

The scrotum

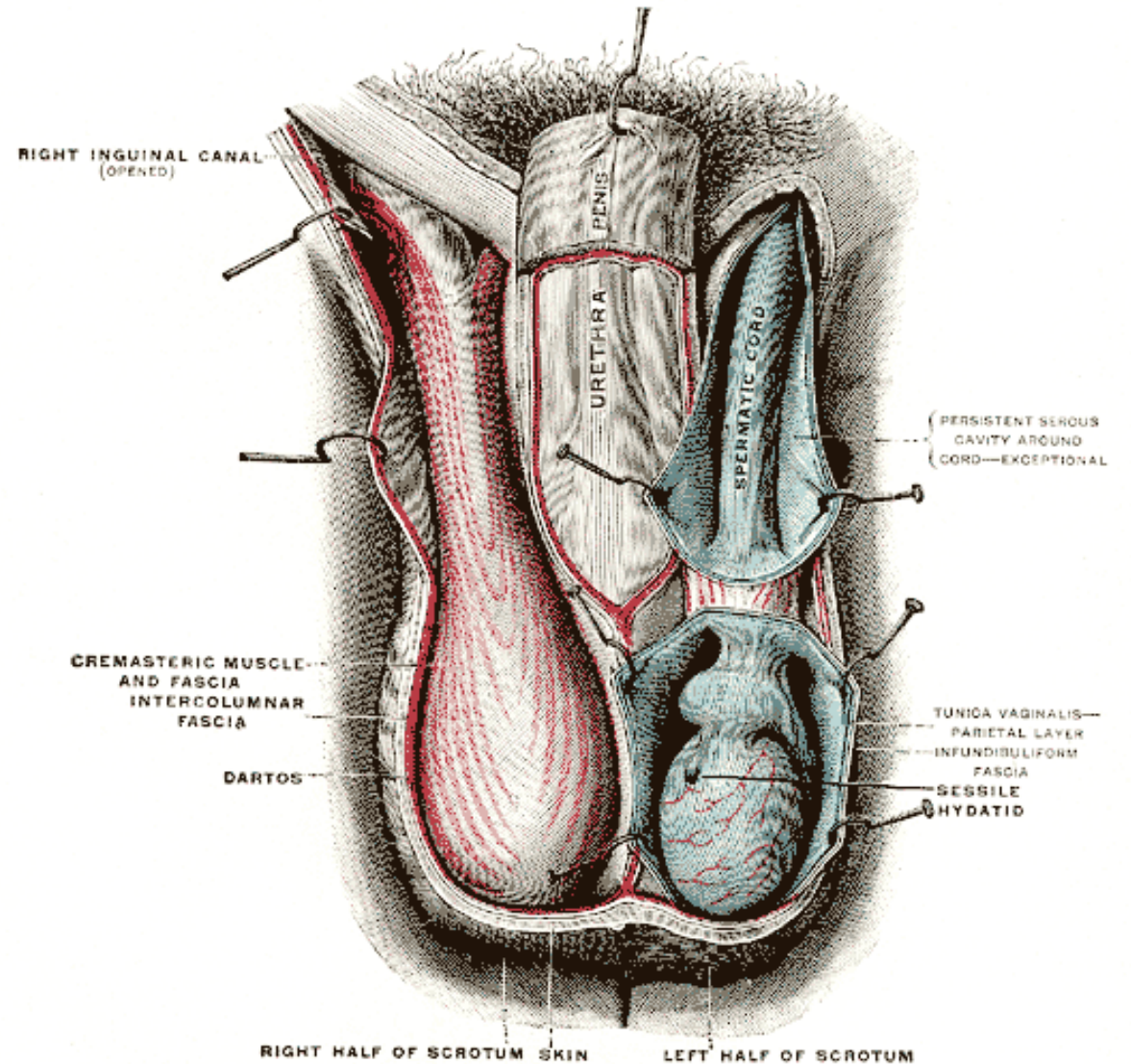
Dr. Talib Jawad



The scrotum

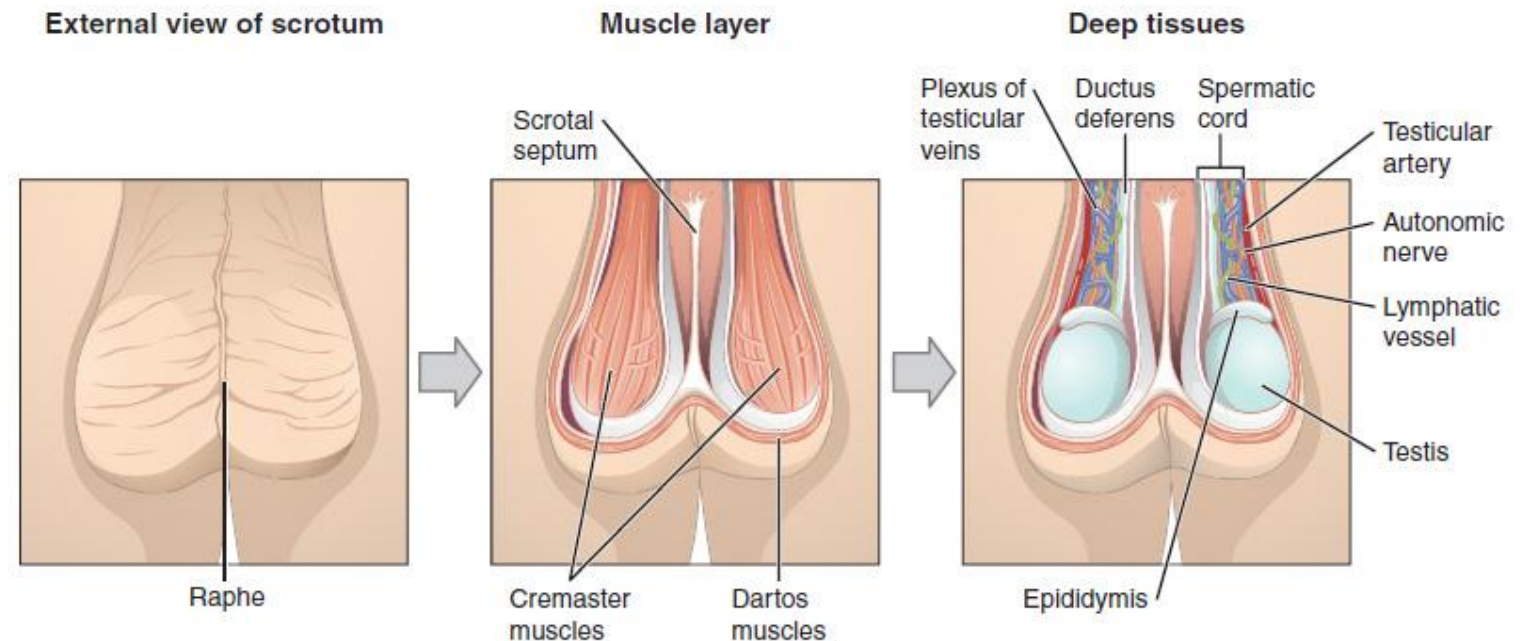
The scrotum is a thin external sac, and [anatomical male](#) reproductive structure, that is located under the **penis** and is composed of skin and smooth muscle. This sac is divided into two compartments by the **scrotal septum**. The average wall thickness of the scrotum is about **8 mm**. It has a parietal and a visceral layer

<https://en.wikipedia.org/wiki/Scrotum#Development>



Scrotum

- The scrotum developed from two cutaneous out pouching of the anterior abdominal wall (labioscrotal swelling)
- The scrotum consist of two layers , skin and superficial fascia
- superficial fascia is devoid of fat , but it contain a thin sheet of smooth muscle called dartos muscle (wrinkle when cold)



- The scrotum contains the external spermatic fascia, testes, epididymis, and ductus deferens. It is a distention of the perineum and carries some abdominal tissues into its cavity including the testicular artery, testicular vein, and pampiniform plexus.

