

# **MALE REPRODUCTIVE SYSTEM**

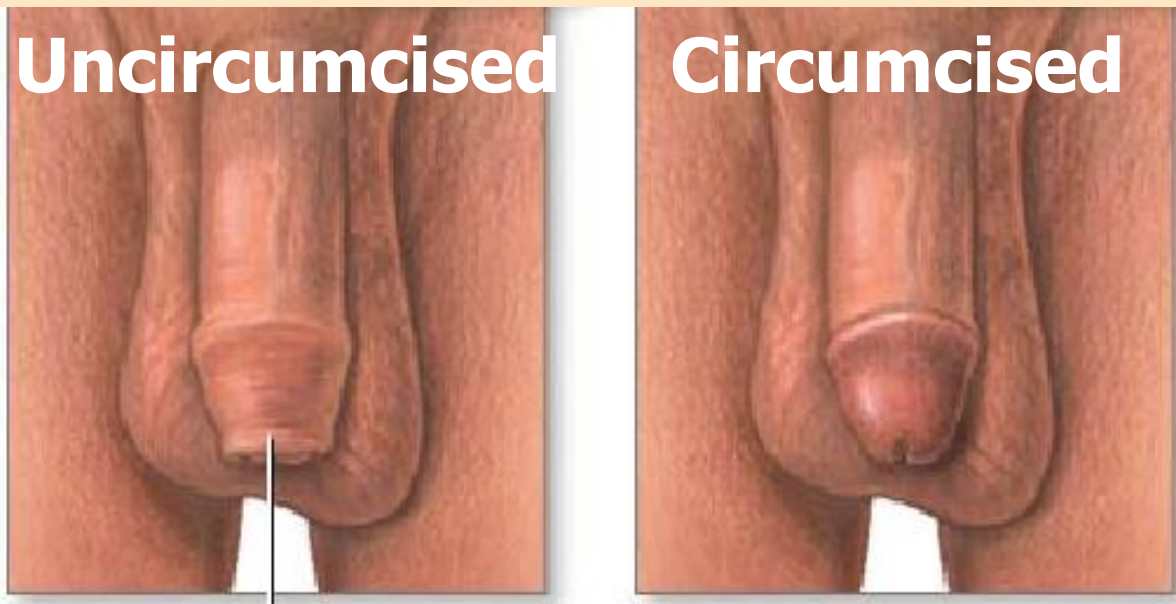
Dr. Priti Acharya



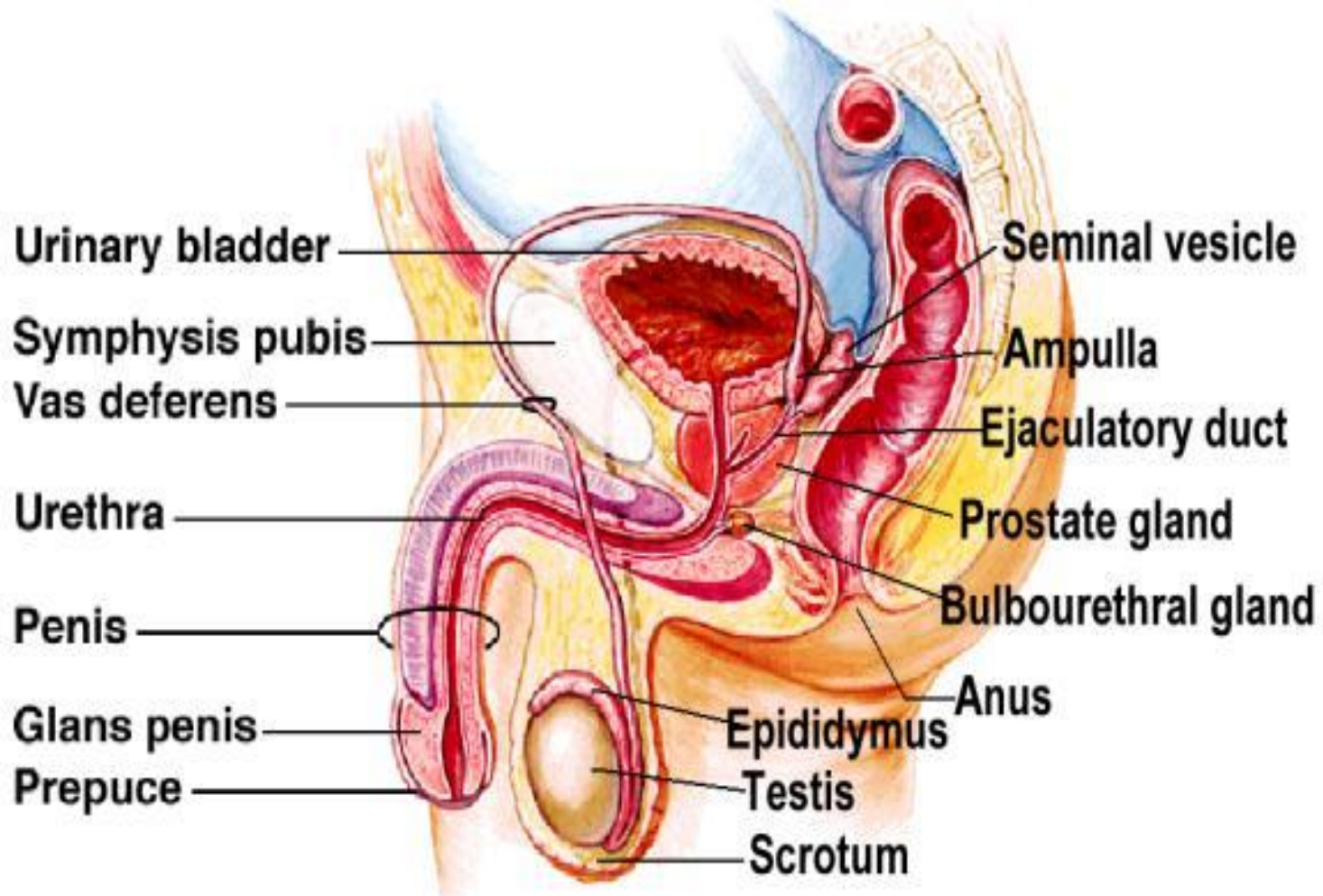
# Male Reproductive System

## ***External Structures***

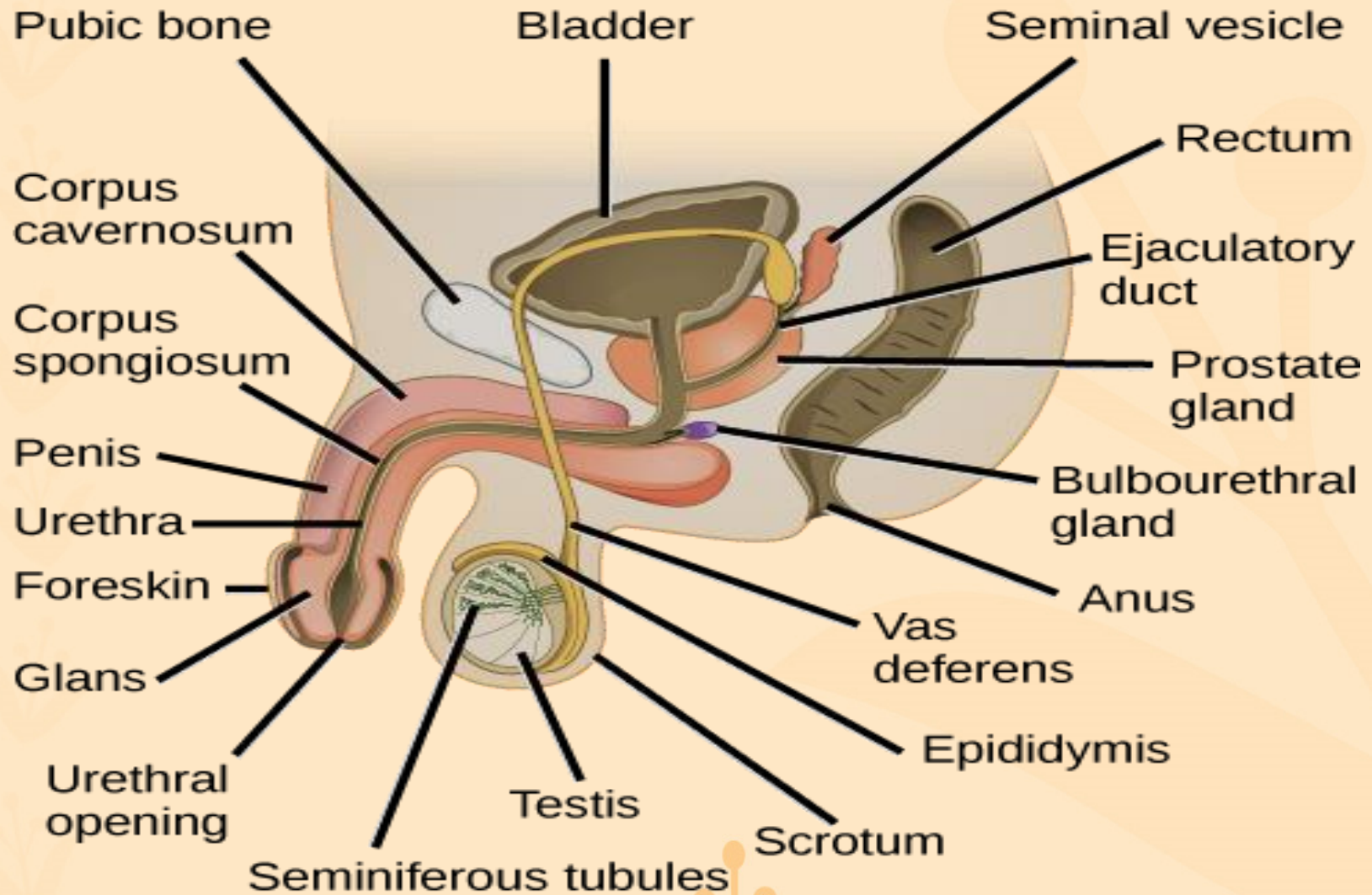
- Penis: external male sex organ
  - Circumcised: removes some or all of foreskin
  - Uncircumcised: foreskin not removed
- Scrotum: sac of skin and muscle containing testicles



