

# **Male Genital Organs**

**Spermatic Cord, Scrotum, Testis, Epididymis  
Prostate, Vas Deferens, Seminal Vesicles &  
Ejaculatory Ducts**

**Dr. Aiman Qais Afar Al Maathidy**  
**Surgical Anatomist**

**College of Dentistry / University of Mutah**  
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**Monday 19 May 2025**

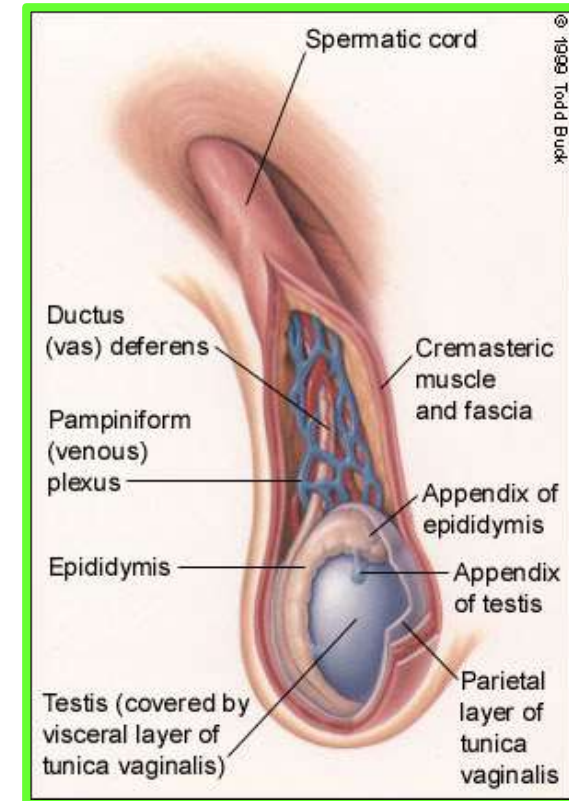
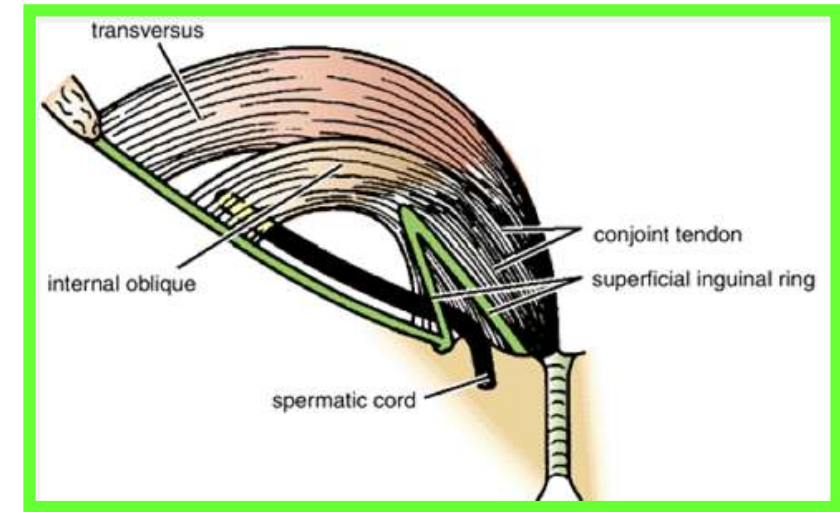
# Spermatic Cord

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Is a collection of structures that pass through the inguinal canal to and from the testis. It begins at **the deep inguinal ring** and **ends at the testis**.

## Structures of the Spermatic Cord

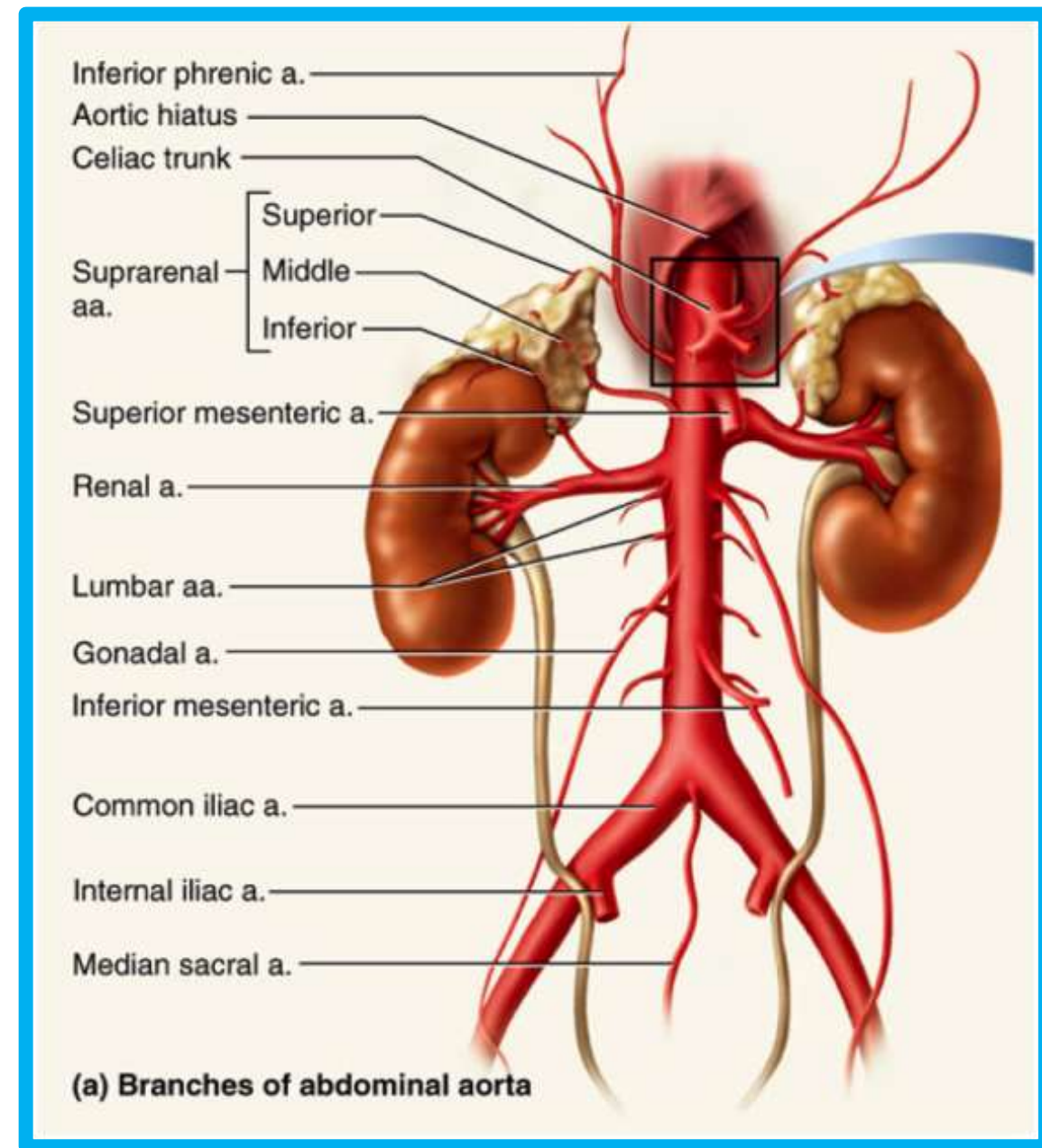
- ❖ Vas deferens
- ❖ Testicular artery
- ❖ Testicular veins (pampiniform plexus)
- ❖ Testicular lymph vessels
- ❖ Autonomic nerves



## ❖ Testicular Artery

❑ A branch of **the abdominal aorta** (at the level of the second lumbar vertebra), **the testicular artery** is long and slender and descends on the posterior abdominal wall.

❑ It traverses the inguinal canal and supplies **the testis** and **the epididymis**

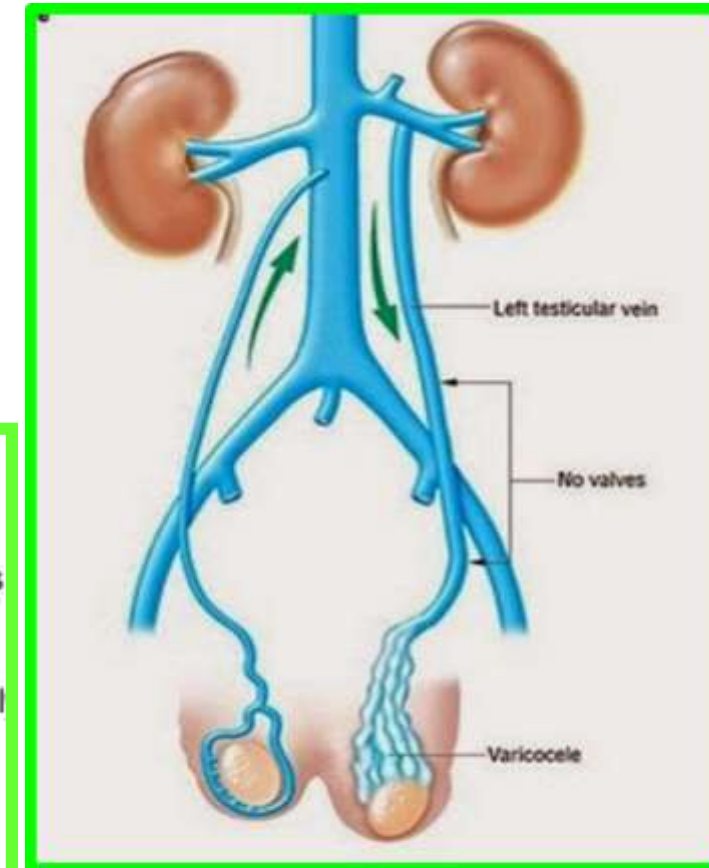
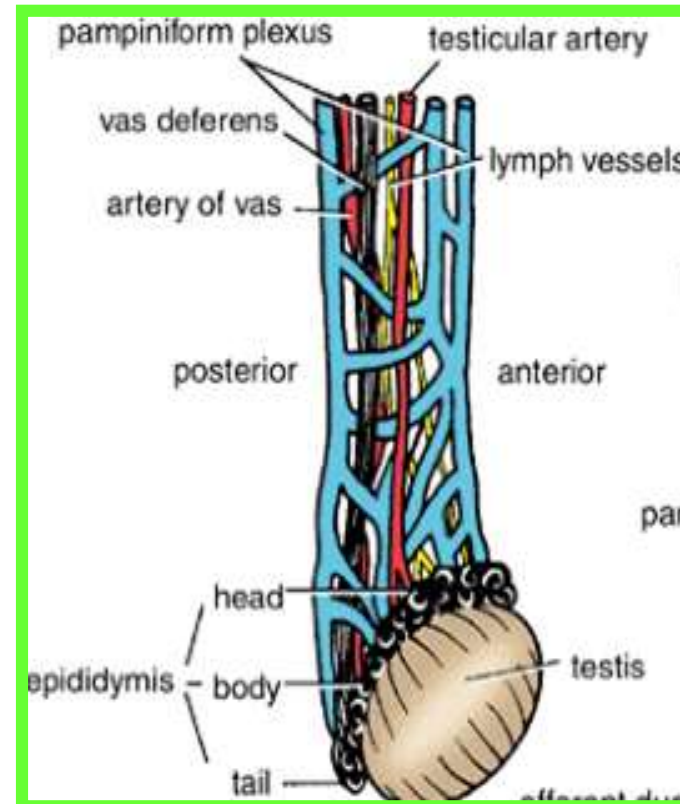


# ❖ Testicular Veins

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❑ An extensive venous plexus, the **pampiniform plexus**, it becomes reduced in size so that at about the level of the deep inguinal ring, **a single testicular vein** is formed.

❑ This runs up on the posterior abdominal wall and drains into the **left renal vein** on the left side and into the **inferior vena cava** on the right side

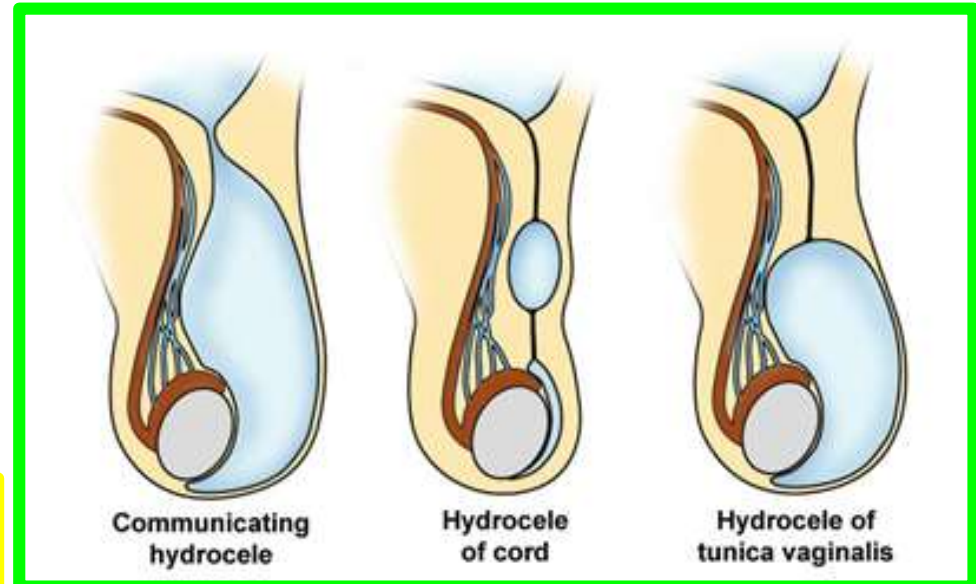
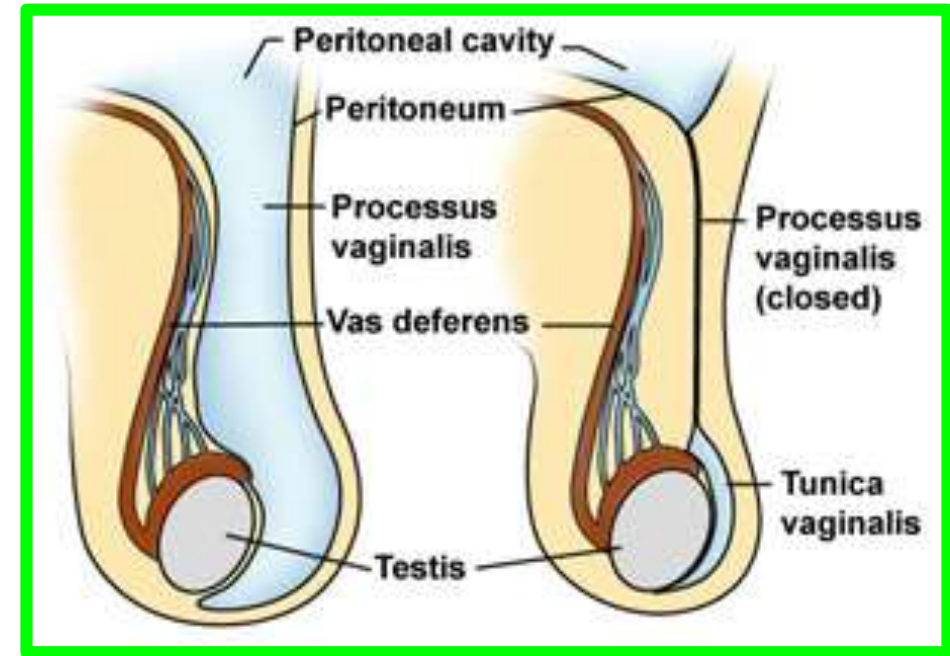