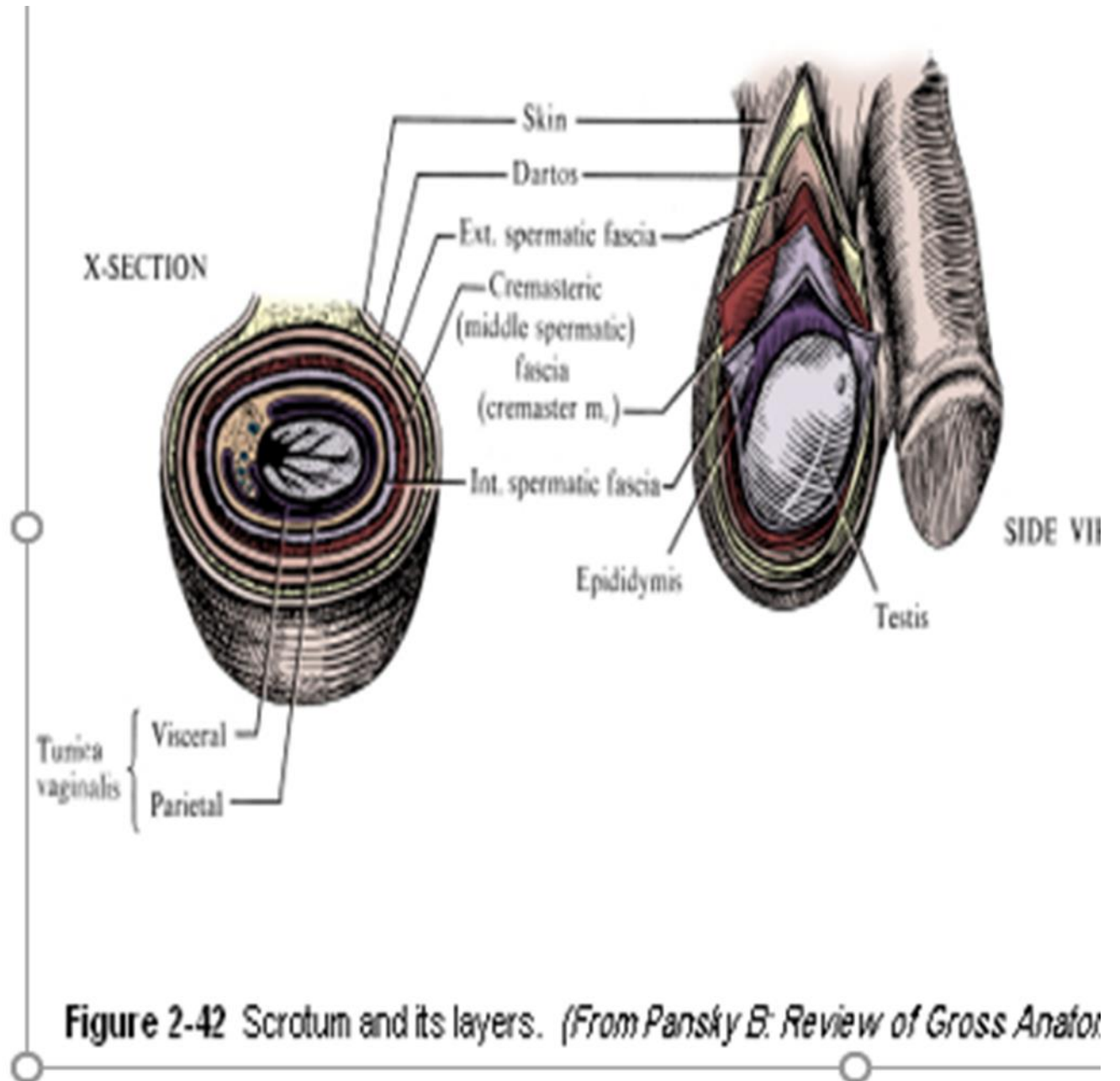
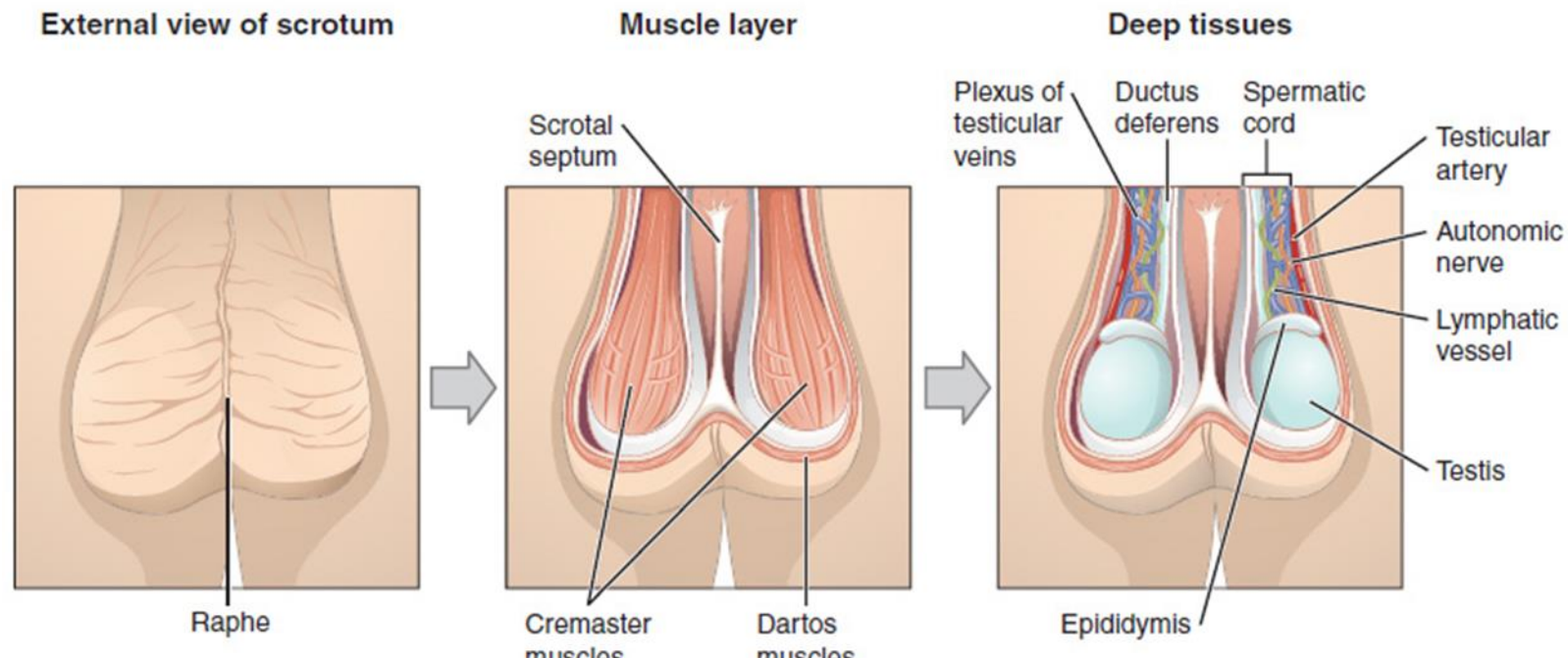
