

MALE REPRODUCTIVE SYSTEM

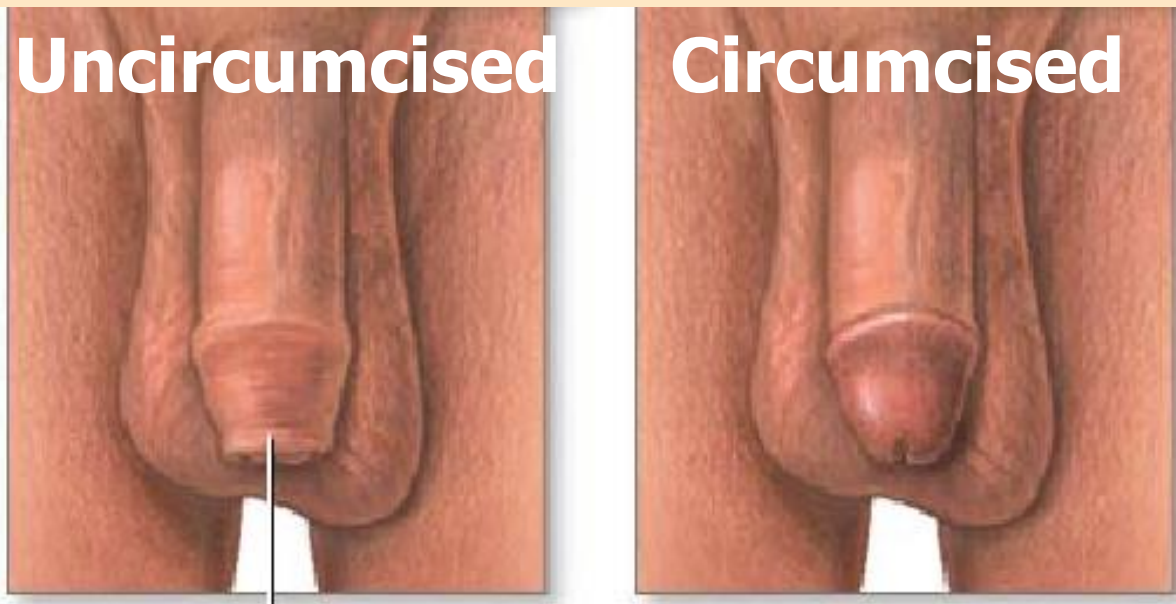
Dr. Priti Acharya



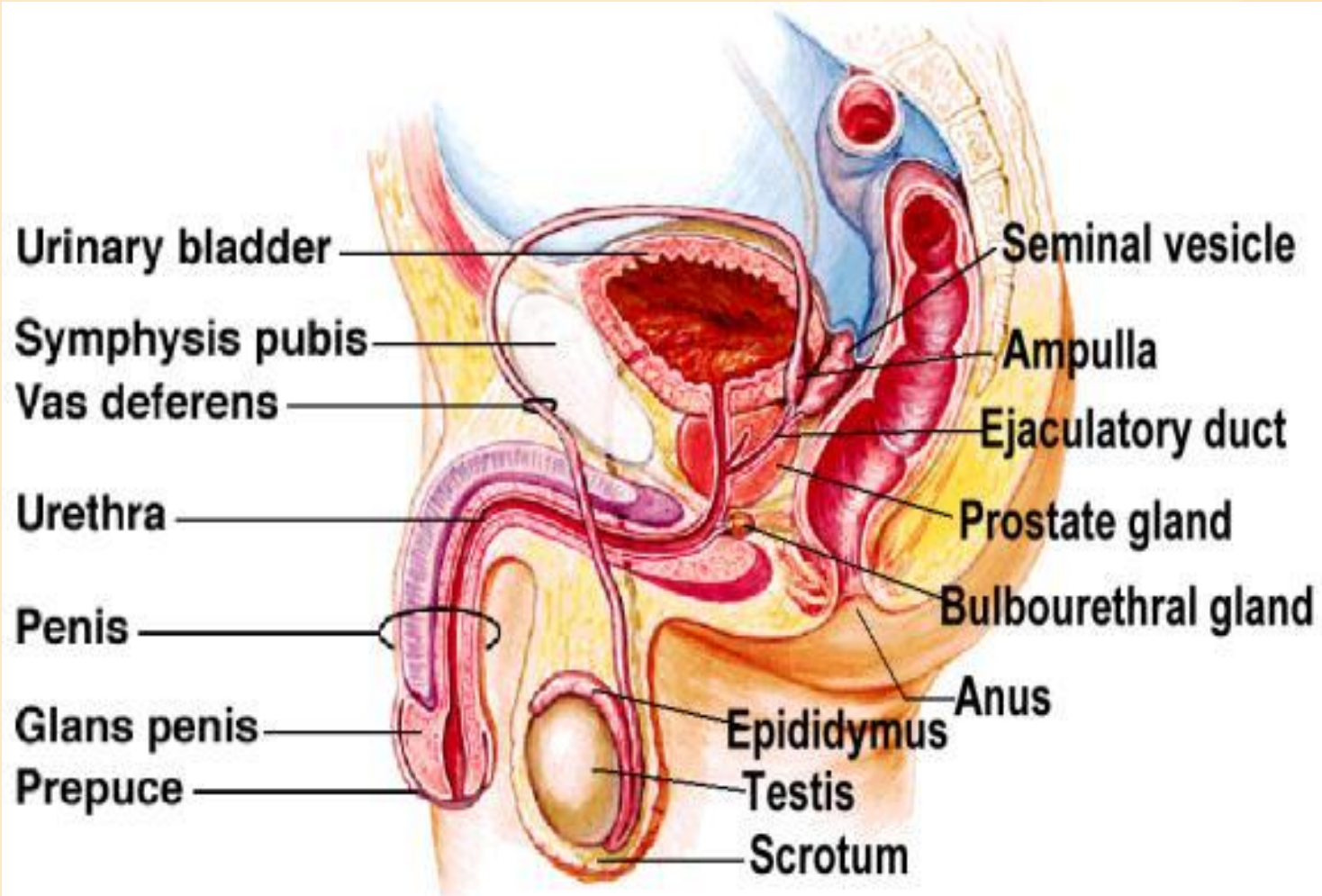
Male Reproductive System

External Structures

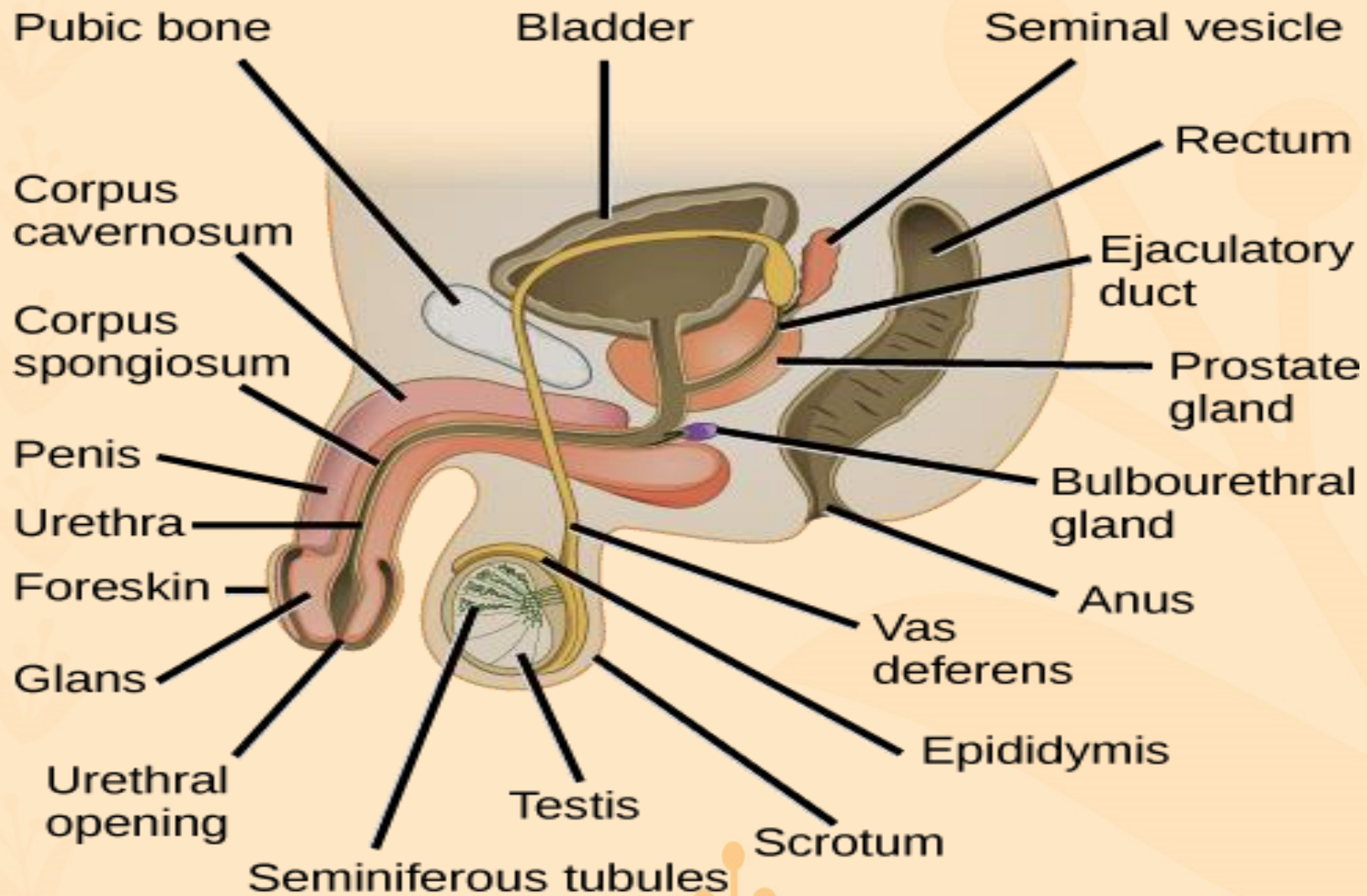
- Penis: external male sex organ
 - Circumcised: removes some or all of foreskin
 - Uncircumcised: foreskin not removed