**Varicocele ????**



# ❖ Processus Vaginalis

The remains of the processus Vaginalis are present within the cord

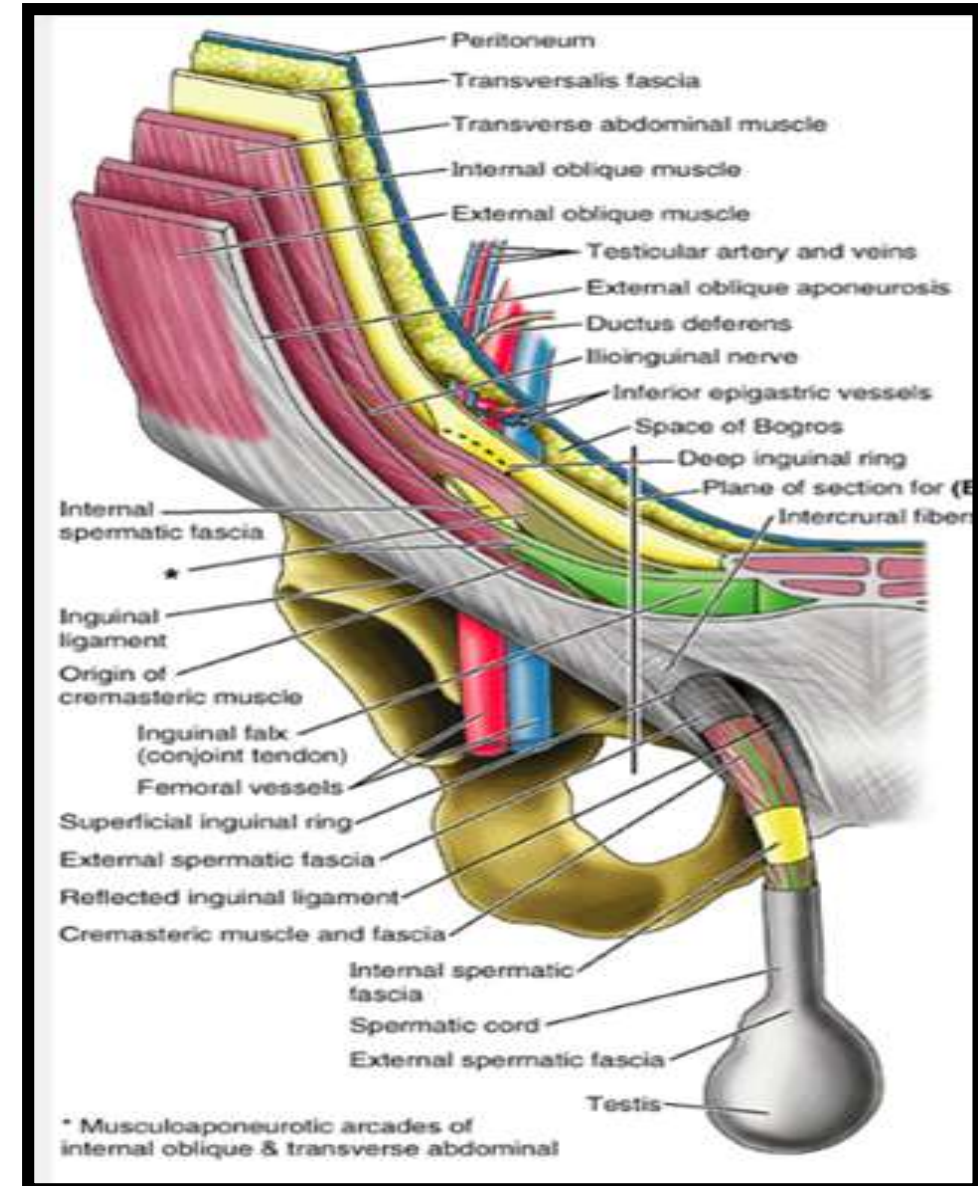


Hydrocele of Spermatic Cord and/or Testis ????

# Coverings of the Spermatic Cord (the Spermatic Fasciae)

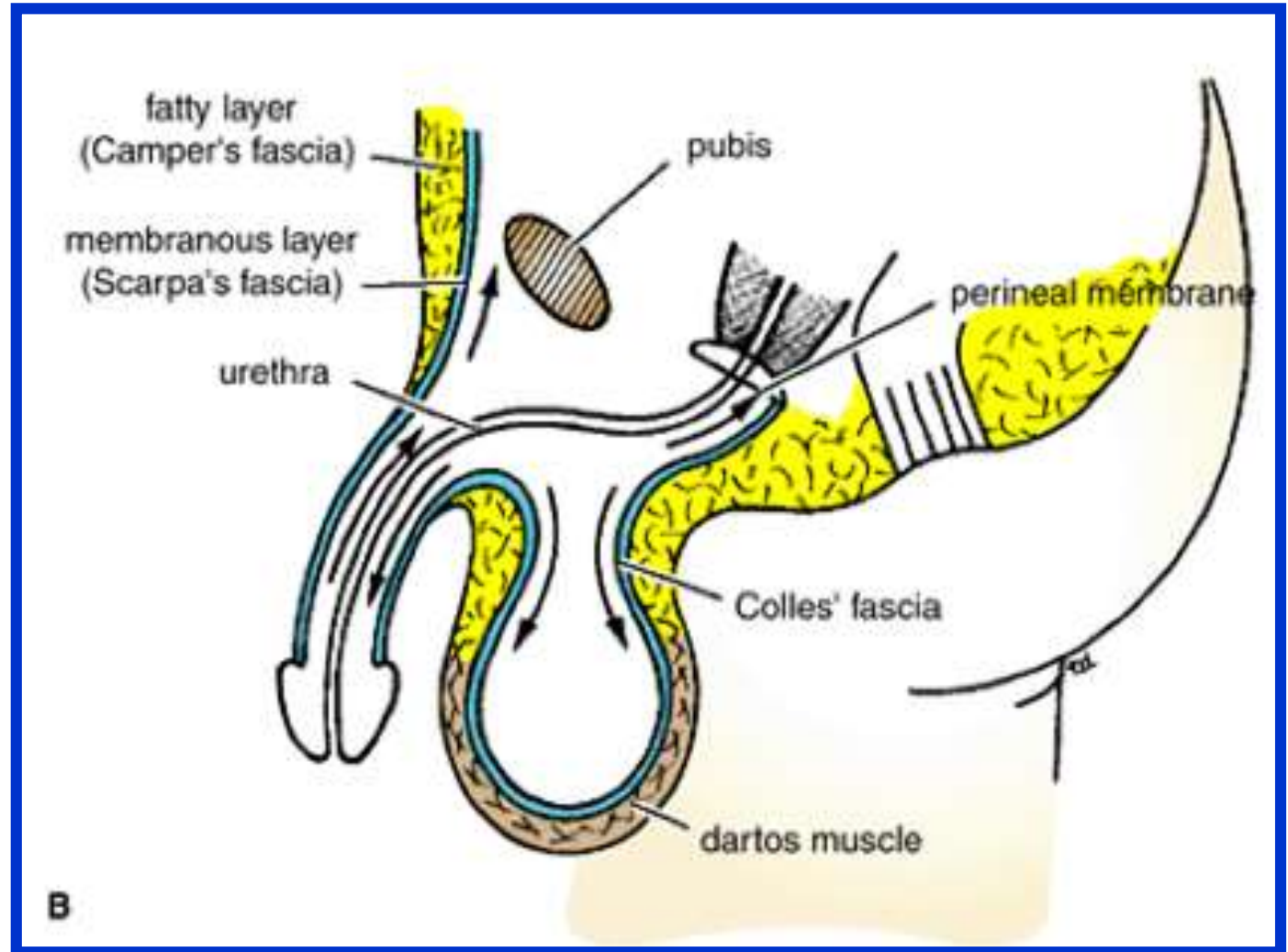
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- ✓ **External spermatic fascia** derived from the external oblique aponeurosis and attached to the margins of the **superficial inguinal ring**
- ✓ **Cremasteric fascia** derived from the internal oblique muscle
- ✓ **Internal spermatic fascia** derived from the fascia transversalis and attached to the margins of the **deep inguinal ring**



# Scrotum

The scrotum is an outpouching of the lower part of the anterior abdominal wall and contains the **testes**, the **epididymides**, and the **lower ends of the spermatic cords**.



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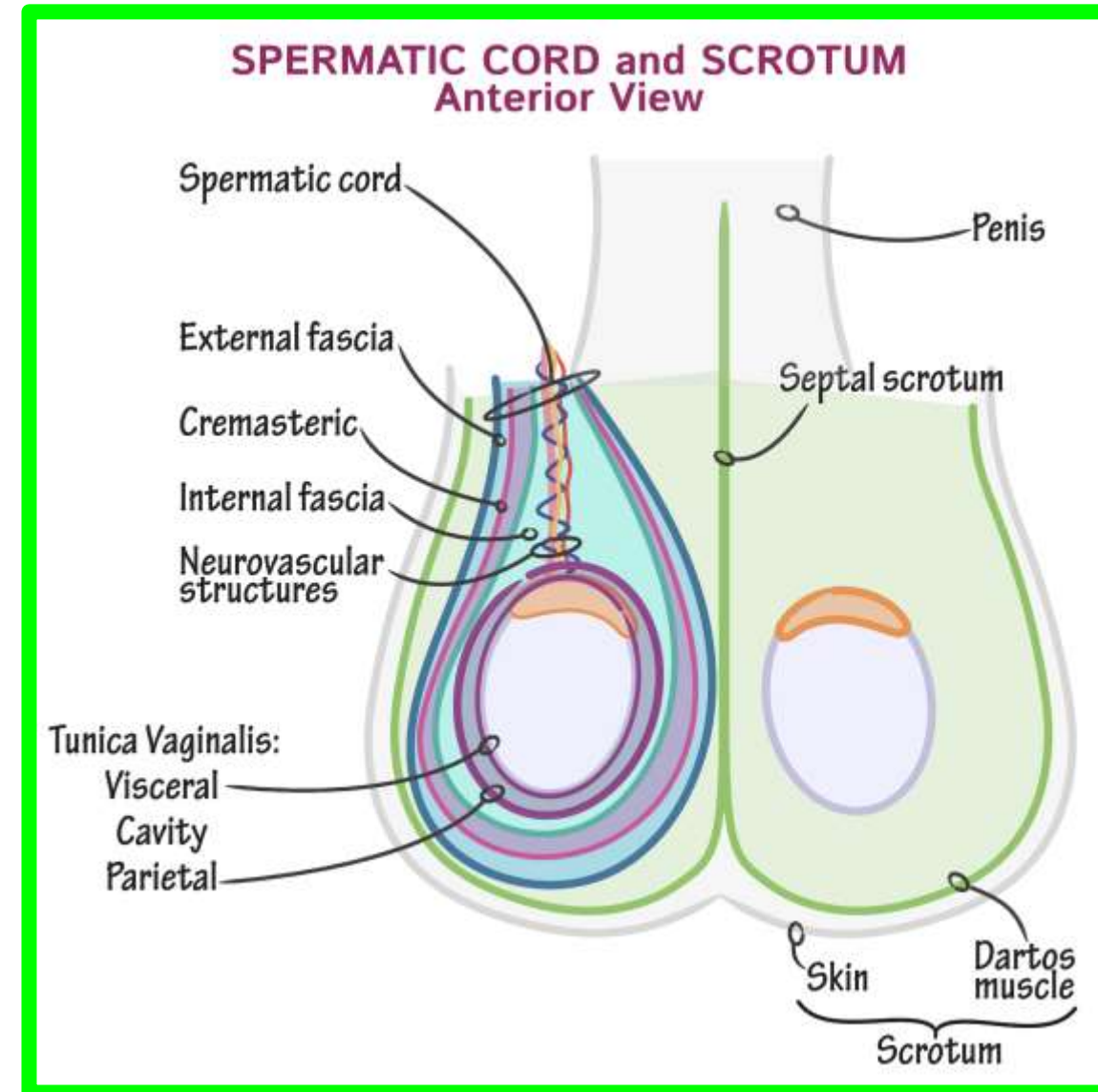
# Scrotum

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The wall of the scrotum has the following layers:

- ❖ Skin
- ❖ Superficial fascia;
  - ✓ The **dartos muscle**, replaces the fatty (camper fascia), and
  - ✓ The membranous layer (Scarpa's fascia) is now called **Colles' fascia**.
- ❖ External spermatic fascia derived from the external oblique
- ❖ Cremasteric fascia derived from the internal oblique





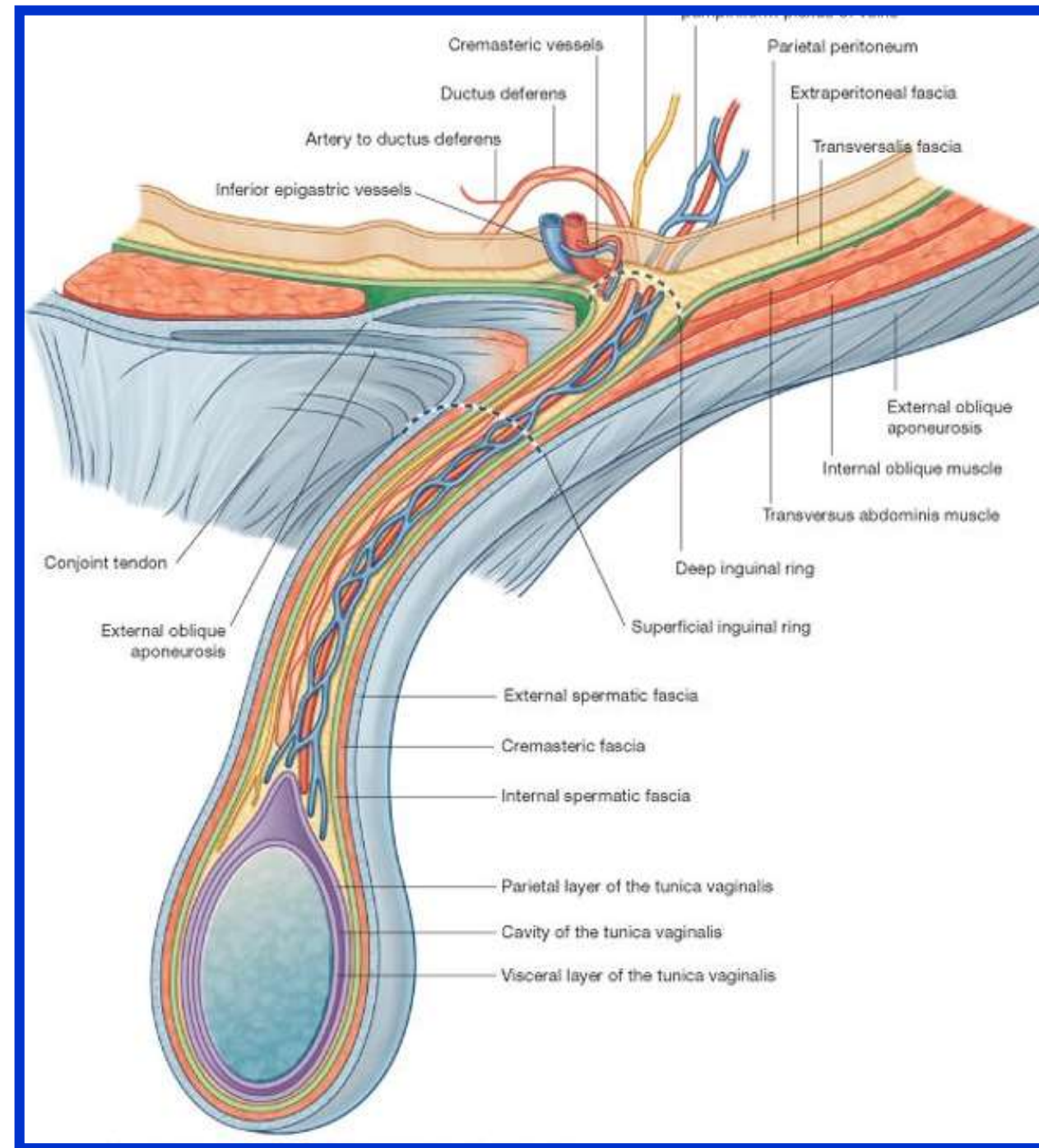
# Scrotum

The wall of the scrotum:

