MALE REPRODUCTIVE SYSTEM

- ✓ **The male reproductive consists of a number of sex organs that play a role in the process of human reproduction.**

Male external genital organ

- ✓ **Scrotum**
- ✓ **Penis**

MALE INTERNAL GENITAL ORGANS

Gonads – testis

Genital ductus

1. **Epididymis**
2. **Ductus deferens**
3. **Ejaculatory duct**
4. **Male urethra**

Accessory glands

1. **Seminal vesicle**
2. **Prostate gland**
3. **Bulbourethral gland**

TESTIS

- **The testes are paired structures, located within the scrotum.**

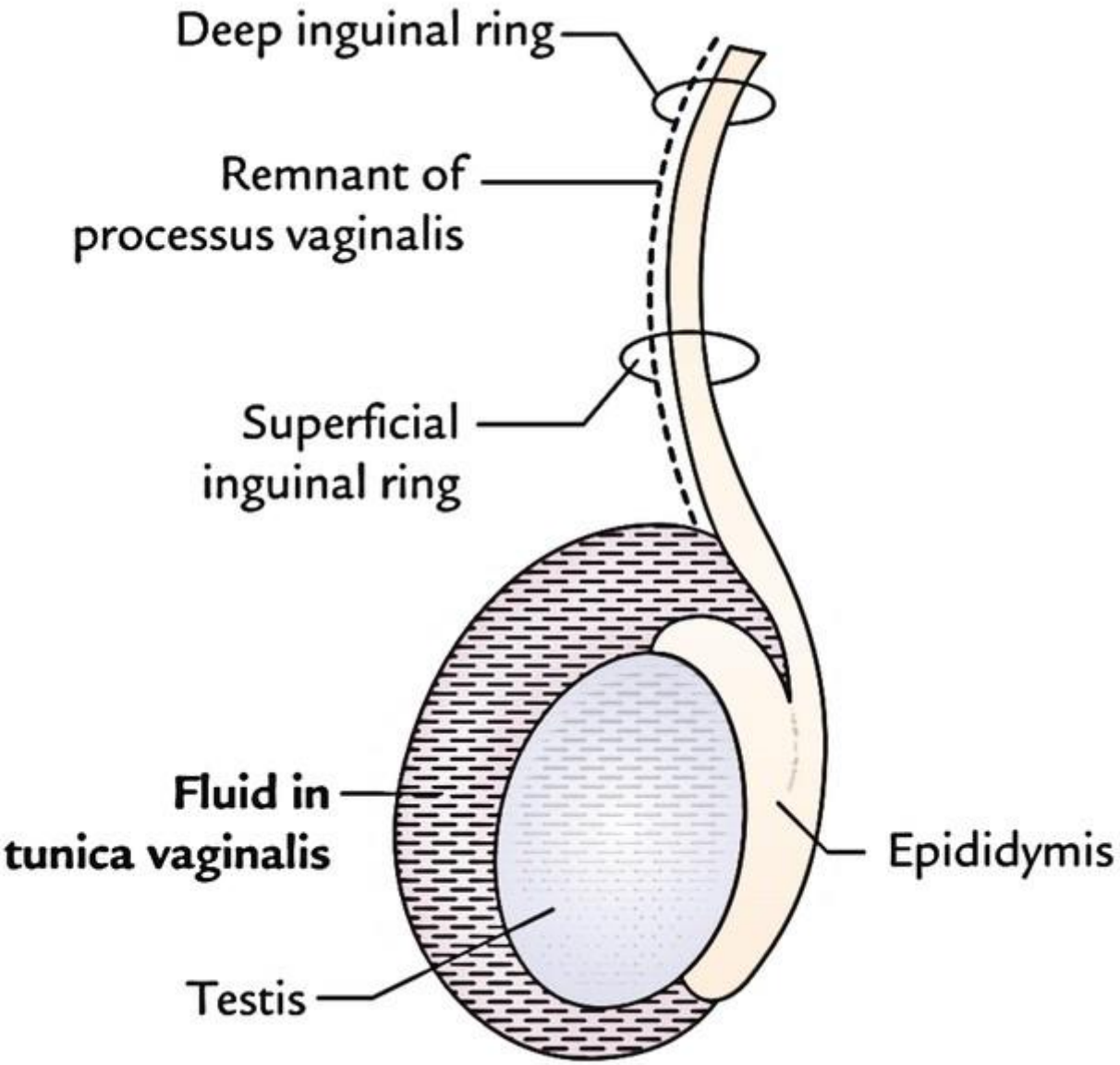
- **The testes are the site of sperm production and hormone synthesis,**