# 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***

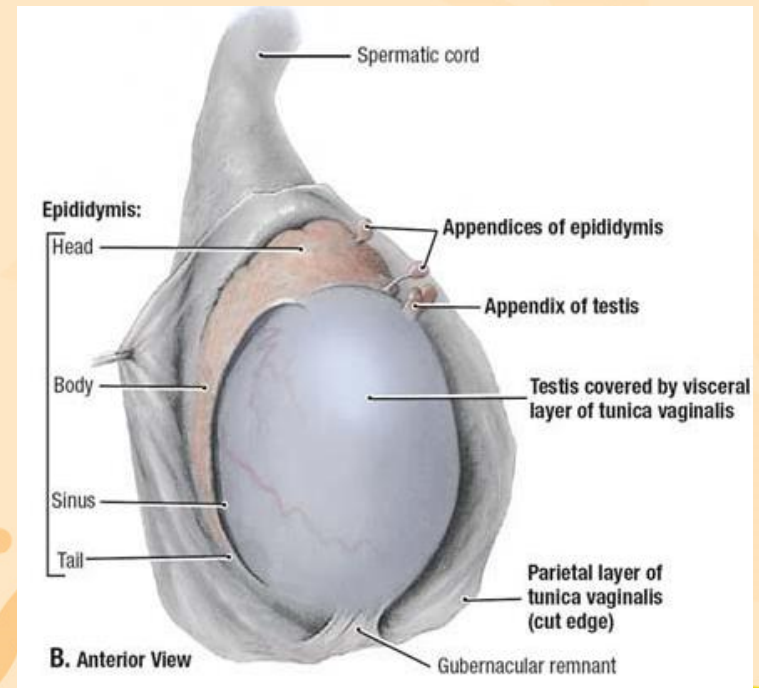
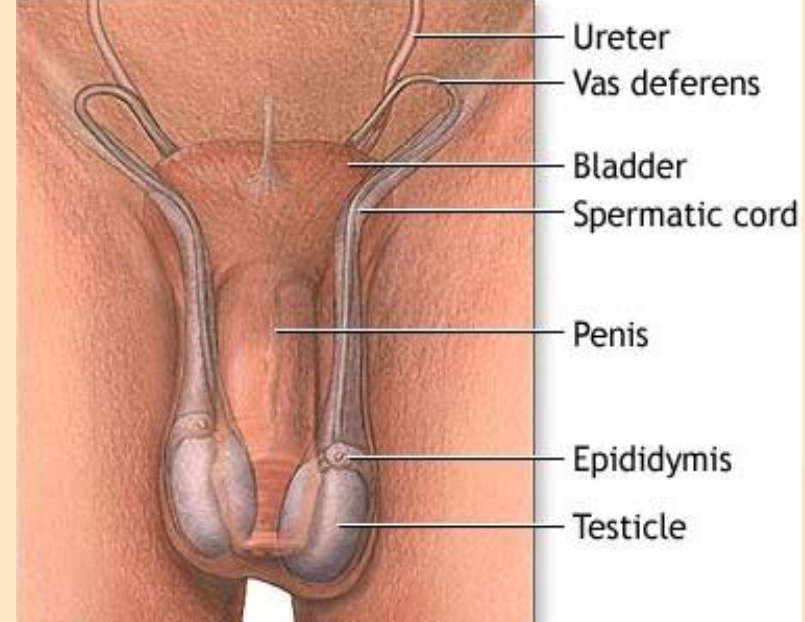
- Prostate: exocrine gland of male reproductive system
- Vas Deferens: tubes connecting epididymis to ejaculatory ducts
- Epididymis: organ where sperm matures
- Testicles: organ where sperm is created
- Urethra: tube that connects bladder to outside of body
- Seminal Vesicle: make semen (seminal fluid)