- ❖ **Internal spermatic fascia** derived from the **fascia transversalis**
- ❖ **Tunica vaginalis**, which is a **closed sac** that covers most of each testis

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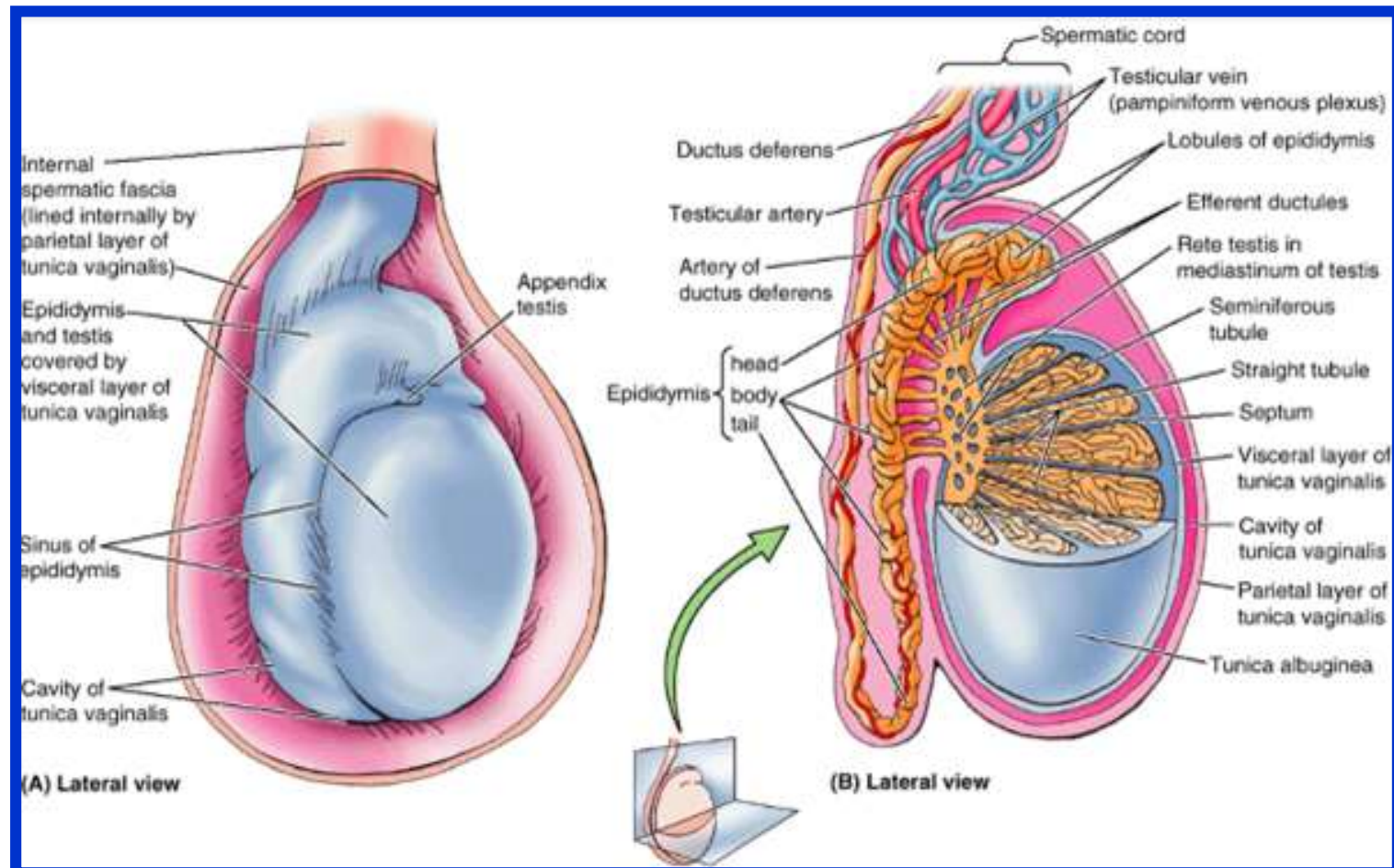
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# Testis

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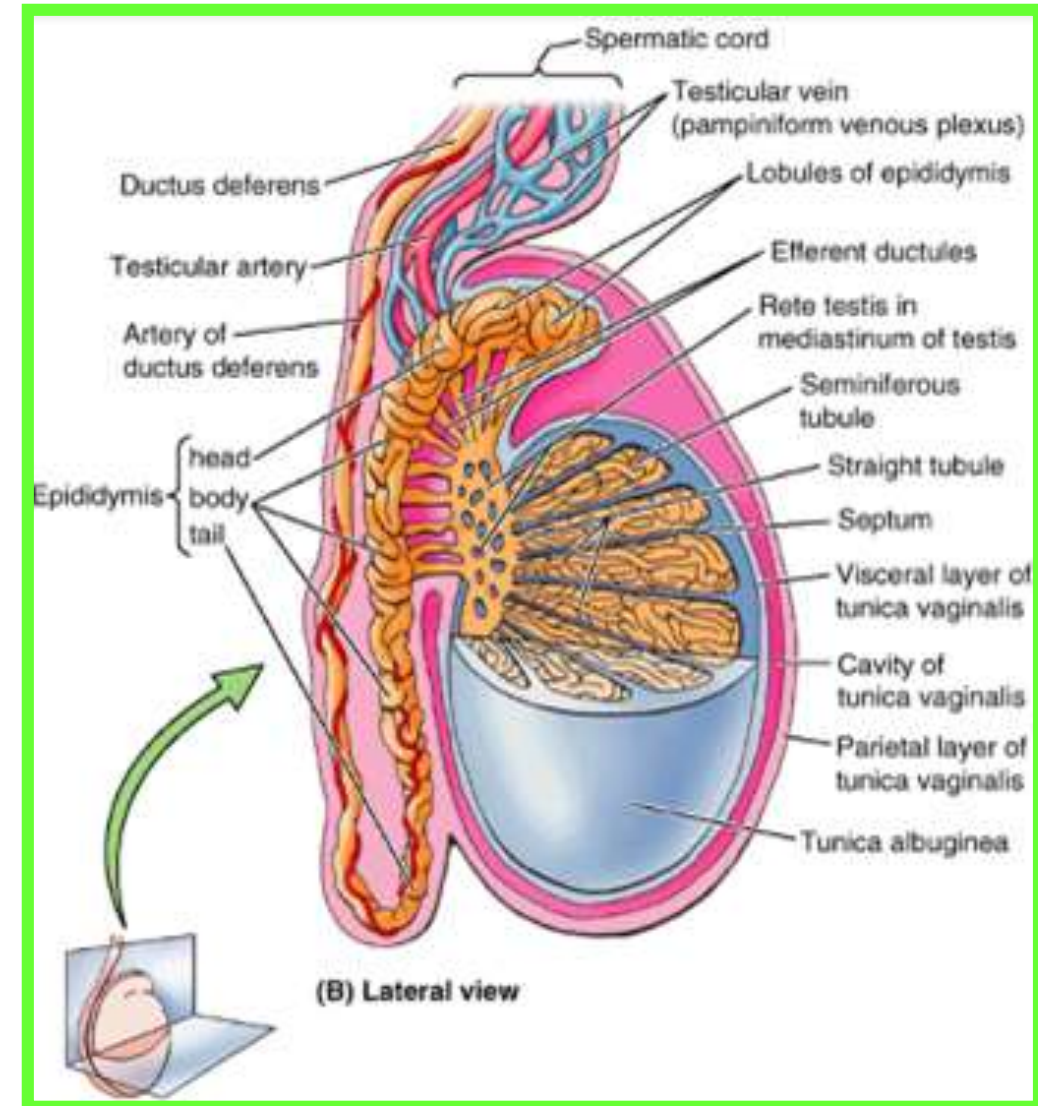
- The testis is a firm, mobile organ lying within the scrotum.
- The left testis usually lies at a lower level than the right.
- Each testis is surrounded by a tough fibrous capsule, **the tunica albuginea**



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# Testis

- ✓ Extending from the inner surface of the capsule is a series of fibrous septa that divide the interior of the organ into **lobules**.
- ✓ Lying within each lobule are one to three coiled **seminiferous tubules**.
- ✓ The tubules open into a network of channels called the **rete testis**.
- ✓ **Small efferent ductules** connect the rete testis to the upper end of the **epididymis**

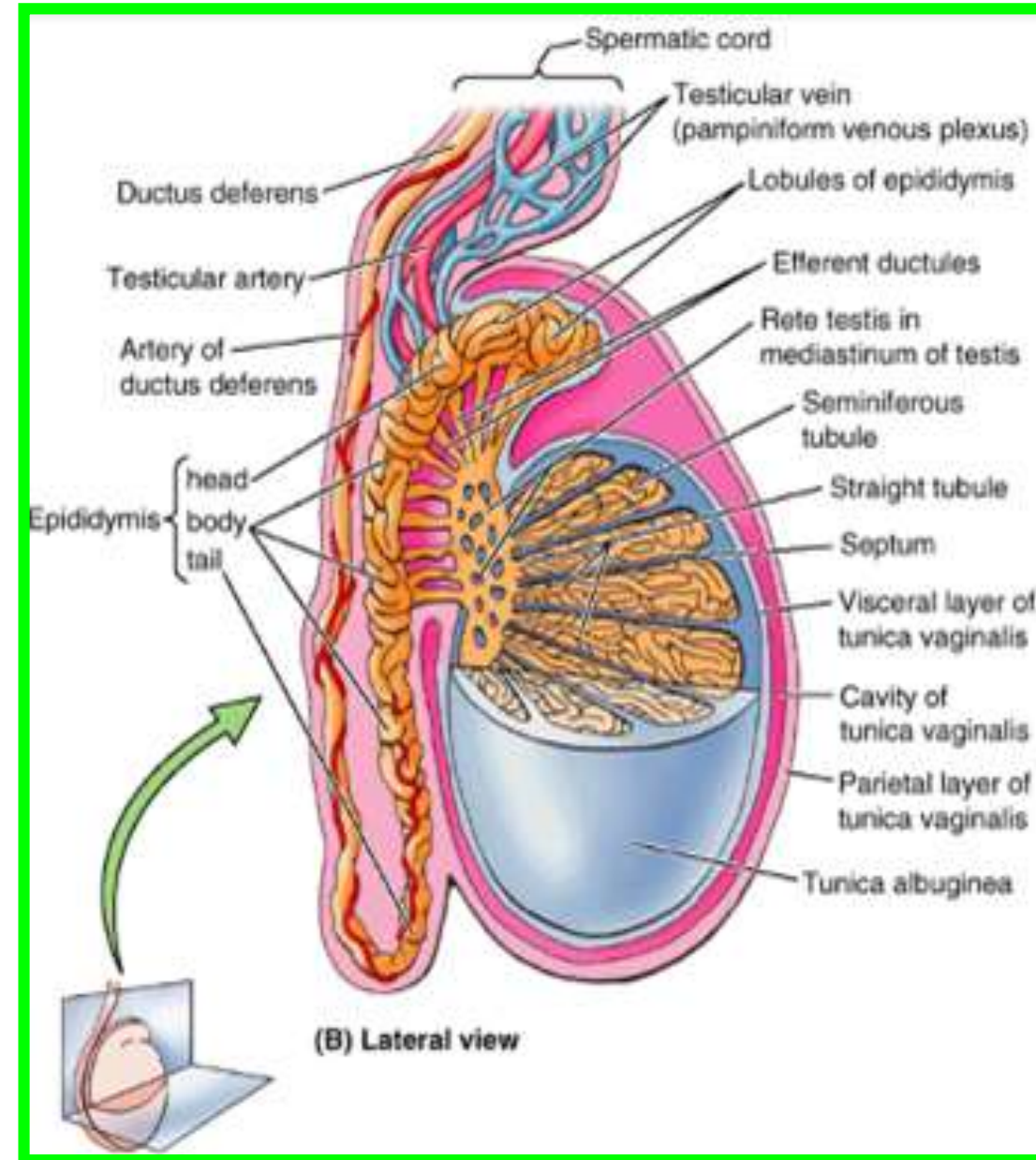




# Epididymis

❑ The epididymis is a firm structure lying posterior to the testis, with the vas deferens lying on its medial side

❑ It has an expanded upper end, **the head**, **a body**, and a pointed **tail** inferiorly.