- **The left testicle lies lower than the right.**

- **They are suspended from the abdomen by the spermatic cord – collection of vessels, nerves and ducts that supply the testes.**

- **Originally, the testes are located on the posterior abdominal wall.**

- **During embryonic development they descend down the abdomen, and through the inguinal canal to reach the scrotum.**

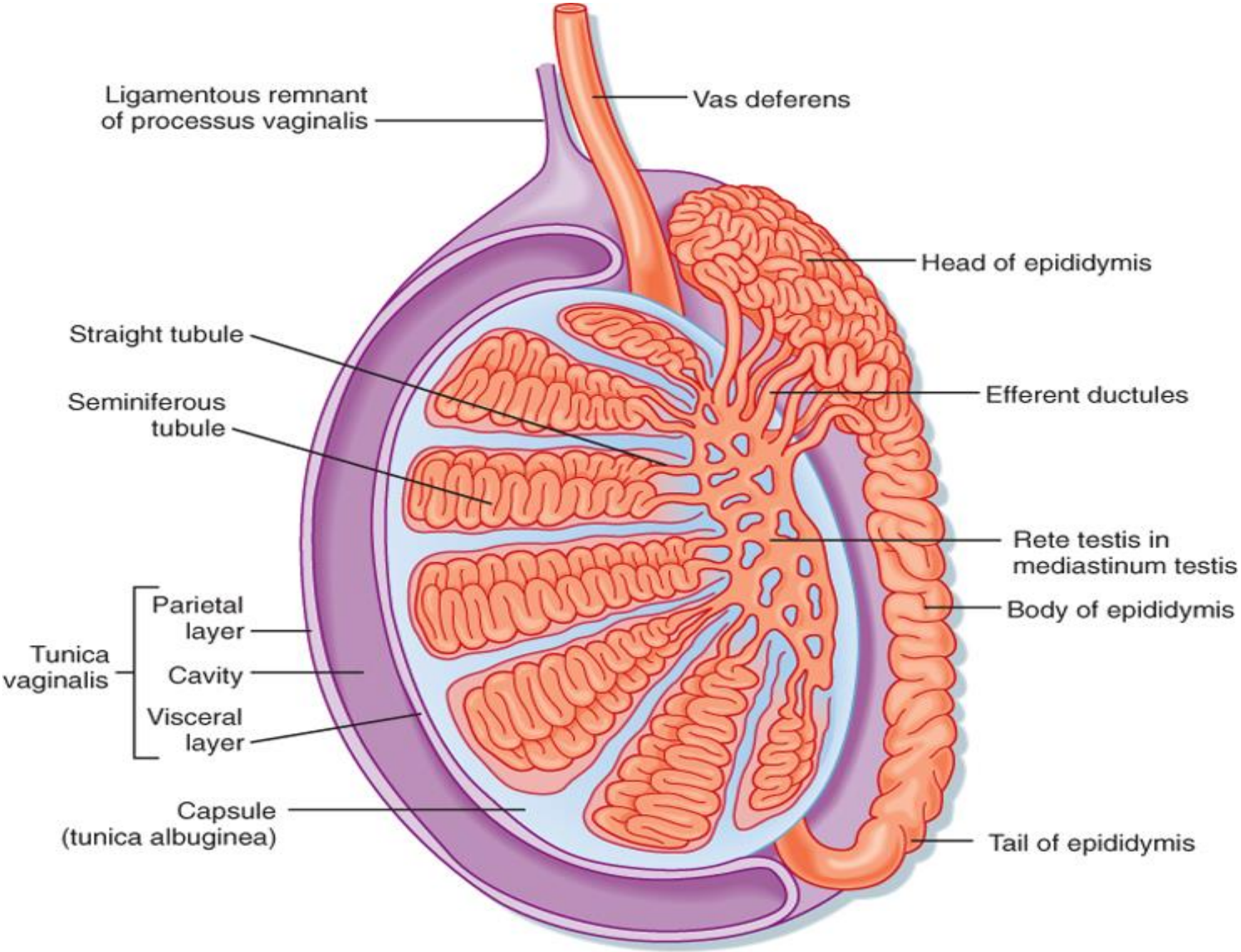

Deep inguinal ring
Remnant of processus vaginalis
Superficial inguinal ring
Fluid in tunica vaginalis
Testis
Epididymis