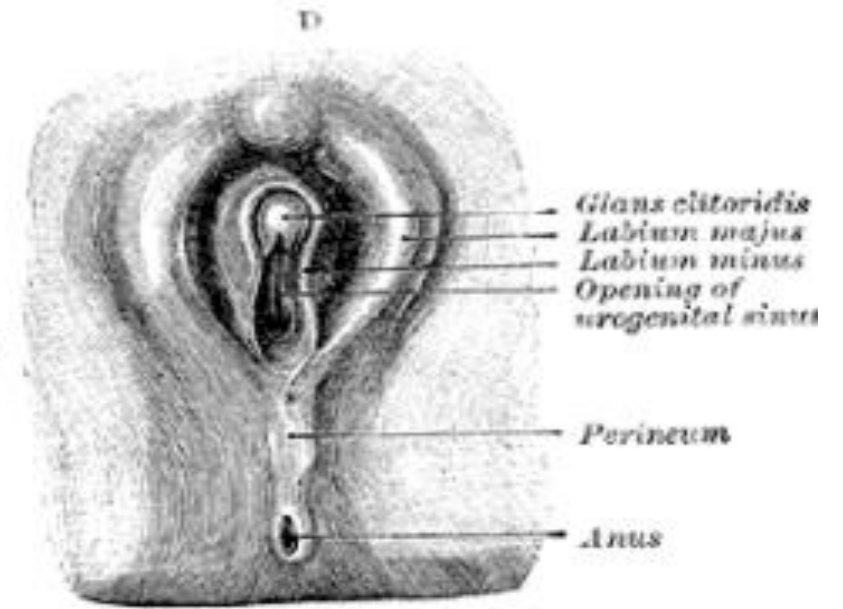
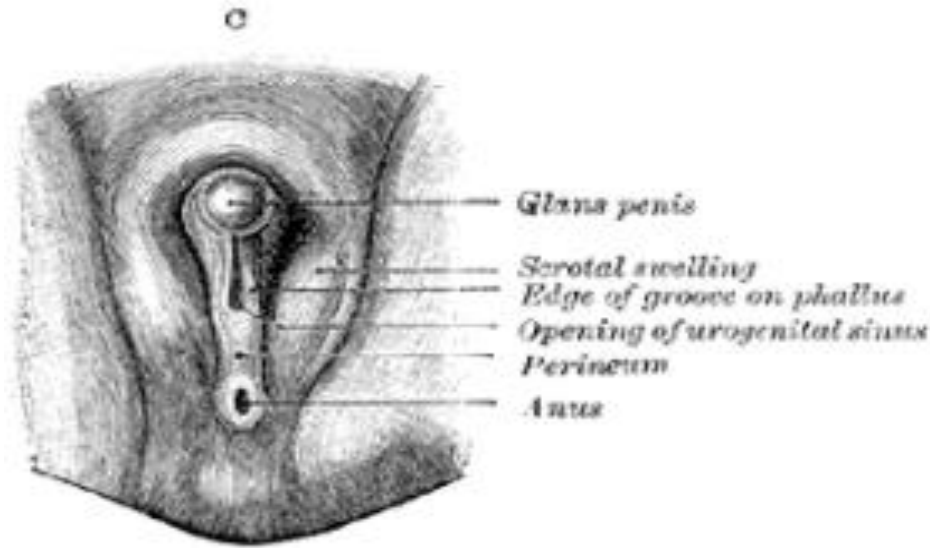