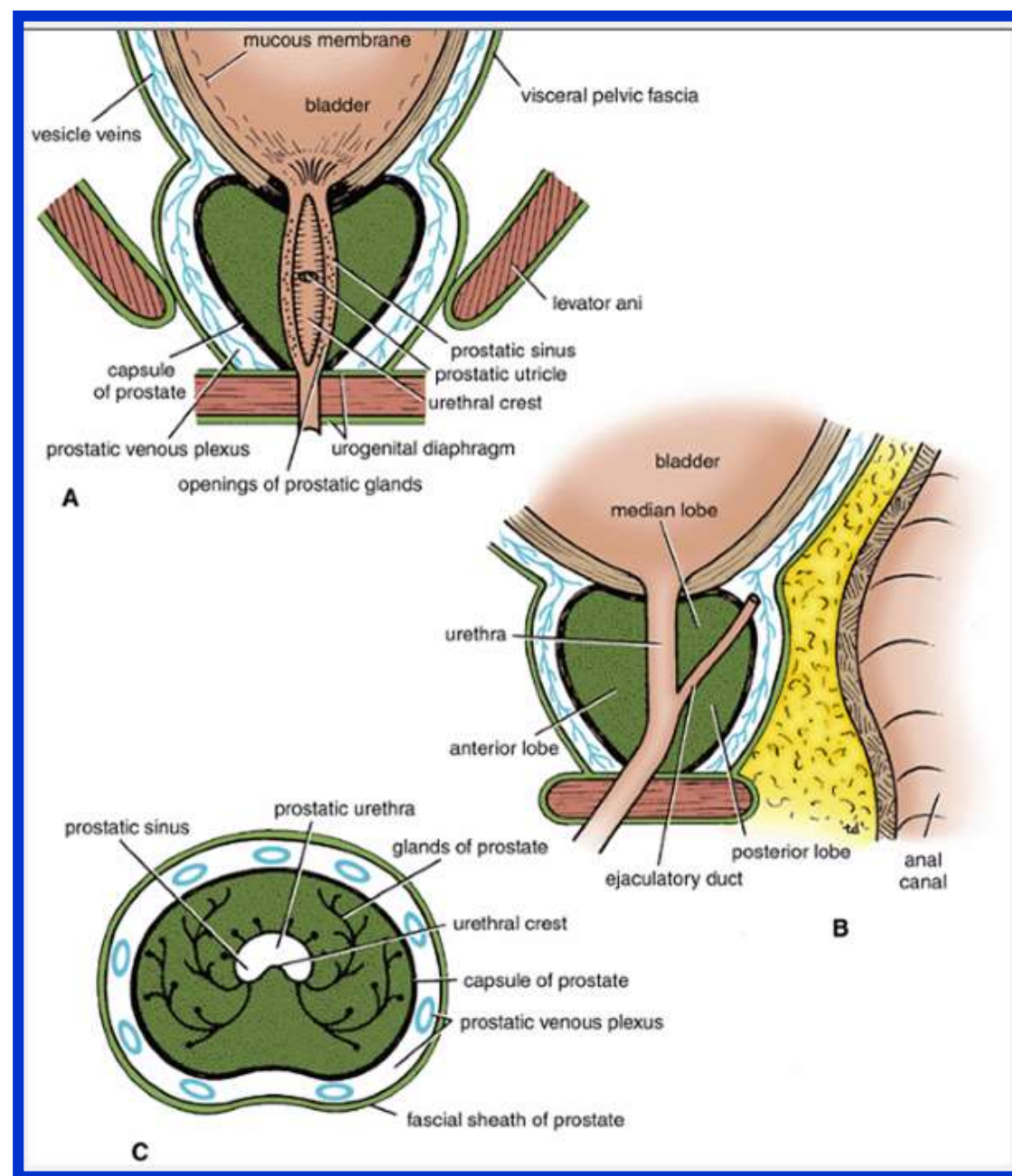




# Male Genital Organs

## Prostate

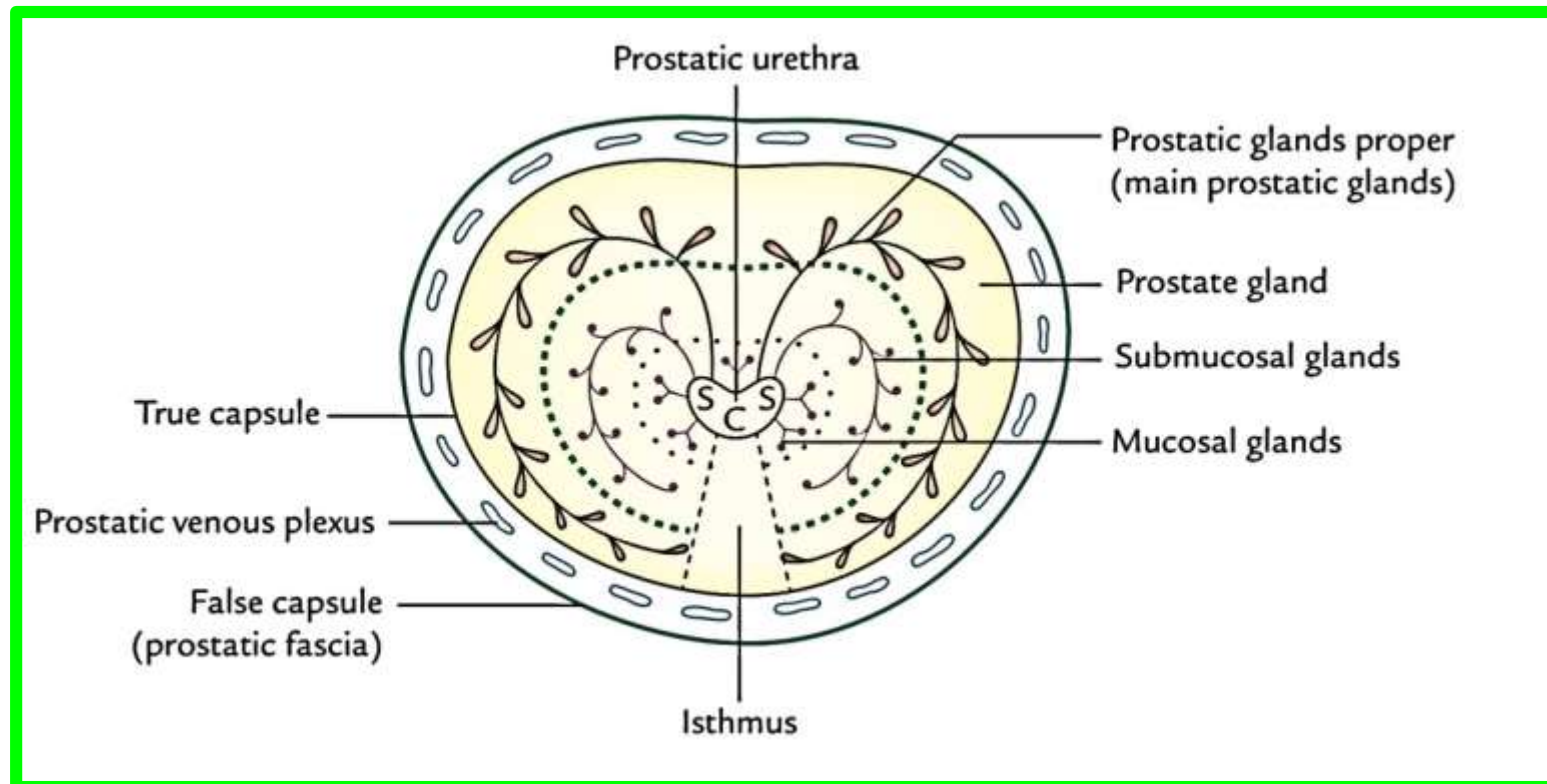
- ❖ The prostate is a **fibromuscular glandular organ** that surrounds the prostatic urethra
- ❖ The glandular part makes up approximately **two thirds** of the prostate; the **other third** is fibromuscular.
- ❖ It is about **1.25 in. (3 cm)** long and lies between:  
**The neck of the bladder** above and **The Urogenital diaphragm** below



## \*\* The prostatic capsule:

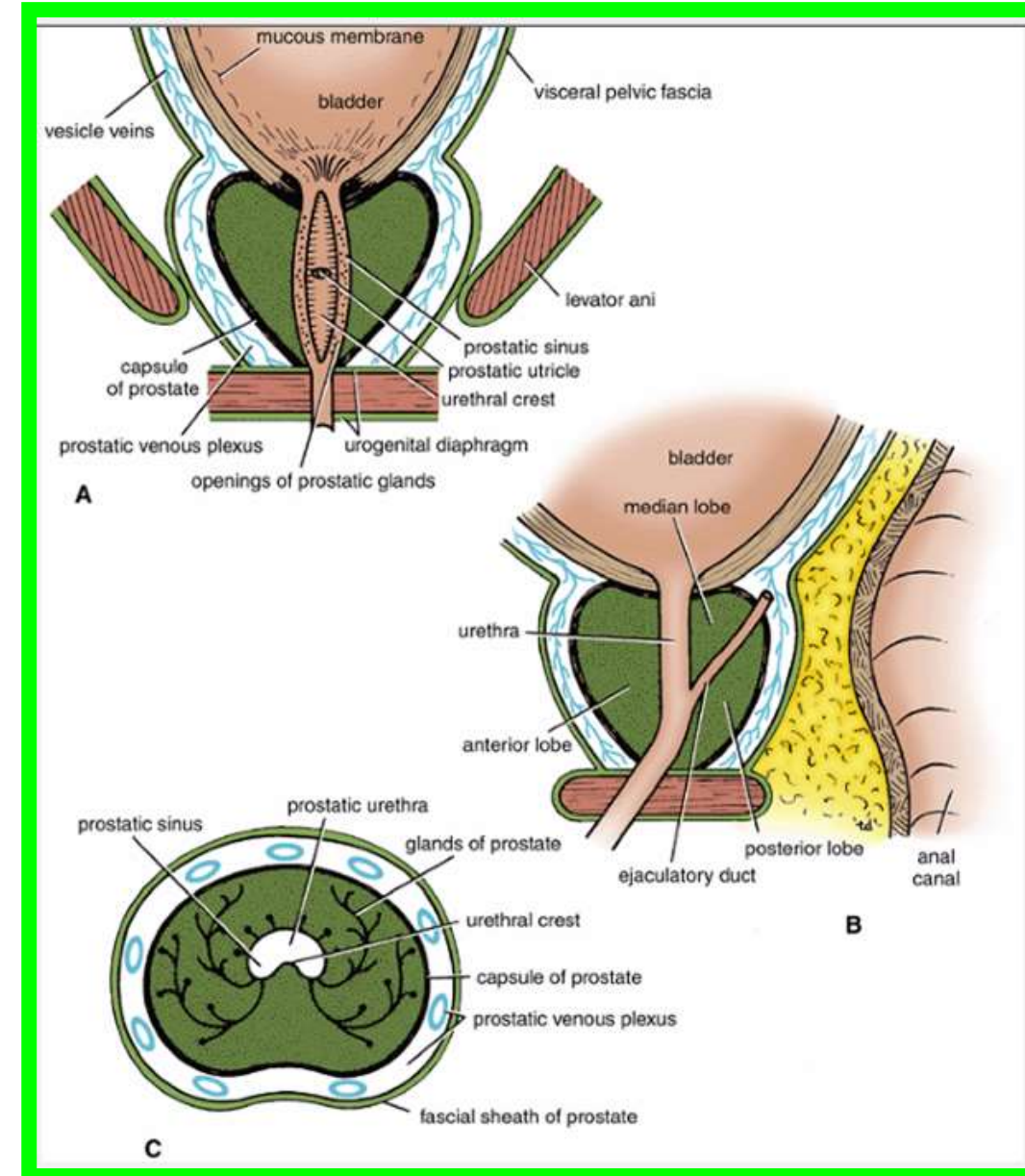
- 1- **True capsule:** thin fibrous sheath surrounds the gland.
- 2- **False capsule:** the visceral layer of pelvic fascia.(continuous anterolaterally with the **puboprostatic ligaments**, and dense posteriorly, continuous with **the rectovesical septum**).

☐ The prostatic venous plexus lies between both capsules.



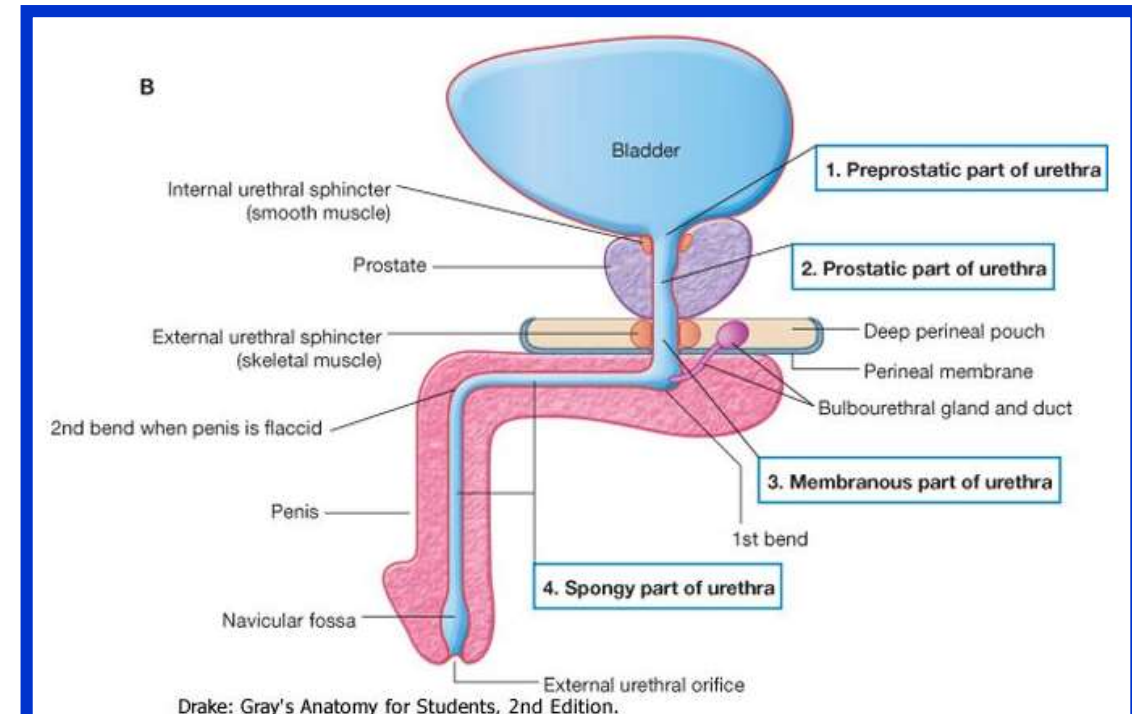
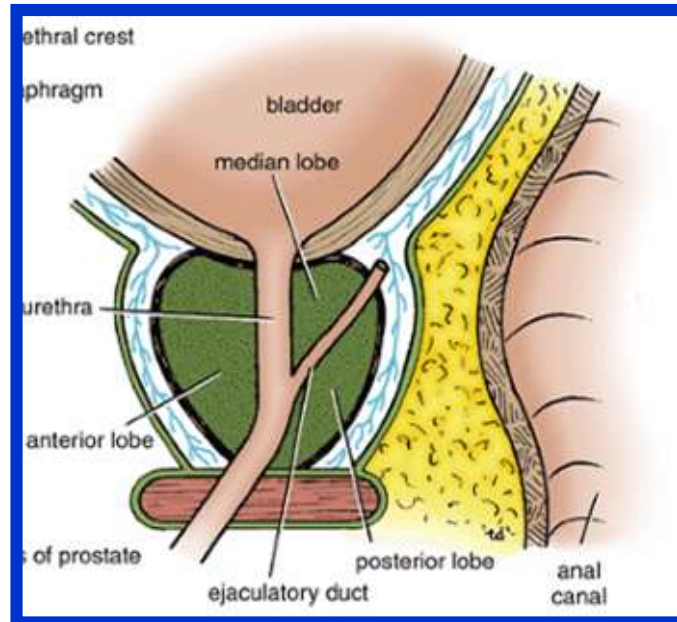
# Prostate

- ❖ The somewhat conical prostate has:
- ❖ A **base**, which lies **against the bladder neck** above
- ❖ An **apex**, which lies against **the urogenital diaphragm** below.
- ❑ The **two ejaculatory ducts** pierce the upper part of the posterior surface of the prostate to open into **the prostatic urethra** at the lateral margins of **the prostatic utricle**.