Measurements – 5cm, 2.5cm , 3cm

Weight- 10-15gm

- ✓ Testis have two pole upper and lower
- ✓ Upper pole over lapped by head of epididymis
- ✓ Lower pole is connected to tail of epididymis
- ✓ Two borders- anterior and posterior
- ✓ Two surfaces- medial and lateral

- **The testis has three converging from outside inwards- tunica vaginalis ,tunica albuginea and tunica vasculosa**
- **The tunica vaginalis consists of two layer visceral and parietal**
- **These two Layers a closed vaginal sac that contains a small amount of viscous fluid.**
- **Lubricating the surfaces of the testes and allowing for friction-free movement.**
- **Tunica albuginea is bluish white ,thick fibrous membrane it covers the entire testis**
- **Tunica vasculosa lines the individual lobules of testis it contian plexus of blood vessels**


Ligamentous remnant of processus vaginalis
Vas deferens
Head of epididymis
Straight tubule
Seminiferous tubule
Efferent ductules
Rete testis in mediastinum testis
Body of epididymis
Tunica vaginalis
Parietal layer
Cavity
Visceral layer
Capsule (tunica albuginea)
Tail of epididymis

- **The testes have an ellipsoid shape.**
- **They consist of 200-300 lobules, each containing seminiferous tubules supported by interstitial tissue.**
- **The seminiferous tubules are lined by Sertoli cells that aid the maturation process of the spermatozoa.**
- **In the interstitial tissue lie the Leydig cells that are responsible for testosterone production.**

- **Spermatozoa are produced in the seminiferous tubules**

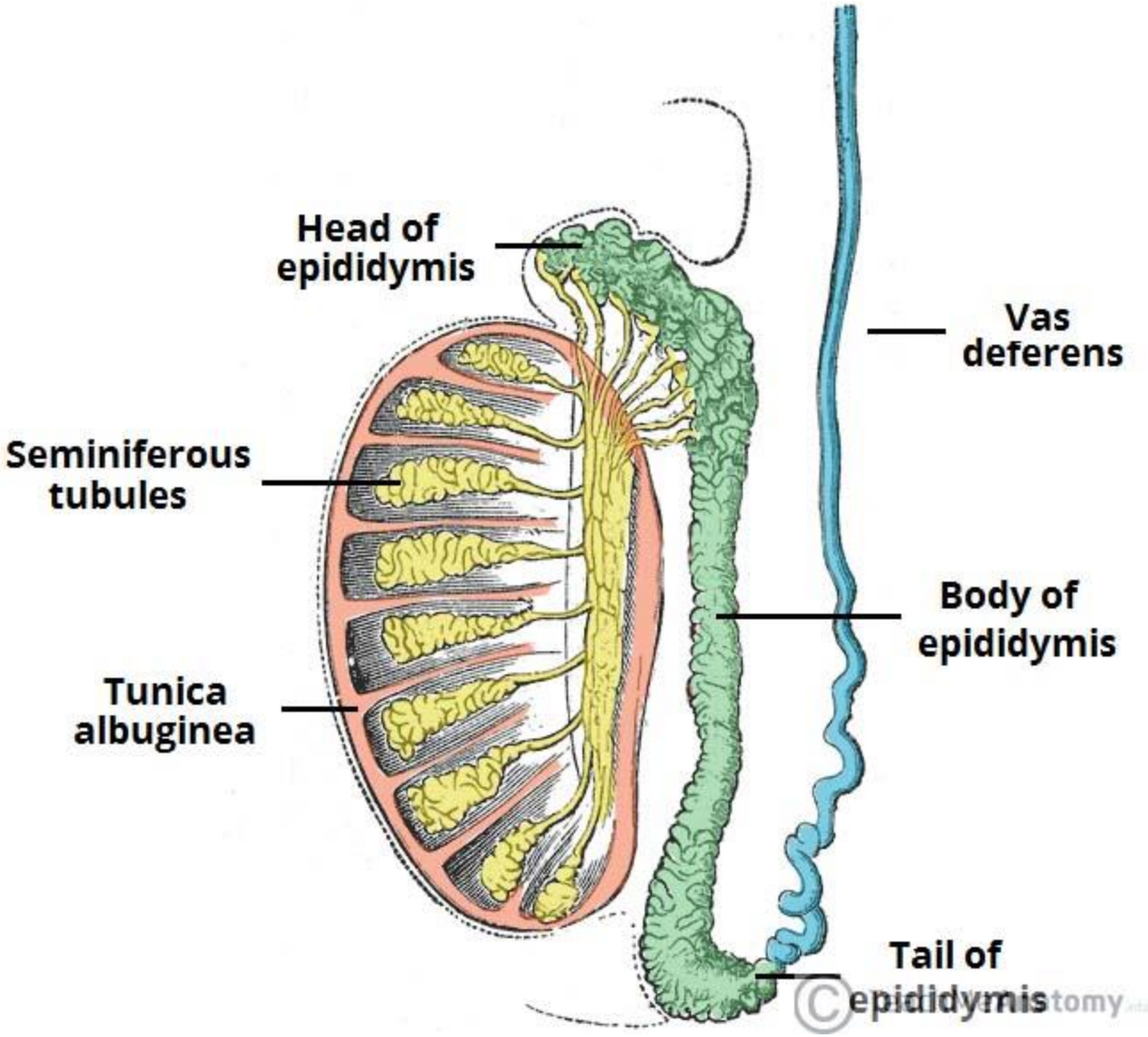
- **The developing sperm travels through the tubules, collecting in the rete testes.**

