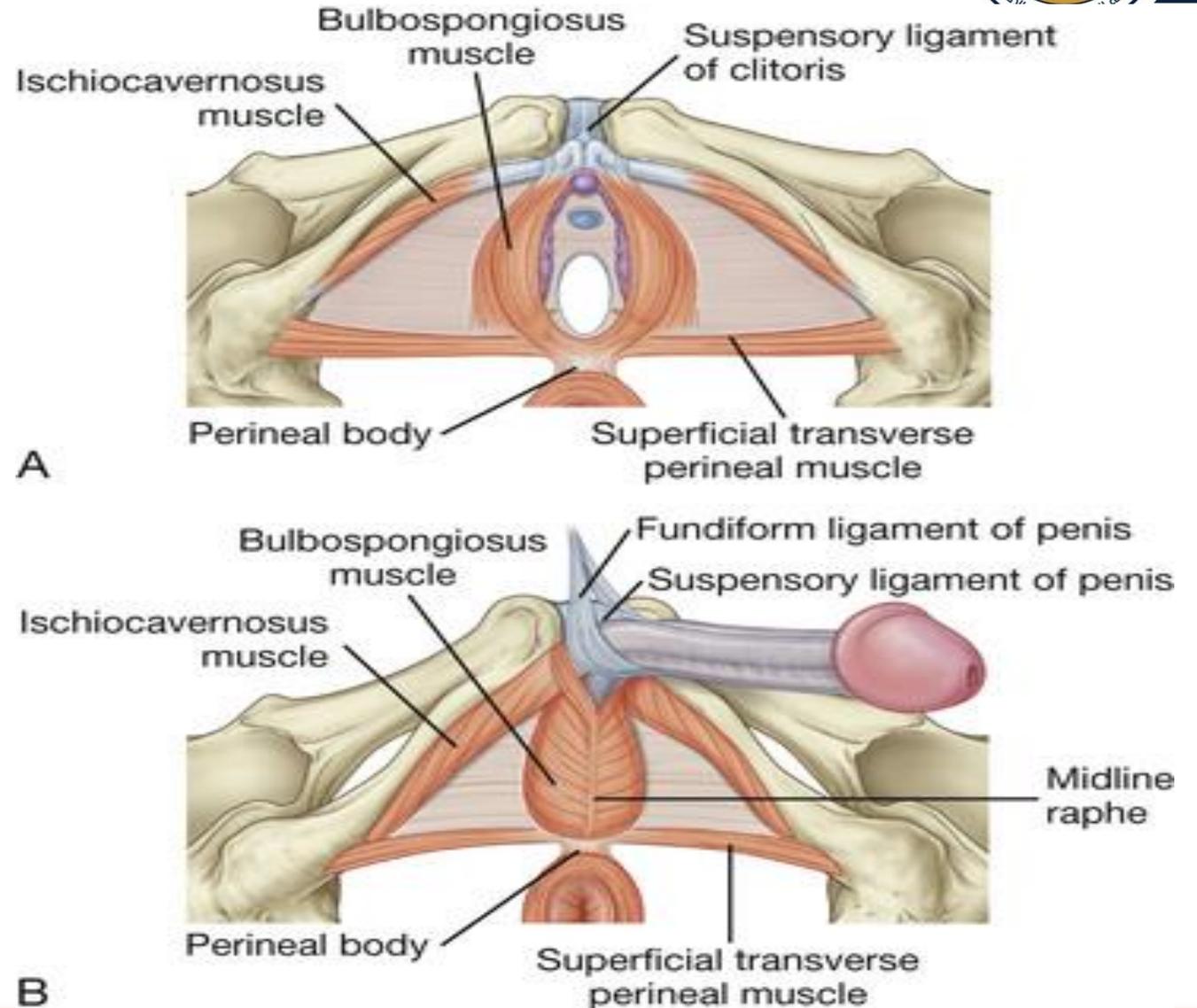
SAQ مهم جدا : Enumerate structures attached to perineal body ?

- Superficial transverse perineal- deep transverse perineal - bulbospongiosus

❑ Function of perineal body:

Important support to pelvic organs especially IN FEMALES.

❑ Its damage during labour may result in prolapse of uterus & other pelvic organs.



THE ISCHIO-RECTAL (ANAL)FOSSA

Definition: Wedge shaped space (gutters) on each side of anal canal

Shape: conical in shape lies in both sides of the anal canal.

Function: it gives space of the anal canal to dilate during the process of defecation.

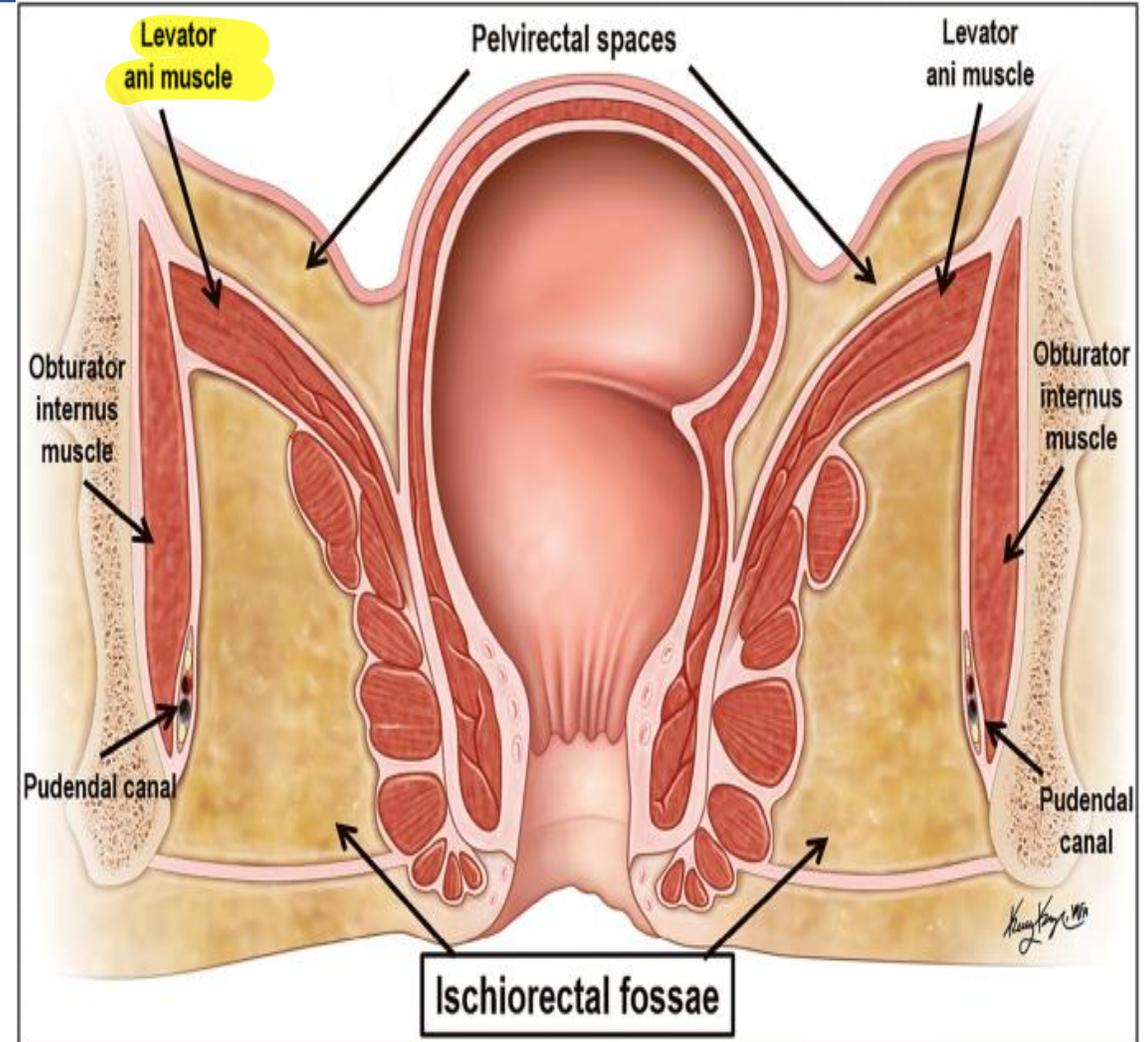
BOUNDARIES:

Apex: formed of origin of levator ani from obturator fascia.

Base: formed of skin and fascia.

Medial wall: consists of levator ani and external anal sphincter.