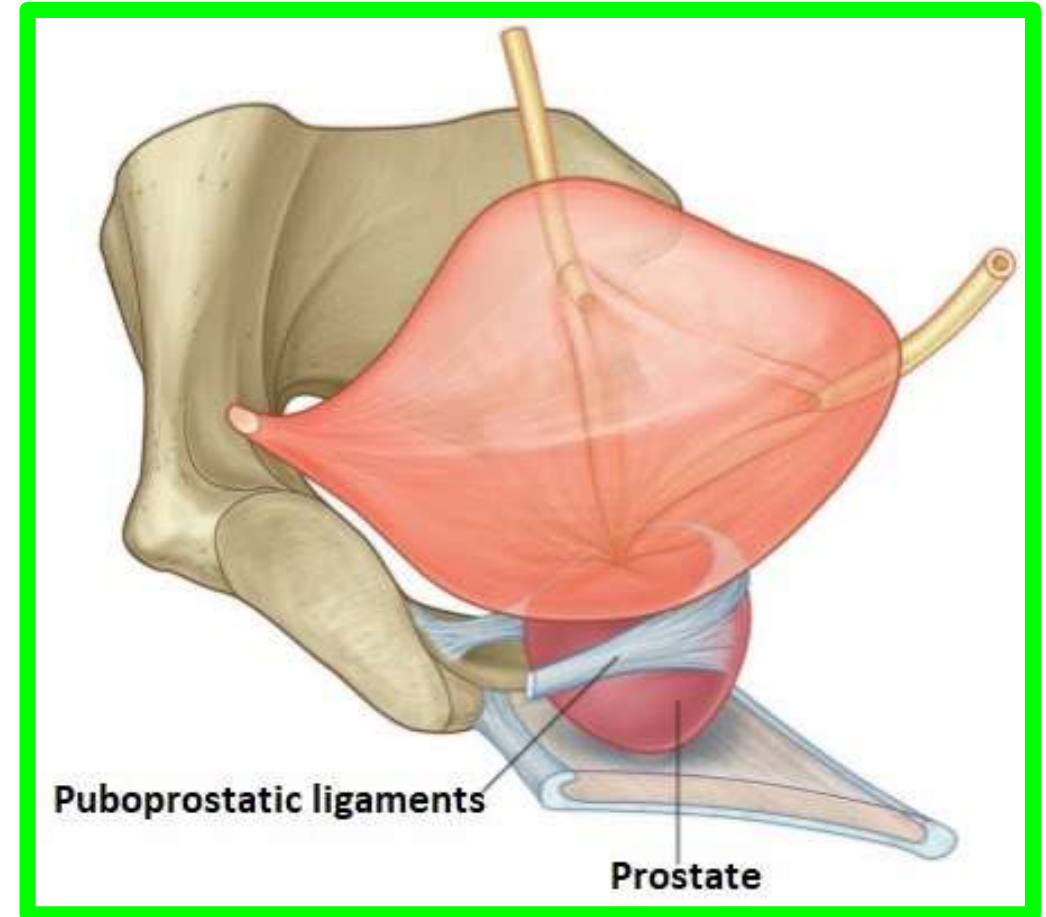
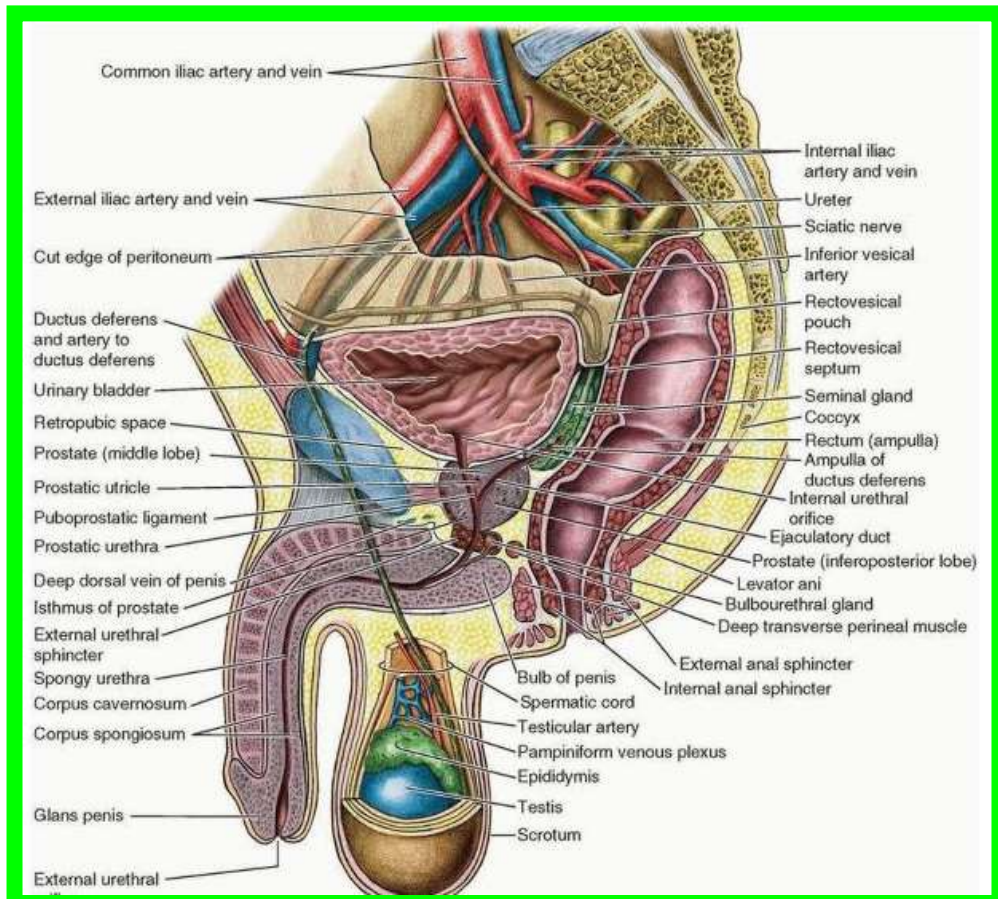


- ❖ **Superiorly:** The base of the prostate is continuous with the neck of the bladder, the smooth muscle passing without interruption from one organ to the other.
- ❖ The urethra enters the center of the base of the prostate
- ❖ **Inferiorly:** The apex of the prostate lies on the upper surface of the urogenital diaphragm. The urethra leaves the prostate just above the apex on the anterior surface





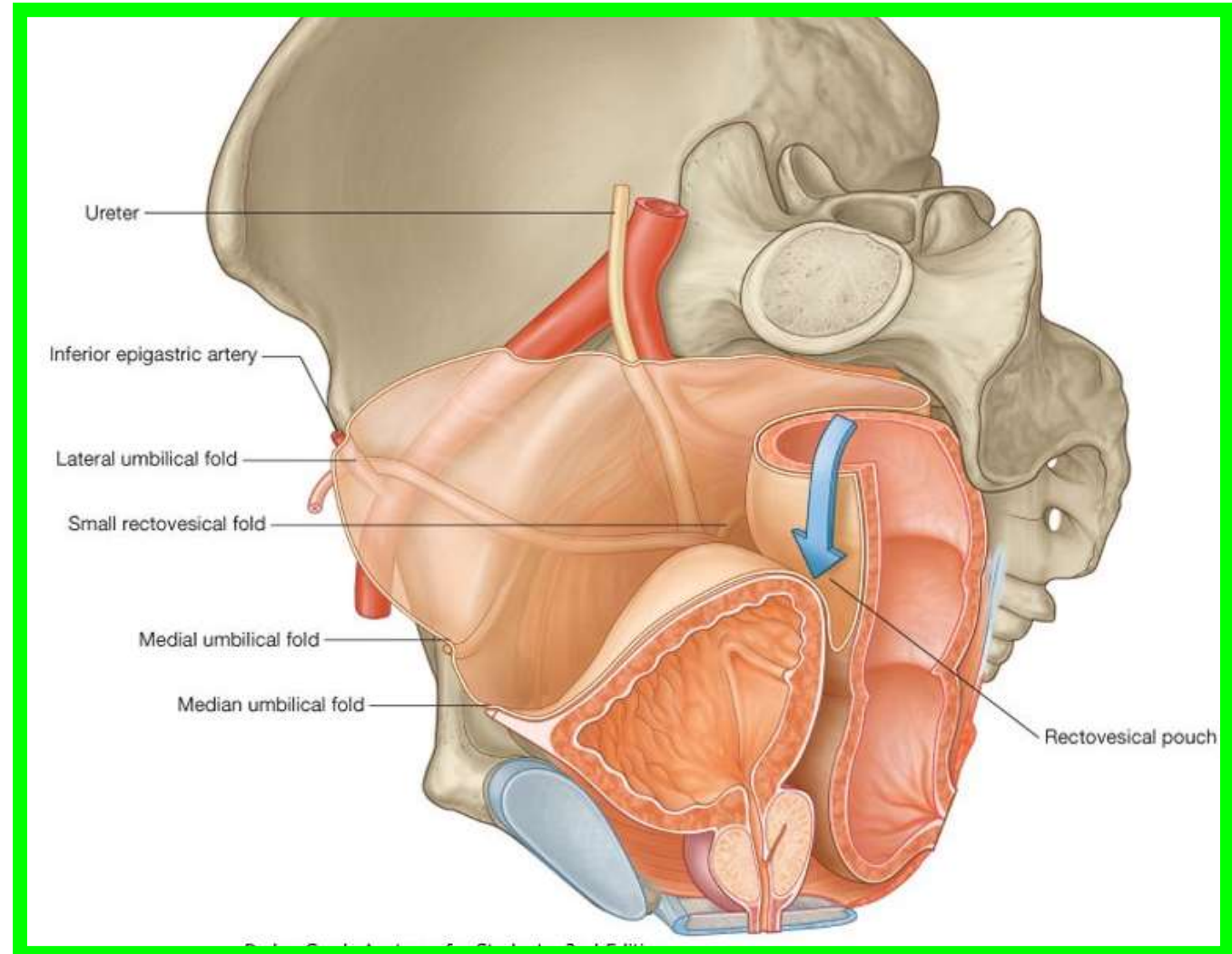
- ❖ **Anteriorly:** The prostate is related to **the symphysis pubis**, separated from it by the extraperitoneal fat in the retropubic space (**cave of Retzius**).
- ❖ The prostate is connected to the posterior aspect of the pubic bones by **the fascial puboprostatic ligaments**



# Prostate

❖ **Posteriorly:** The prostate is closely related to the anterior surface of **the rectal ampulla** and is separated from it by **the Rectovesical septum (fascia of Denonvilliers)**

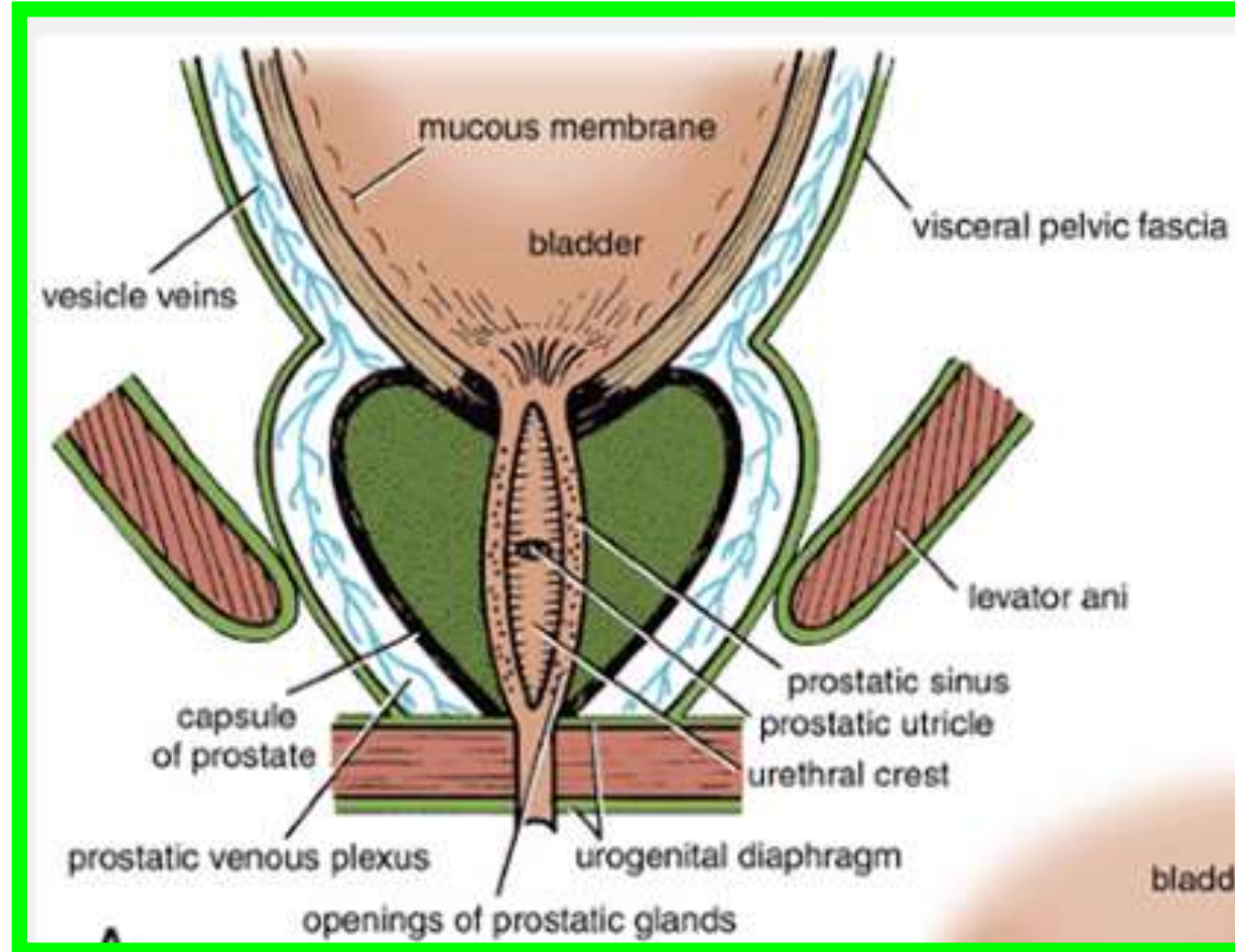
This septum is formed in fetal life by the fusion of the walls of the lower end of the Rectovesical pouch of peritoneum, which originally extended down to **the perineal body**



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# Prostate

❖ **Laterally:** The prostate is embraced by the anterior fibers of the **levator ani** as they run posteriorly from the pubis