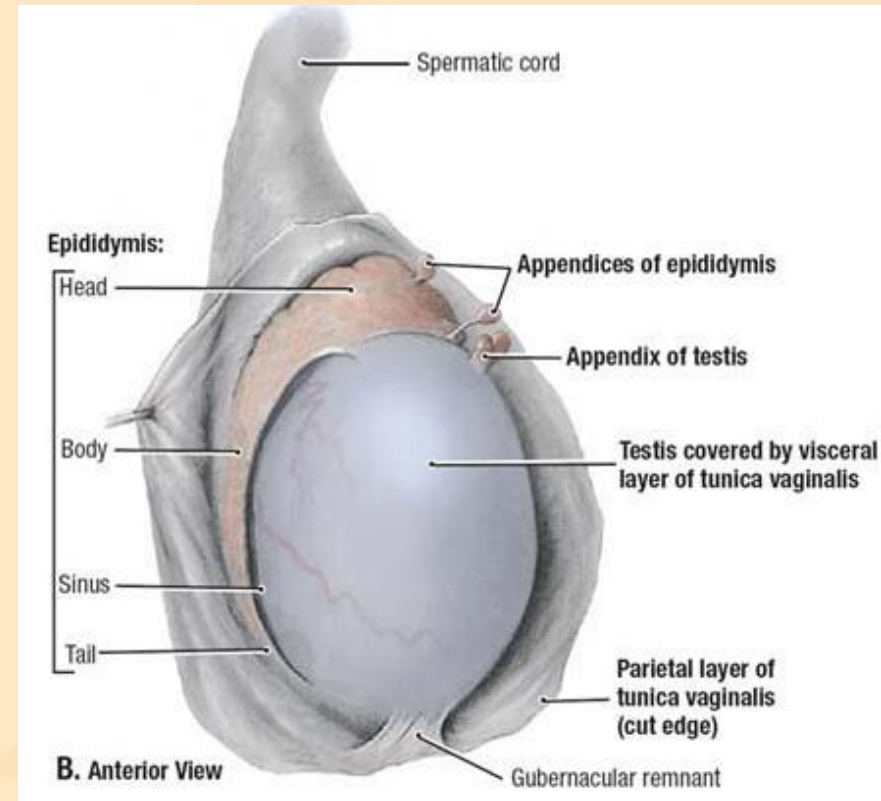
# TESTES

- ❖ 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

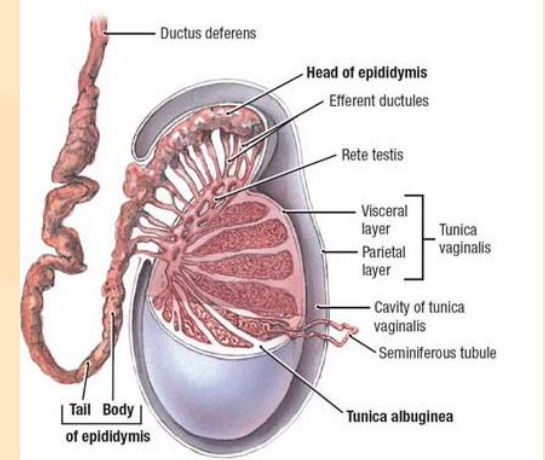
### ❖ Tunica albuginea

- ✓ Thick white fibrous membrane covering the testis
- ✓ Support structural frame work of testis
- ✓ Covered by the Visceral layer of Tunica Vaginalis except posterior part
- ✓ Posteriorly where the nerve and the vessels enter

Tunica albuginea is thickened at the posterior border of testis form the incomplete vertical septum –mediastinum testis