- Scrotum: sac of skin and muscle containing testicles



Male Reproductive System



Shier/Butler/Lewis, *Hole's Human Anatomy and Physiology*, 10th edition, Copyright © 1999, The McGraw-Hill Companies, Inc. All rights reserved.



Male Reproductive System

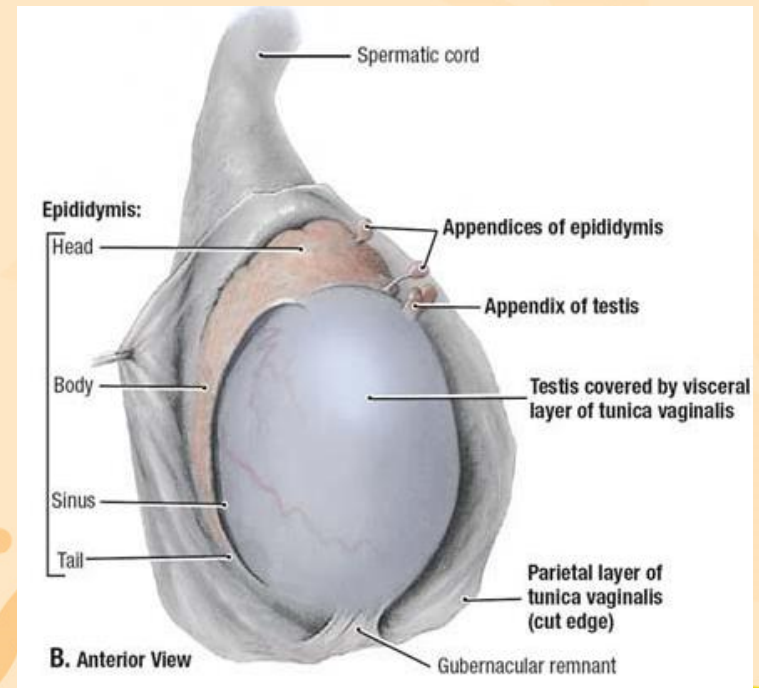
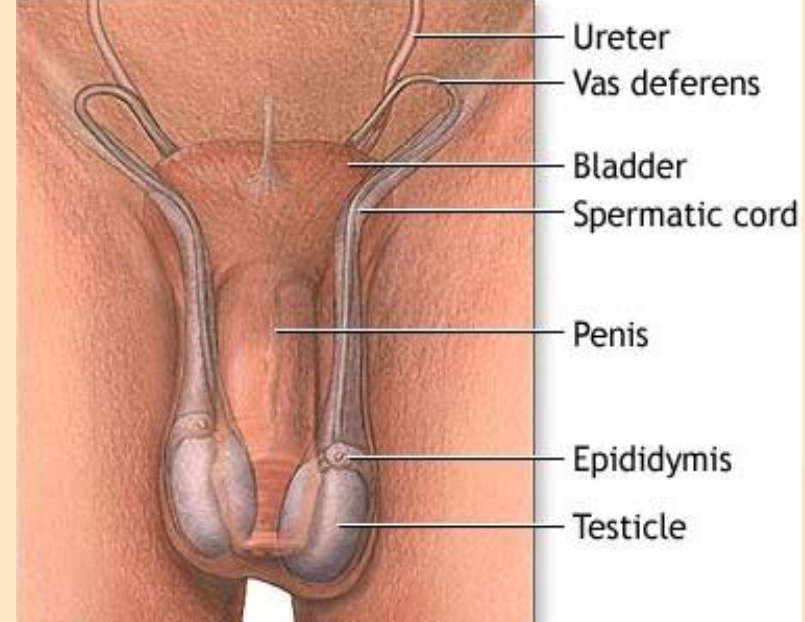
Internal Structures