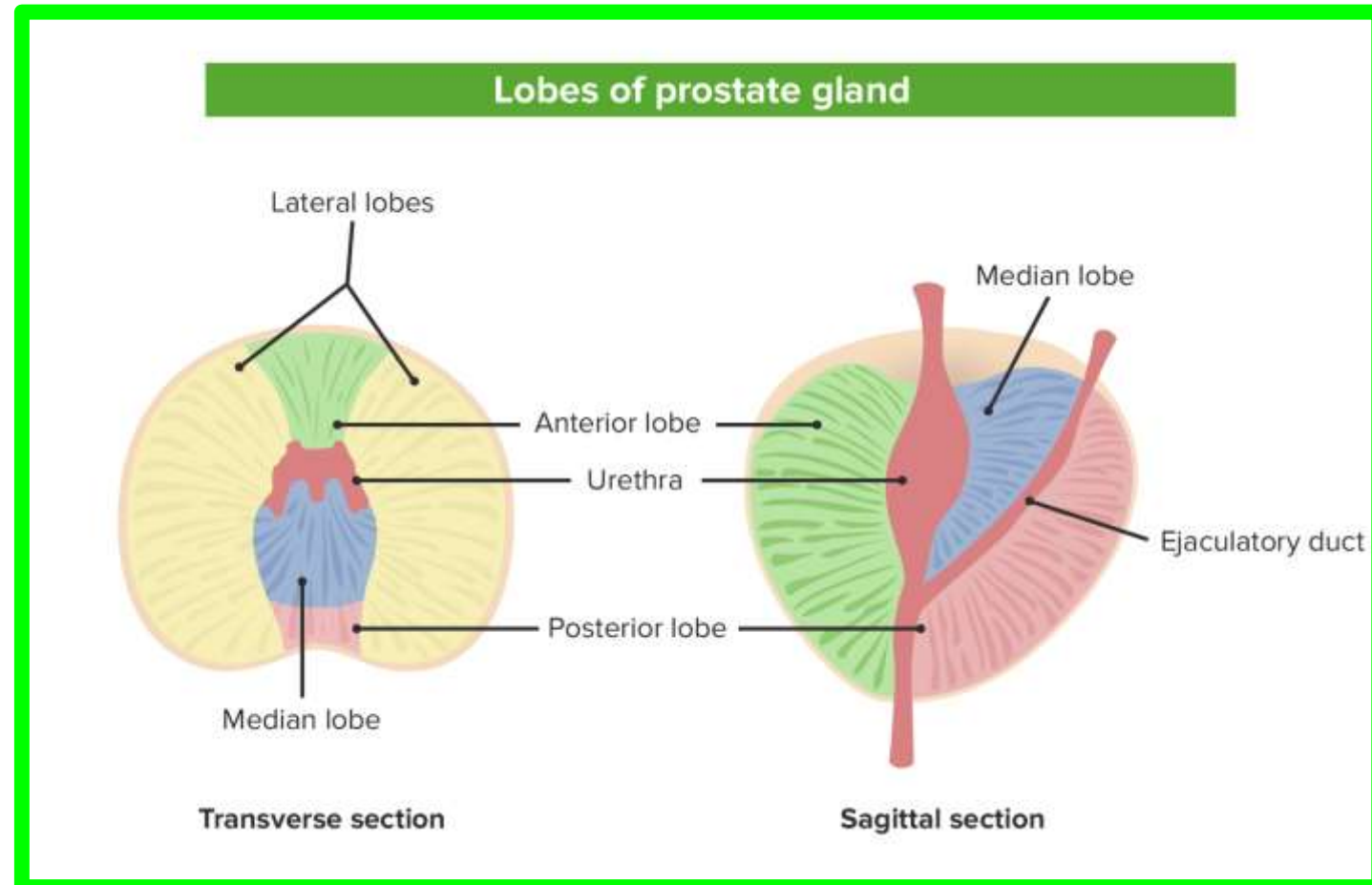
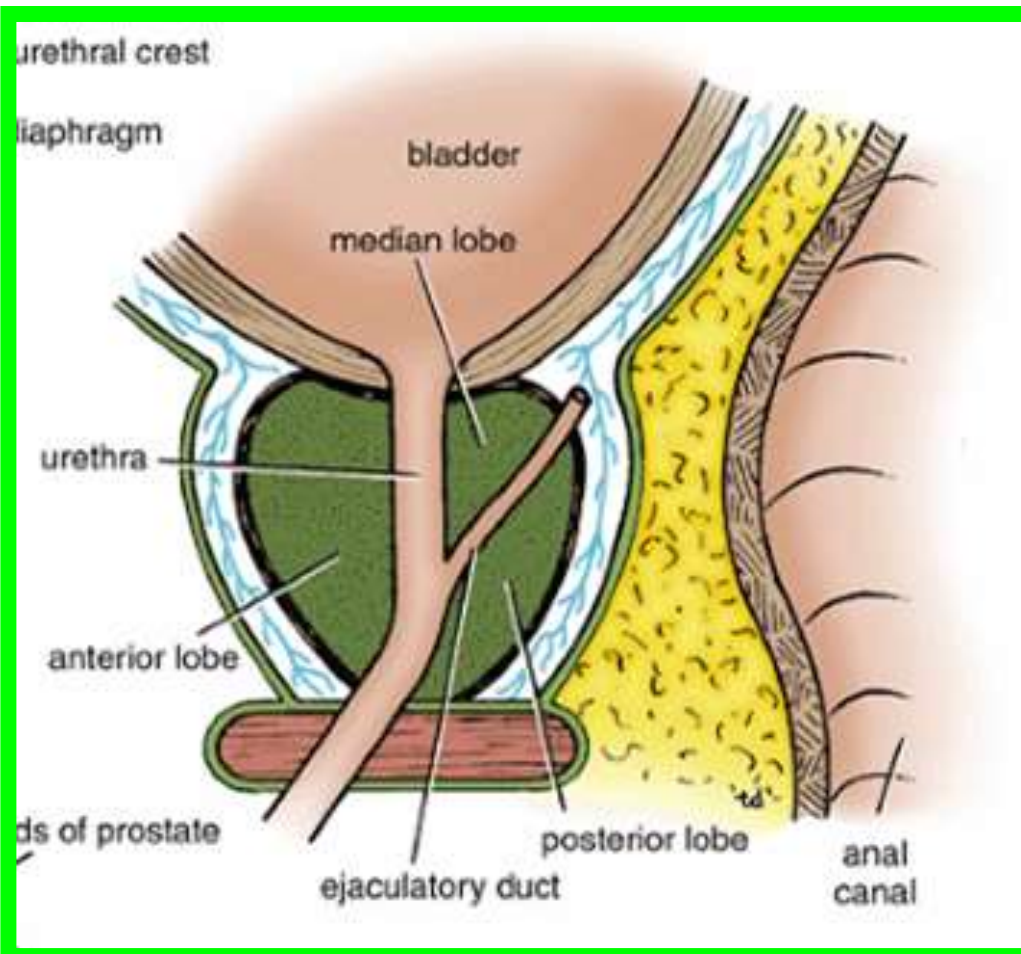
# Prostate

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- ❖ The prostate is incompletely divided into five lobes.
- ❖ The **anterior lobe** lies in front of **the urethra** and is devoid of glandular tissue..



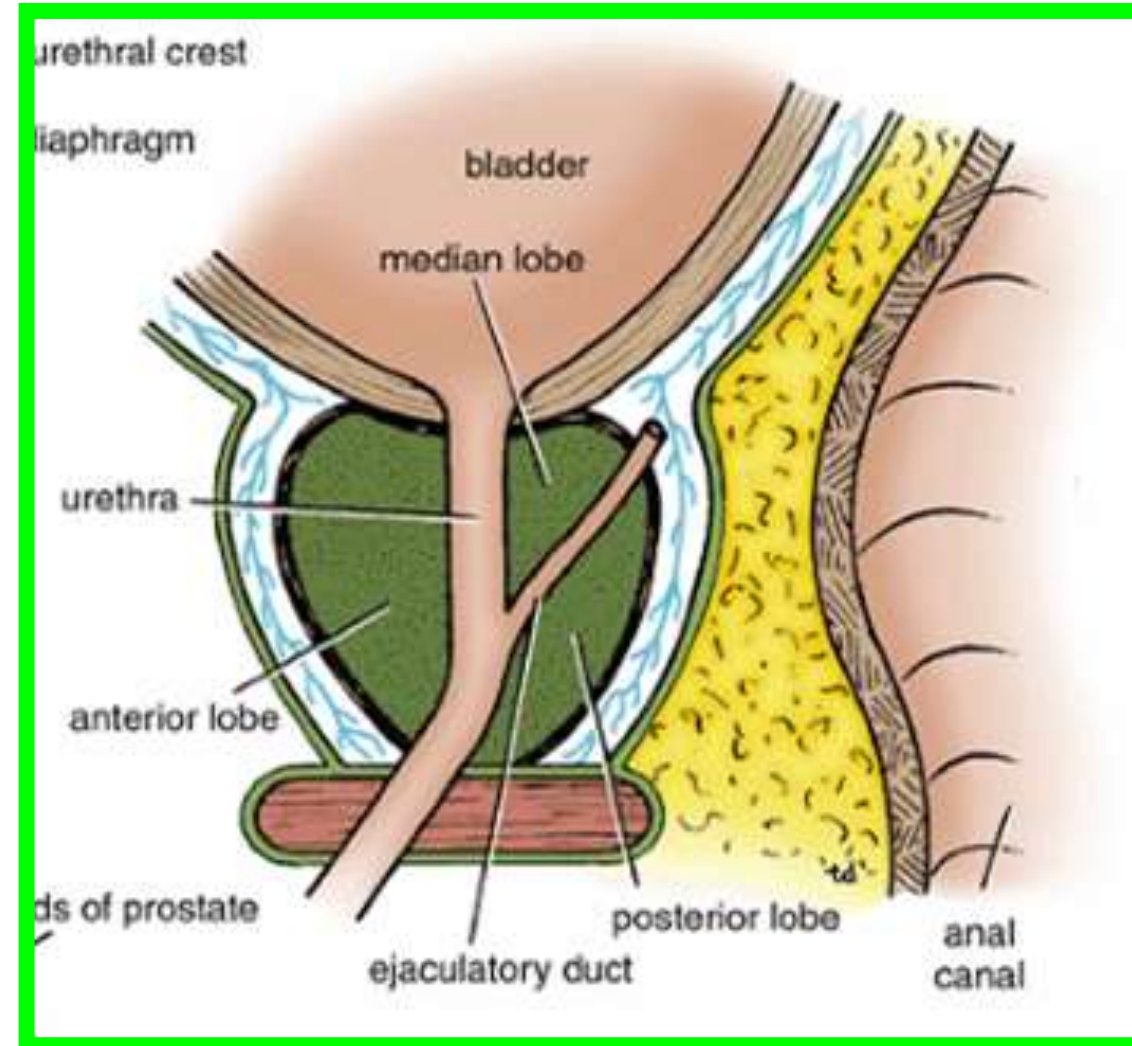


# Prostate

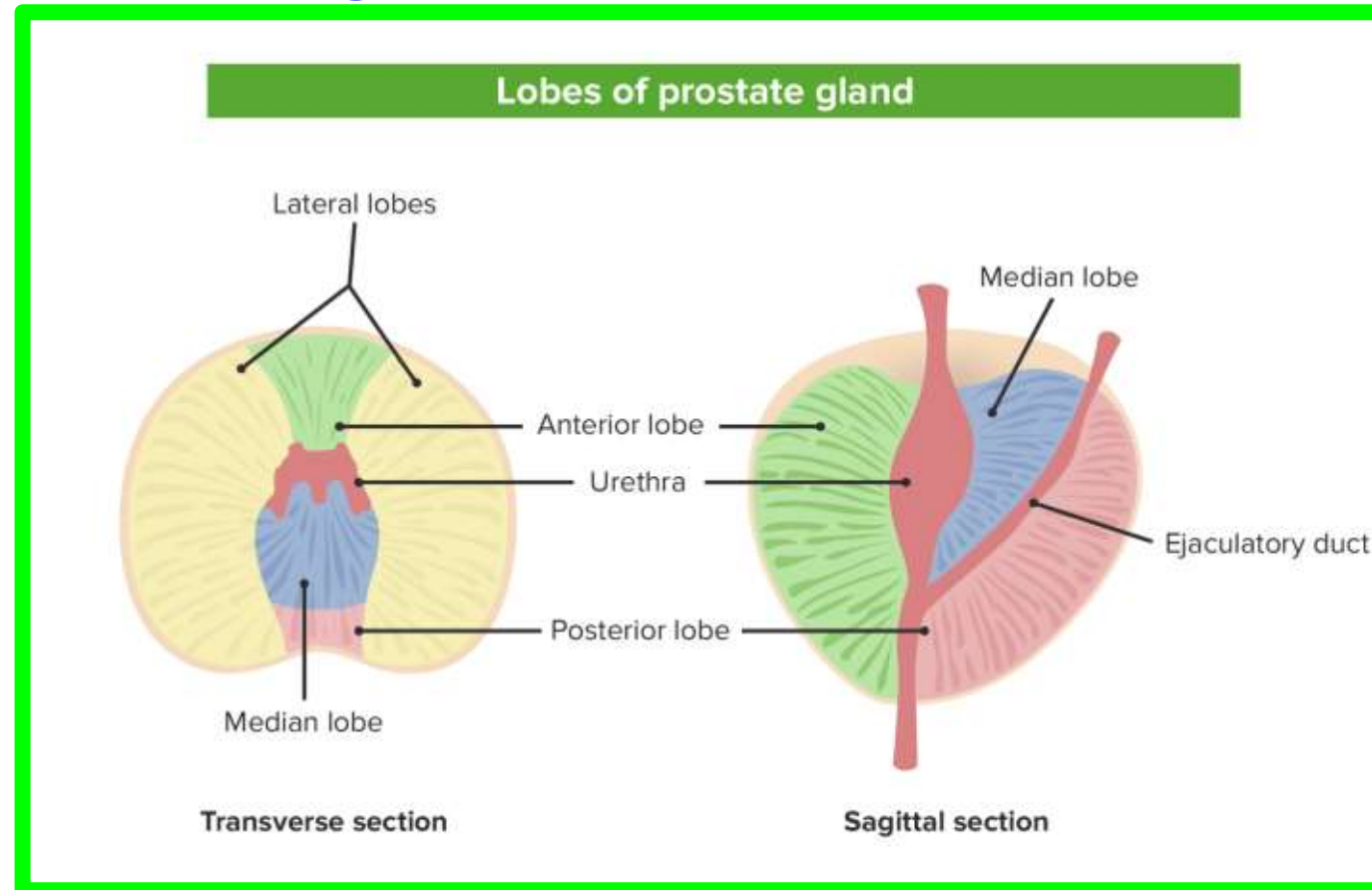
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❖ The median, or middle lobe is the wedge of gland situated between the urethra and the ejaculatory ducts. it is rich in glands.

❖ The posterior lobe is situated behind the urethra and below the ejaculatory ducts and also contains glandular tissue. (is readily palpable by digital rectal examination).



- ❖ The right and left lateral lobes lie on either side of the urethra and are separated from one another by a shallow vertical groove on the posterior surface of the prostate.
- ❖ The lateral lobes contain many glands.



# BULBO-URETHRAL GLANDS

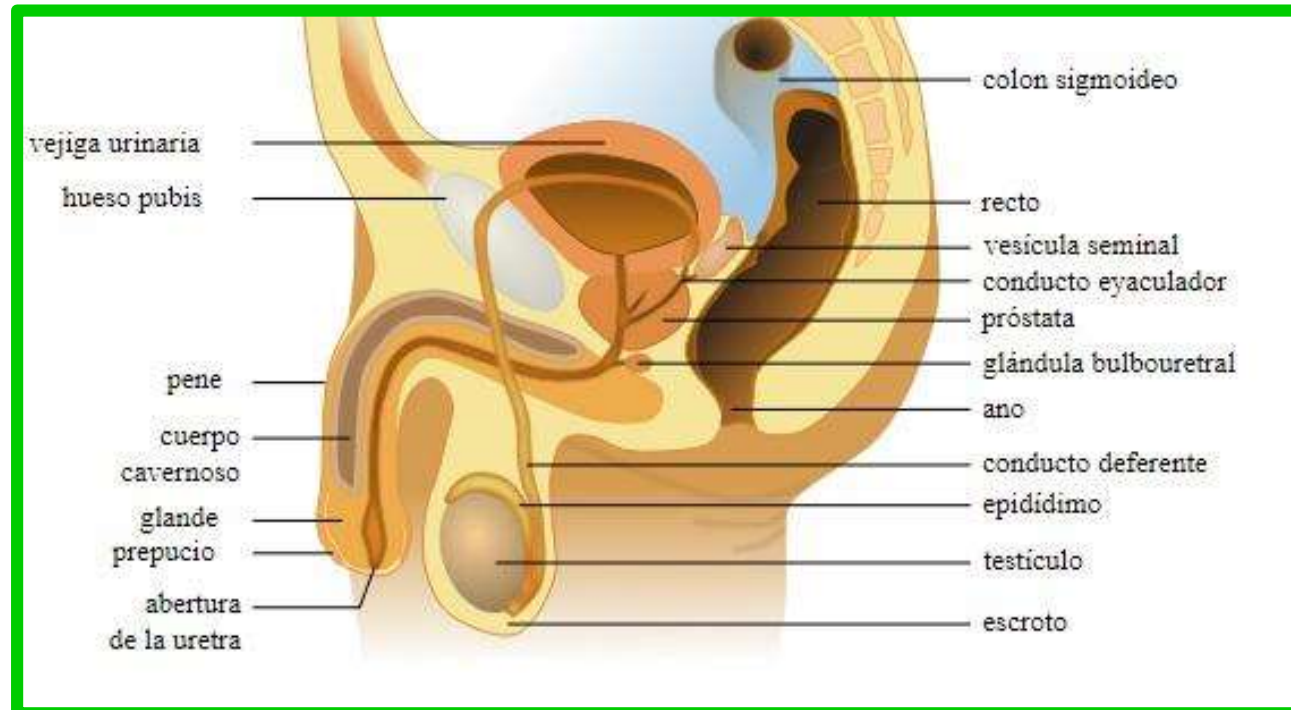
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The two pea-size **bulbo-urethral glands** (**Cowper glands**) lie posterolateral to the **Membranous part of the urethra**, largely embedded within the external urethral sphincter.

The ducts of the bulbo-urethral glands pass through **the perineal membrane** adjacent to the intermediate urethra and open through minute apertures into **the proximal part of the spongy urethra** in **the bulb of the penis**.