Numerous septa spread from mediastinum testis

### ❖ Tunica vasculosa- vascular layers

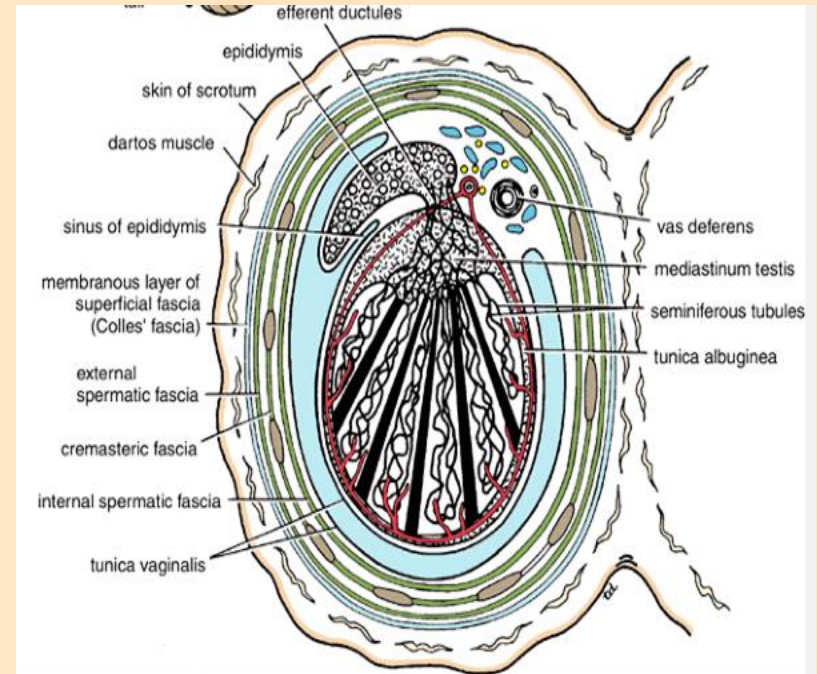




## ❑ Layers of scrotum

### ❖ Outside to inside

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

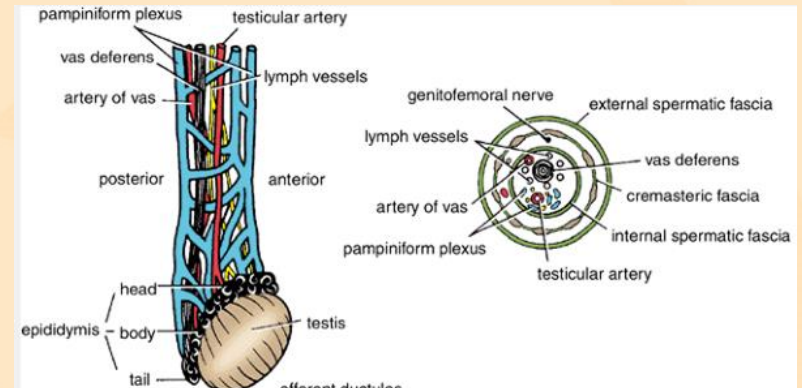
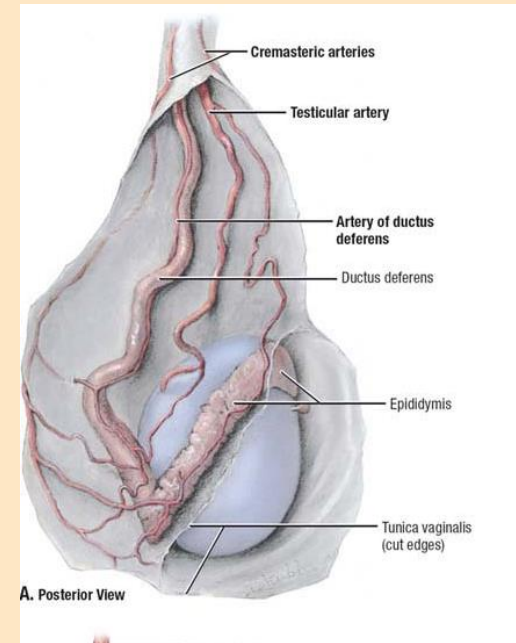


## ❖ Arterial supply-

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

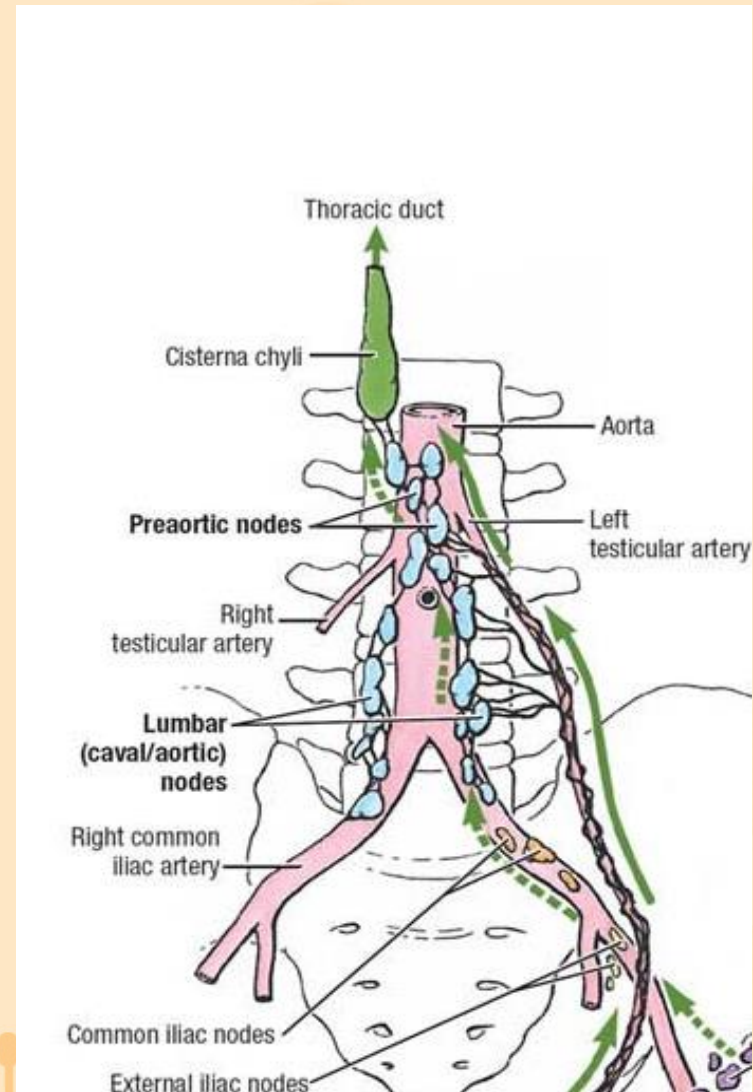
## Venous drainage-

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



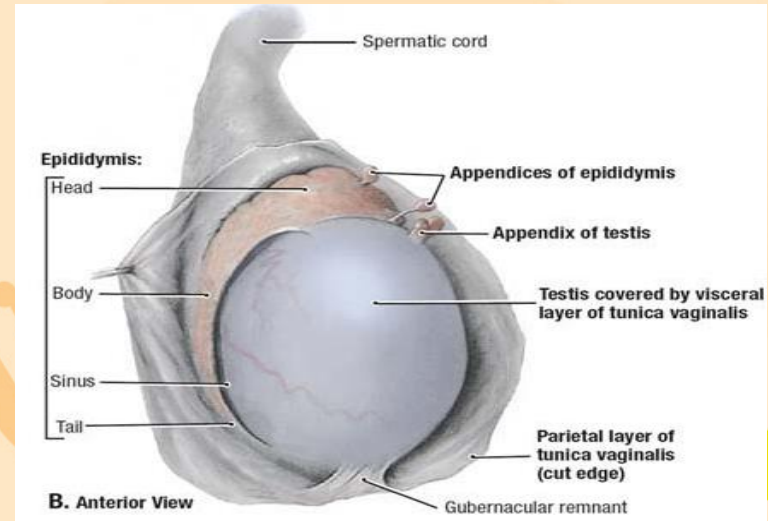
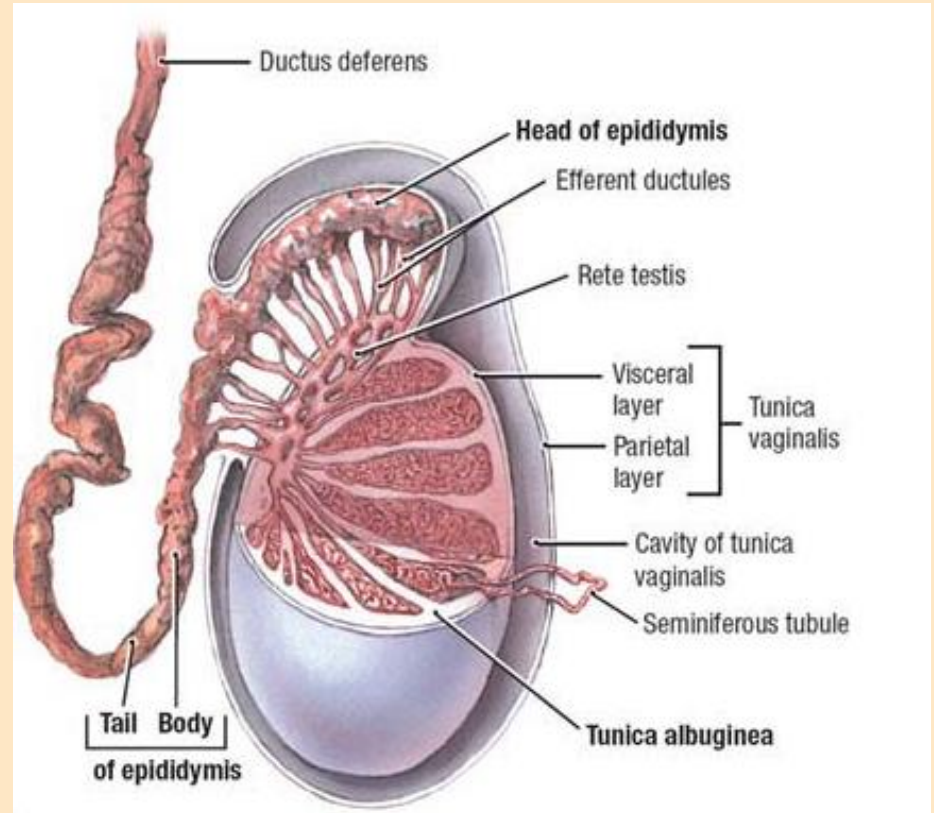
❖ Lymphatic drainage- pre and para aortic lymph nodes