- Prostate: exocrine gland of male reproductive system
- Vas Deferens: tubes connecting epididymis to ejaculatory ducts
- Epididymis: organ where sperm matures
- Testicles: organ where sperm is created
- Urethra: tube that connects bladder to outside of body
- Seminal Vesicle: make semen (seminal fluid)



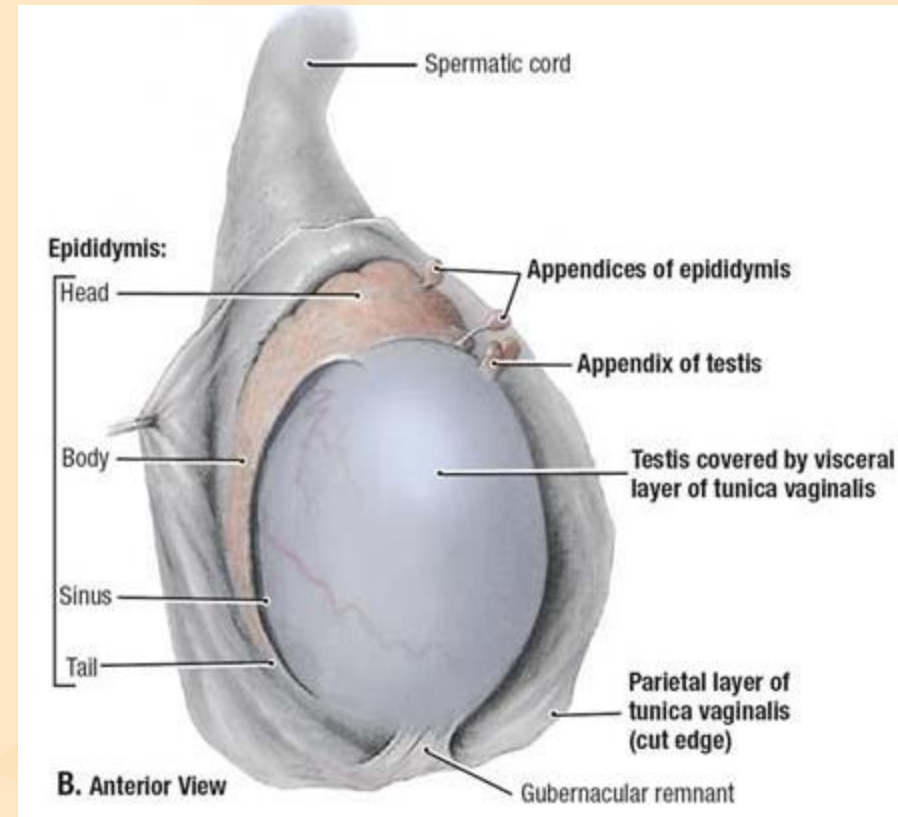
TESTES

- ❖ Pair reproductive glands
- ❖ Ellipsoid
- ❖ Suspended- scrotum
- ❖ Left- 1cm below right
- ❖ Parts:
- ❖ Two ends- upper & lower
- ✓ Upper-
 - head of epididymis
 - Sessile fibrofatty body- appendix of testis



TESTES

- ❖ **Two border- anterior & posterior**
 - **Anterior- smooth, convex**
 - **Posterior – broad, flat, posterolateral- body of epididymis, posteromedial- vas deferens**
- ❖ **Two surfaces- medial & lateral**
 - **Medial – smooth, convex- Sinus cannot be seen**
 - **Lateral- convex, smooth, posterior- epididymis- Sinus of epididymis**



Covering of testis:

❑ Intrinsic covering- outside to inside

❖ Visceral layer of Tunica vaginalis

❖ Tunica albuginea

✓ Thick white fibrous membrane covering the testis

✓ Covered by the Visceral layer of Tunica Vaginalis except posterior part

✓ Posteriorly where the nerve and the vessels enter

Posterior layer of tunica albuginea is thickened form the incomplete vertical septum –mediastinum testis

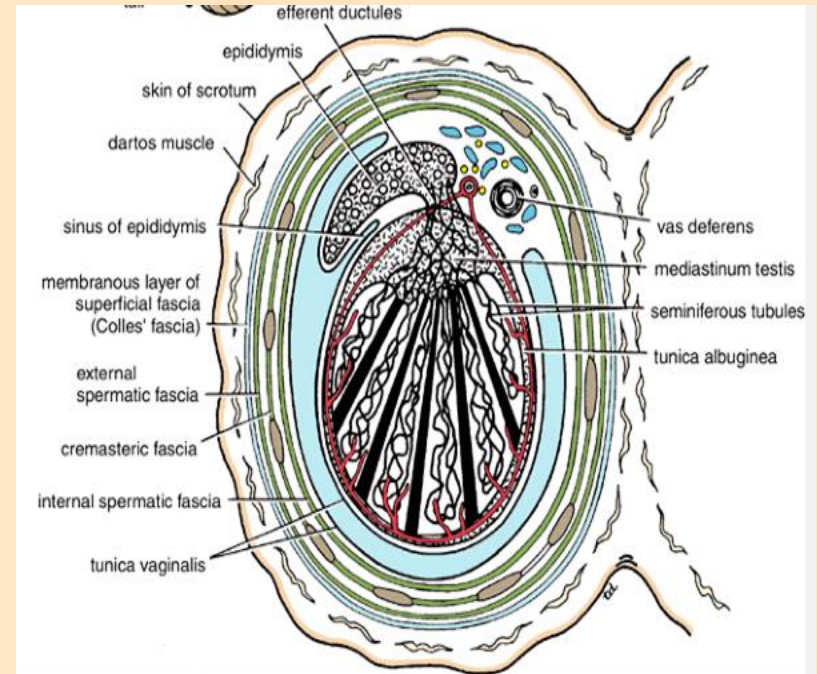
Numerous septa spread from mediastinum testis

❖ Tunica vasculosa- loose areolar, vascular

❑ Layers of scrotum

❖ Outside to inside

- Skin
- Dartos
- External spermatic fascia
- Cremasteric muscle and fascia
- Internal spermatic fascia
- Parietal layer of tunica vaginalis