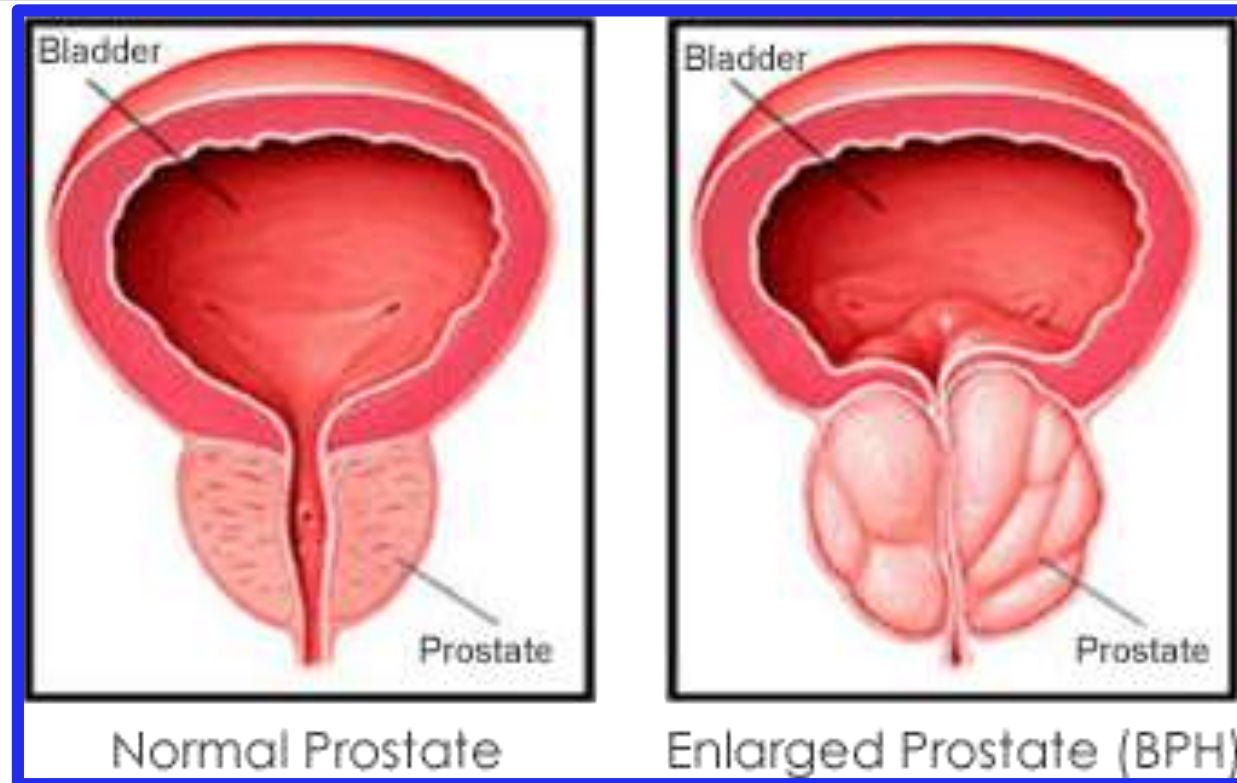
❖ Their mucus-like secretion enters the urethra during sexual arousal, contributing less than **1% of semen**.



# Prostatic Enlargement

The prostate is of medical interest because benign enlargement or **benign hypertrophy of the prostate (BHP)** is common after middle age.

An enlarged prostate projects into the urinary bladder and impedes urination by distorting the prostatic urethra. **The median lobe usually enlarges the most and obstructs the internal urethral orifice.**





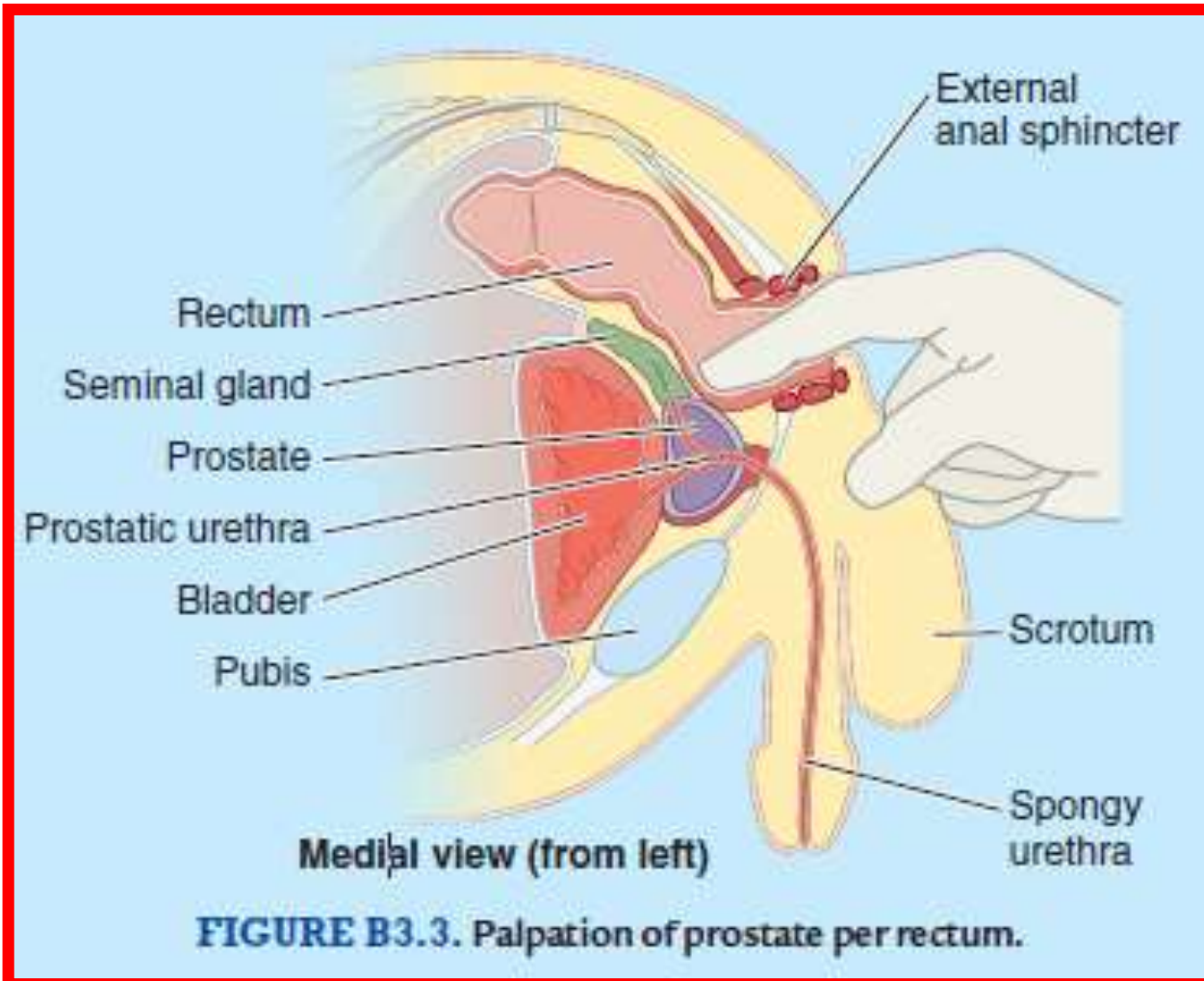
# Prostatectomy

❑ A major concern regarding **prostatectomy** is that **impotency** may be a consequence.

❑ All or part of the prostate, or just the hypertrophied part, is removed (transurethral resection of the prostate **[TURP]**).

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# Vas (Ductus) Deferens

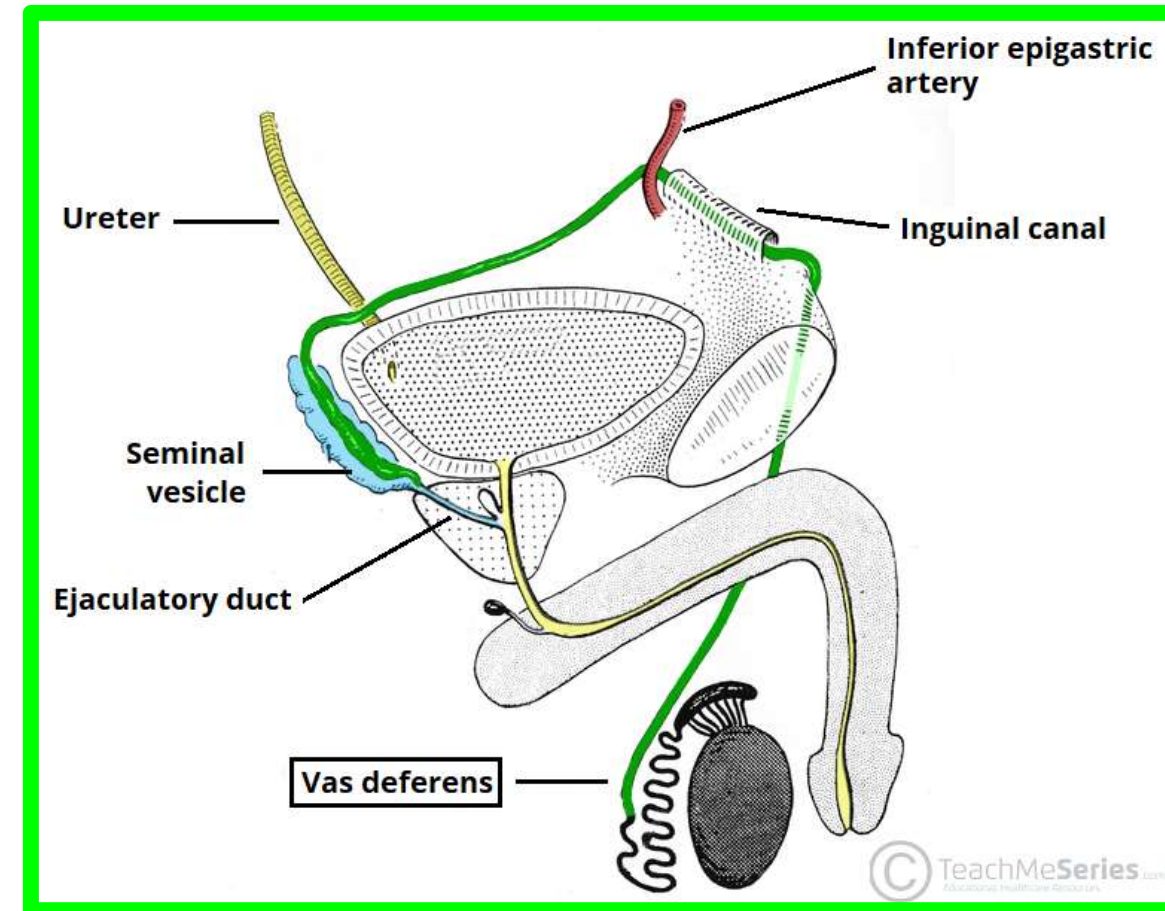
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- ✓ It is a thick cord-like tube, about **45 cm long**.
- ✓ It carries and stores the sperms.
- ✓ It begins from **the tail of the epididymis**.

## **\*\* Course and relations:**

- 1- Scrotal part:** ascends on the back of the testis and medial to the epididymis.
- 2- Inguinal part:** runs in the inguinal canal **through the spermatic cord**.
- 3- Pelvic part:** curves around the inferior epigastric artery.

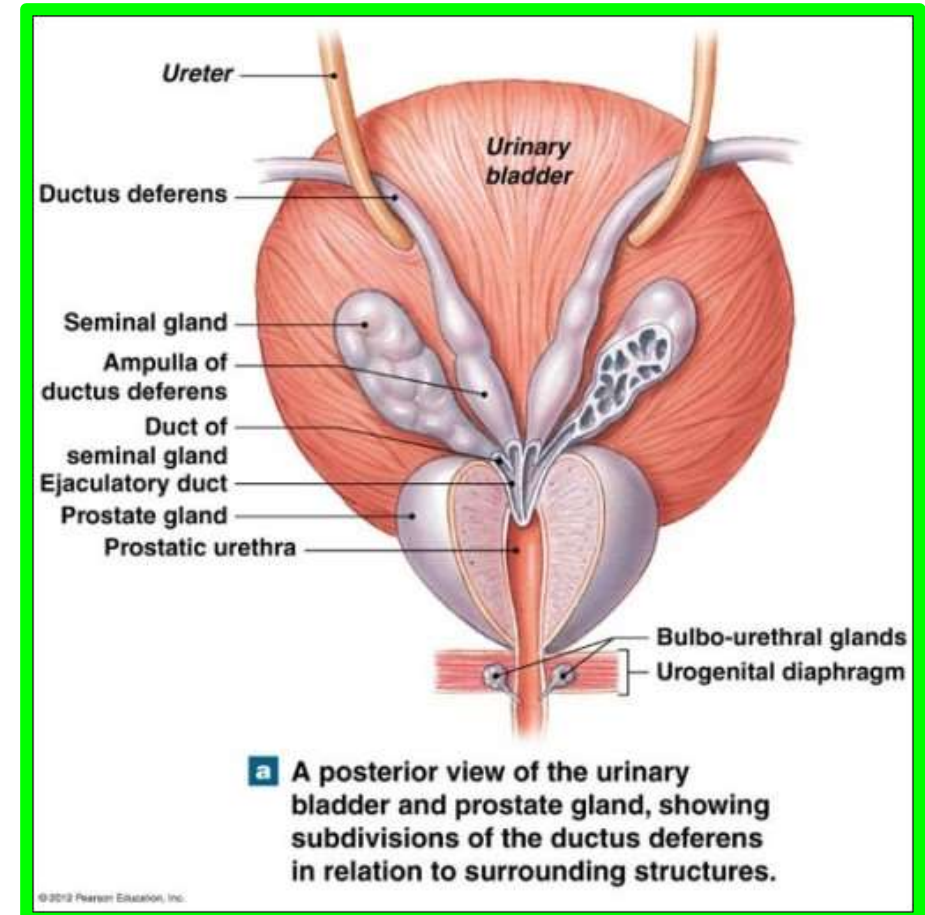
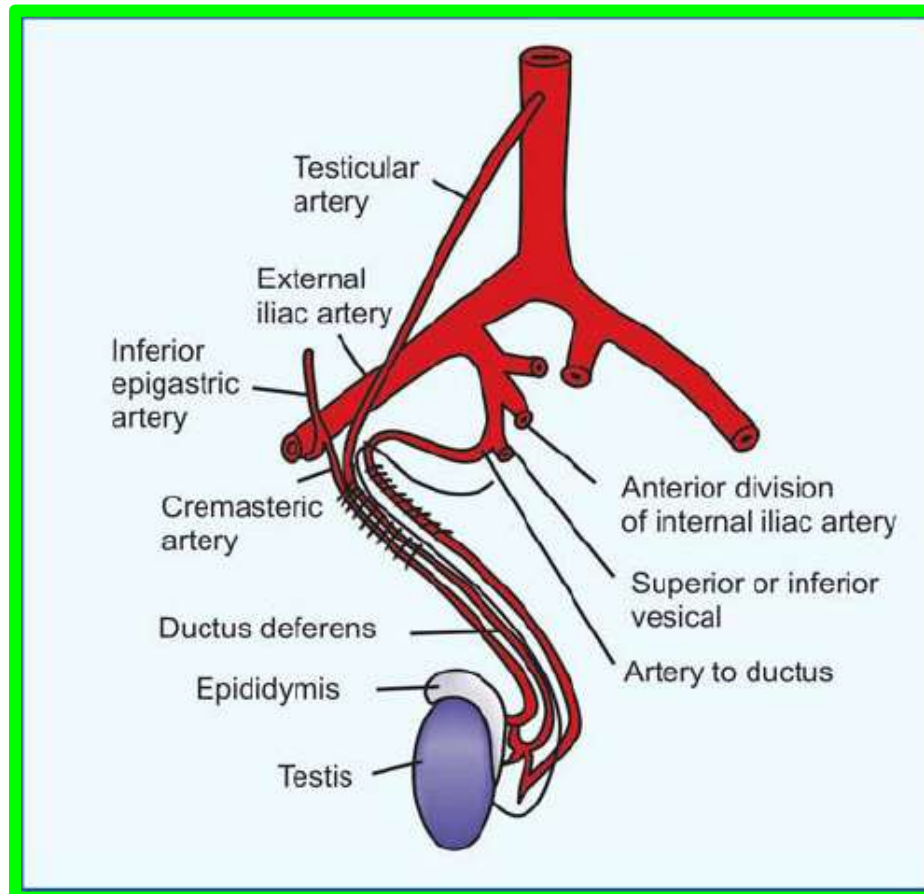


# Vas (Ductus) Deferens

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**\*\* Termination:** it ends by forming the ampulla which join the seminal vesicle to form **the ejaculatory duct**.

