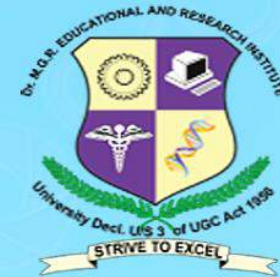


eLearning
by **Dr. M.G.R.** EDUCATIONAL AND RESEARCH INSTITUTE

Topic : MALE REPRODUCTIVE SYSTEM
Subject Code : BAH201
Subject Name : ANATOMY
Delivered by : Mrs.S.ABARAJITHA



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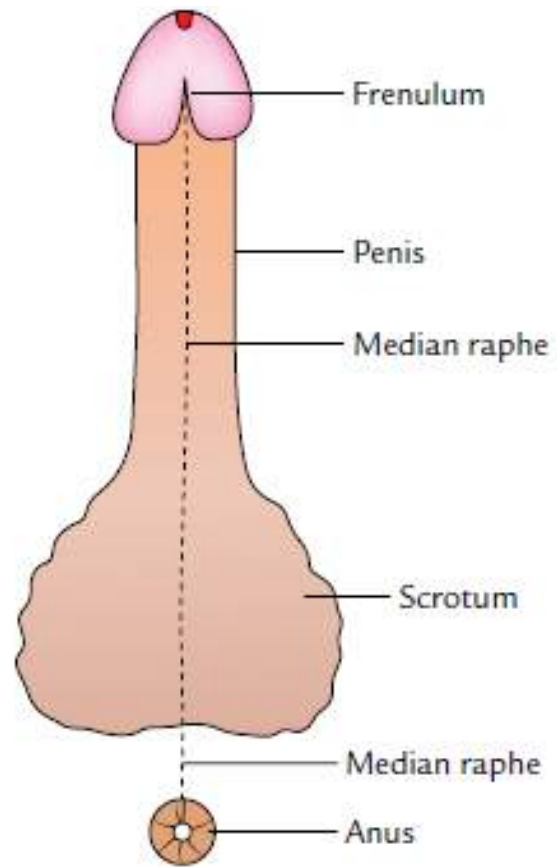
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MALE REPRODUCTIVE SYSTEM

SCROTUM

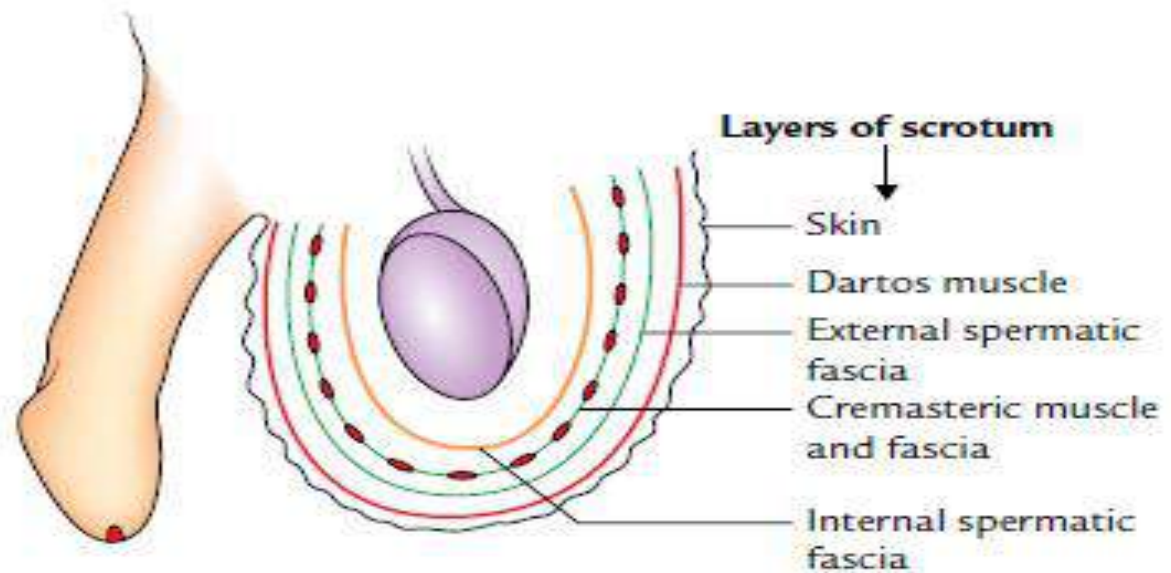
- L.scrotum - Bag
- Following structures present inside scrotum
 1. Testes.
 2. Epididymis.
 3. Lower parts of the spermatic cords



FEATURES OF SCROTUM

- The scrotum is divided into right and left halves by a median ridge or raphe, which indicates the line of fusion of the two halves of the scrotum
- The skin is rugose (corrugated) and dark in colour –dartos muscle
- The left half of the scrotum hangs lower than the right half because the left spermatic cord is longer than the right spermatic cord.

LAYERS OF SCROTUM



BLOOD SUPPLY

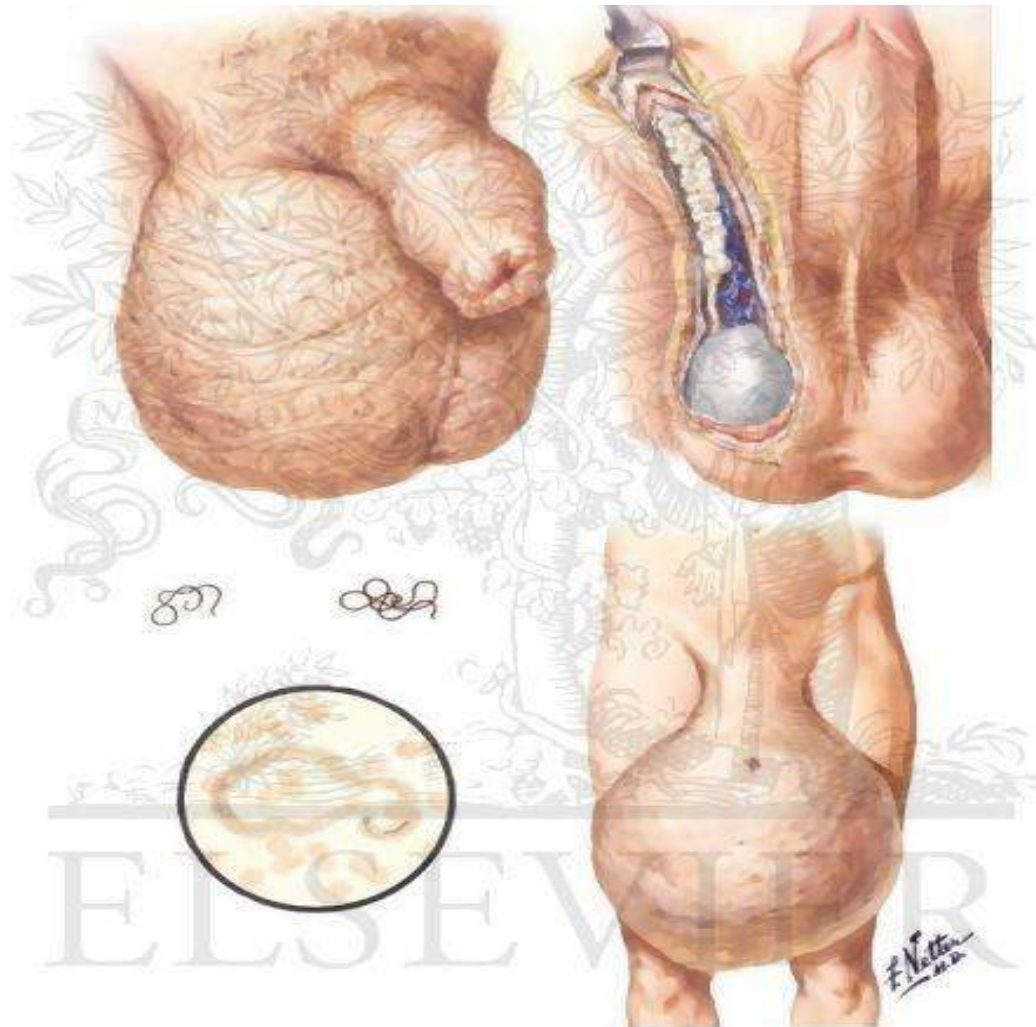
1. Superficial external pudendal artery.
2. Deep external pudendal artery.
3. Scrotal branches of the internal pudendal artery.
4. Cremasteric artery, a branch of the inferior epigastric artery.