Lateral wall: consists of obturator internus and obturator fascia.



THE ISCHIO-RECTAL (ANAL)FOSSA

CONTENTS:

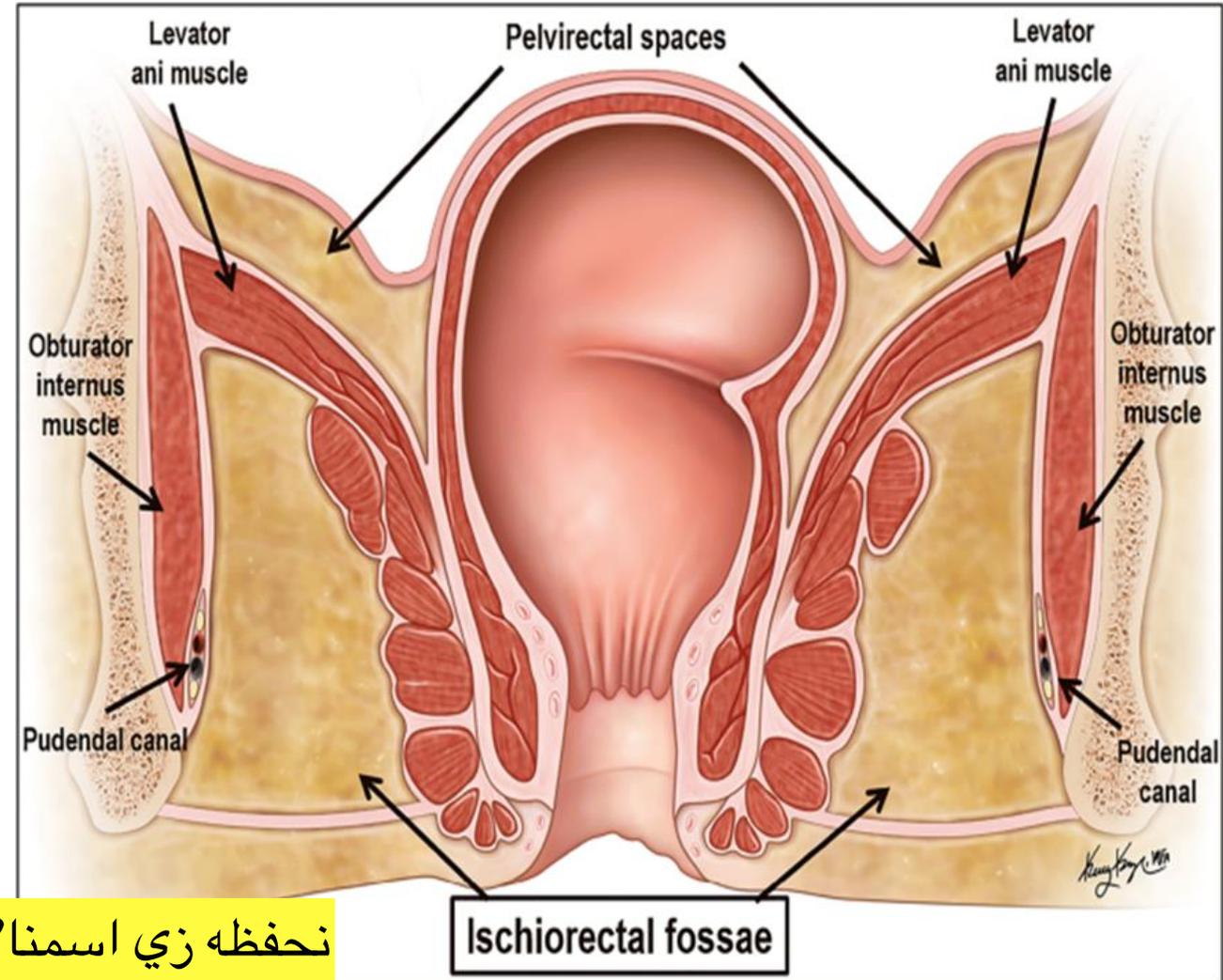
1. Pad of fat.
2. Inferior rectal vessels and nerves.
3. Pudendal canal containing:
 - a. Pudendal nerve.
 - b. Internal pudendal vessels.

The pudendal (Alcock's) canal

Formed by splitting of obturator fascia and lies in lateral wall of ischioirectal fossa.

CONTENTS:

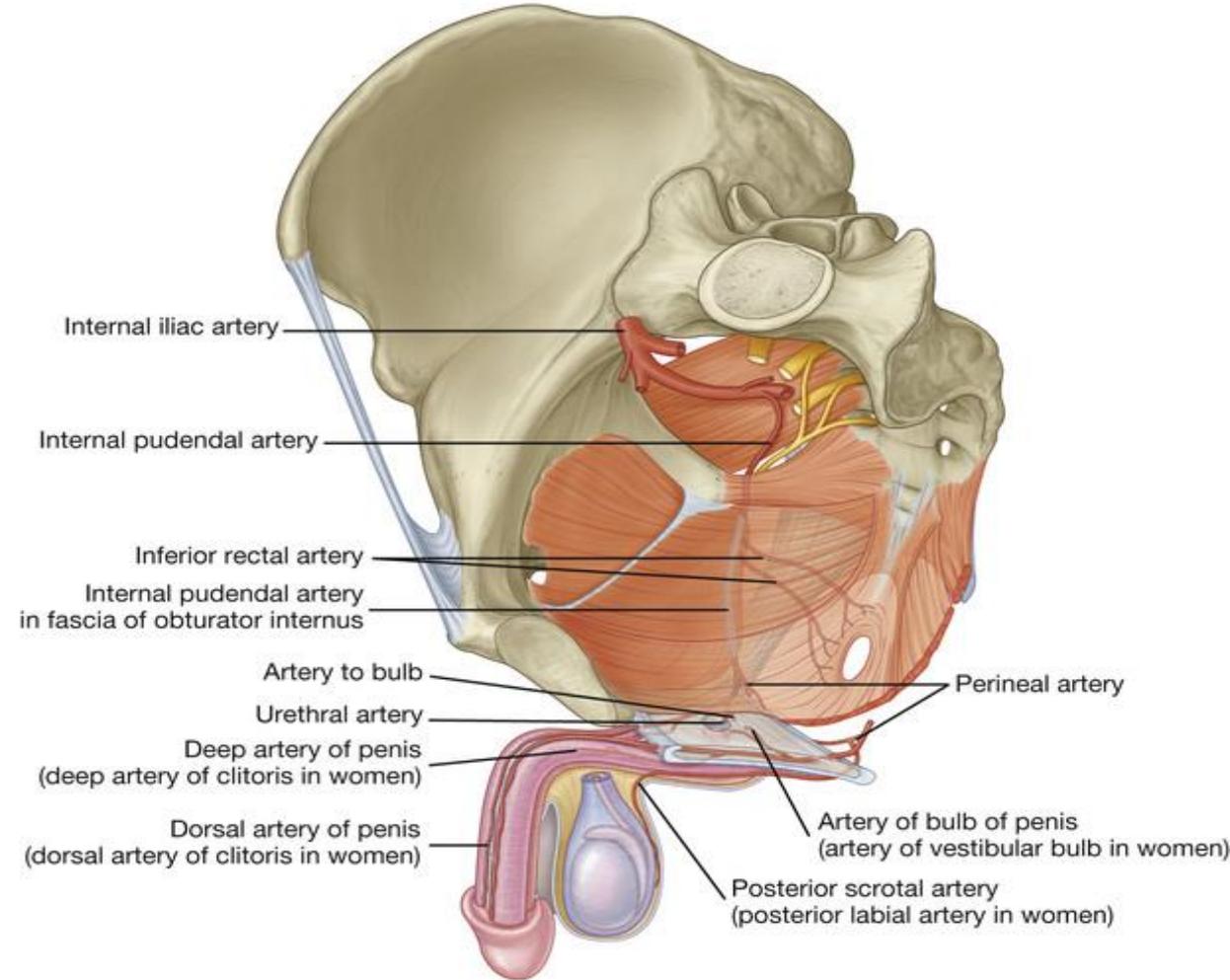
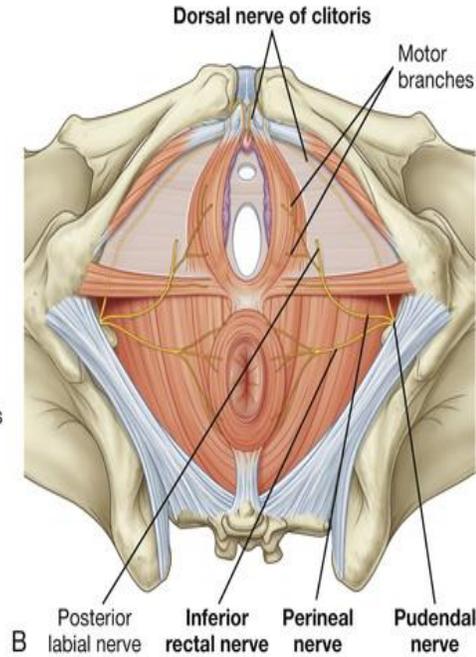
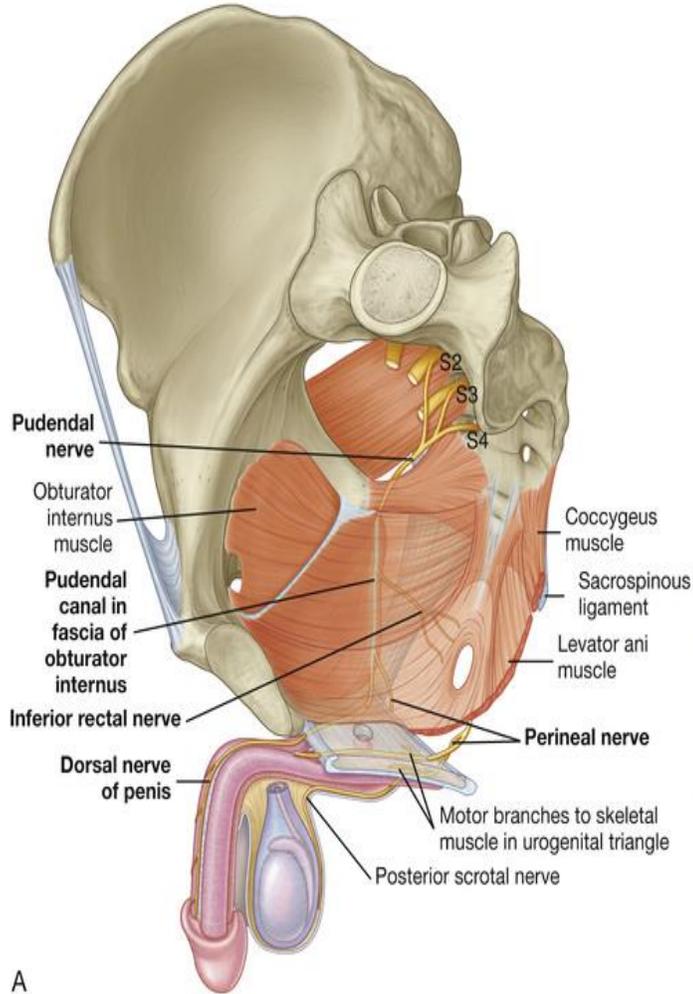
1. Pudendal nerve
2. Internal pudendal vessels.