Figure 2-42 Scrotum and its layers. (From Pansky B: Review of Gross Anato

- The [perineal raphe](#) is a small, vertical, slightly raised ridge of scrotal skin under which is found the [scrotal septum](#). It appears as a thin longitudinal line that runs front to back over the entire scrotum.
- The scrotum, in humans and some other mammals becomes covered with [pubic hair](#) at [puberty](#).
- One testis is typically lower than the other to avoid compression in the event of impact.^[1]



- The scrotum will usually tighten during penile erection and when exposed to cold temperature.
- The scrotum is biologically [homologous](#) to the [labia majora](#) in females.



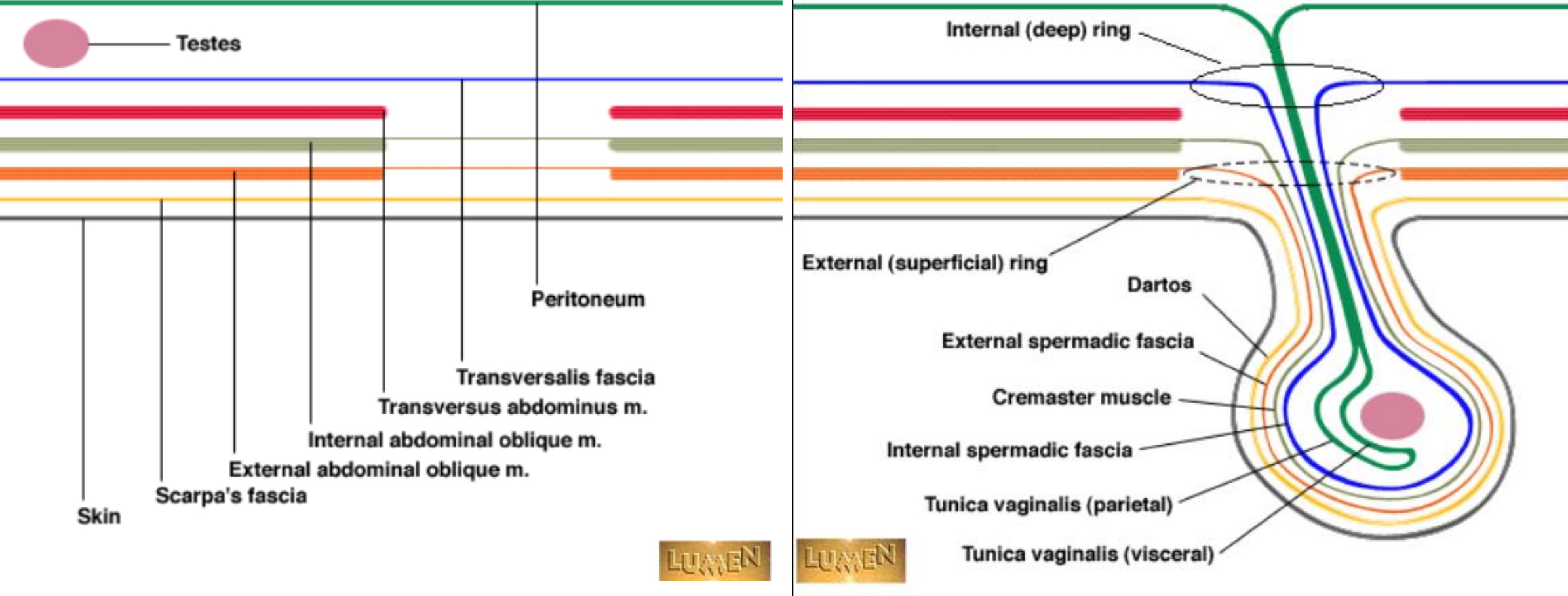
● *The covering of the testis are **continuous with the covering of the spermatic cord**, the outermost covering of the testis, the external spermatic fascia, is continuous with this layer of spermatic cord, which is continuous with the E.O.A. at the superficial ring*