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



# EPIDIDYMIS

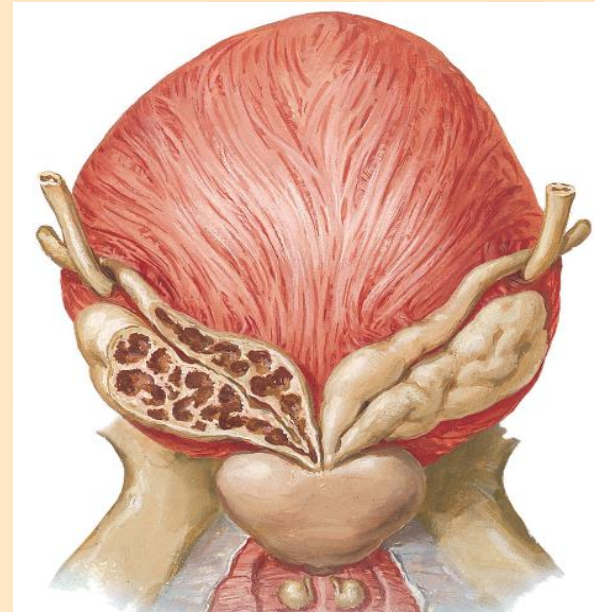
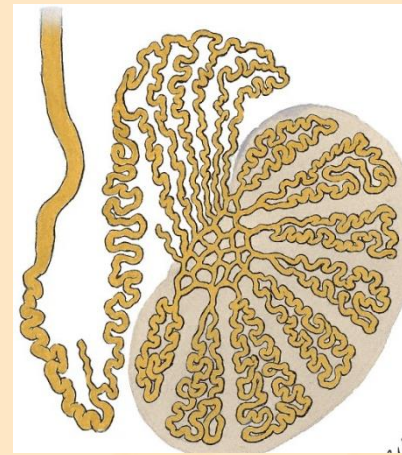
- ❖ Coma shaped body
- ❖ Lies- posterolateral part of posterior border of testis
- ❖ Parts- head, body , tail
  - ✓ Head- coiling of efferent ductules
  - ✓ Body & tail- single coiled duct- canal of epididymis
  - ✓ Tail- begins- vasa deferens





# VASA DEFERENS

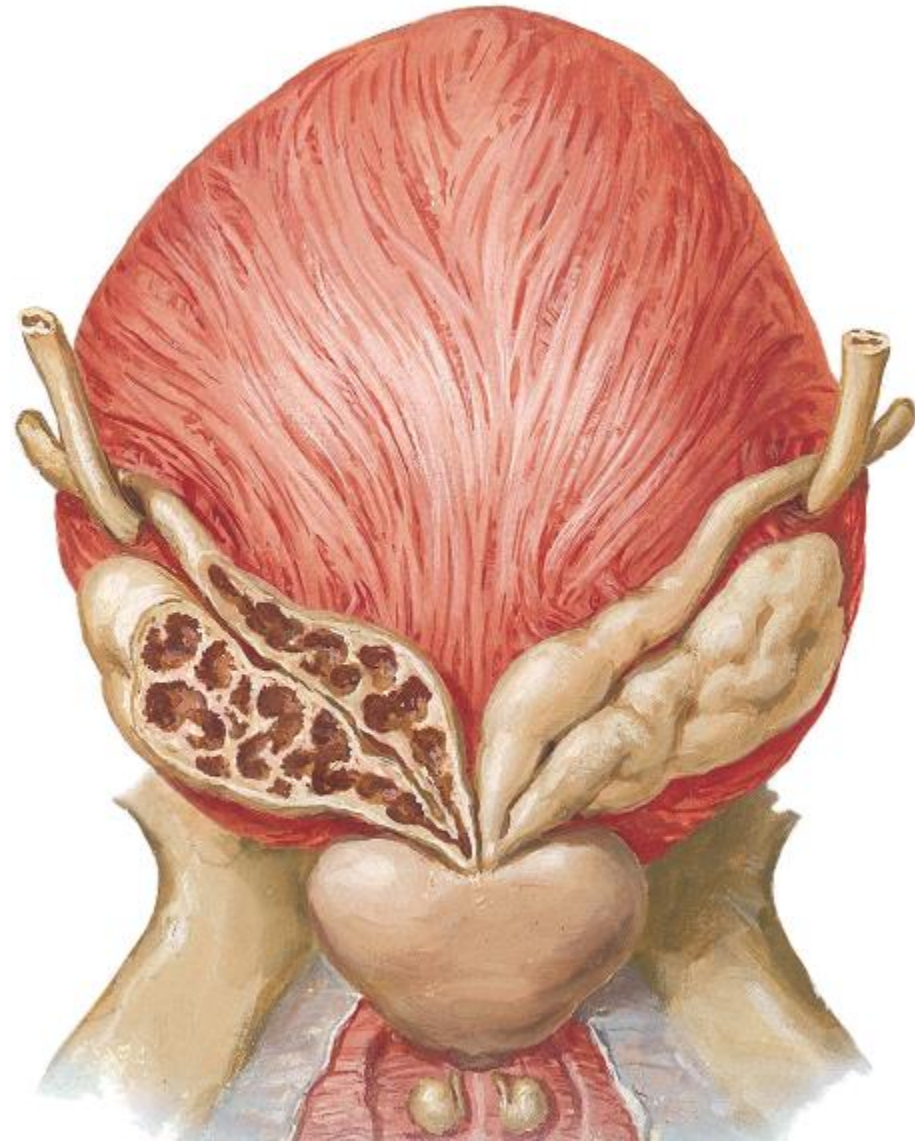
- ❖ Thick, cord
- ❖ muscle layer- thick
- ❖ L-45cm
- ❖ Course:
  - Begin- tail of epididymis
  - Runs through inguinal canal
  - Deep inguinal ring- leaves the spermatic cord
  - Join with duct of seminal vesicle- ejaculatory duct