SAQ : Enumerate content of ischio rectal fossa? نحفظه زي اسمنا؟

SAQ : Enumerate content of pudendal (Alcock's) canal ?

THE ISCHIO-RECTAL (ANAL) FOSSA



Superficial perineal pouch

BOUNDARIES:

SUPERIOR (ROOF):

perineal membrane.

INFERIOR (FLOOR): Cool's fascia.

ON EITHER SIDE: fusion of the roof with the floor.

POSTERIORLY: fusion of the roof with the floor.

ANTERIORLY: opened.

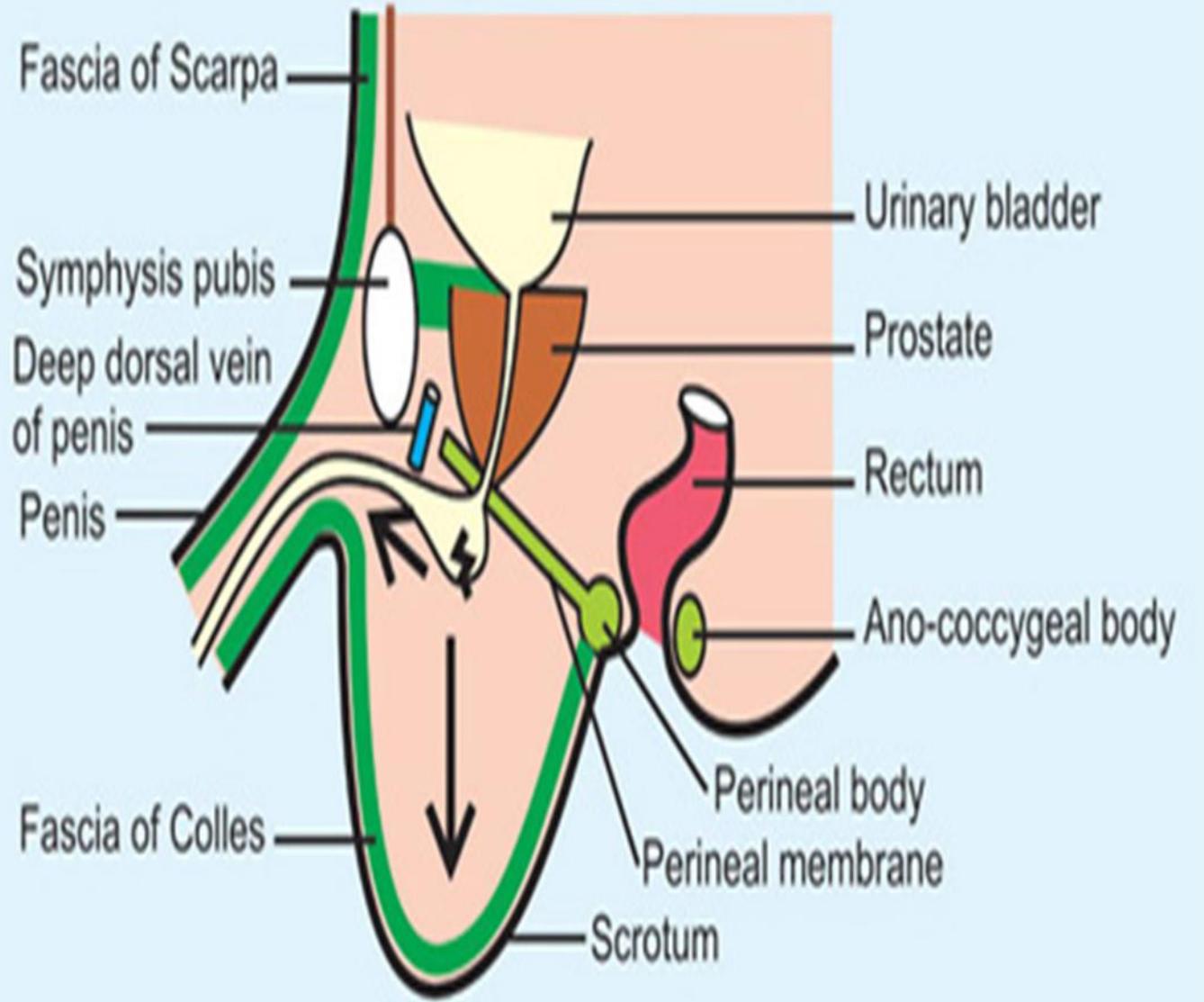
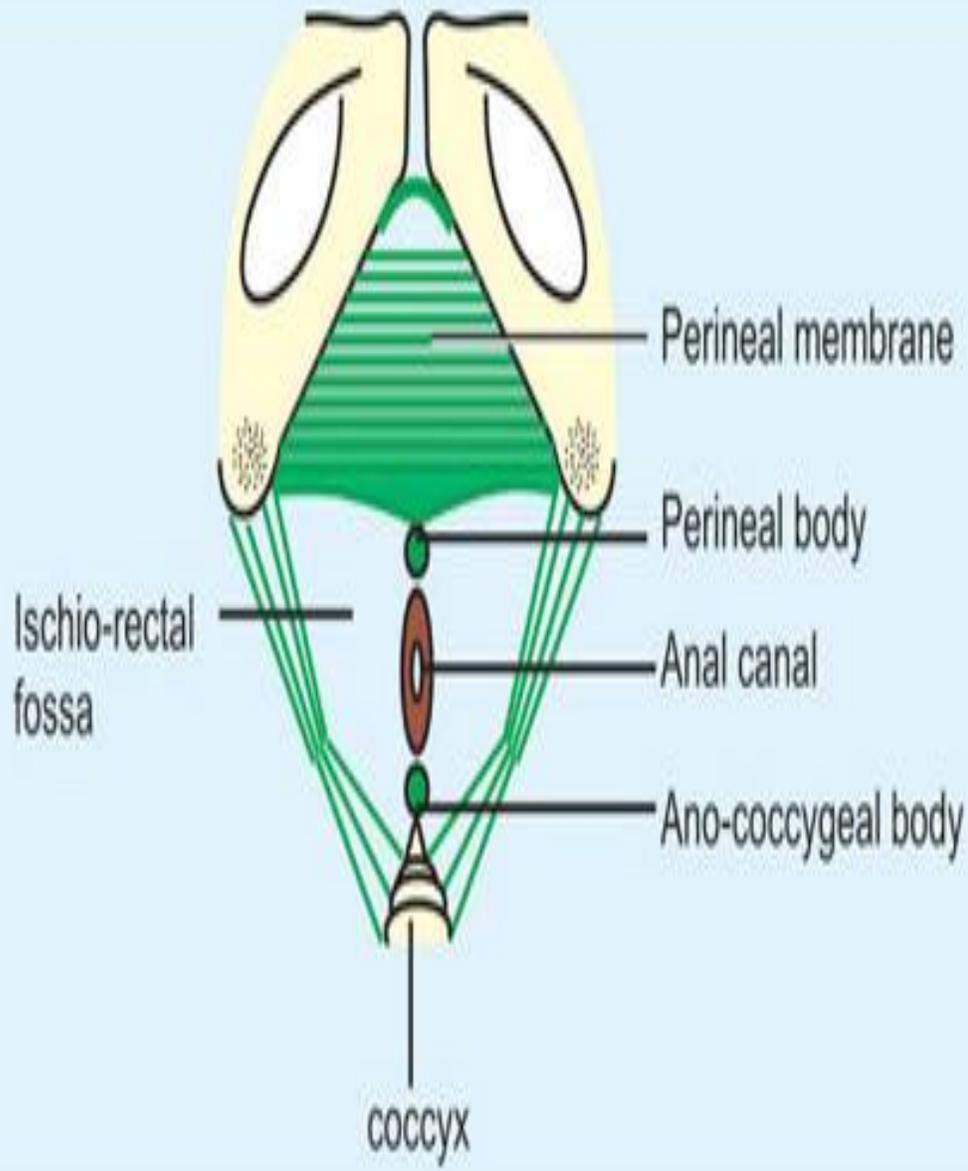
نيجى بقا لـ superficial fascia of perineum :- * (أهم جزء) *