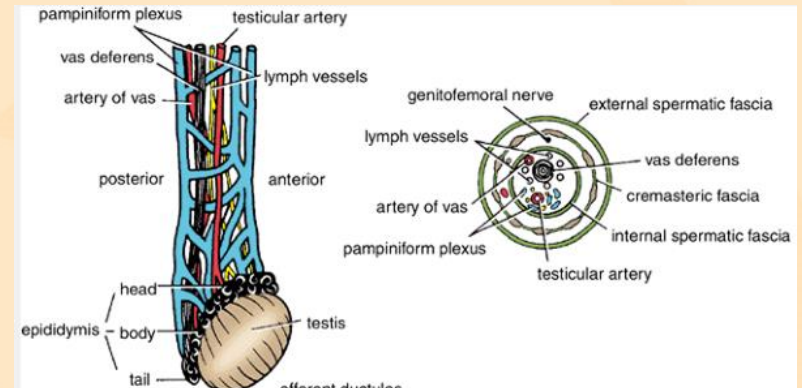
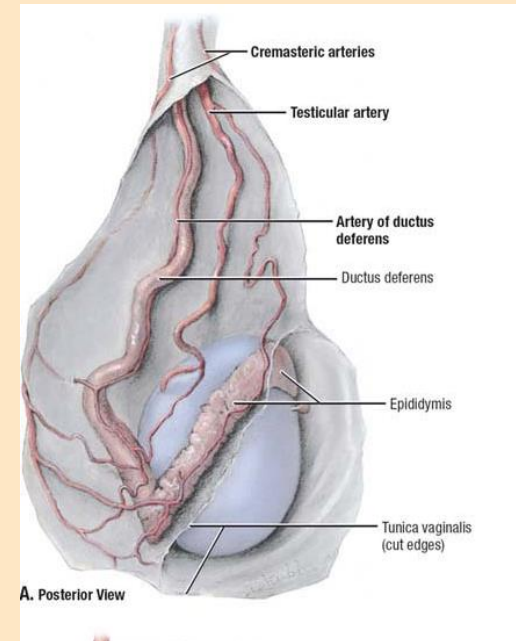


❖ Arterial supply-

- ✓ Testicular artery- abdominal aorta
- ✓ Artery to vas deferens
- ✓ Cremasteric artery

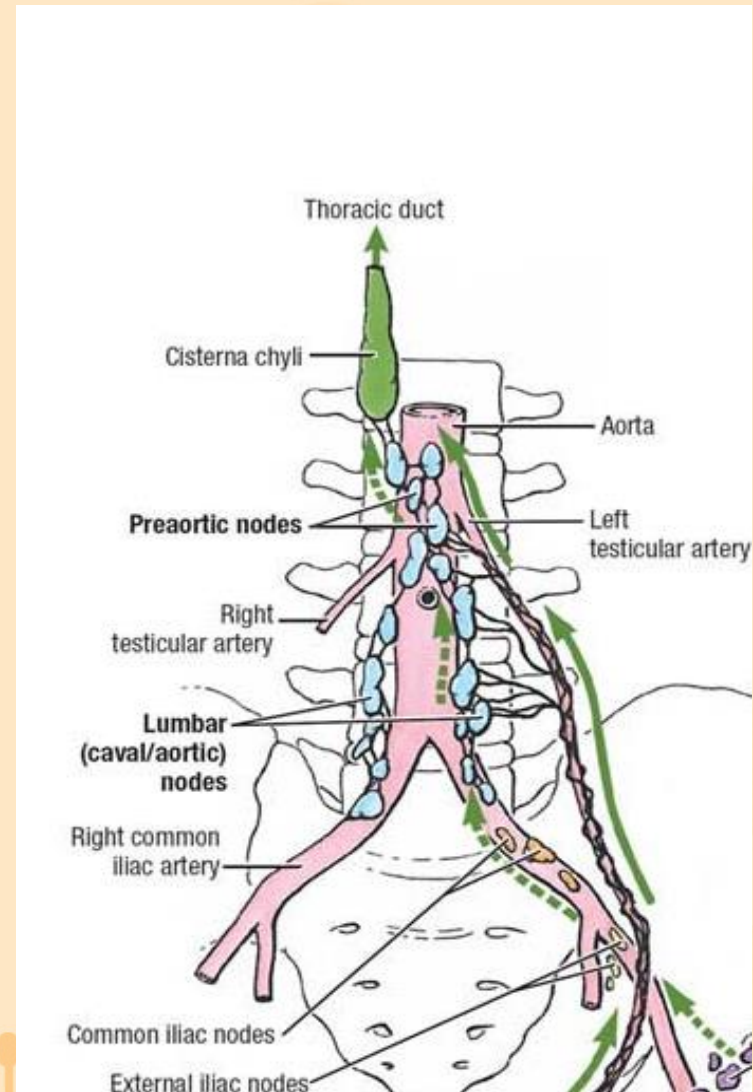
Venous drainage-

- ✓ 15-20 venous plexus-
pampiniform plexus-
four veins— two veins-
one – right gonadal
vein(IVC), left gonadal
vein(left renal vein)



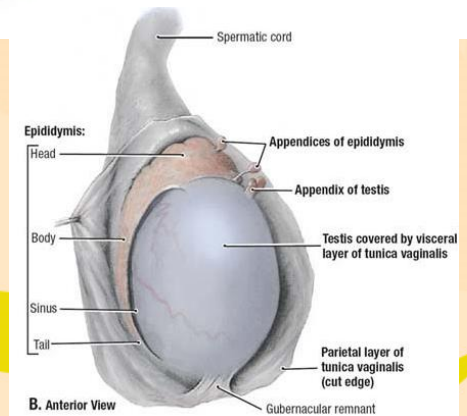
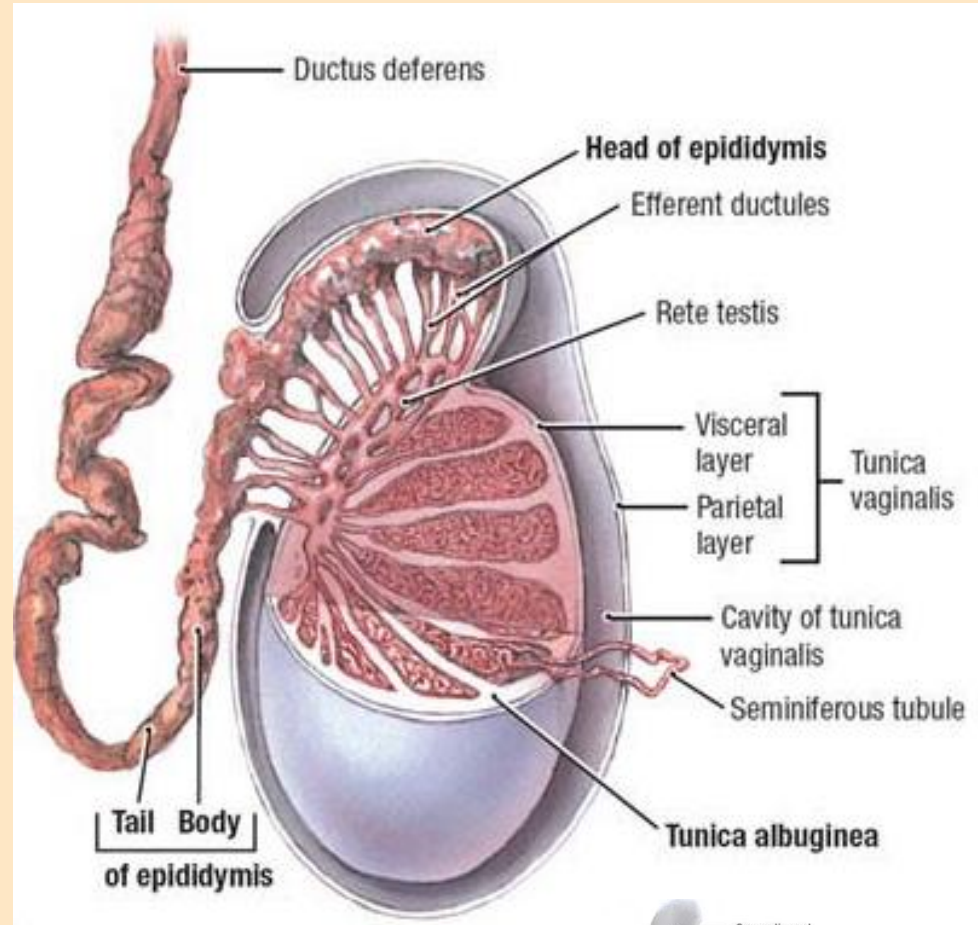
❖ Lymphatic drainage- pre and para aortic lymph nodes