# 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-**

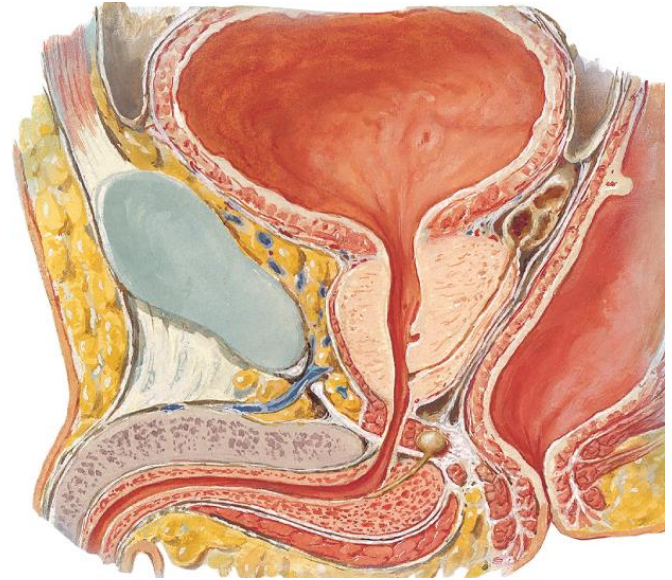
- ❖ **L-2cm**

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



# PROSTATE

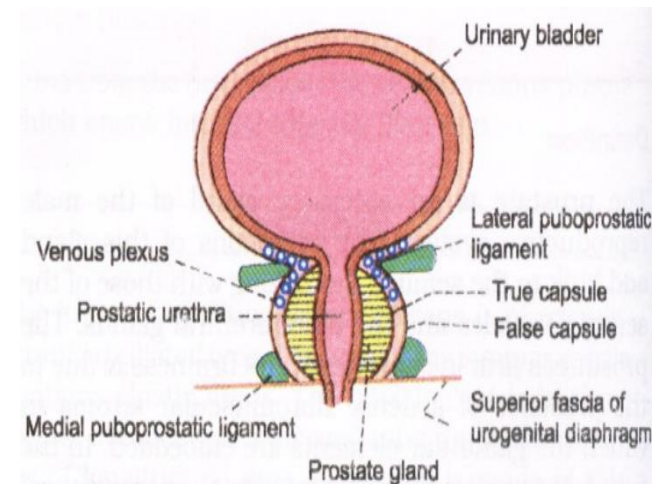
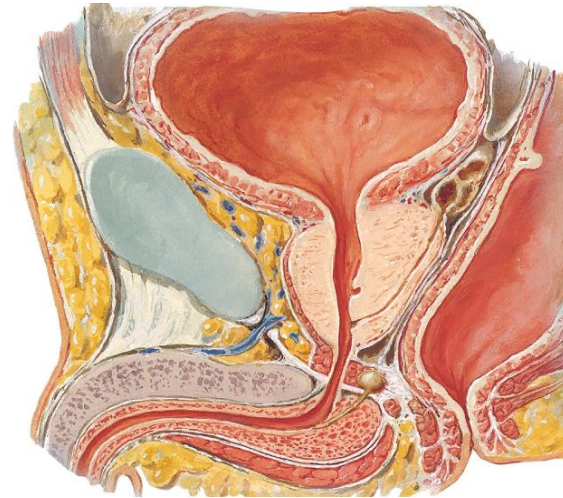
- ❖ Conical fibro musculo glandular structure
- ❖ Surrounded by fibrous capsule
- ❖ Around proximal part of male urethra
- ❖ Situation:
  - ✓ Lesser pelvis
  - ✓ Below the neck of bladder
  - ✓ Above the urogenital diaphragm
  - ✓ Behind the lower part of pubic symphysis
  - ✓ Infront of rectal ampulla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



# PROSTATE

## ❖ Coverings:

- ✓ Inner true capsule- formed by peripheral part of gland, fibromucular in structure. It is continuous with stroma of gland
- ✓ Outer false capsule- lies outside the true capsule, derived from visceral layer of pelvic fascia
- ✓ Between true & false capsule- prostatic venous plexus