- **Ducts known as efferent tubules transport the sperm from the rete testes to the epididymis for storage and maturation.**

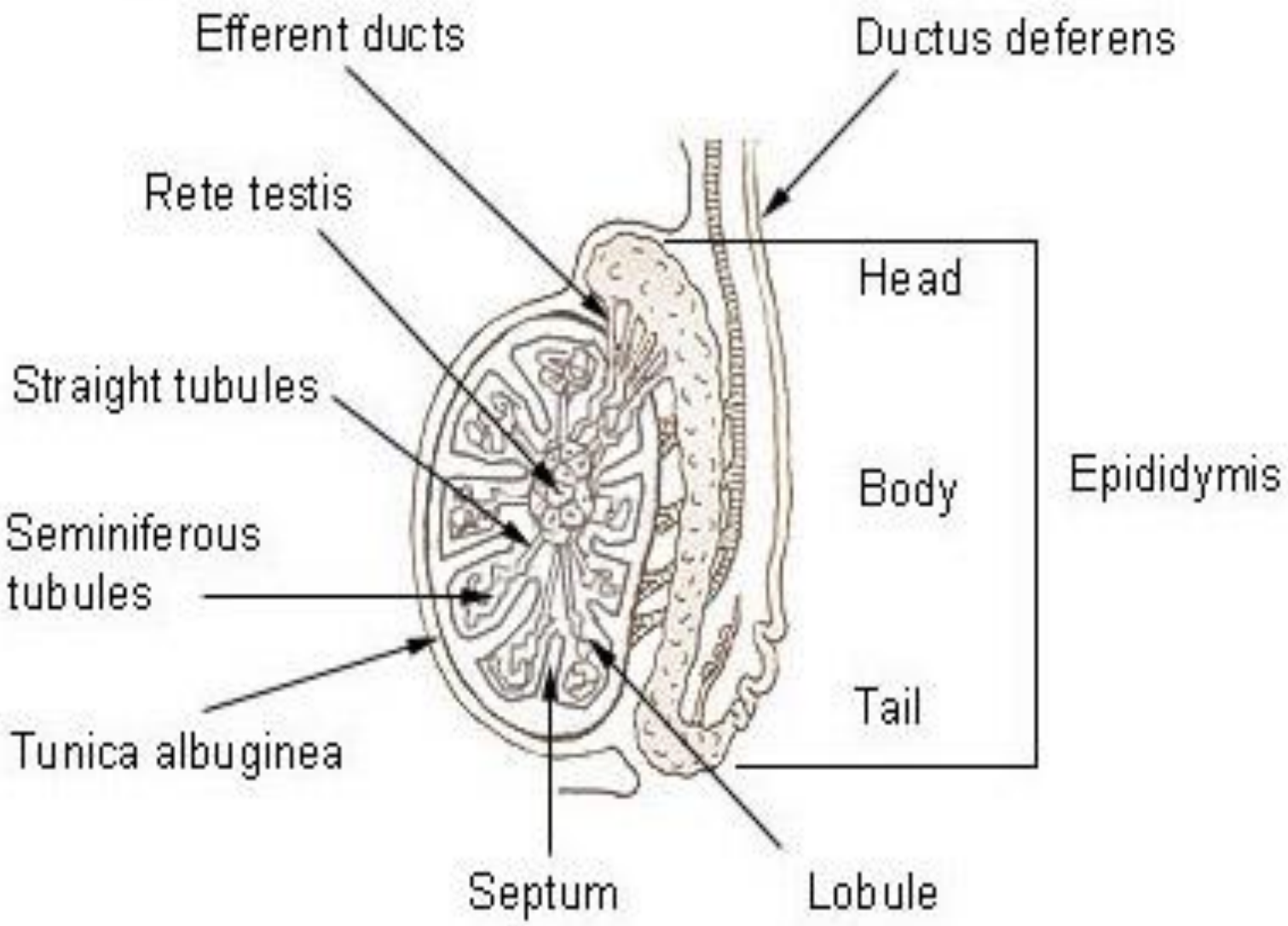
Innervation

- **The testes and epididymis receive innervation from the testicular plexus – a network of nerves derived from the renal and aortic plexus**

- **They receive autonomic and sensory fibres.**


Head of epididymis
Vas deferens
Seminiferous tubules
Body of epididymis
Tunica albuginea
Tail of epididymis