❖ Nerve supply- renal and aortic plexus- T10-T11



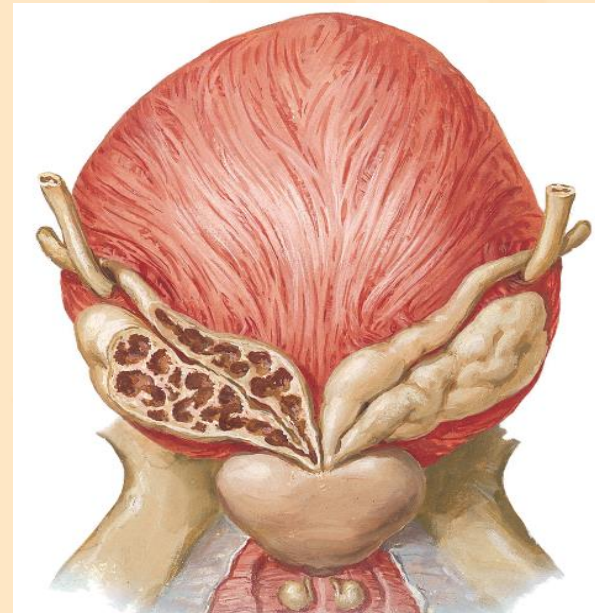
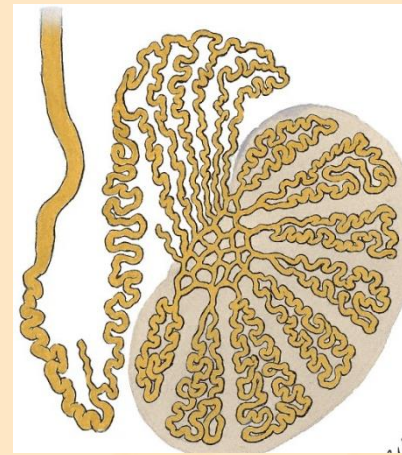
EPIDIDYMIS

- ❖ Coma shaped body
- ❖ Lies- posterolateral part of posterior border of testis
- ❖ Parts- head, body , tail
 - ✓ Head- coiling of efferent ductules
 - ✓ Body & tail- single coiled duct- canal of epididymis
 - ✓ Tail- begins- vasa deferens



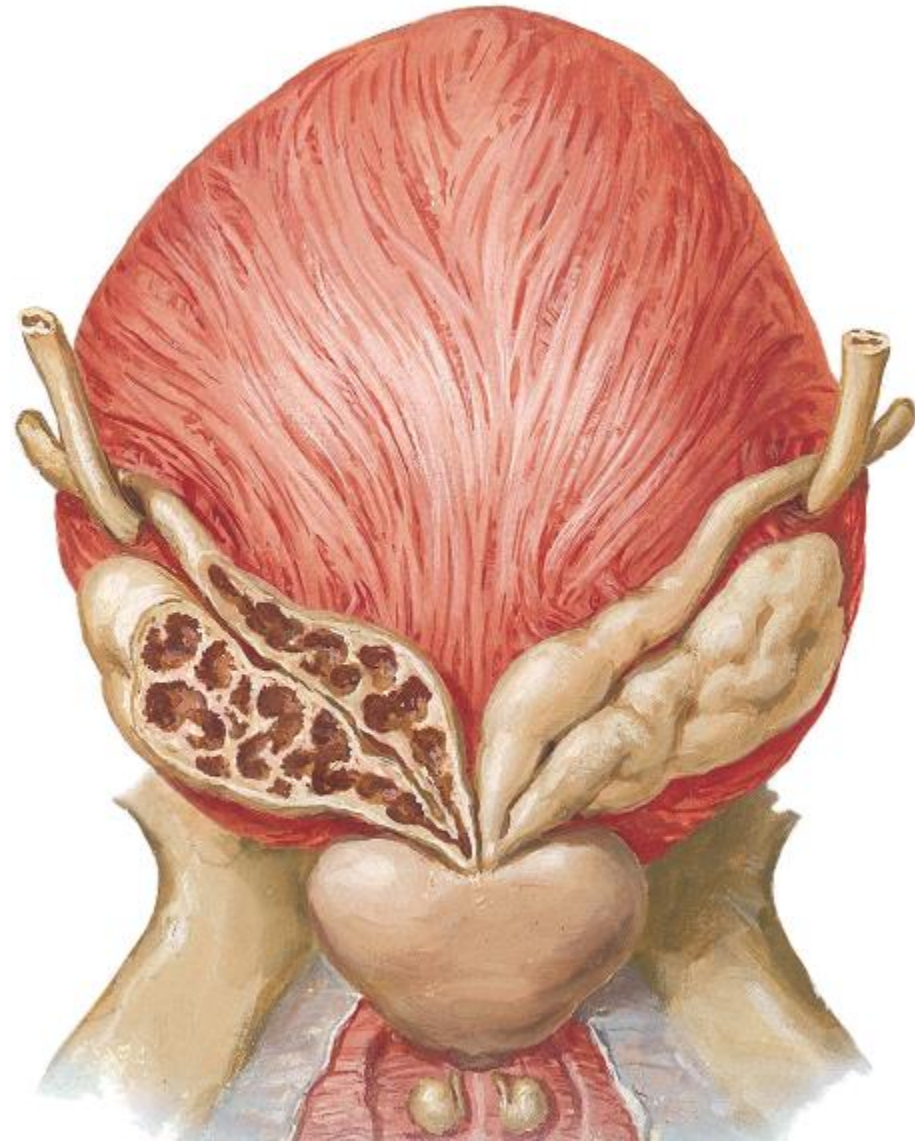
VASA DEFERENS

- ❖ Thick, cord
- ❖ muscle layer- thick
- ❖ L-45cm
- ❖ Course:
 - Begin- tail of epididymis
 - Runs through inguinal canal
 - Deep inguinal ring- leaves the spermatic cord
 - Join with duct of seminal vesicle- ejaculatory duct



SEMINAL VESICLE

- ❖ Pyramidal organs
- ❖ Base of urinary bladder
- ❖ Formed by coiling of a single duct
- ❖ Relation:
 - ✓ Anterior – base of bladder
 - ✓ Posterior- ampulla of rectum
 - ✓ Medial – ampulla of vas deferens
 - ✓ Lateral- posterior true ligament of bladder
- ❖ Blood supply- inferior vesical & middle rectal arteries