**\*\* Arterial supply:** artery of the vas deferens.



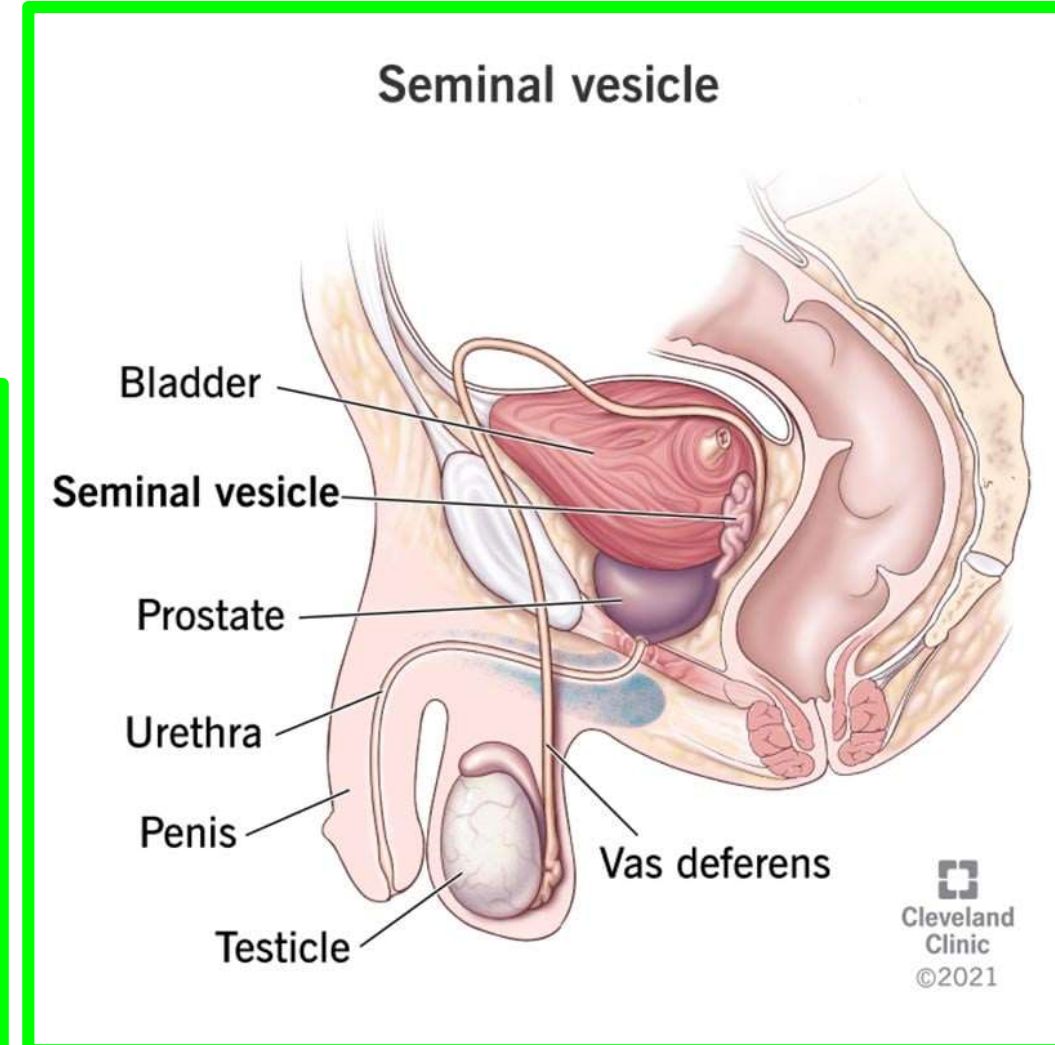
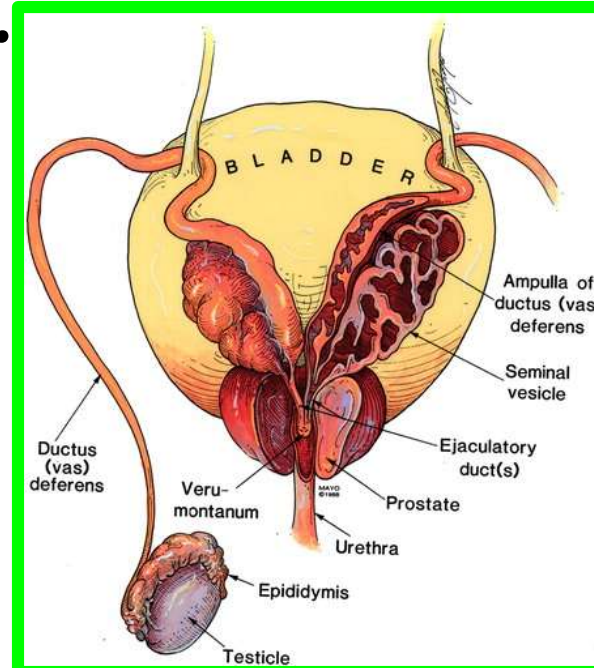


# Seminal Vesicles

- ❖ One on each side
- ❖ It is a **sacculated and coiled pouch** which is nearly **5 cm** in length.

## \*\* Relations:

- a- **Anteriorly:** base of the urinary bladder
- b- **Posteriorly:** the rectum.
- c- **Medially:** ampulla of the vas deferens.
- d- **Laterally:** levator ani.



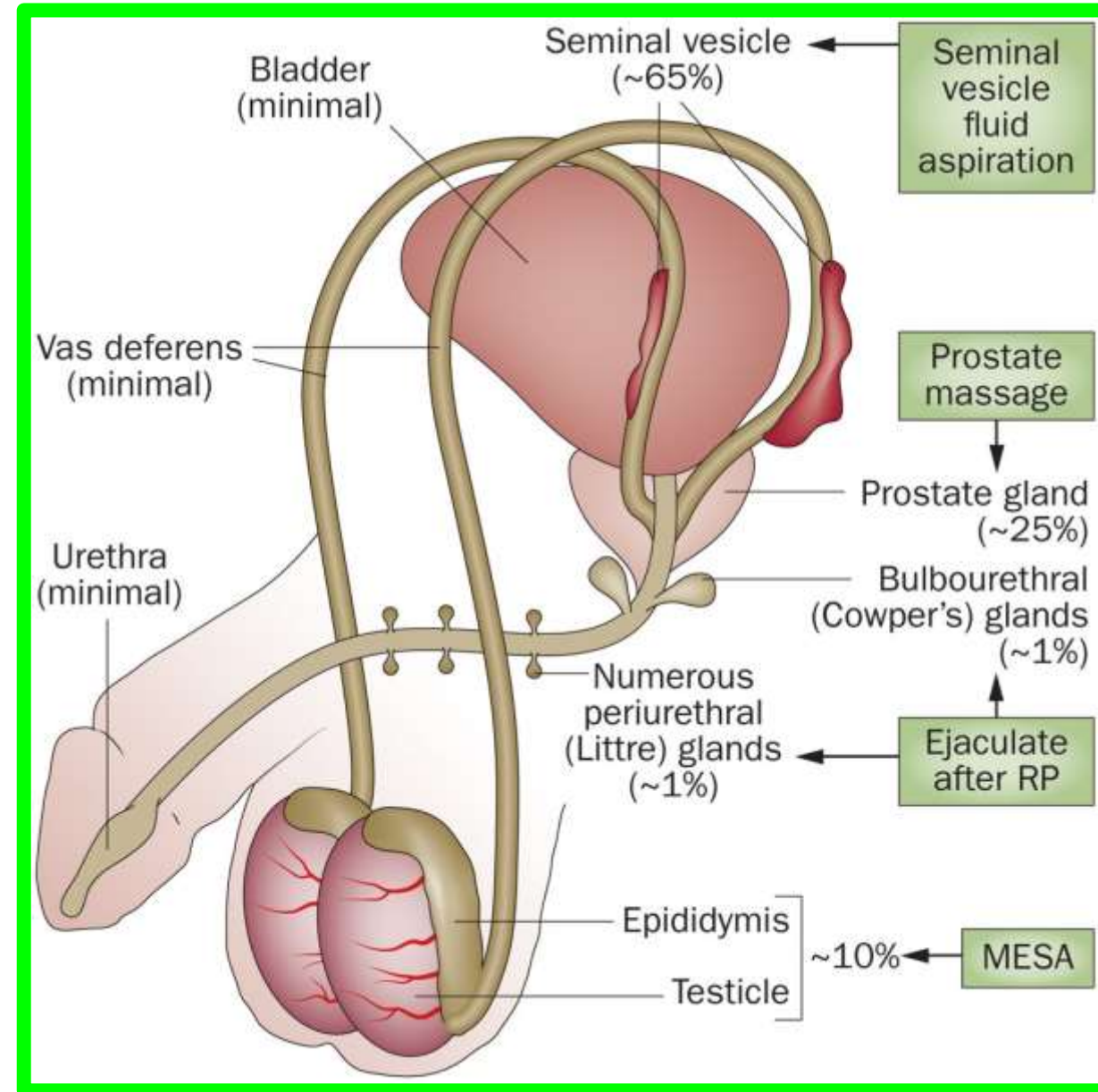
# Seminal Vesicles

**\*\* Ends:** It unites with **ampullae** of the **vas deferens** to form **ejaculatory duct**.

**\*\* Function:** the seminal vesicles are glands which **contract during ejaculation**.

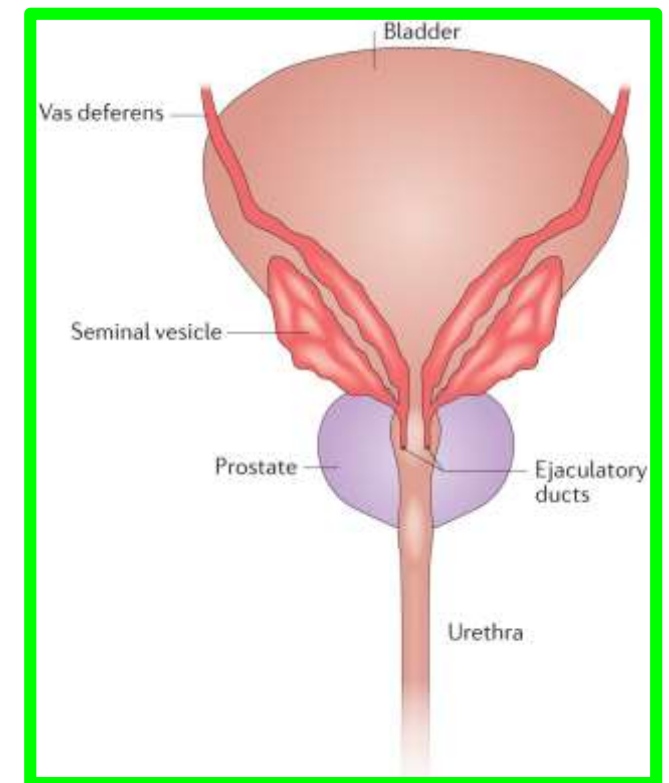
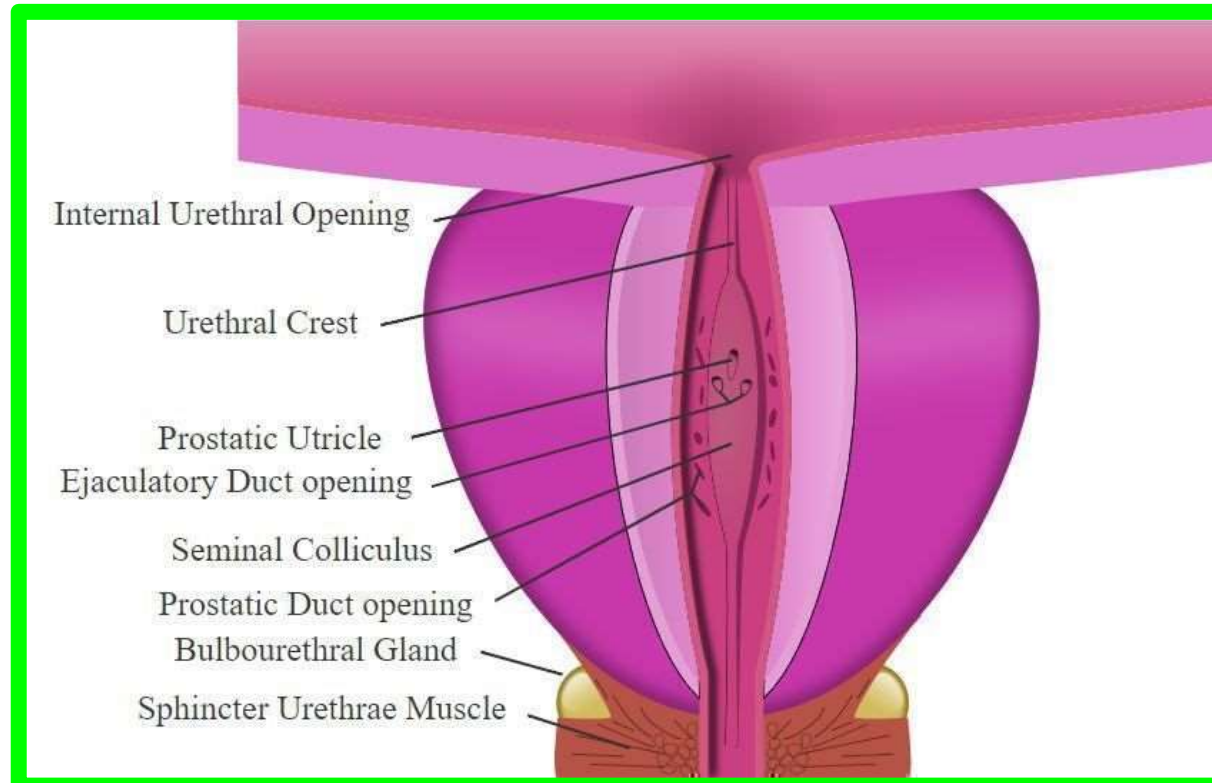
❖ Their secretions constitute **the greater amount of the seminal fluid**.

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# Ejaculatory Ducts

- \*\* Formation;** it is formed by the union of the **ampulla of the vas deferens** with **the seminal vesicle** behind the neck of the urinary bladder.
- ❖ It is a very narrow duct, **2 cm long** which immediately passes through the base of the prostate gland.
- ❖ It opens into **the seminal colliculus** of **the prostatic urethra**.







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