NERVE SUPPLY

Anterior one-third of the scrotum is supplied by ilioinguinal nerve and genital branch of genitofemoral nerve

Posterior two-third of the scrotum is supplied by posteriorscrotal branches of the perineal nerve (S3) and perineal branch of the posterior cutaneous nerve of the thigh

SCROTAL ELEPHANTIASIS

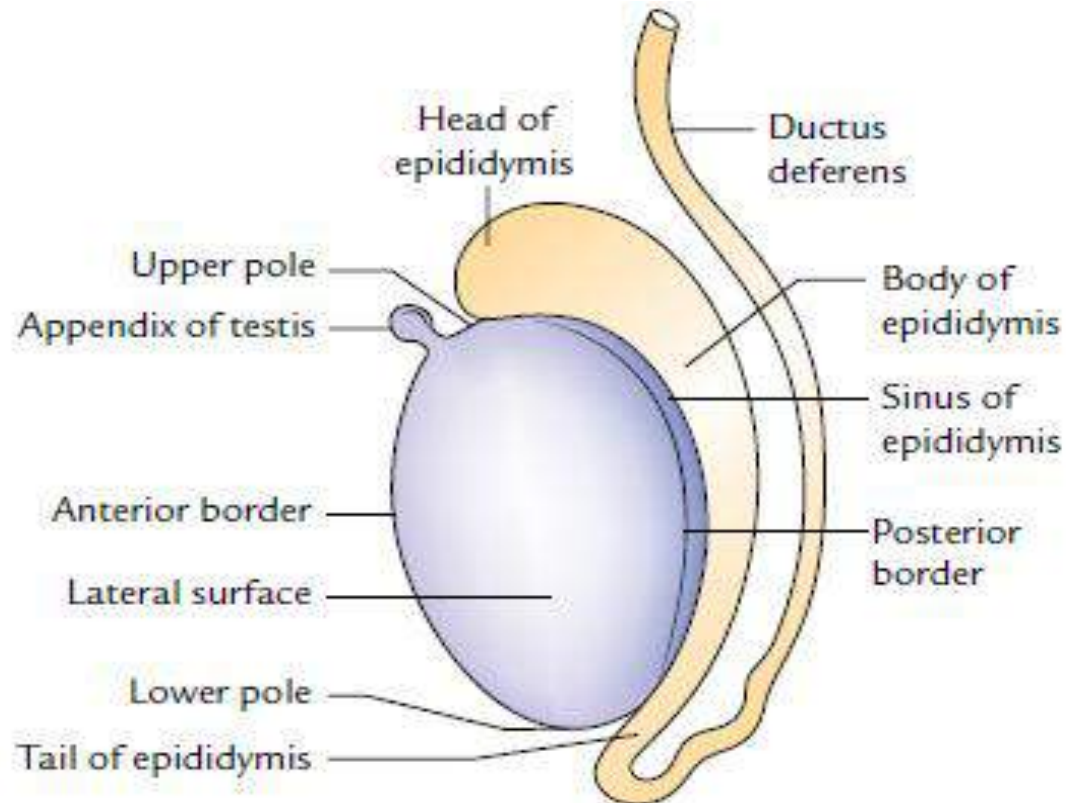


TESTIS

- SHAPE : OVAL
- WEIGHT :10-15 g
- LOCATION : SUSPENDED IN SPERMATIC CORD
- PLACED OBLIQUELY

EXTERNAL FEATURES

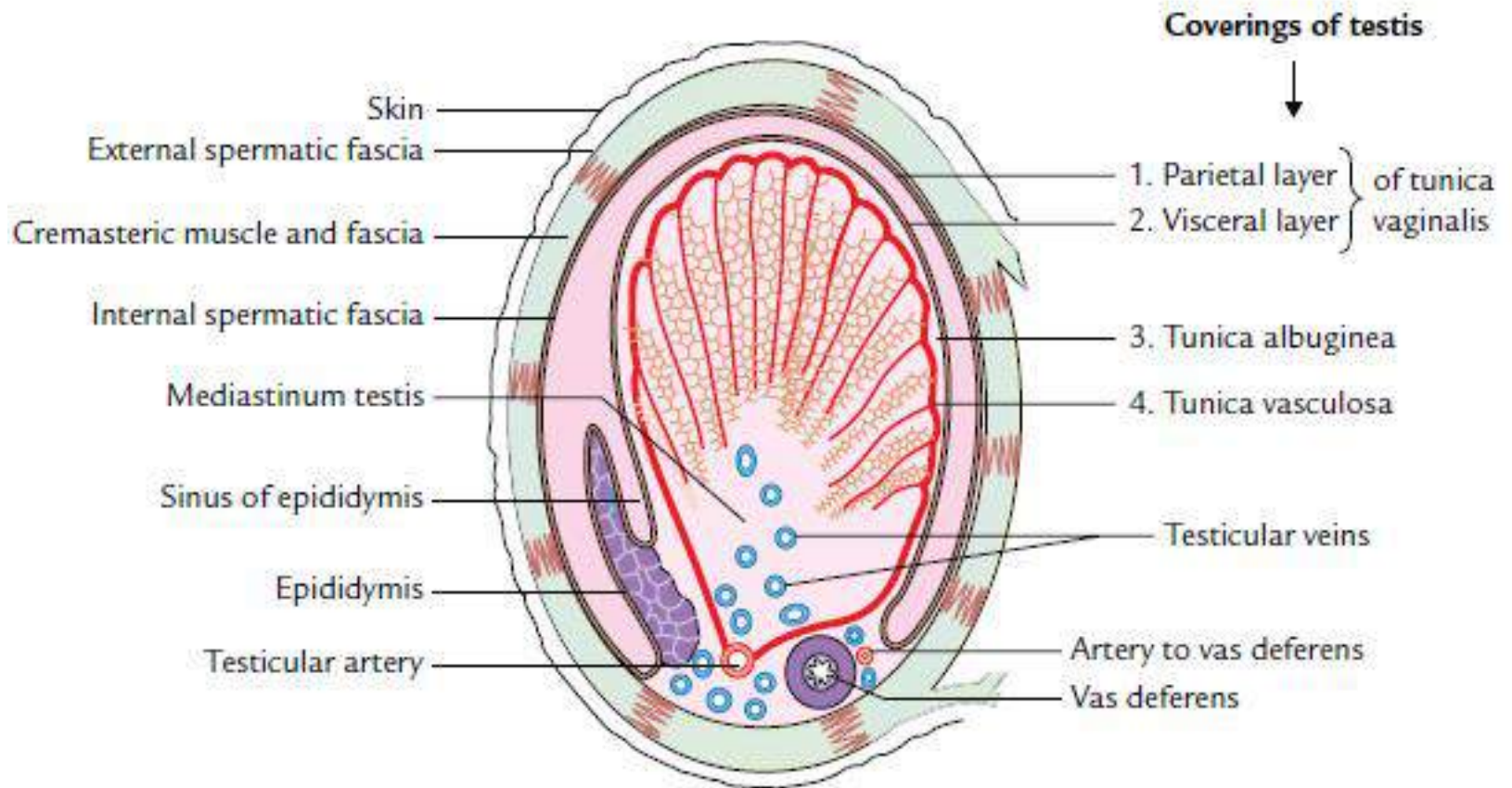
- Two poles—upper and lower.
- Two borders—anterior and posterior.
- Two surfaces—medial and lateral