Ejaculatory ducts-

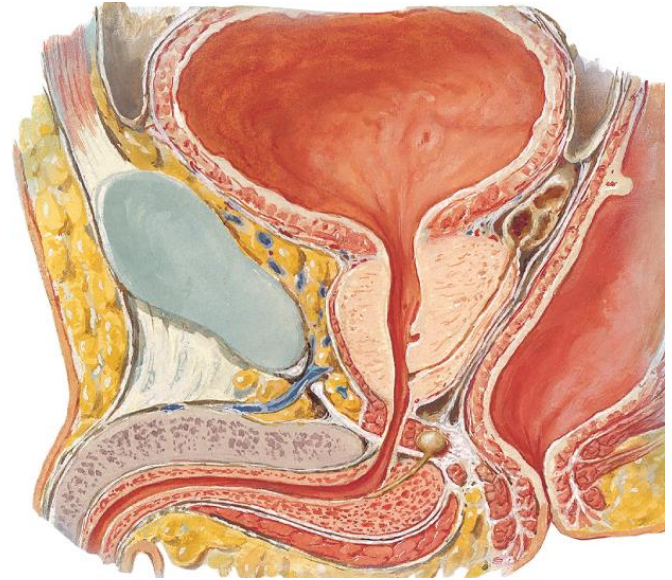
- ❖ **L-2cm**

- ❖ **Union of vasa deferens & duct of seminal vesicle**



PROSTATE

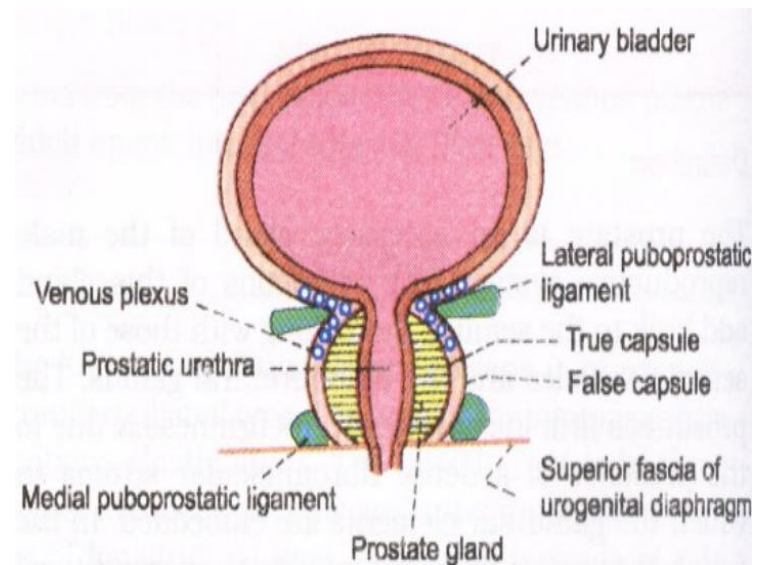
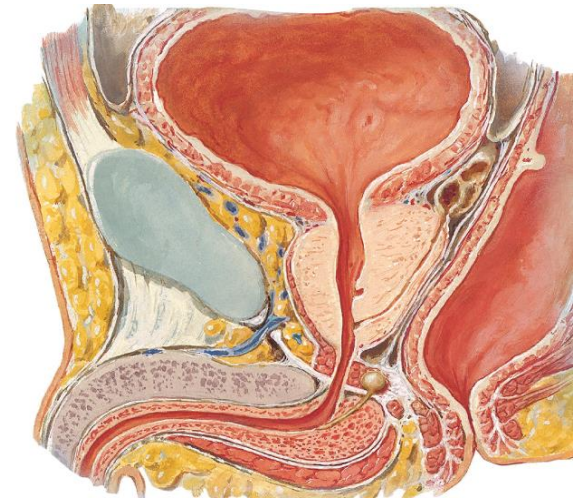
- ❖ Conical fibro musculo glandular structure
- ❖ Surrounded by fibrous capsule
- ❖ Around proximal part of male urethra
- ❖ Situation:
 - ✓ Lesser pelvis
 - ✓ Below the neck of bladder
 - ✓ Above the urogenital diaphragm
 - ✓ Behind the lower part of pubic symphysis
 - ✓ Infront of rectal ampulla
 - ✓ Enclose on each side by levator ani



PROSTATE

❖ Coverings:

- ✓ Inner true capsule-
fibrous stroma of
gland
- ✓ Outer false capsule-
visceral layer of
pelvic fascia
- ✓ Between true &
false capsule-
prostatic venous
plexus