Sagittal section of a testis and Epididymis



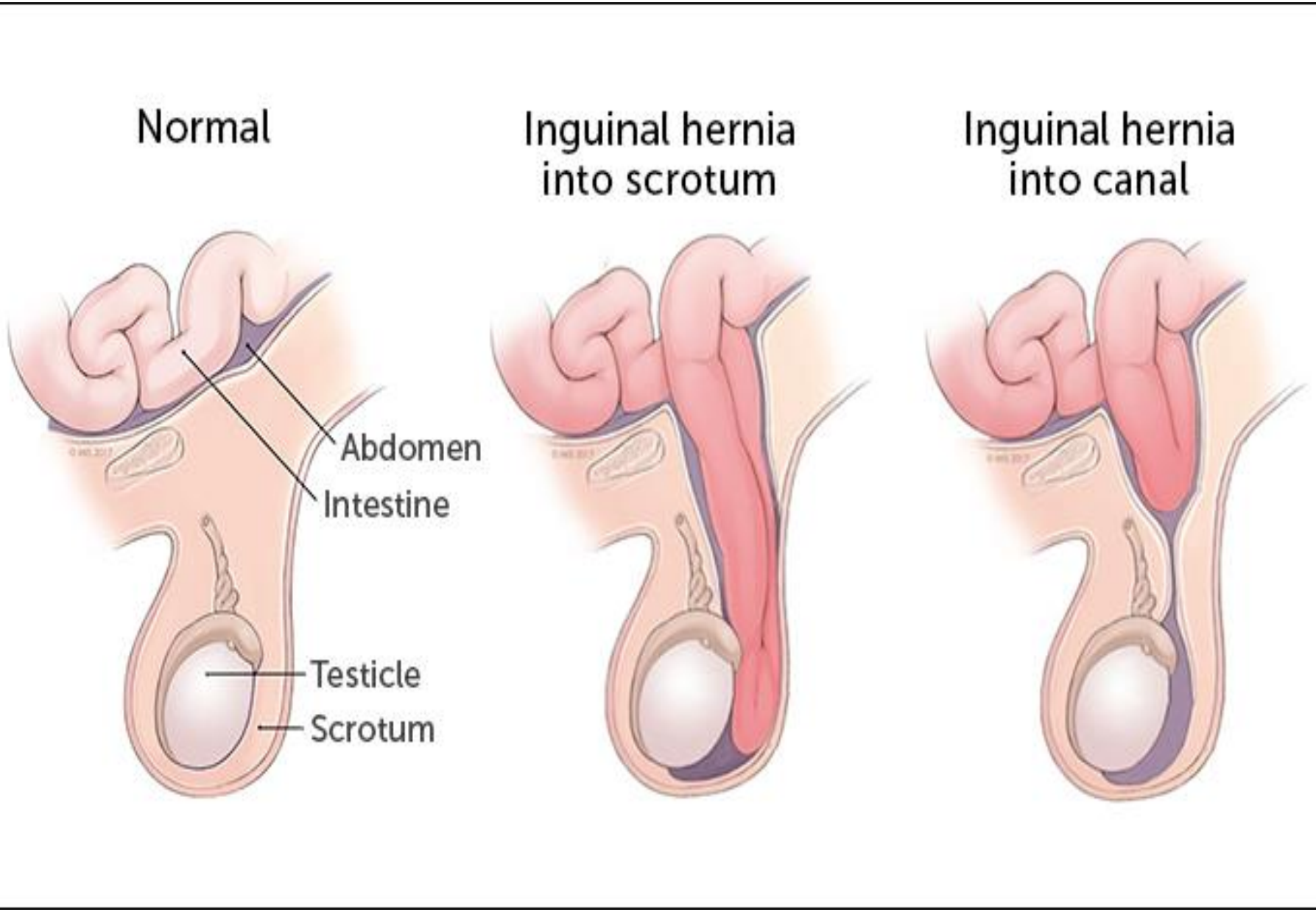
Vascular Supply

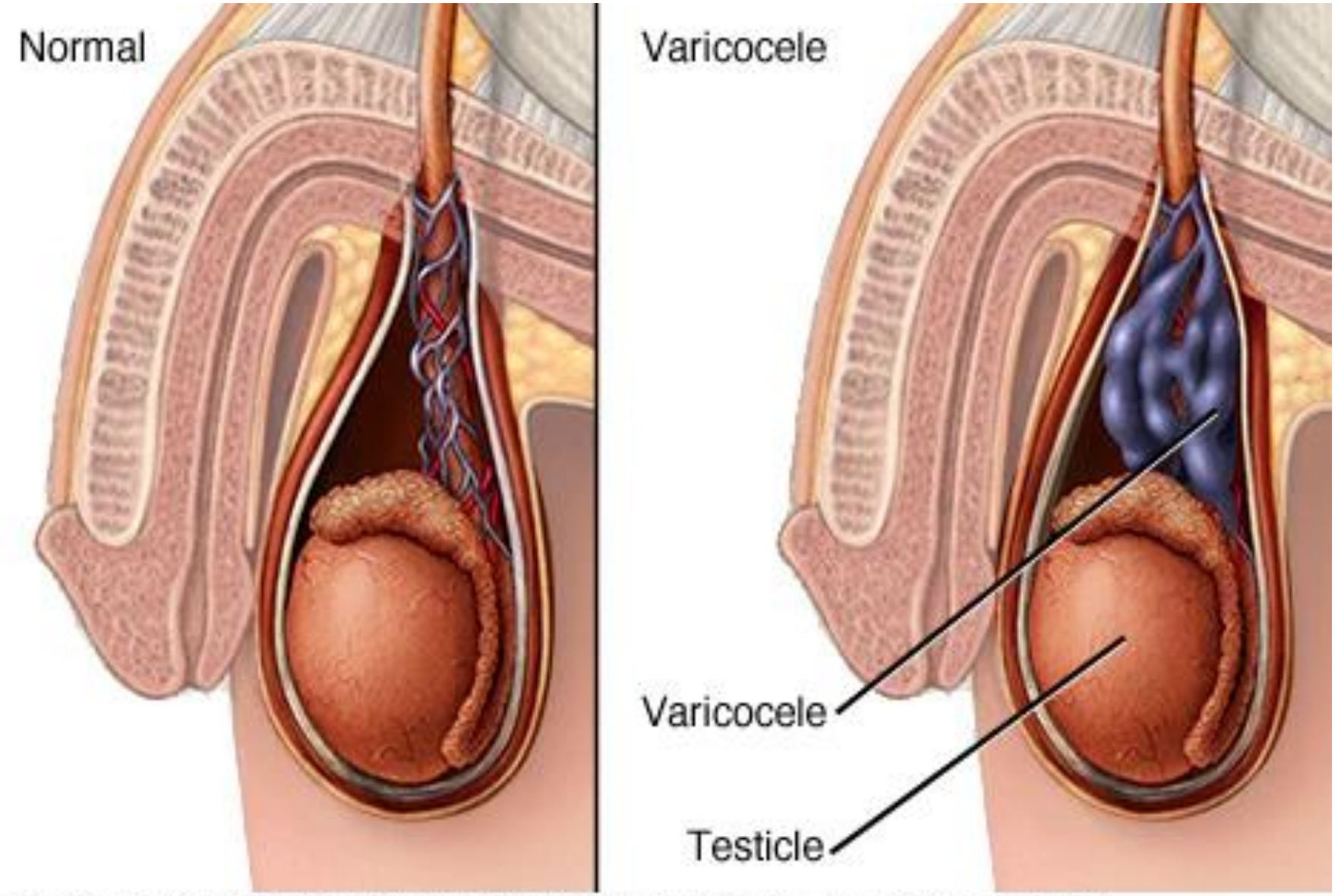
- The main arterial supply to the testes and epididymis is via the paired **testicular arteries,** which arise directly from the abdominal aorta.
- However, the testes are also supplied by branches of the **cremasteric artery** (from the inferior epigastric artery) and the artery of the vas deferens (from the inferior vesical artery.
- Venous drainage is achieved via the paired testicular veins. They are formed from the **pampiniform plexus** in the scrotum
- In the retroperitoneal space of the abdomen, the left testicular vein drains into the left renal vein, while the right testicular vein drains directly into the inferior vena cava.