نعرف أن:-

The pelvic fascia is ..
(completely closed space)



MCQ : Coll's fascia forms which of the following boundaries of superficial perineal pouch ?



Structures In The Superficial Perineal Pouch

The superficial perineal pouch contains:

- 1- **ERECTILE STRUCTURES** that join together to form **the penis in men and the clitoris in women**
- 2- **SKELETAL MUSCLES** that are associated mainly with parts of the erectile structures attached to the perineal membrane and adjacent bone.

Each erectile structure consists of a central core of expandable vascular tissue and its surrounding connective tissue capsule.

Muscles of The superficial perineal pouch contains three pairs of muscles: the ischiocavernosus, bulbospongiosus, and superficial transverse perineal muscles.

Two of these three pairs of muscles are associated with the roots of the penis and clitoris; the other pair is associated with **the perineal body.**

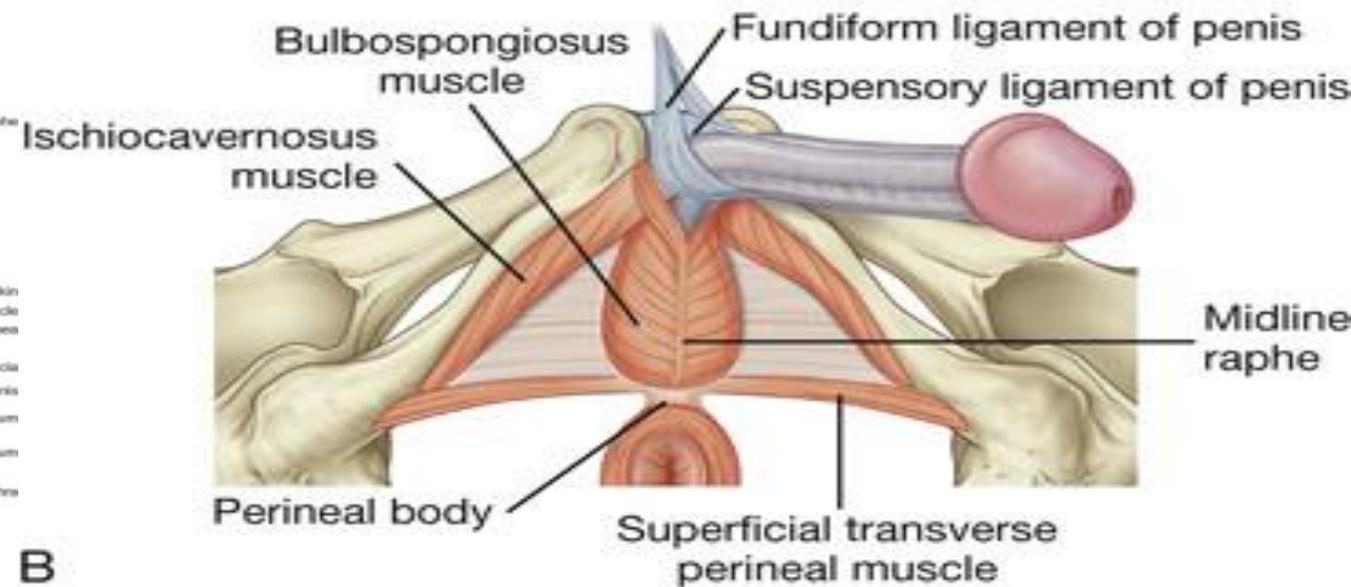
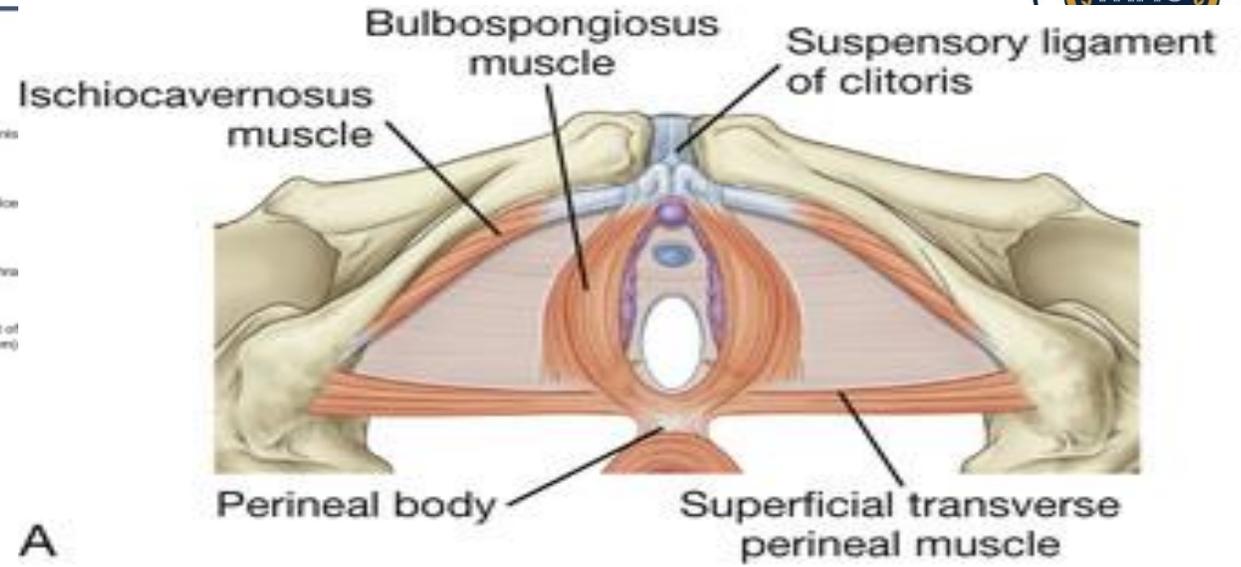
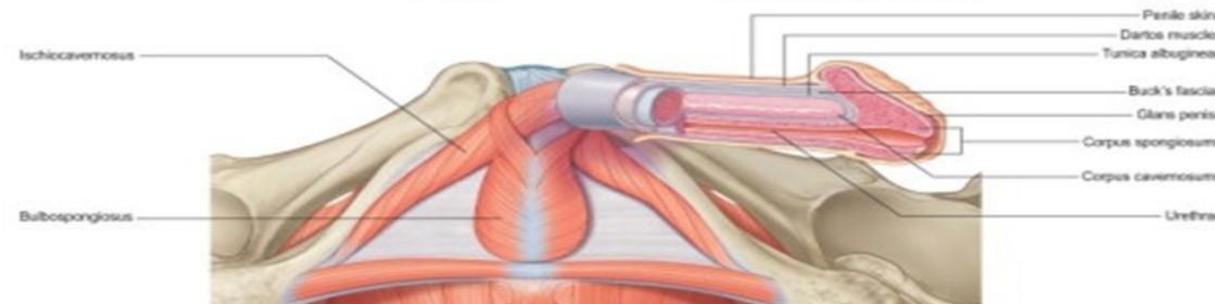
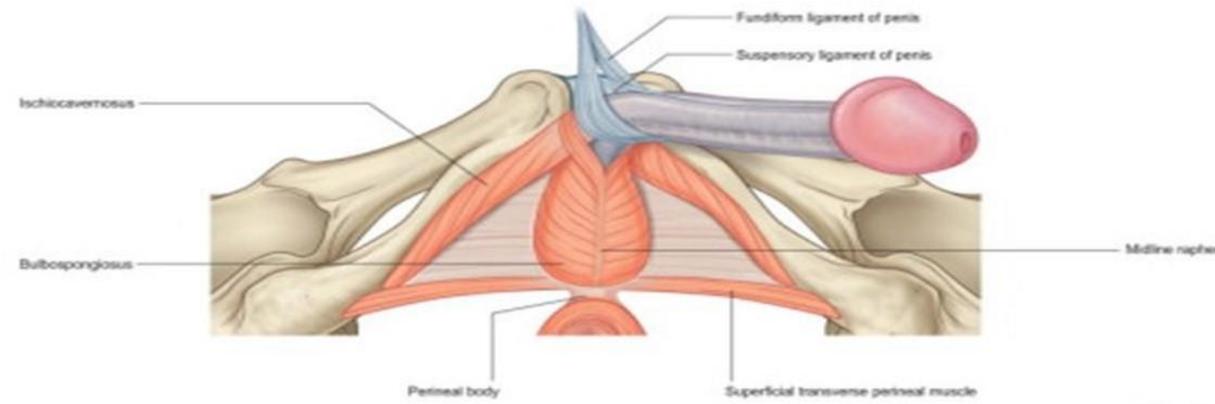
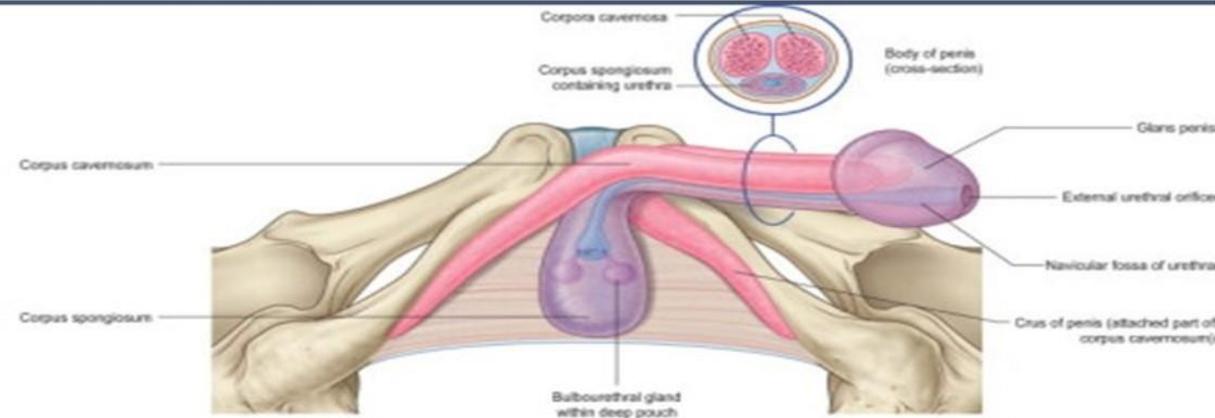
هو