● *Internal to this layer is the cremasteric muscle with its fascia*

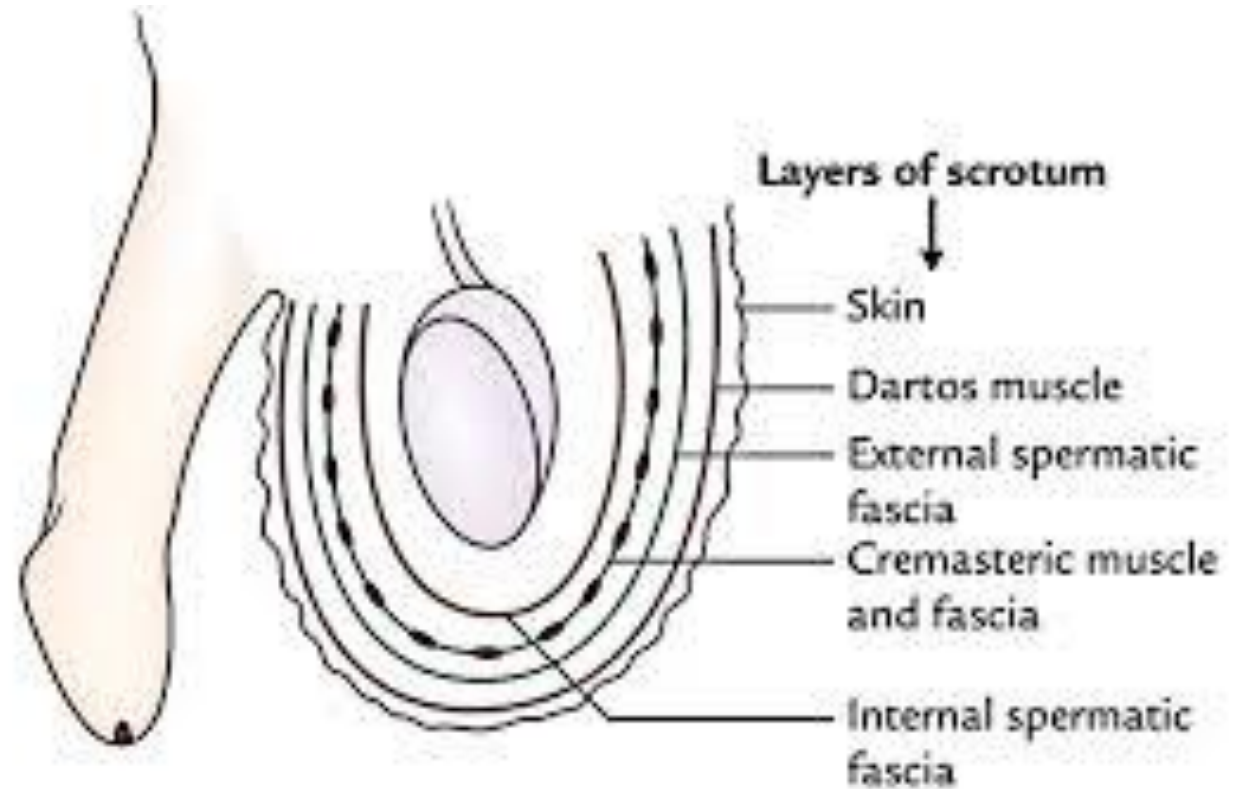
● *Inside this layer is the internal spermatic fascia*

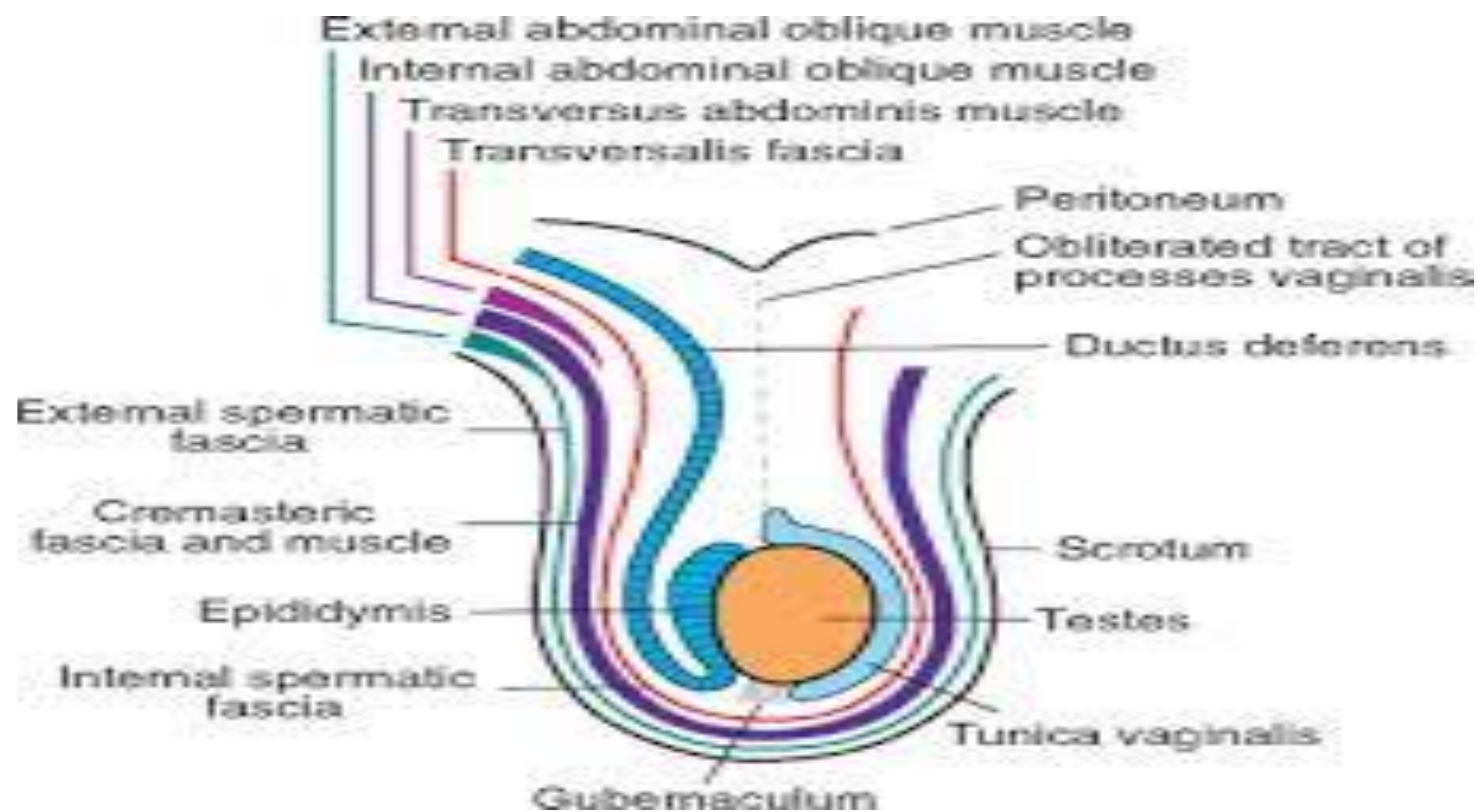
● *Inside the internal spermatic fascia is tunica vaginalis*