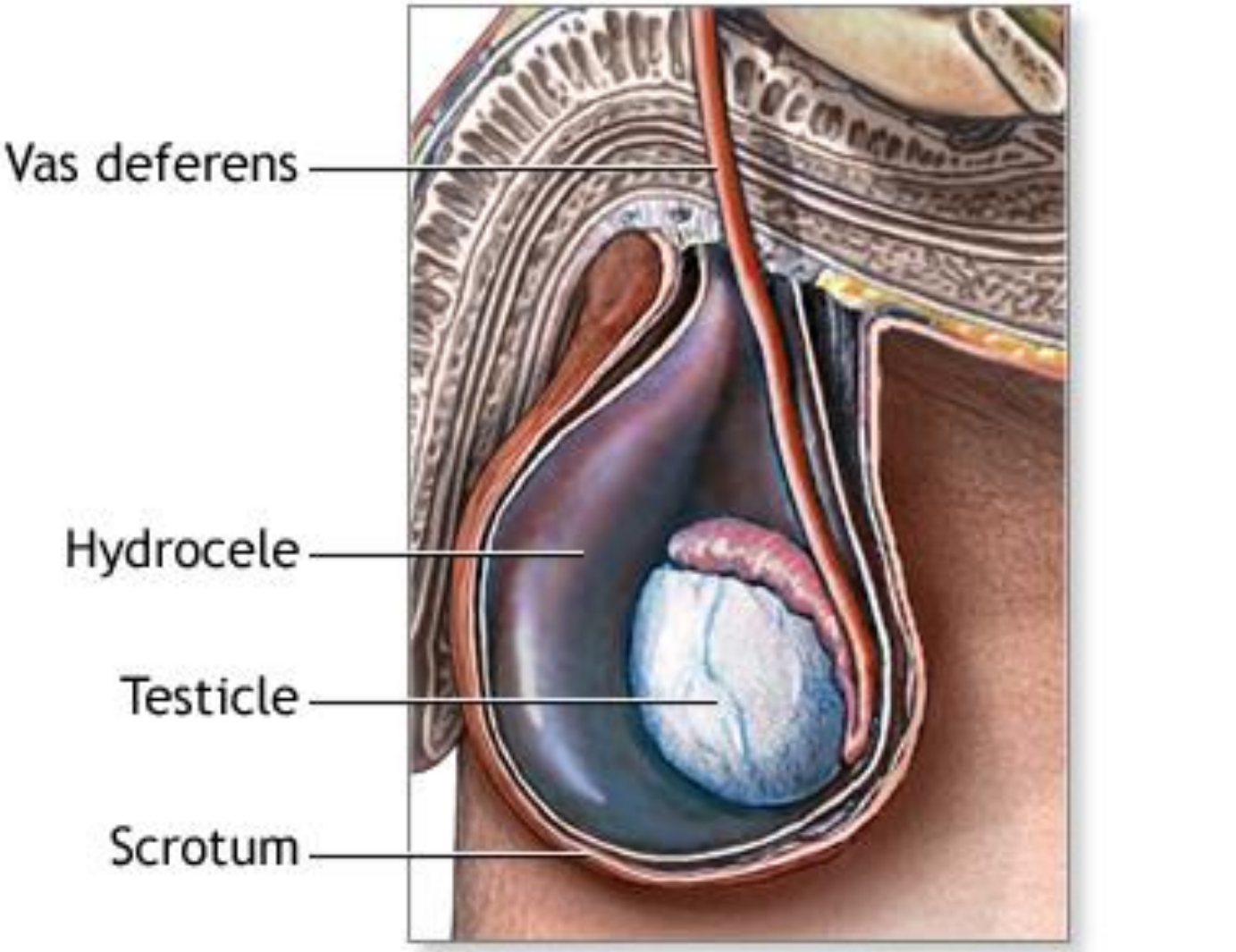
CLINICAL CONDITIONS

- **Inguinal hernia – where the contents of the abdominal cavity protrude into the scrotum, via the inguinal canal.**
- **Hydrocoele – a collection of serous fluid within the tunica vaginalis. The congenital form is most commonly due to a failure of the processus vaginalis to close.**
- **Adult hydrocele is often associated with inflammation or trauma and rarely, testicular tumors.**