COVERINGS OF TESTIS

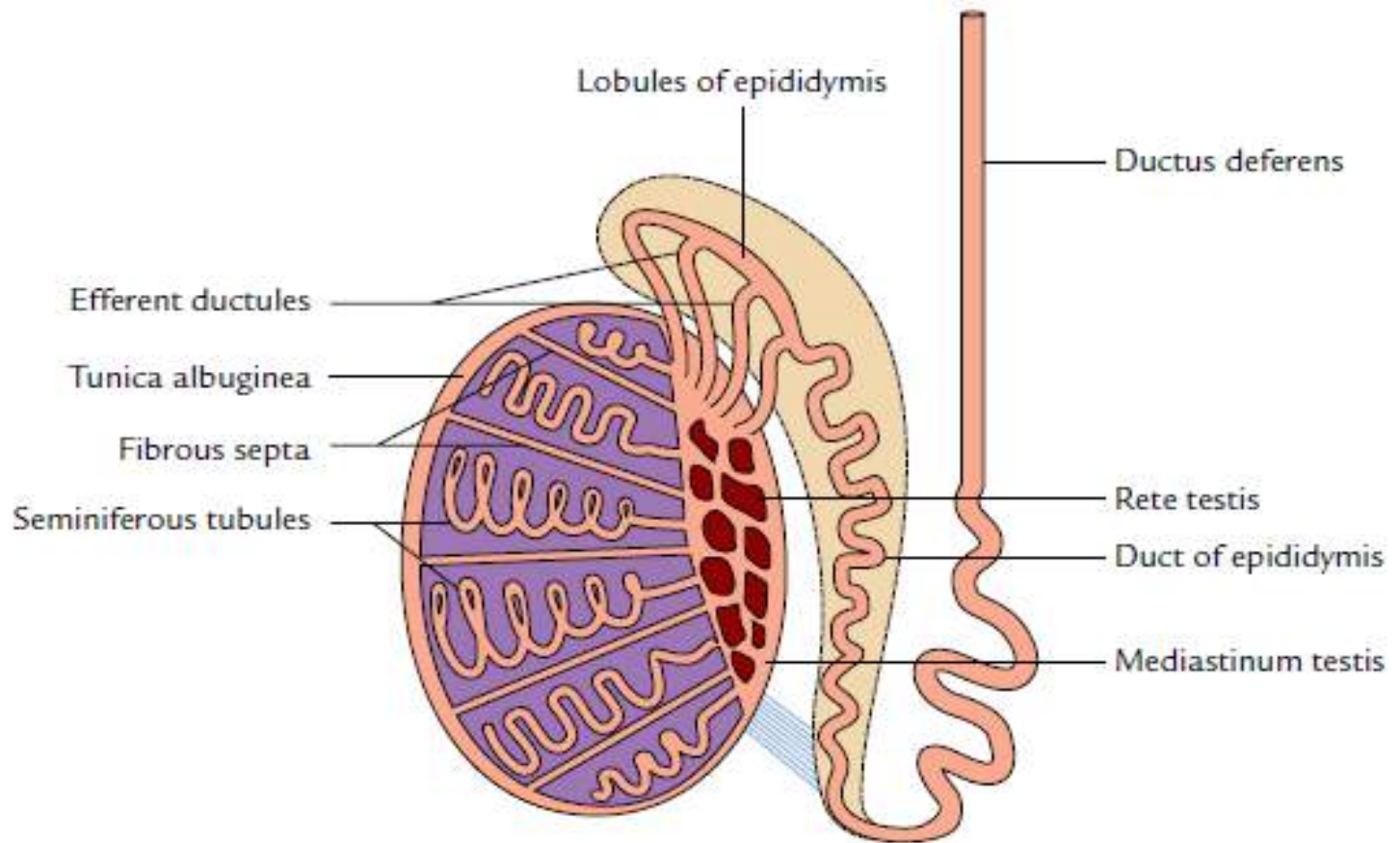
➤ superficial to deep

1. Tunica vaginalis.
2. Tunica albuginea.
3. Tunica vasculosa



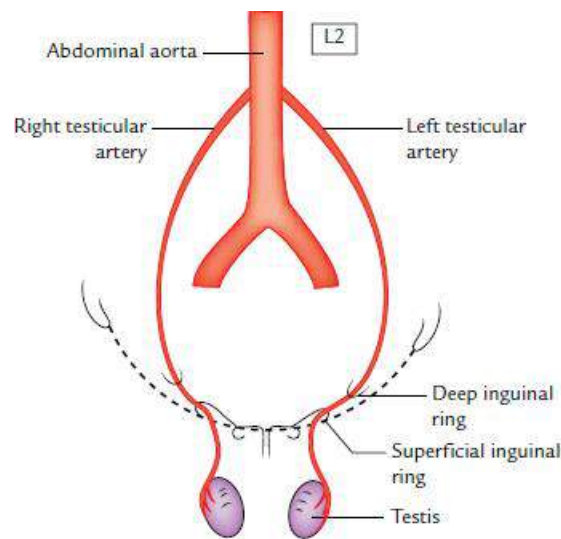
STRUCTURE OF TESTIS

- The testis is enclosed in a fibrous capsule, the tunica albuginea
- Tunica albuginea - posteriorly thickened to form rete testis
- Fibrous septa divides the interior of the testis into 200 – 300 lobules
- Each lobe – 2 to 4 seminiferous tubules that produces spermatozoa
- The thin, thread-like loops of seminiferous tubules join each other and become straighter as they pass toward the mediastinum forming straight tubules
- The small efferent ductules connect the channels of rete testis to the upper end of the epididymis



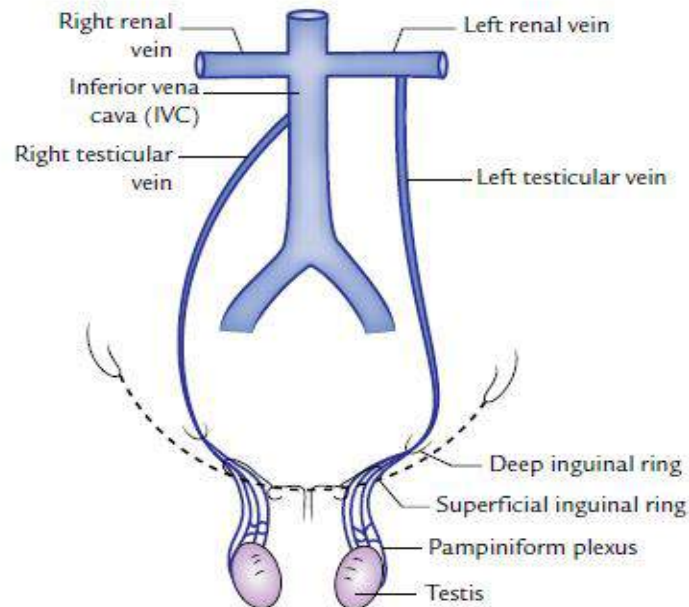
ARTERIAL SUPPLY

- The testicular artery supplies the testis, which arises from the abdominal aorta in the abdomen at the level of L2 vertebra
- The medial and lateral branches pierce the tunica albuginea, and ramify on the surface of lobules of the testis to form the tunica vasculosa

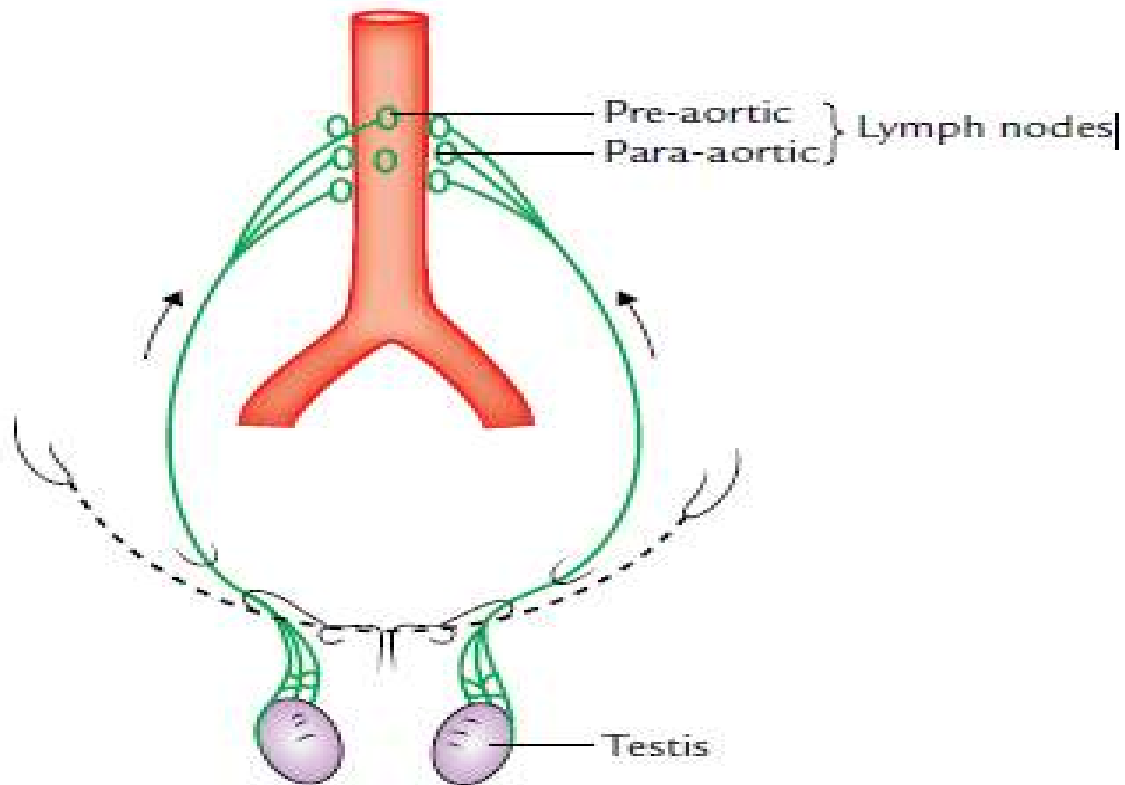


VENOUS DRAINAGE

- The pampiniform plexus of veins drains the venous blood from the testis.
- On the right side, the testicular vein drains into the inferior vena cava at an oblique angle while on the left side it drains into the left renal vein at a right angle.