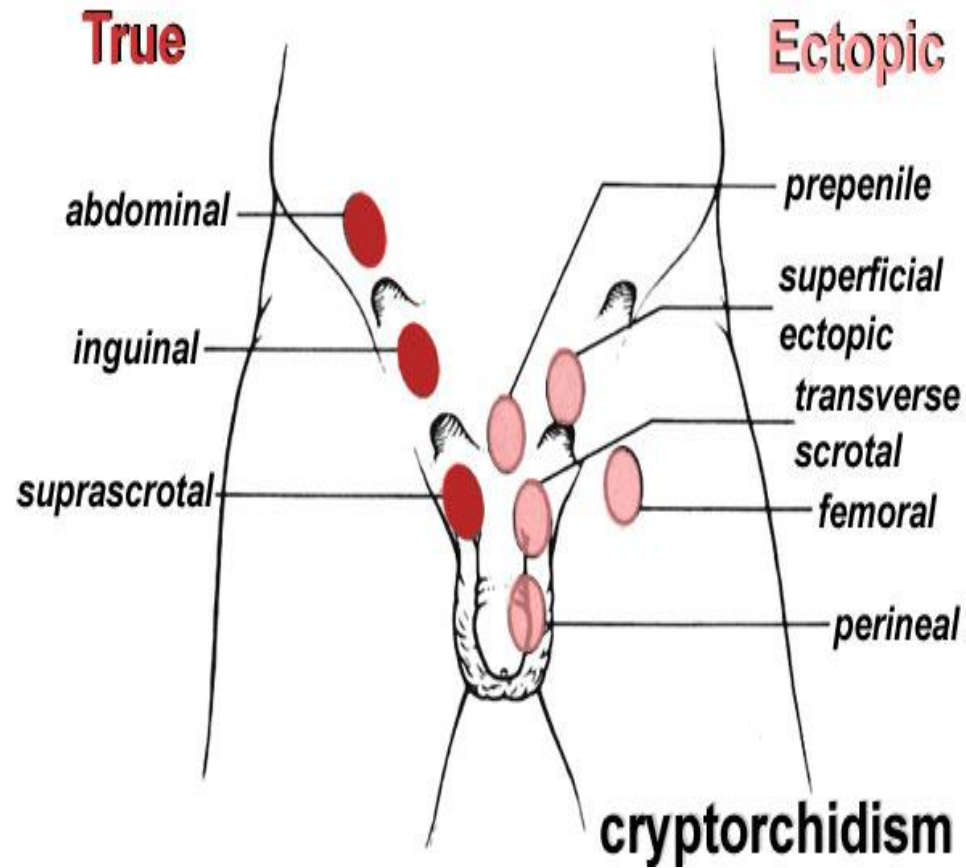
Descent of Testis in the Inguinal Canal



<http://www.meddean.luc.edu/lumen/MedEd/GrossAnatomy/abd/inguinal/inguinal.gif>





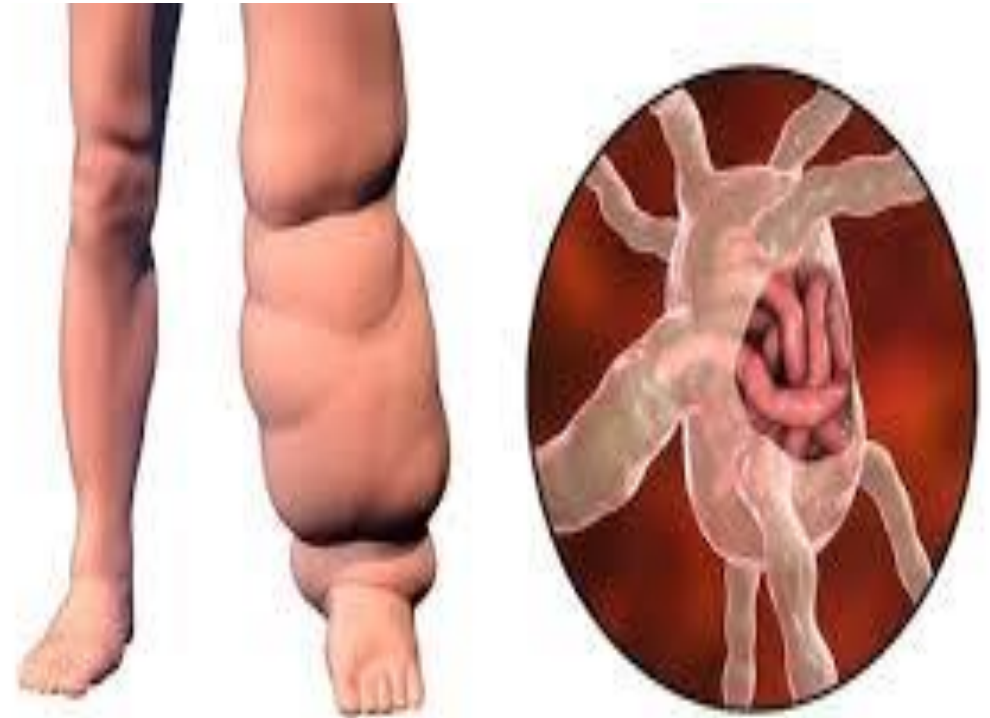


- **Cryptorchidism** - A disorder affecting males, caused by an abnormality occurring in sex development during the antenatal period. This disorder is characterized by the absence of one or both testes from the scrotum. This disorder may also present with **reduced fertility, psychological implications, or increased risk of testicular germ cell tumours.**
- **Confirmation is by imaging, karyotyping (to detect chromosomal abnormalities.), or identification of male sex hormones in a blood sample.**

https://embryology.med.unsw.edu.au/embryology/index.php/Testis_Development#/media/File:Cryptorchidism.jpg

Anorchia or *microorchidia* - A disorder affecting males, caused by an abnormality occurring in sex development during the antenatal period". This disorder is characterized by individuals who are born with **absence of the testes**, or with testes that are **deficient in size and function** (measured by orchidometer). Confirmation is by physical examination, identification of **low testosterone levels** but **elevated follicle stimulating hormone and luteinizing hormone levels** in a blood sample, or **imaging**

Hematoceles & chyloceles, represent accumulations of blood or lymphatic fluid within the tunica vaginalis respectively. In extreme cases of lymphatic obstruction, caused, for example, by filariasis *, the scrotum and the lower extremities may enlarge to dreadful proportions, a condition termed elephantiasis.* an infection with roundworms