ERECTION

- Erection of the penis and clitoris is **a vascular event** generated by **VD** = parasympathetic fibers carried in **pelvic splanchnic nerves** from the anterior rami **of S2 to S4**, which enter the **inferior hypogastric** part of the prevertebral plexus and ultimately pass through the deep perineal pouch and perineal membrane to **innervate the erectile tissues.**

Stimulation of these nerves causes **specific arteries** in the erectile tissues **to relax.**

This allows **blood to fill the tissues**, causing the penis and clitoris to become **erect.**



Contents of Superficial perineal pouch

Male	Female
1. Root of penis	1. Root of clitoris
2. Duct of bulbourethral gland	2. Greater vestibular glands
3. Bulbospongiosus muscle.	
4. Ischiocavernosus muscle.	
5. Superficial transverse perineal muscle.	
6. Posterior scrotal (labial) nerve & vessels	

SAQ مهم : Enumerate contents of superficial perineal pouch ?

Deep perineal pouch

BOUNDARIES:

SUPERIOR (ROOF): Pelvic fascia.

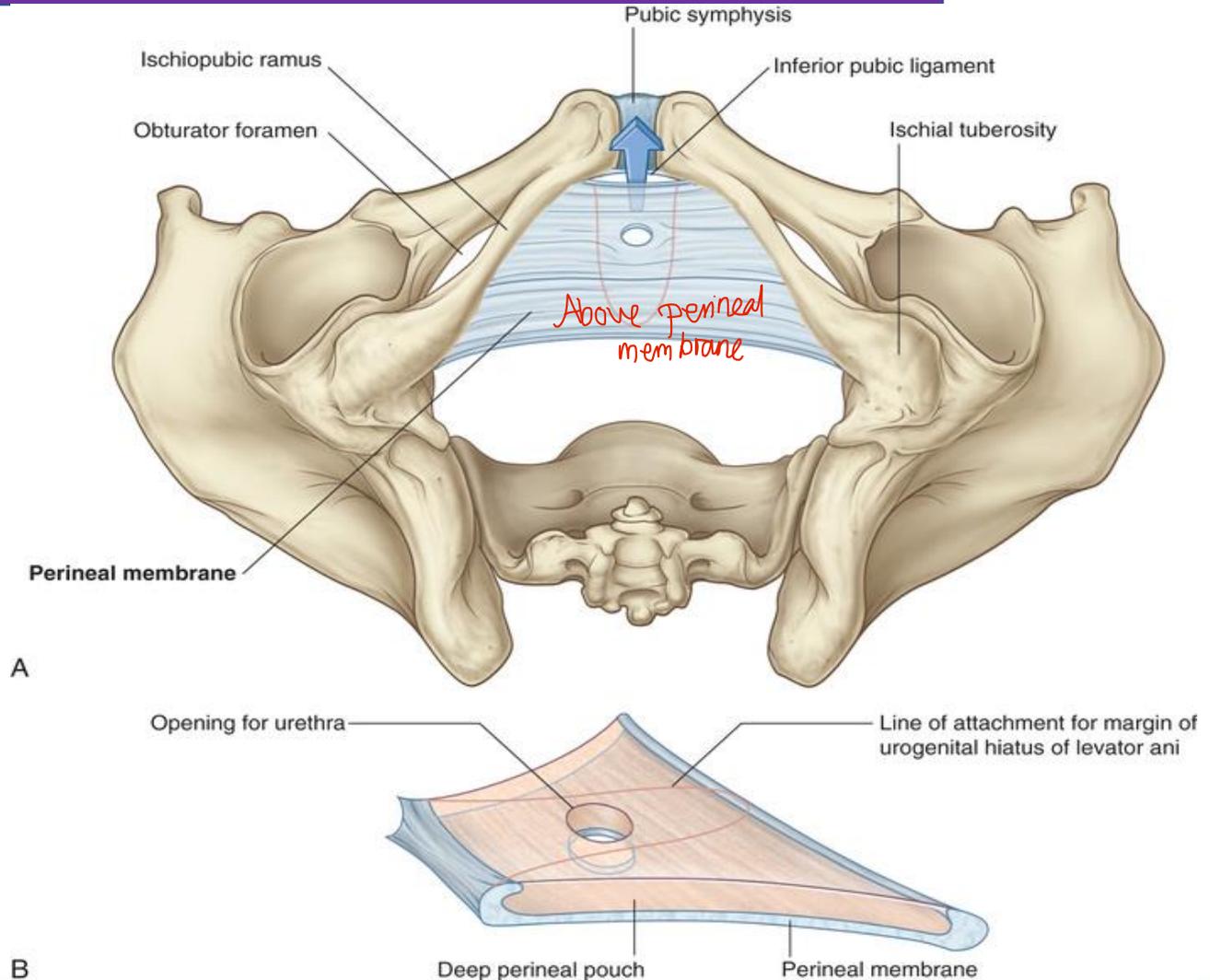
INFERIOR (FLOOR): perineal membrane.