LYMPHATIC DRAINAGE

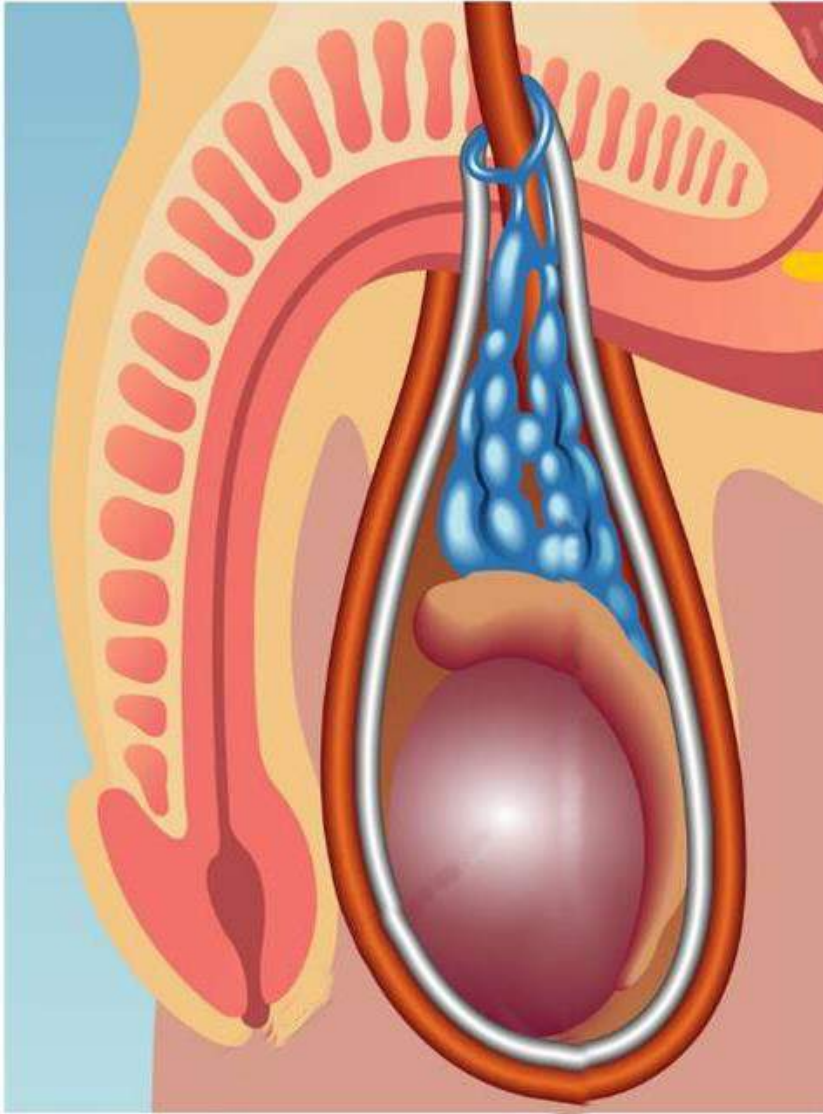
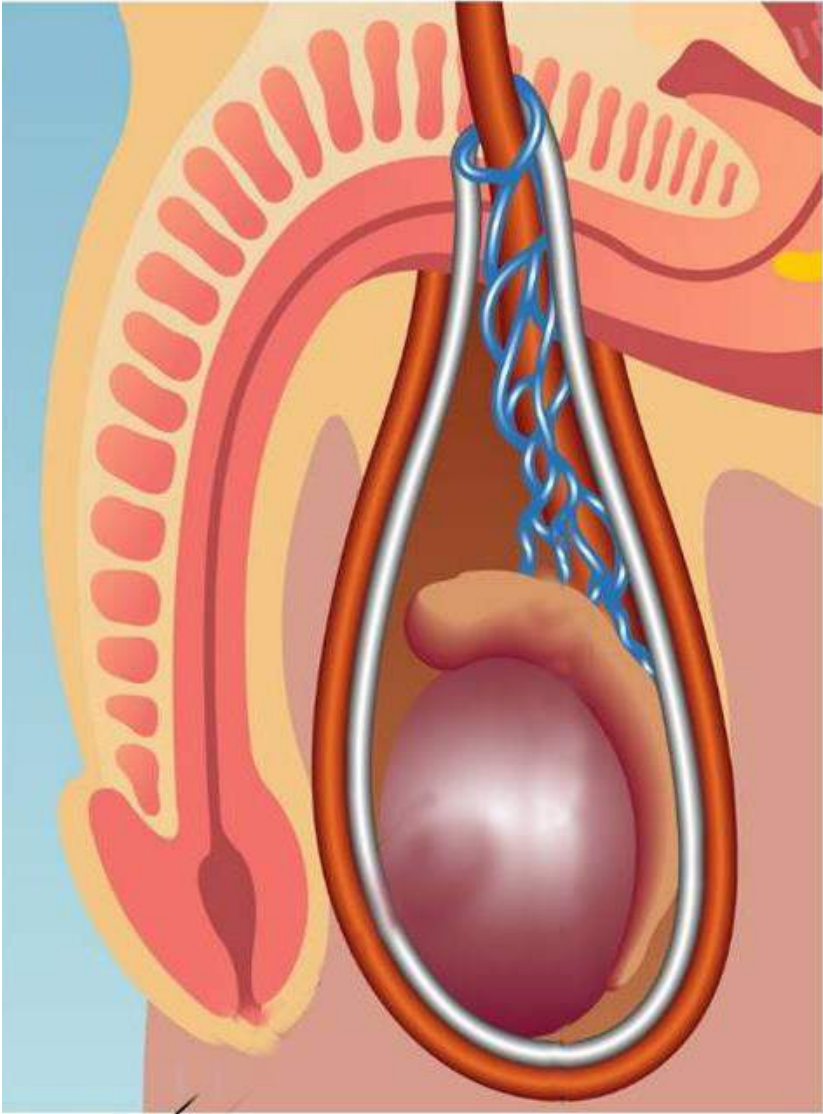


VARICOCELE

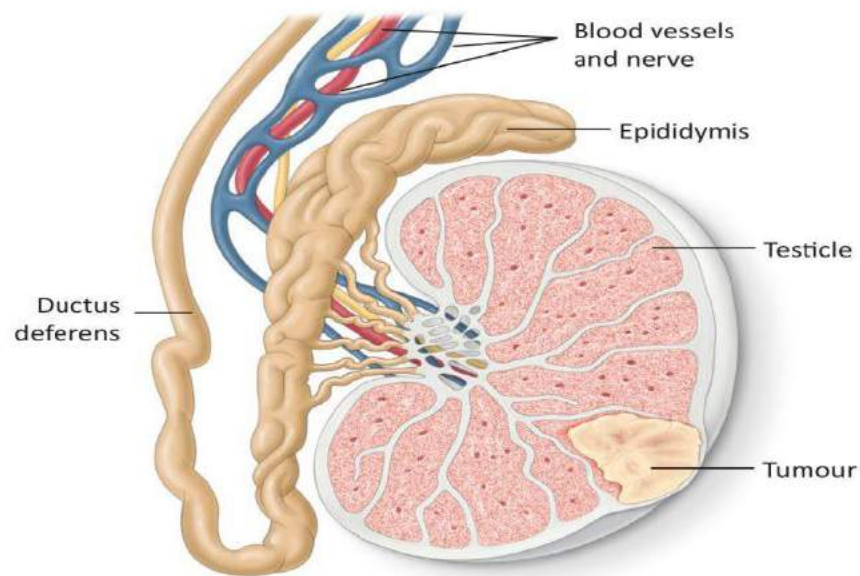
- a clinical condition in which veins of the pampiniform plexus become dilated, tortuous, and elongated
- Vague, dragging sensations and aching pain in the scrotum.
- On palpation, the veins of pampiniform plexus feel like 'bag of worms'.