- **Haematocoele – a collection of blood in the tunica vaginalis**
- **Varicocoele – gross dilation of the veins draining the testes.**
- **The left testicle is more commonly affected, as the left testicular vein is longer and drains into the left renal vein at a perpendicular angle.**
- **A large varicocoele can look and feel like a “bag of worms” within the scrotum**


Normal
Inguinal hernia into scrotum
Inguinal hernia into canal
Abdomen
Intestine
Testicle
Scrotum





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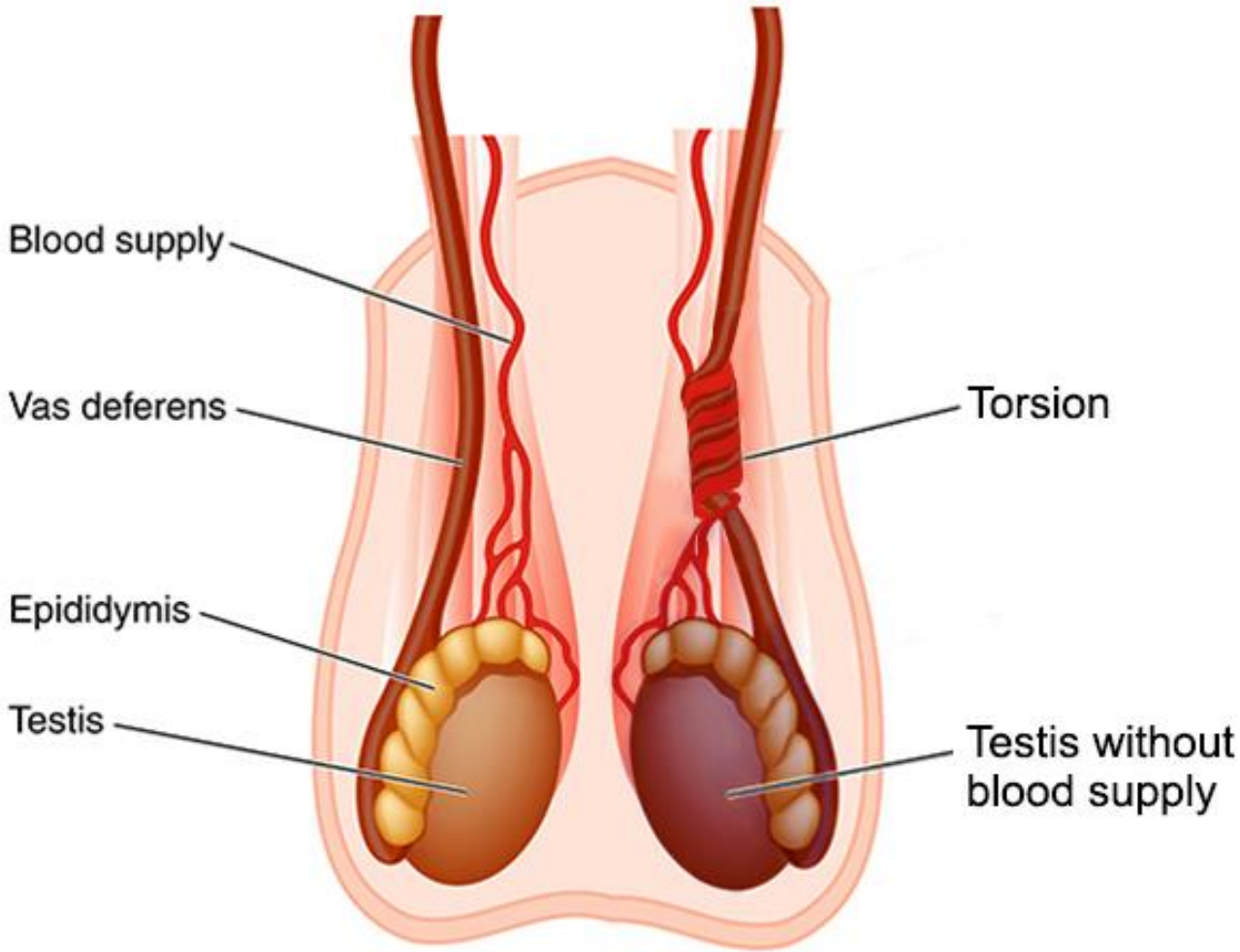

Torsion of Testis


Thank you!