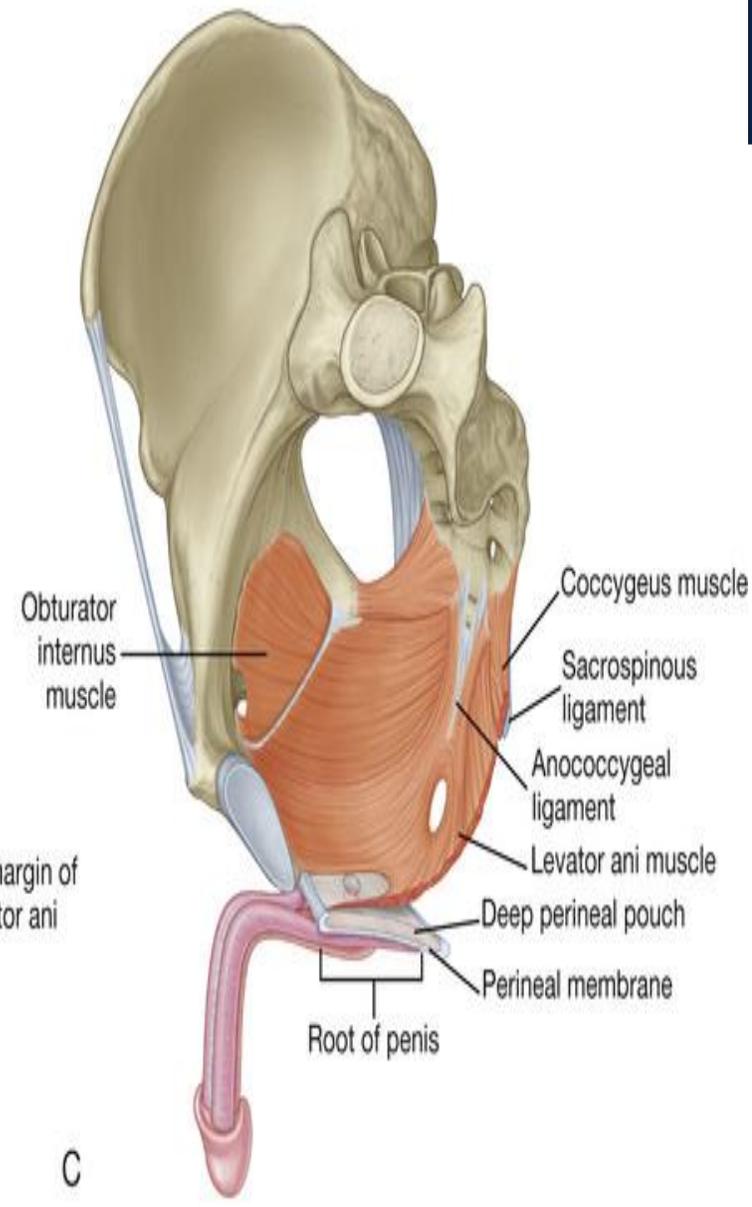
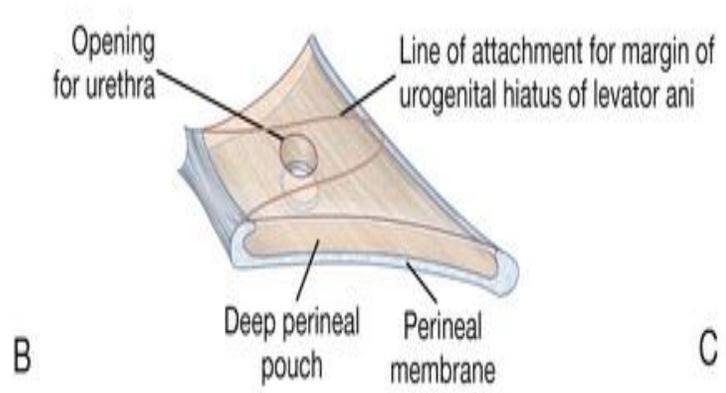
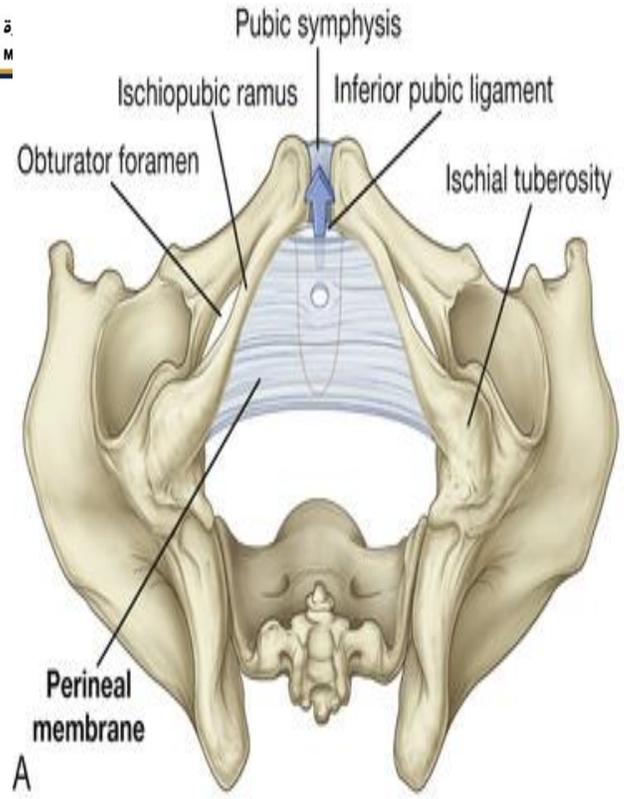
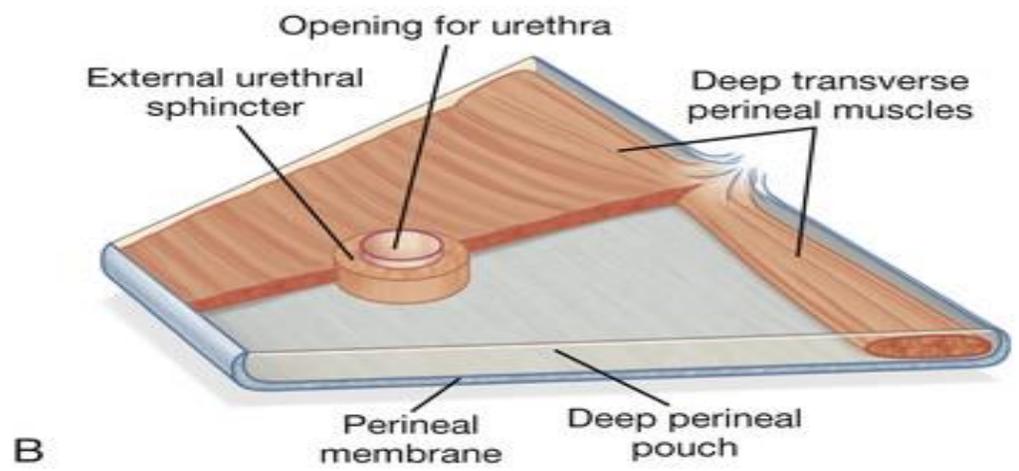
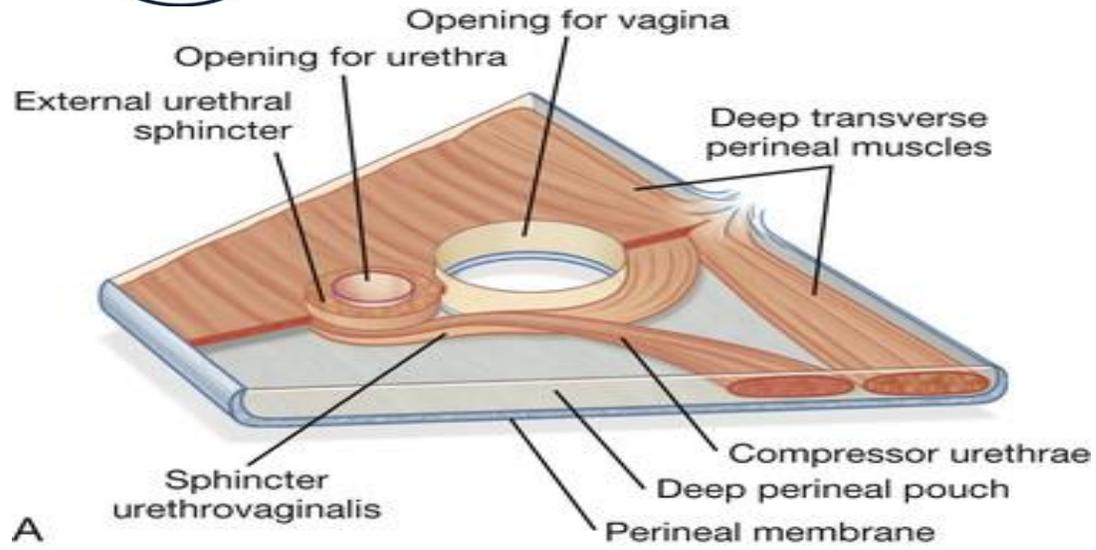
On either side: fusion of the roof with the floor.