Normal

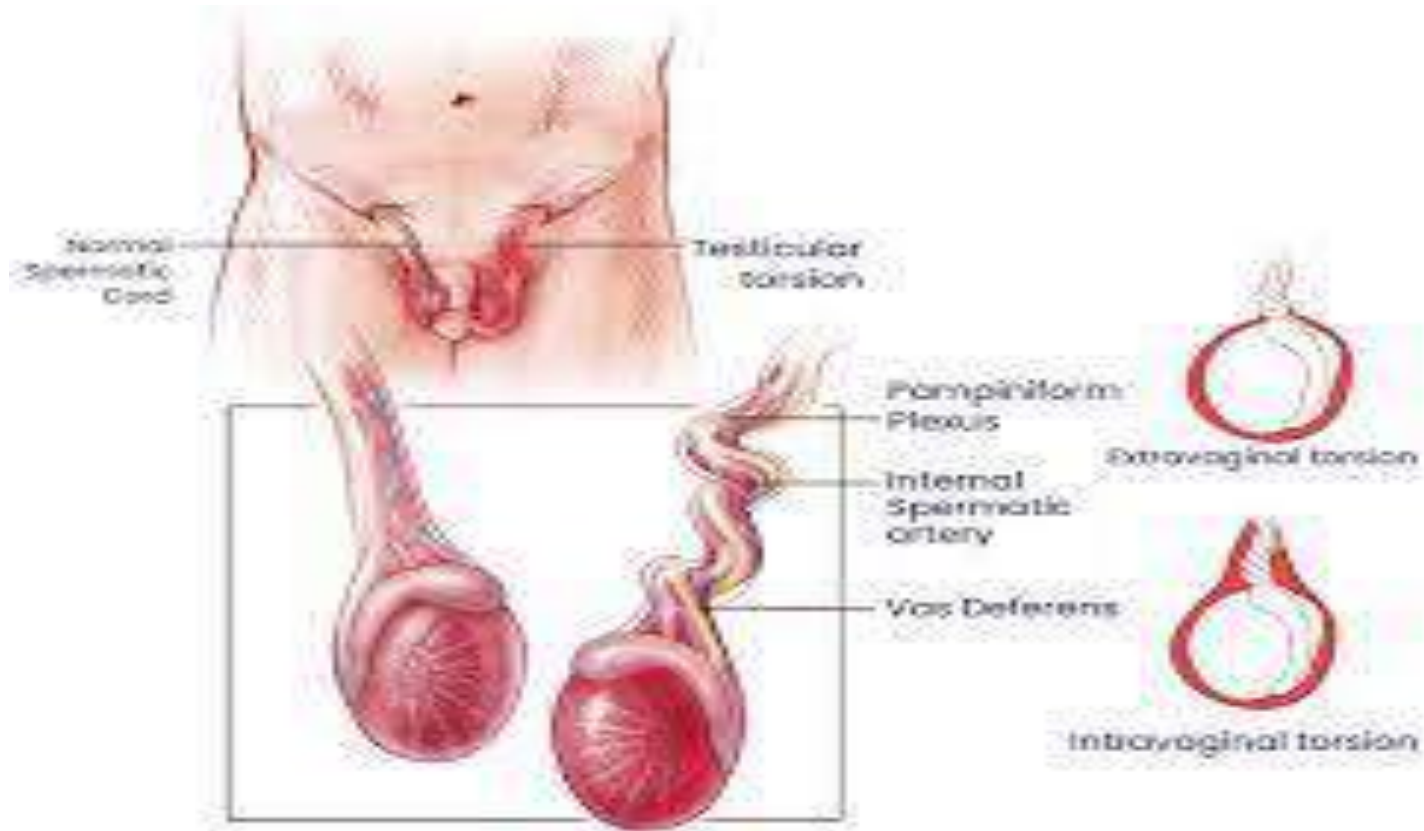
Varicocele



TUMOR OF TESTIS- SEMINOMA

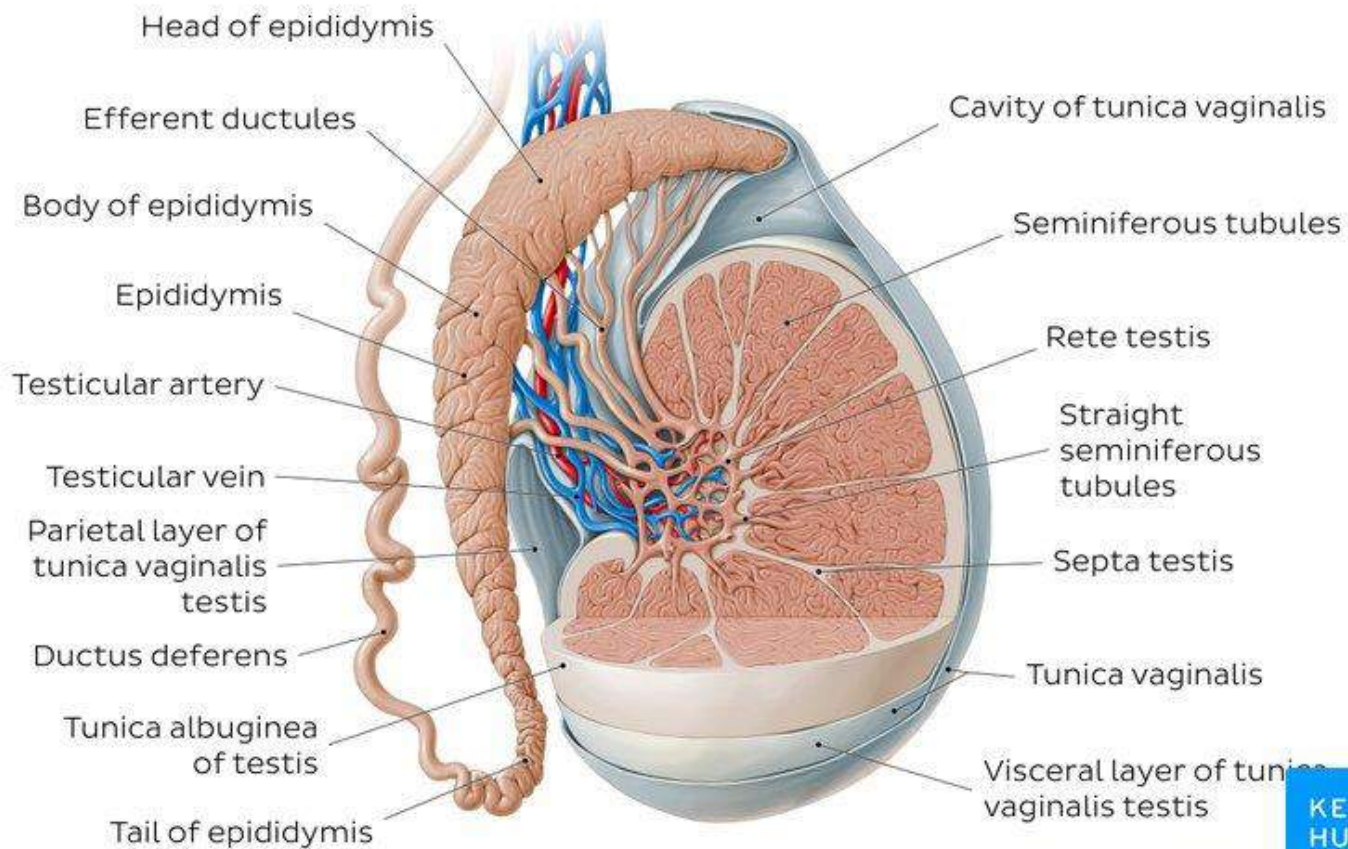


TESTICULAR TORSION



EPIDIDYMIS

- SHAPE – COMMA SHAPED
- LOCATION – SUPERIOR & POSTERO LATERAL SURFACE OF TESTIS
- HIGHLY COILED



PARTS

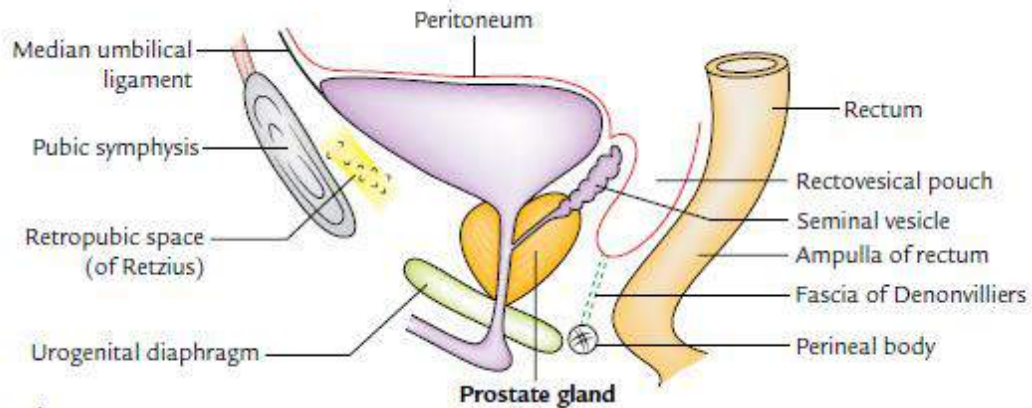
- The head is connected to the upper pole of testis by efferent ductules
- The body and tail are made up of a single highly coiled duct of epididymis

FUNCTIONS

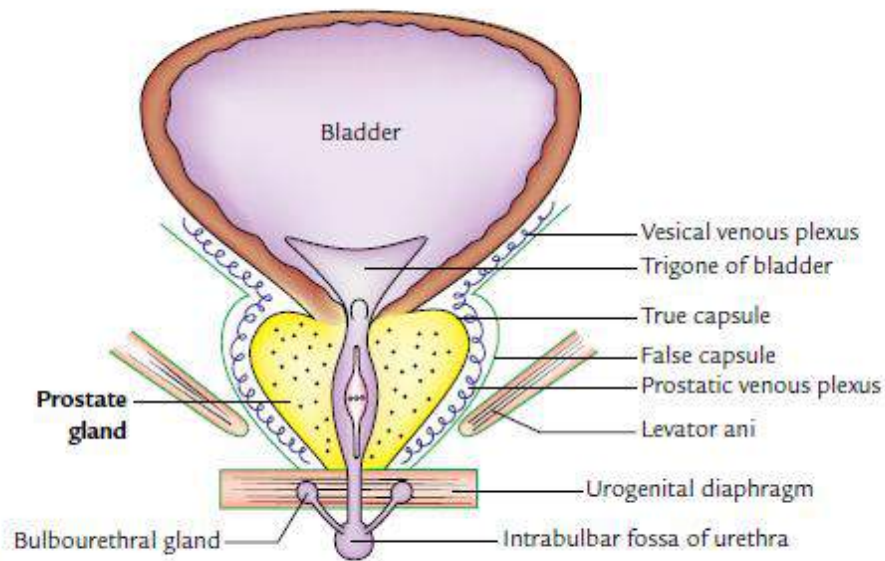
1. Storage and maturation of spermatozoa.
2. Absorption of the fluid.
3. Addition of substances to the seminal fluid to nourish the maturing spermatozoa

PROSTATE GLAND

- SHAPE – INVERTED CONE
- Weight: 3 g.
- Width: 4 cm.
- Length: 3 cm.
- Thickness: 2 cm
- LOCATION –
- INFERIOR – URINARY BLADDER
- ABOVE – UROGENITAL DIAPHRAGM
- POSTERIOR- PUBIC SYMPHYSIS
- ANTERIOR –RECTAL AMPULLA



A

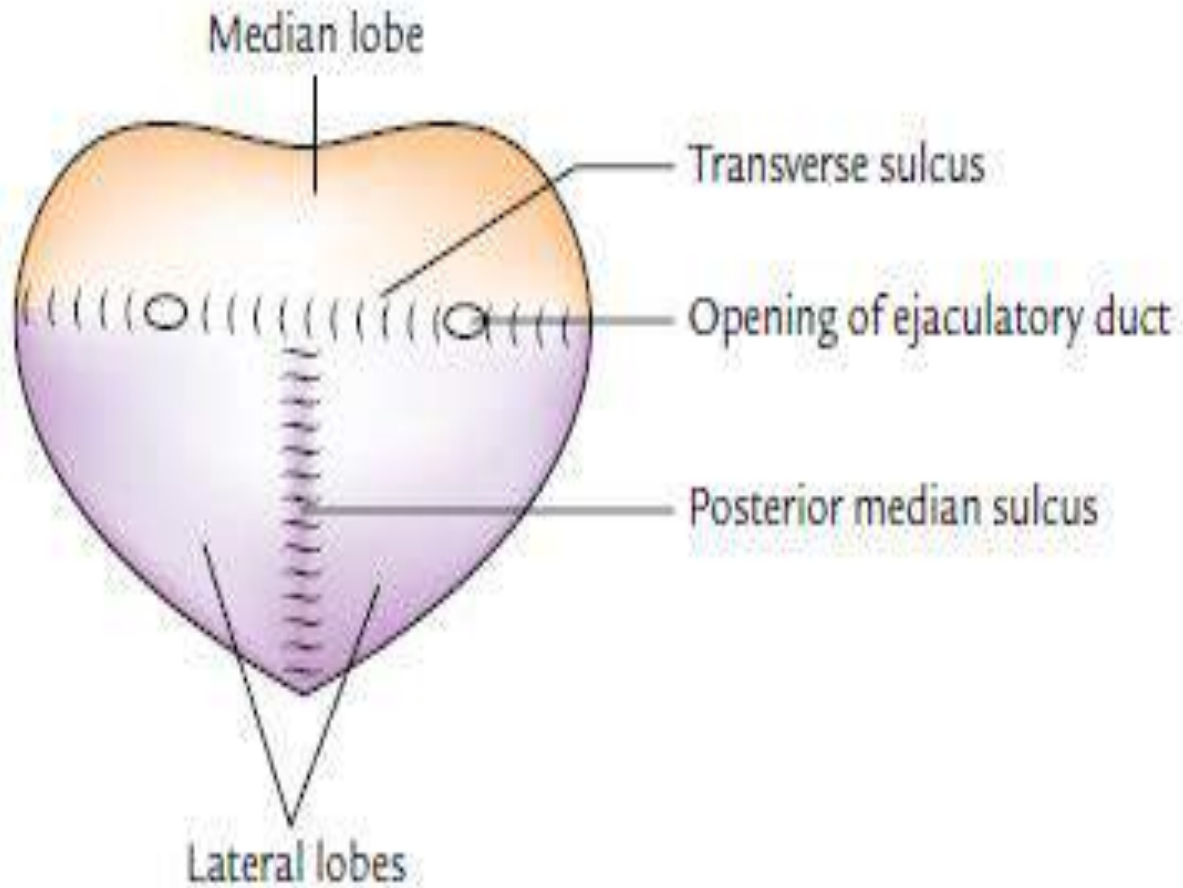


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EXTERNAL FEATURES & RELATIONS