Parts

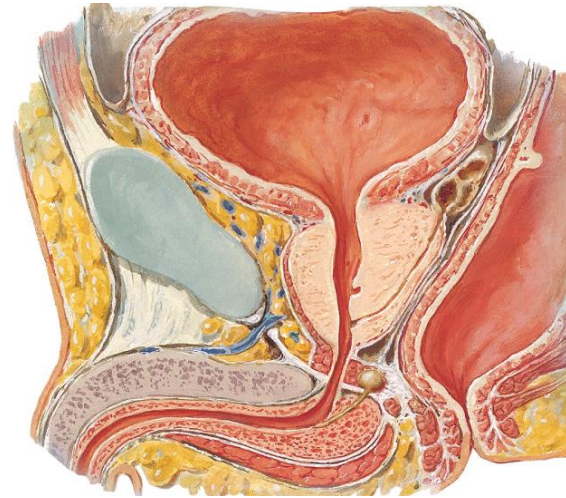
- Base
- Apex
- 4 Surface

Anterior

Posterior

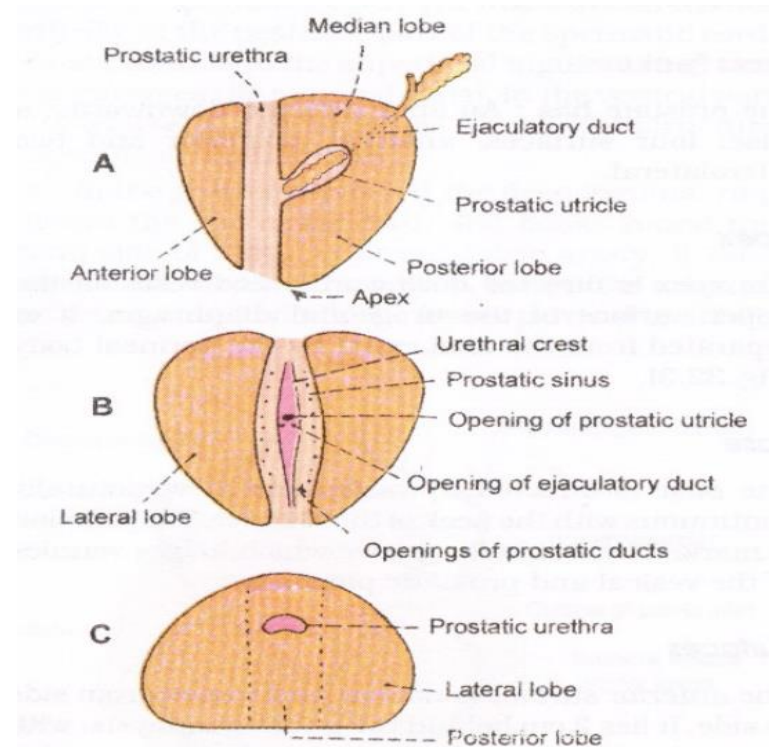
2 lateral

Prostate looks like an inverted cone having its base above and apex below



Lobe of Prostae

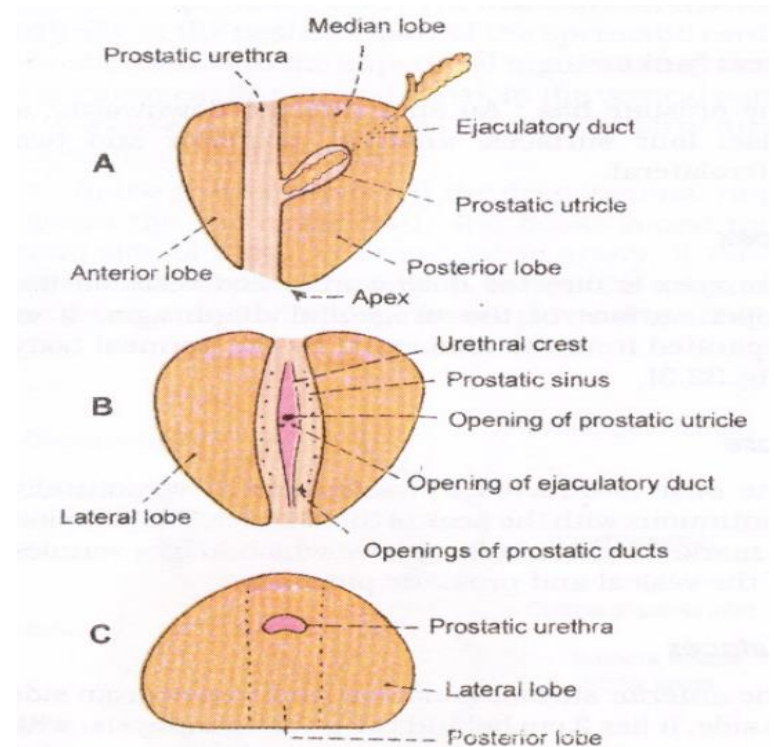
- Anterior lobe
- Middle lobe
- Lateral lobe(2)
- Posterior lobe



- Anterior lobe – the portion of gland that lies in front of the urethra
- Middle lobe-situated between the ejaculatory duct and urethra
- Lateral lobe- they are divided into left and right lobe and separated into prostate urethra
- Posterior lobe- the middle part of lateral lobe that can be palpated through the rectum during DRE

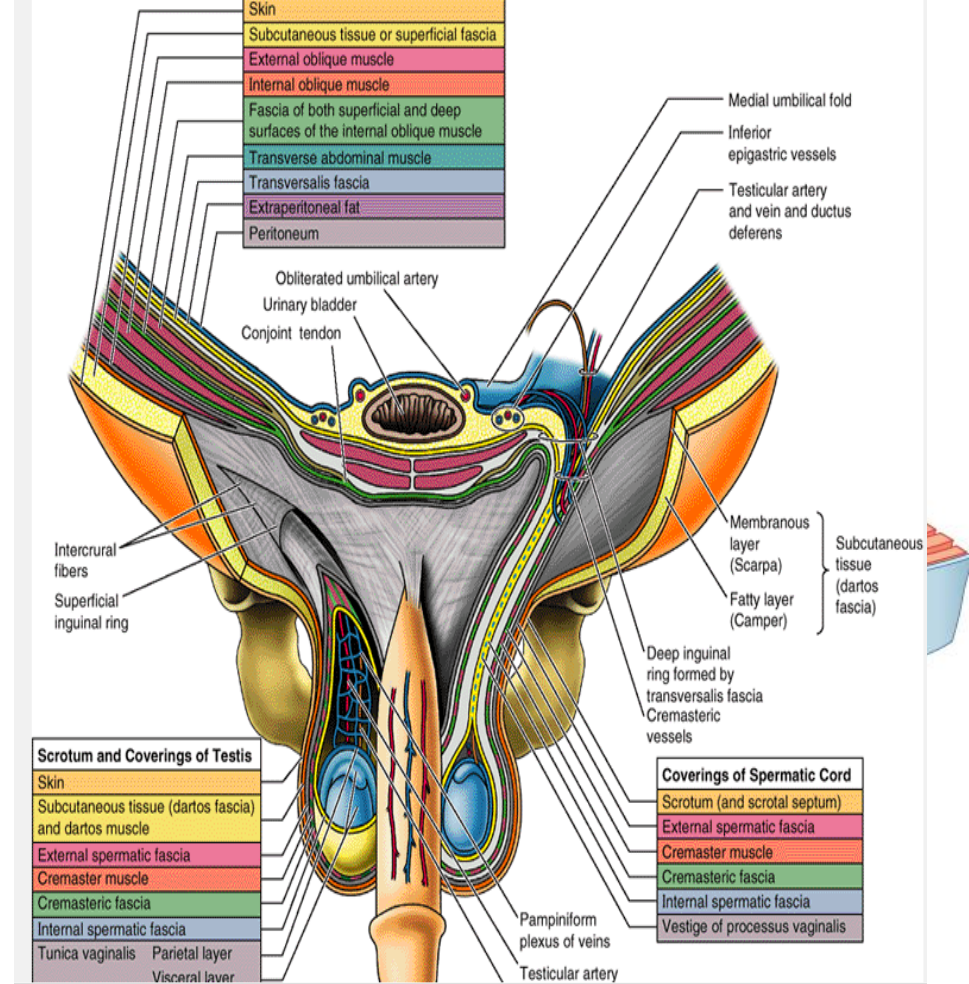
Structures through prostate

- ✓ Prostatic urethra
- ✓ Ejaculatory duct
- ✓ Prostatic utricle



SCROTUM

- ❖ Integumental pouch of lower part of anterior abdominal wall
- ❖ Contain testis & lower part of spermatic cord
- ❖ Maintain temperature 3-4 degree less than body temperature for proper spermatogenesis in testis
- ❖ Nerve supply- anterior 1/3rd – L1 segment
posterior 2/3rd – S3 & 4 segment