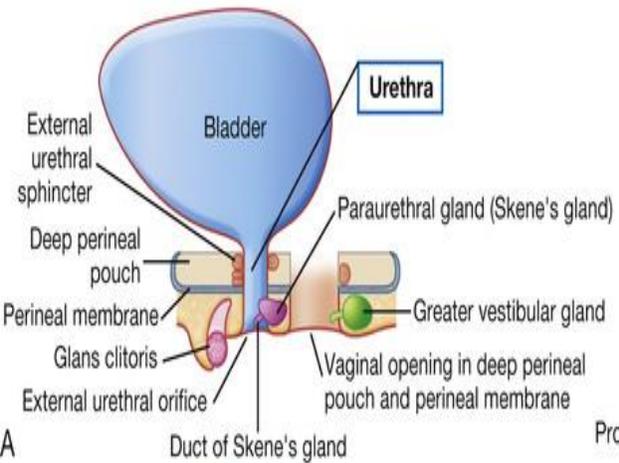
Anteriorly: fusion of the roof with the floor.

Posteriorly: fusion of the roof with the floor.

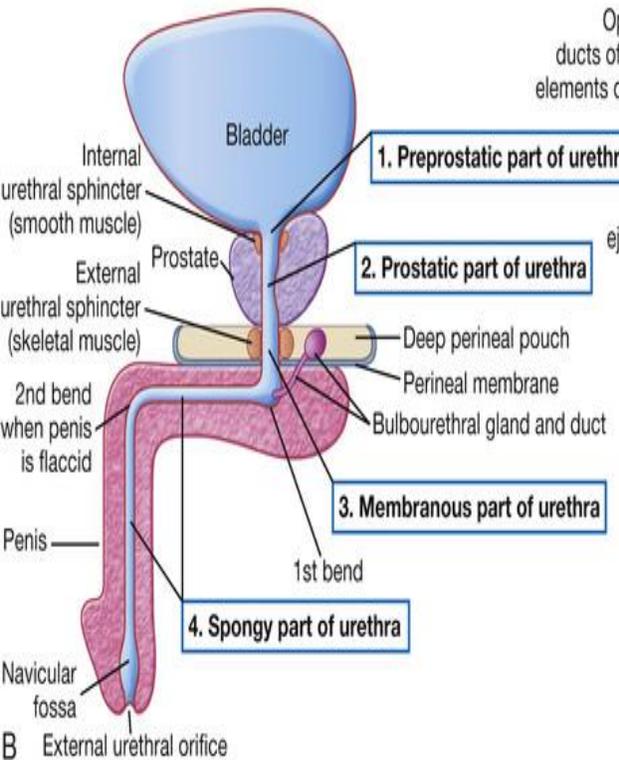
It is a completely closed space.



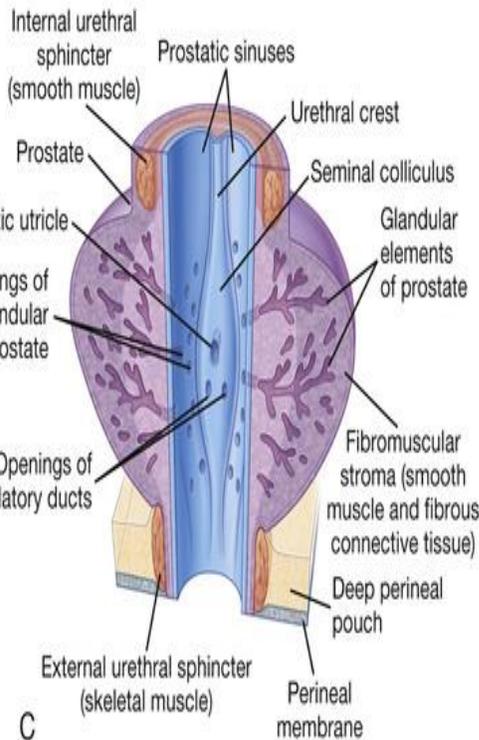




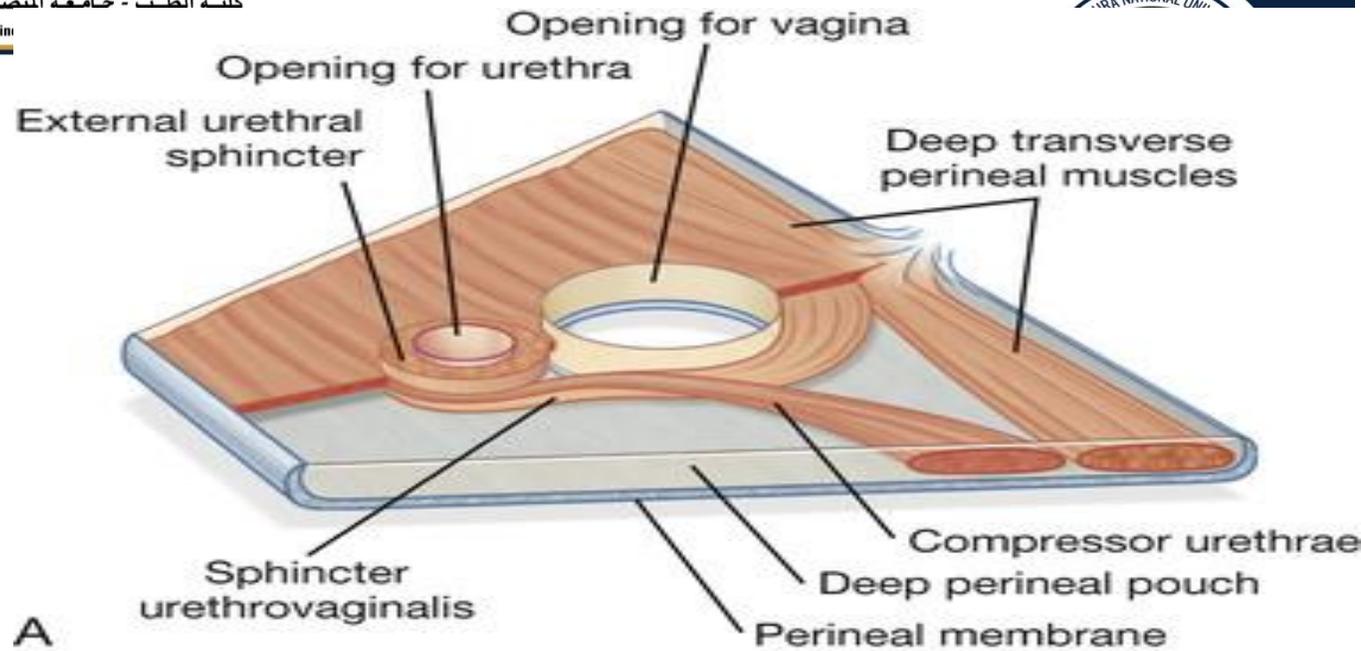
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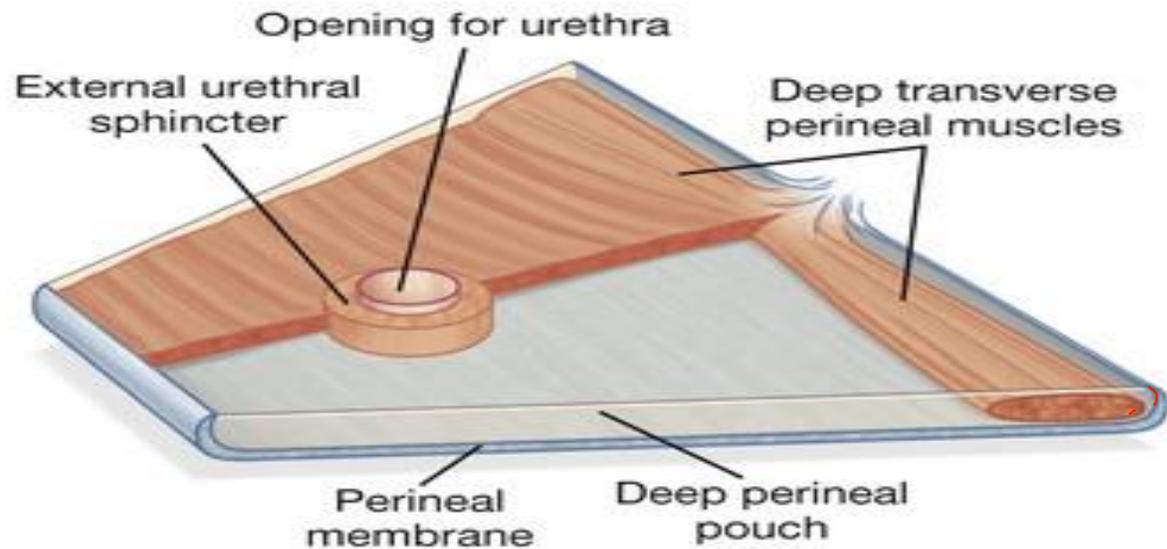
B