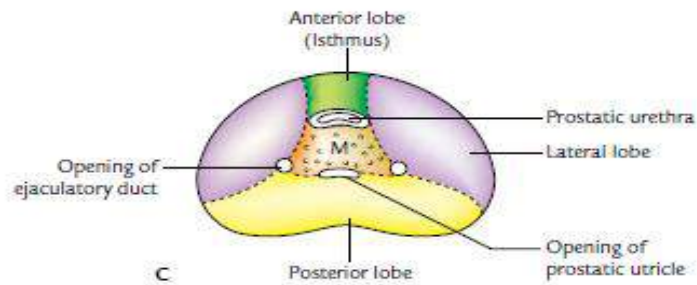
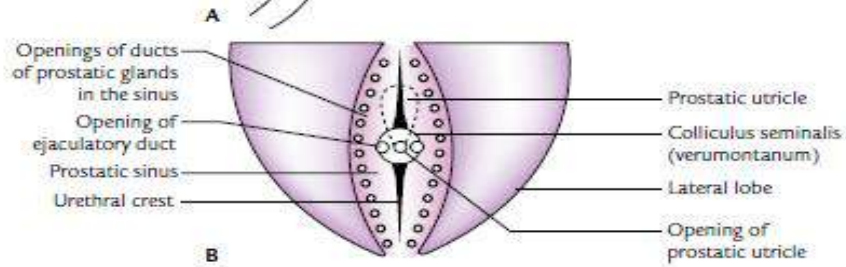
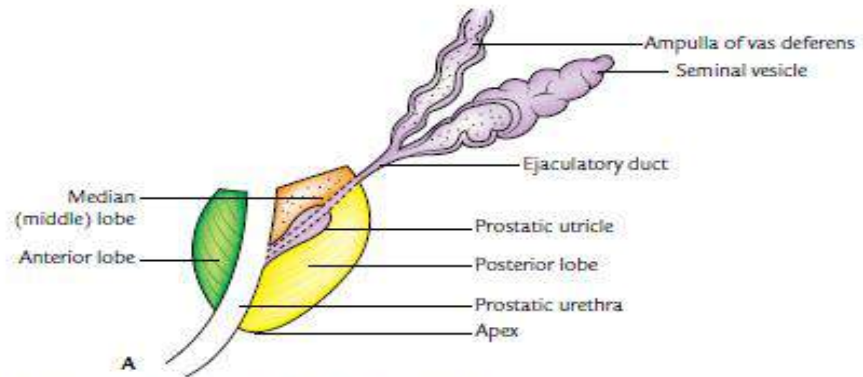
- APEX – UROGENITAL DIAPHRAGM
- BASE- SURROUNDS URINARY BLADDER
- 4 SURFACES
- ANTERIOR SURFACE- CONVEX, SITUATED 2cm BEHIND PUBIC SYMPHYSIS
- POSTERIOR SURFACE – FLAT, AMPULLA OF RECTUM
- INFERO LATERAL SURFACE – ANTERIOR FIBRES OF LEVATOR ANI

POSTERIOR SURFACE



LOBES OF PROSTATE

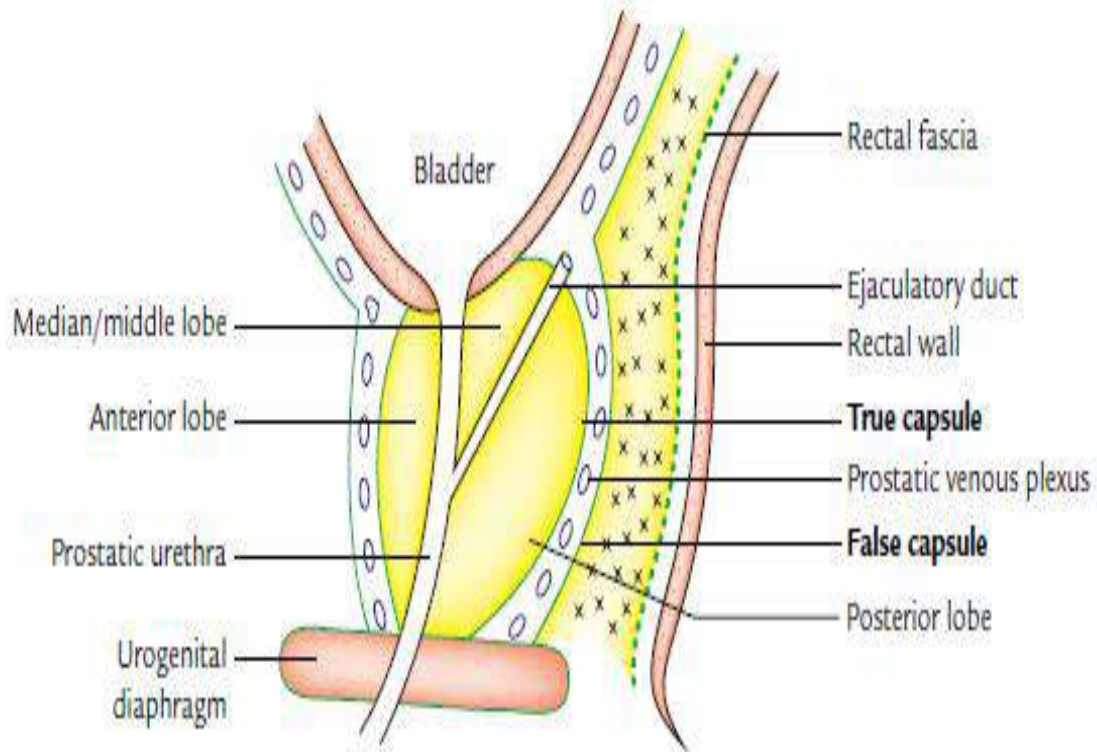
- ANTERIOR
- POSTERIOR
- MEDIAN
- 2 LATERAL LOBE



STRUCTURES PRESENT IN PROSTATE

- Prostatic urethra
- Ejaculatory ducts
- Prostatic utricle

PROSTATIC CAPSULE



SUPPORTS OF PROSTATE

- Urogenital diaphragm
- Two pairs of puboprostatic ligaments
- Rectovesical fascia of Denonvilliers

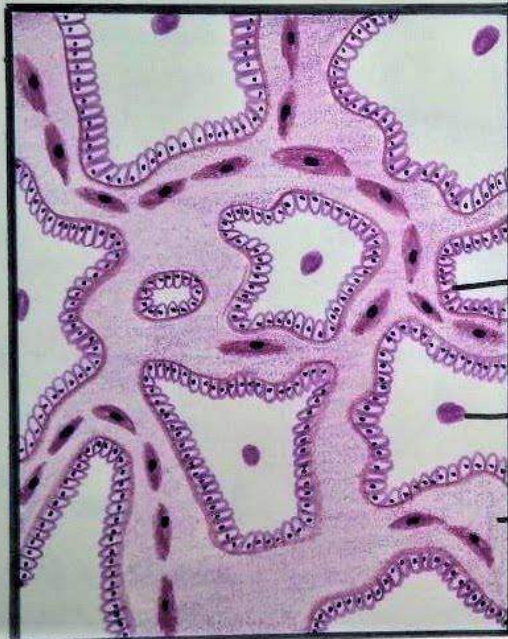
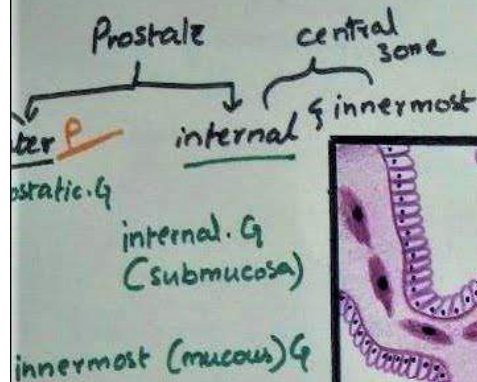
STRUCTURE OF PROSTATE

- The prostate gland is made up of fibrous tissue muscular tissue and glandular tissue
- The glandular tissue consists of tubuloalveolar glands arranged in three concentric groups
- The fibromuscular tissue forms the stroma
- the glandular tissue forms the parenchyma of the prostate gland
- The lumen of tubuloalveolar gland contains small coll oid masses called corpora amylacea.