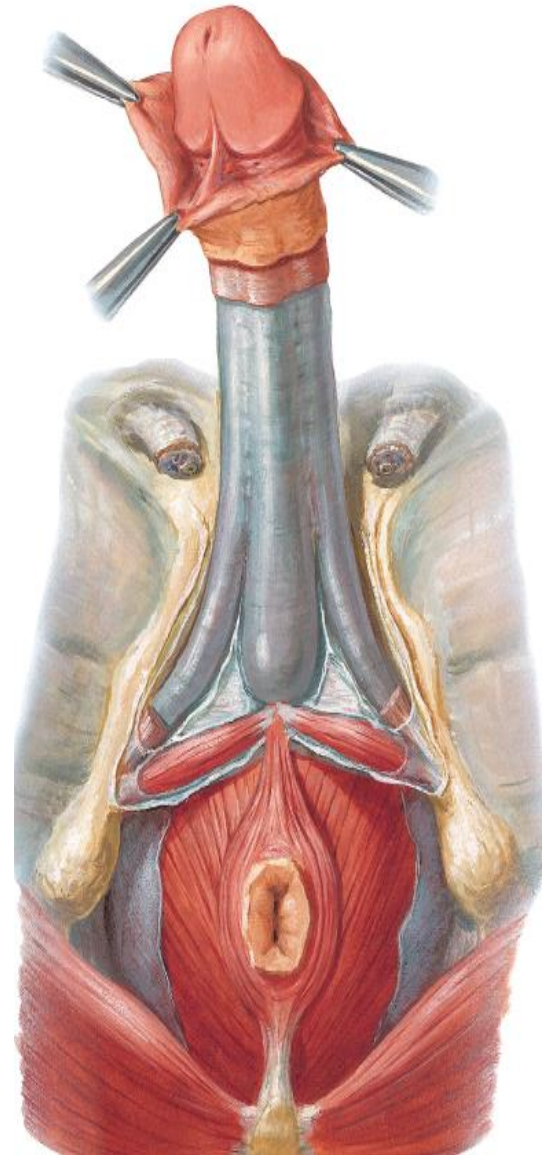
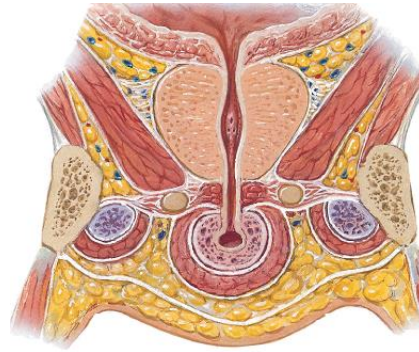


PENIS

❖ Organ of copulation

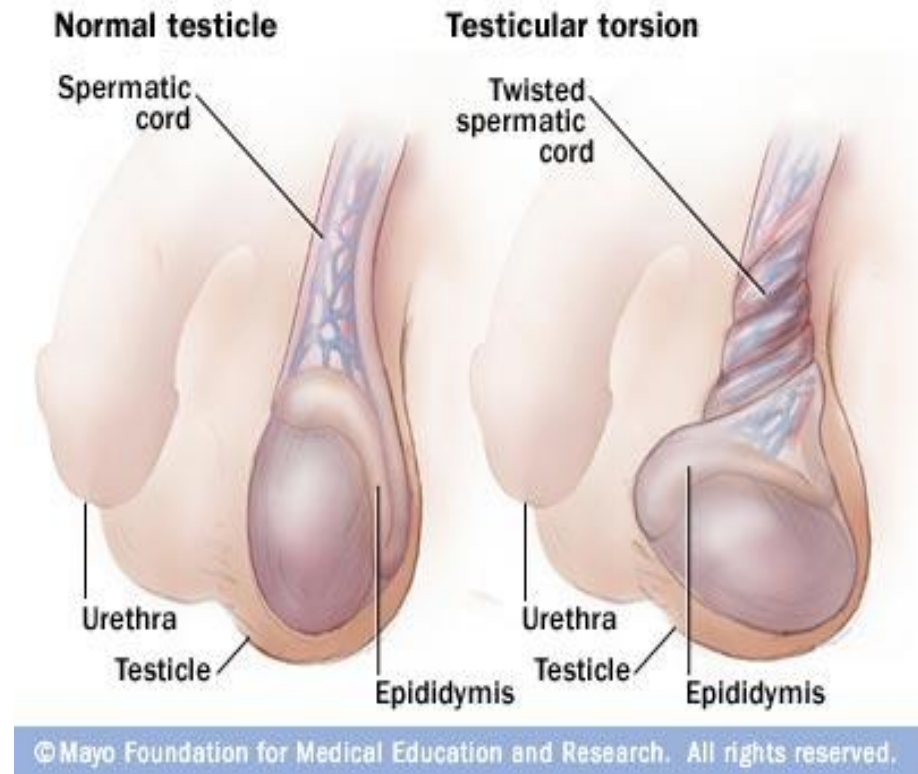
❖ Parts:

- the base
- shaft
- glans
- foreskin.



Testicular Torsion

- Testicular torsion is the twisting of the spermatic cord, which cuts off the blood supply to the testicle and surrounding structures within the scrotum.



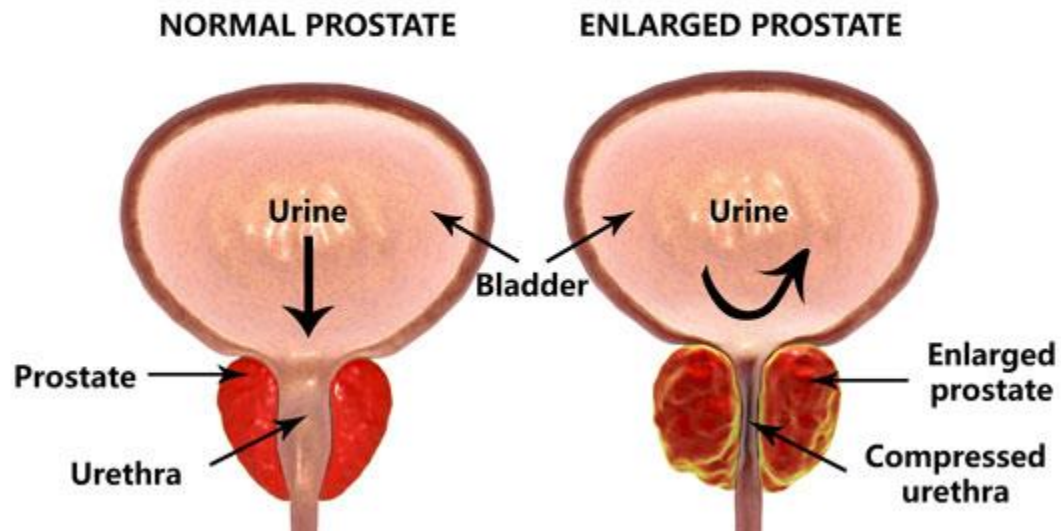
Testicular Torsion



Benign Enlargement of Prostate/BPH

- Enlargement of Prostate gland
- **Symptoms**
 - difficulty getting started (hesitancy)
 - incomplete bladder emptying
 - urinary frequency
 - waking up at night to urinate and
 - occasionally urinary dribbling or incontinence.

BENIGN PROSTATIC HYPERPLASIA



Impotence



- Impotence is a common problem among men
- characterized by the consistent inability to sustain an erection or the inability to achieve ejaculation, or both.

Cause of Impotence



THANK YOU