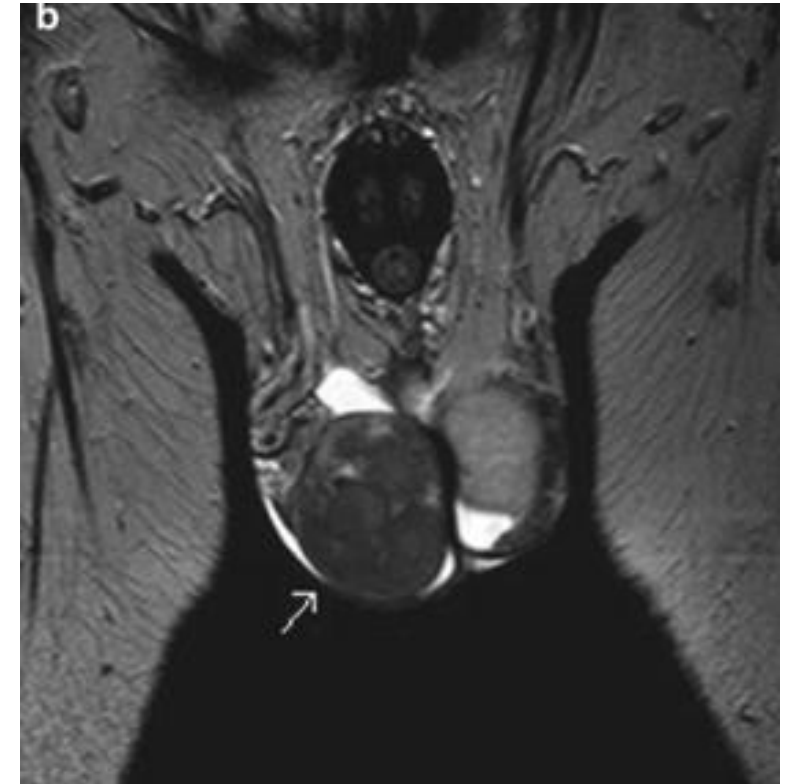


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