# Parts

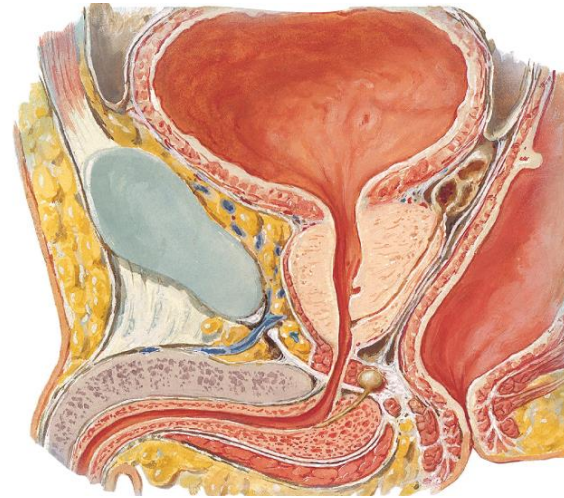
- **Base**
- **Apex**
- **4 Surface**

**Anterior**

**Posterior**

**2 lateral**

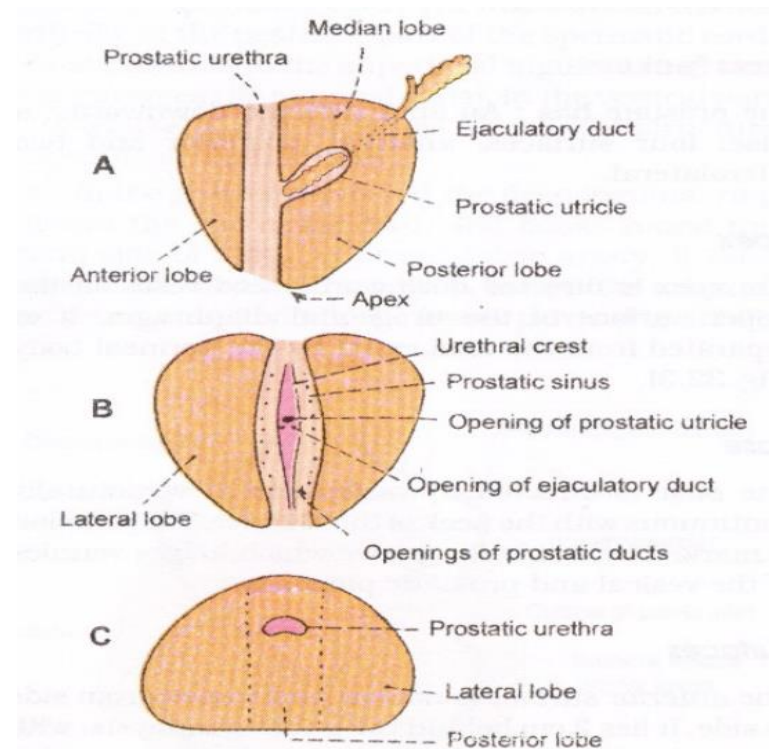
**Prostate looks like an inverted cone having its base above and apex below**





# Lobe of Prostae

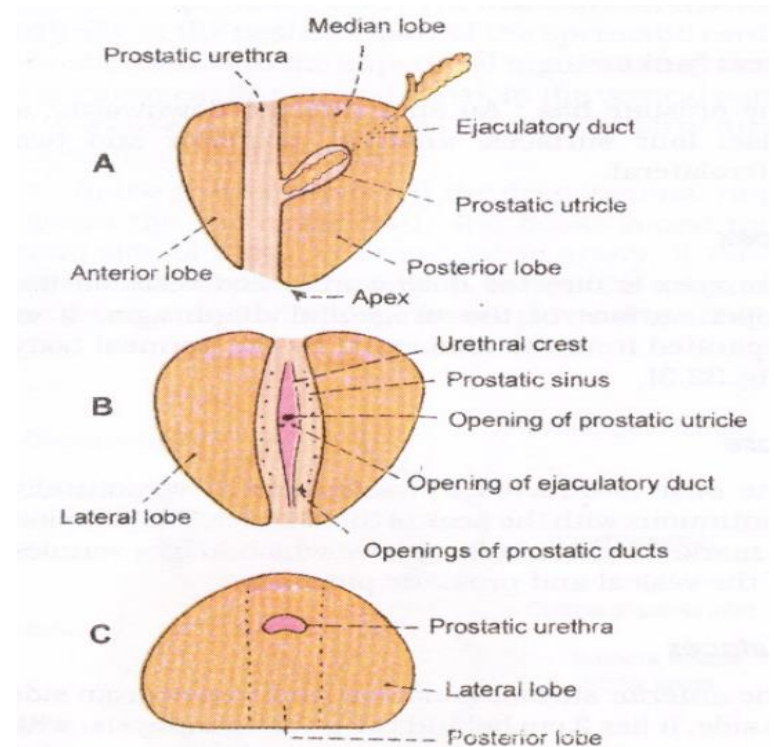
- Anterior lobe
- Middle lobe
- Lateral lobe(2)
- Posterior lobe



- 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

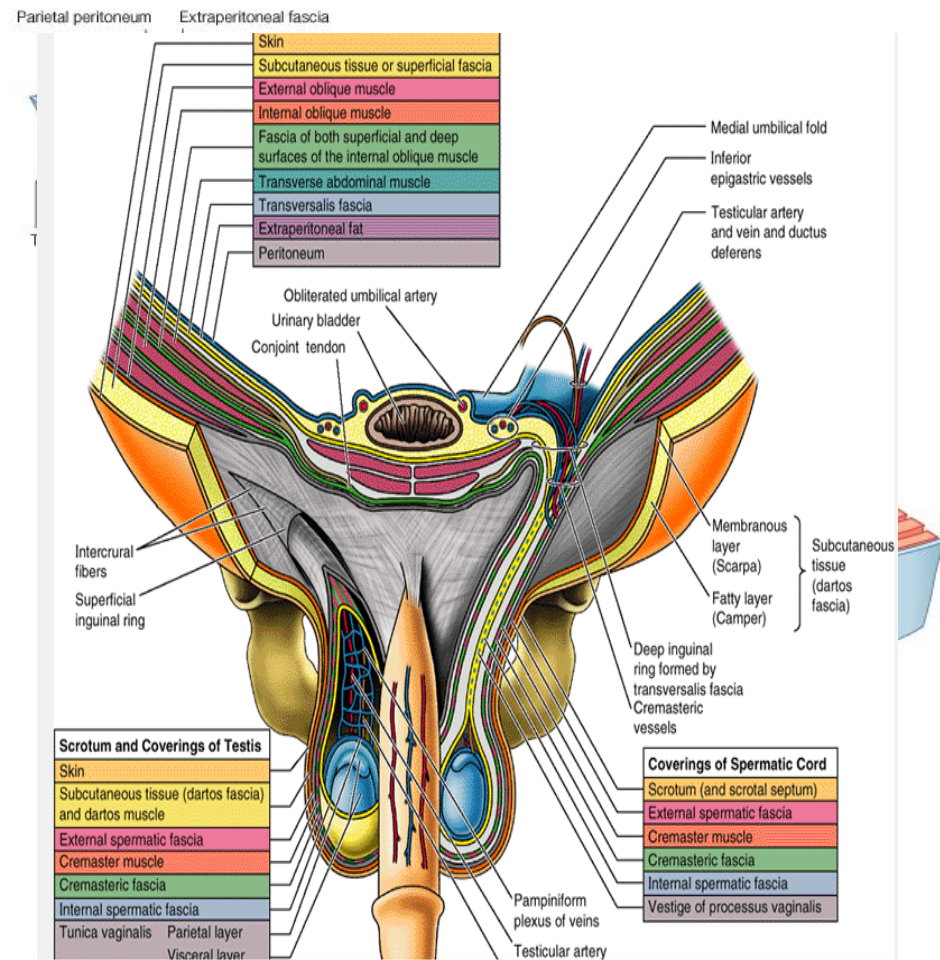
## Structures through prostate

- ✓ 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 1/3<sup>rd</sup> – L1 segment  
posterior 2/3<sup>rd</sup> – S3 & 4 segment