HISTOLOGY

HISTOLOGY OF PROSTATE GLAND

- largest accessory sex gland
- chestnut shape
- 30-50 compound tubulo-alveolar glands
- follicles open into 12-20 ducts that open into prostatic urethra



Function

- secretion for semen
 - ↳ enzymes like amylase, protease, acid phosphatase & citric acid.

Clinical

- produces prosta glandins - Benign nodular Hyperplasia
- Carcinoma prostate

columnar epithelium

amyloid bodies / corpora amylacea → ↑ in old aged

↳ abundant glycoprotein in condensed form.

Fibromuscular Tissue

↳ contains collagen fibers & smooth muscle

BLOOD SUPPLY

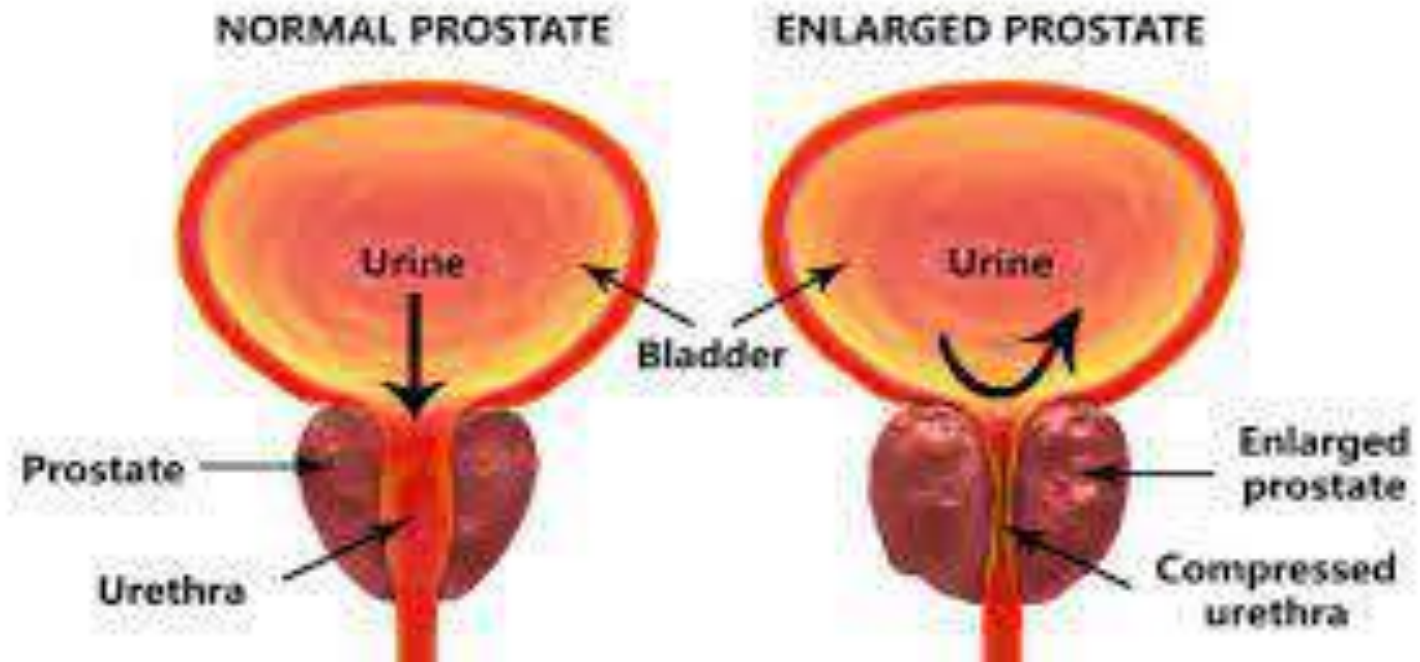
- ARTERIAL SUPPLY
- Inferior vesical, middle rectal, and internal pudendal arteris.
- VENOUS DRAINAGE
- Prostatic venous plexus → internal iliac veins → IVC.
- Prostatic venous plexus → vertebral venous plexus (of Batson) → intracranial dural venous sinuses

LYMPHATIC & NERVE SUPPLY

- Internal iliac, external iliac, and sacral groups of the lymph nodes
- NERVE SUPPLY
- The sympathetic supply is provided by the superior hypogastric plexus.
- The parasympathetic supply is provided by the pelvic splanchnic nerves