C



A

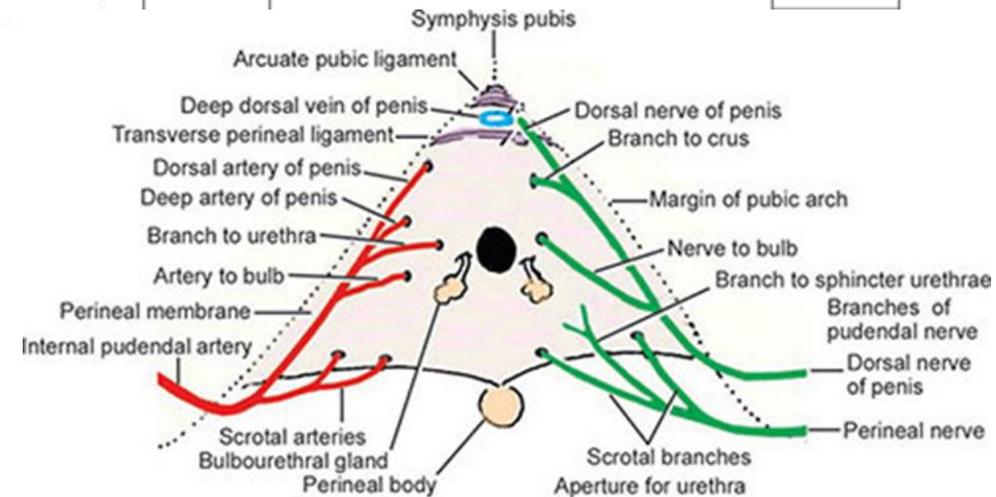
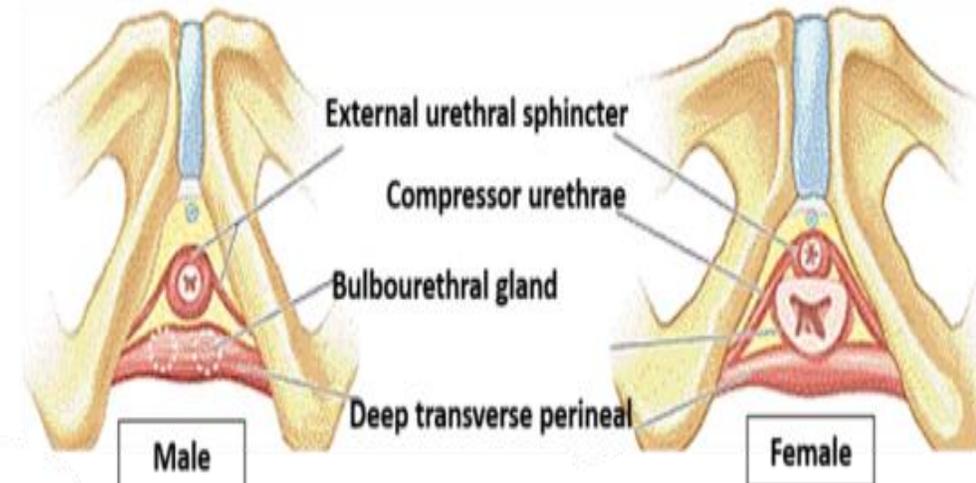


B

Contents of deep perineal pouch

Muscles and Gland Deep Perineal Pouch

In female	In male
1. Urethra: anterior	1. Urethra: membranous part
2. Vagina: posterior	2. bulbourethral glands
3. External urethral sphincter: around the urethra	
4. Deep transverse perineal muscle	
5. Internal pudendal vessels	
6. Dorsal nerve of clitoris (penis)	



Quiz

2- Which of the following best describes the contents of superficial perineal pouch in female?

- A. It contains spongy urethra and bulbourethral glands
- B. The vagina anterior and the urethra posterior
- C. External urethral sphincter around the urethra
- D. Greater vestibular glands and roots of clitoris
- E. The Internal pudendal vessels and the pudendal nerve

Answer: **D**

Quiz

1- which of the following related to perineal membrane?

- A. It is a triangular sheet of muscular tissue stretches across the pubic arch.
- B. The middle of its posterior surface is attached to the external anal sphincters
- C. It fused superiorly with the Colle's fascia to form the deep perineal pouch
- D. It is pierced by duct of greater vestibular glands in females
- E. The perineal membrane and deep perineal pouch provide support for the external genitalia and pelvic viscera

Answer: **E**

L10 the perineum with Dr. Gaballah notes ✨:-

فيه كام نقطه الدكتور أكد عليهم نعرفهم قبل ما يدخل ف الشرح العميق :-

1-the shape of perineum...

2_ the site of perineum...

3_ the perineum divided into...

خد بالك 😊👉:-

★ كل ما هو تحت ال pelvic diaphragm لحد ال skin فهو اسمه (perineum) .

*ناخد بالننا من ال boundaries بتاعته لأنها ممكن تيجى SAQ or MCQ .

تعرف ان :-

_ perineal membrane is a thick fibers

_ the posterior border is.. (free)

_ *function of perineal membrane is*:-

(support for the external genitalia + attached to its inferior surface + provide support for pelvic viscera)

🌟 *ناخد بالننا لو سؤال جالى وقال أي جزء من ال scrotum فى تركيب ال perineum هيكون (colle's facial)

_ Deep perineal pouch = neurogenital diaphragm.

ال perineal membrane بيتكون من fibrous tissue مش muscle ف ناخد بالننا

وكمان ناخد بالننا من ال facial space .

_ mention the Relations of the perineal membrane? (SAQ)

_ compare between structures which pierces perineal membrane in both male & female? (SAQ)

_ Perineum membrane fuse with colle's ➡ both sides

وال space بيتهم اسمها superfacail pouch

تيجى بقا ل superfacail fascia of perineum :-* (أهم جزء) ✨

تعرف ان :-

_ The pelvic fascia is ..

(completely closed space)

the perineal body

ده عامل شبه العمود للخيمه لو وقع هتقع الخيمه نعرف عنه انه :-

• fibro muscular mass.

• boundaries of it (مهم جدا)

• function of it (مهم جدا جدا جدا)

ونركز أنه مهم خصوصا فى ال females

نركز فى ال superfacail fascia pouch على

• Boundaries

• structures.

• *وناخد بالننا أنه anteriory opened

وبكده دى تكون نوتس آخر محاضره اللي الدكتور ذكر انه نركز عليها... بالتوفيق يارب بإذن الله ✨

Thank You!