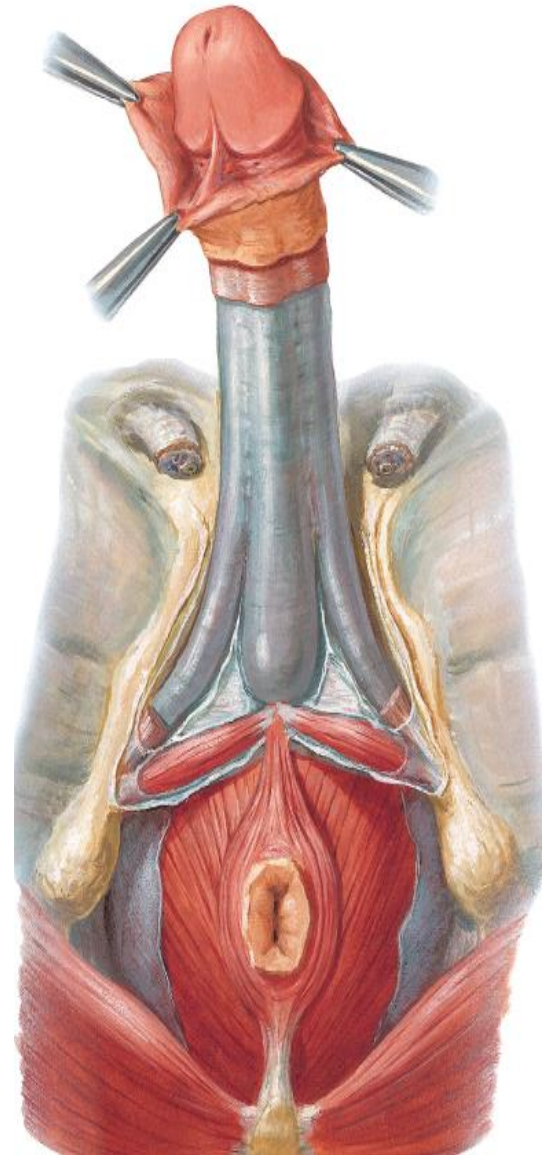
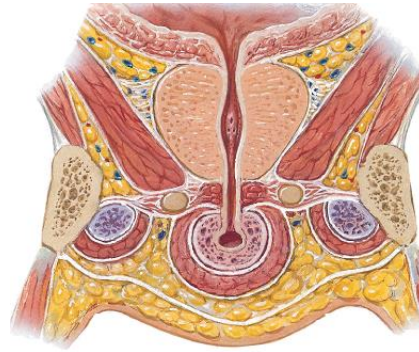


# PENIS

❖ Organ of copulation

❖ Parts:

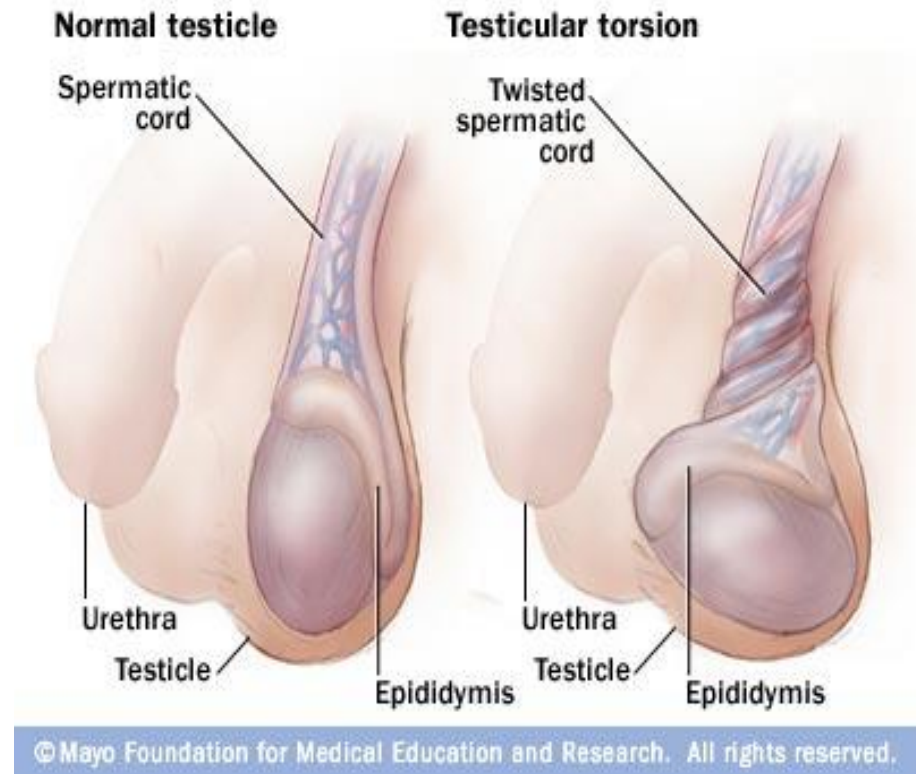
- the base
- shaft
- glans
- foreskin.





# 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.



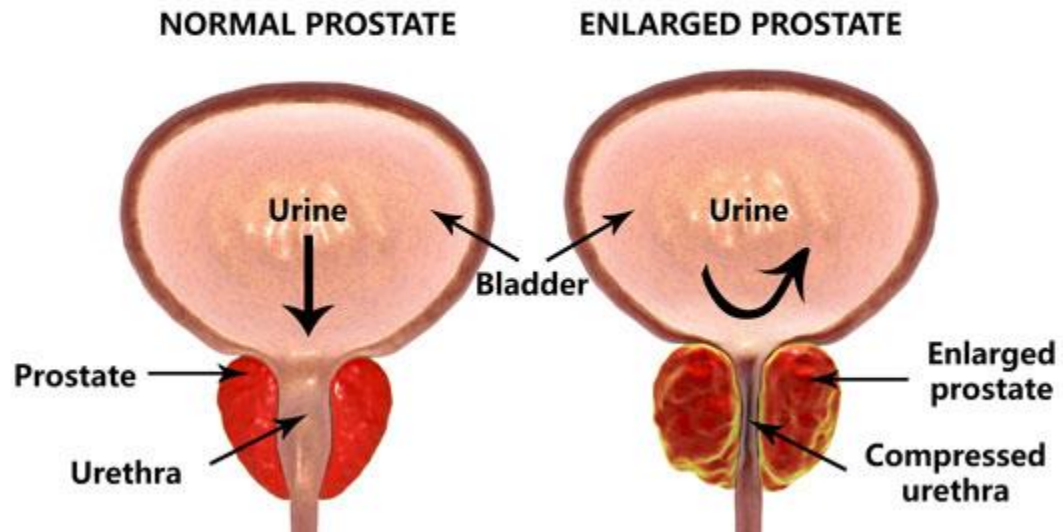
# Testicular Torsion



# 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