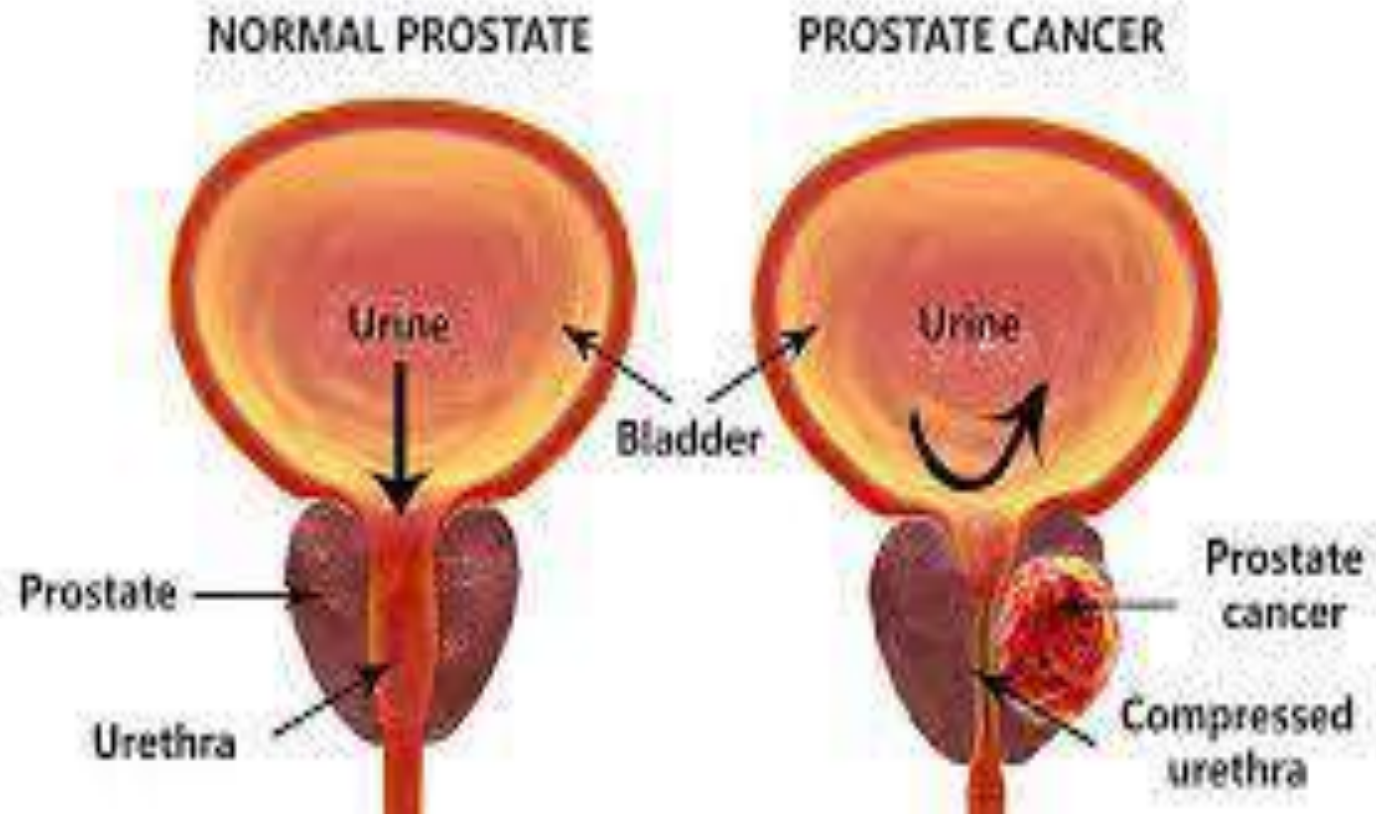
BENIGN PROSTATIC HYPPERTROPHY

BENIGN PROSTATIC HYPERPLASIA

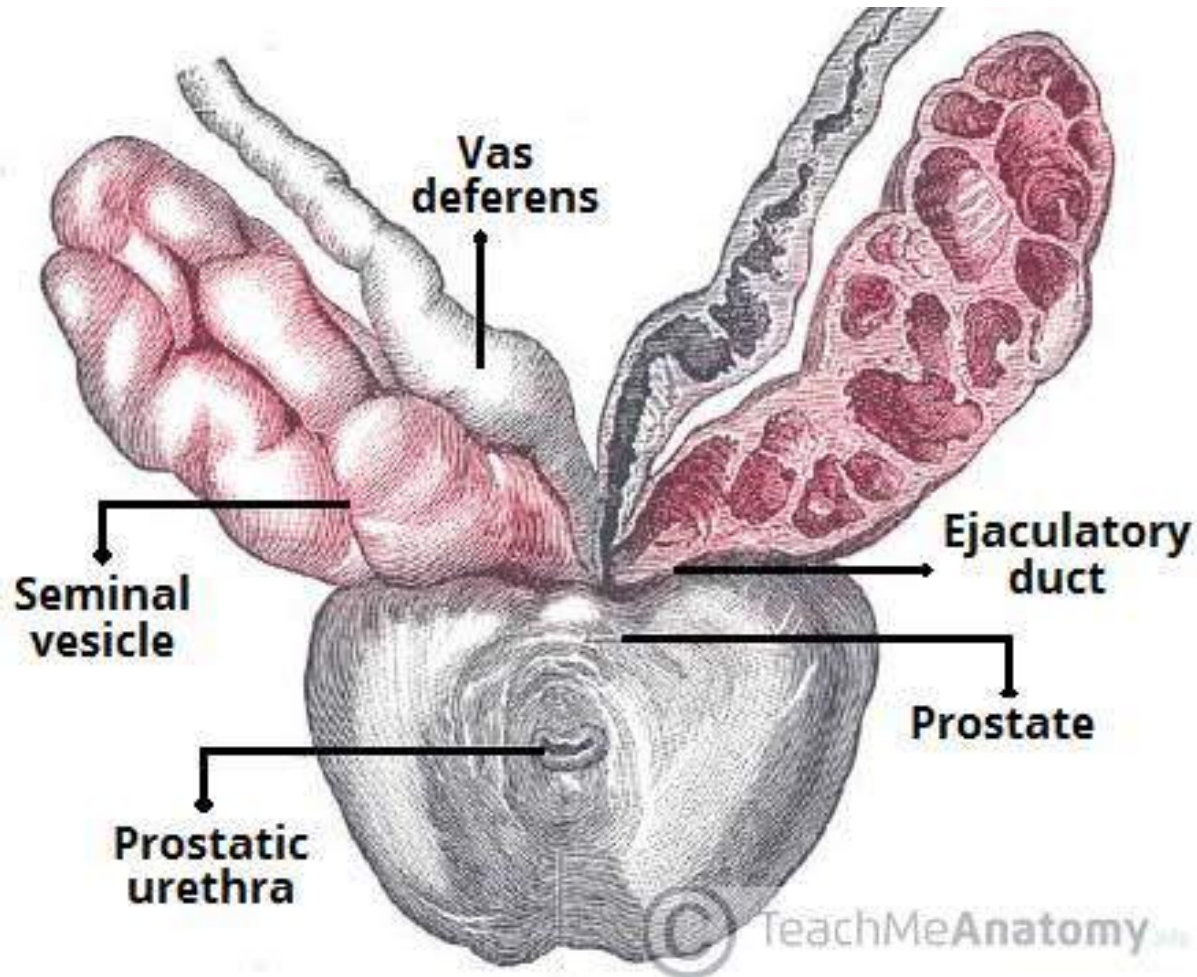


PROSTATIC CARCINOMA

PROSTATE CANCER



SEMINAL VESICLES



- The seminal vesicles are two coiled sacculated tubes about 2 inches (5 cm) long
- Location – Base of the urinary bladder
- Lower end of seminal vesicle joins the ductus deferens to form ejaculatory duct
- secretions form a large amount of the seminal fluid
- The secretion of seminal vesicles is slightly alkaline, containing fructose, choline, and a coagulating enzyme called vesiculose

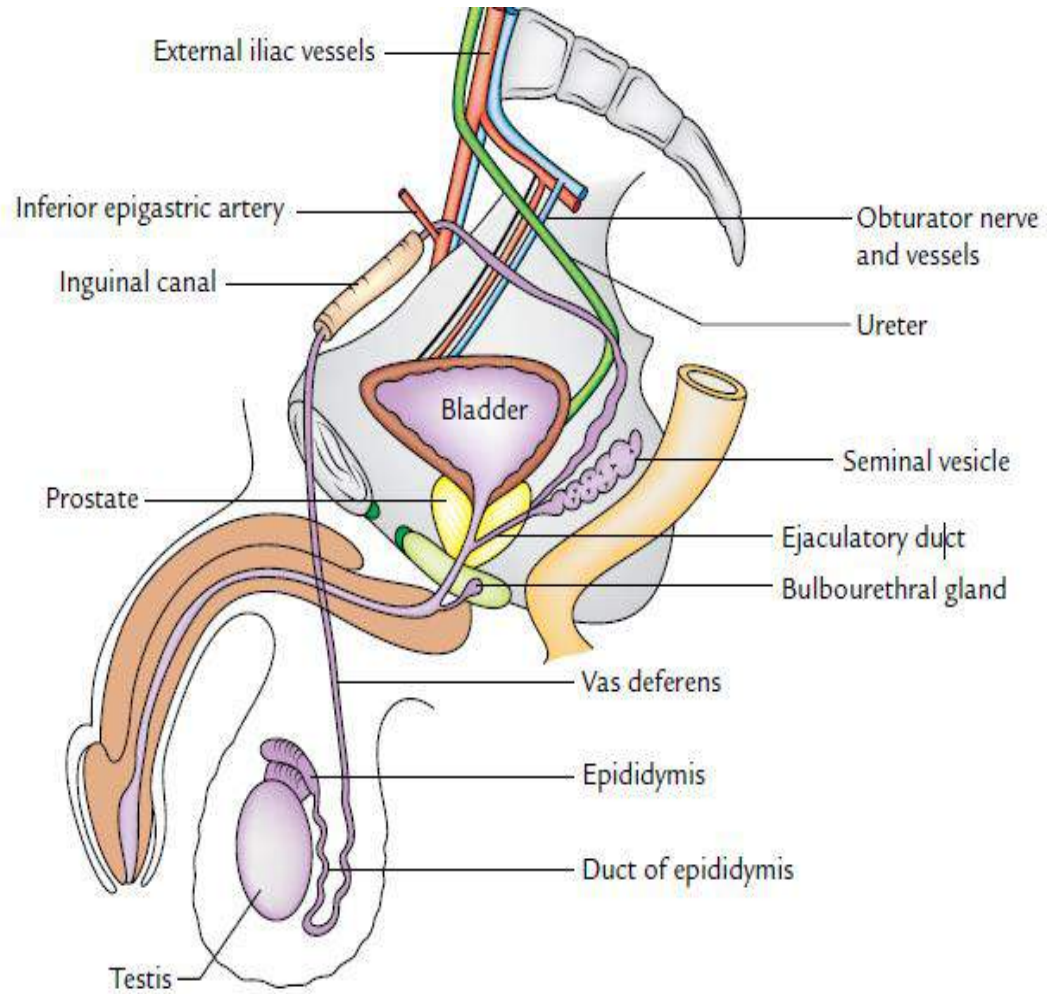
EJACULATORY DUCTS

Two ejaculatory ducts one on each side of the Median plane at the lower part of the bladder base

Each duct traverses anteroinferiorly through the upper posterior half of the prostate and along the side of prostatic utricle to open in the posterior wall of prostatic urethra on the seminal colliculus

VAS DEFERENS

- Each vas deferens is a thick-walled muscular tube which transports spermatozoa from the epididymis to the ejaculatory duct
- Length -45 cm
- It begins at the inferior pole of the testis as direct continuation of the duct of epididymis and ascends upward behind the testis and medial to the epididymis.
- It passes through inguinal canal enters the abdominal cavity by passing through the deep inguinal ring located lateral to the inferior epigastric artery.



BLOOD SUPPLY

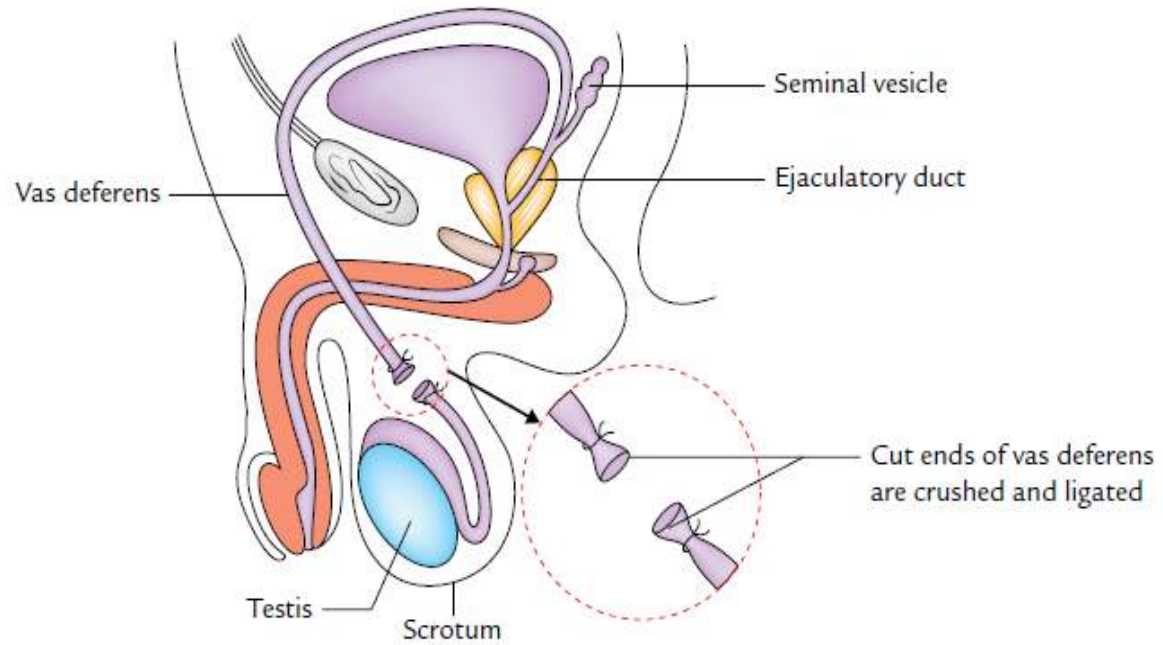
Artery to vas deferens, a branch of superior vesical artery.

Artery to vas deferens, a branch of inferior vesical artery.

Artery to vas deferens, a branch of middle rectal artery

The veins from vas deferens join the vesical venous plexus which in turn drains into the internal iliac veins.

VASECTOMY





Thank
you



Dr. M.G.R

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