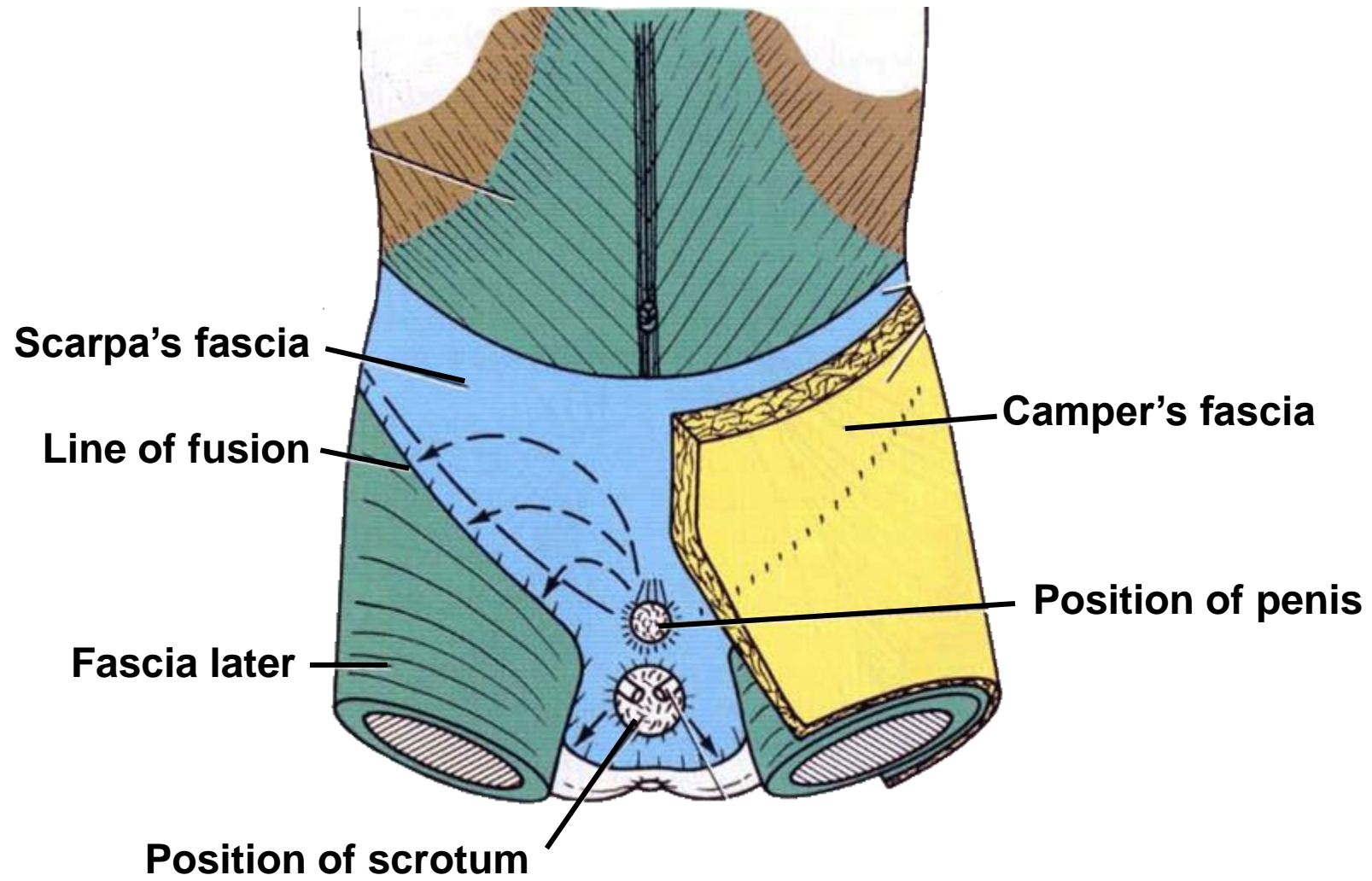
TESTICULAR NEOPLASMS

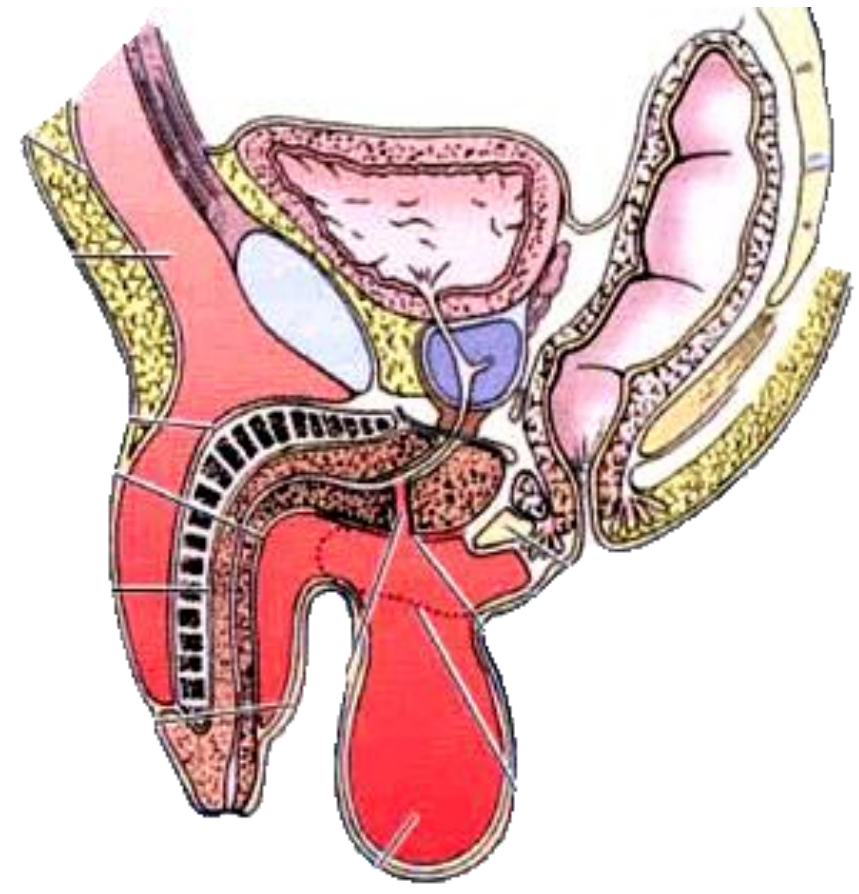
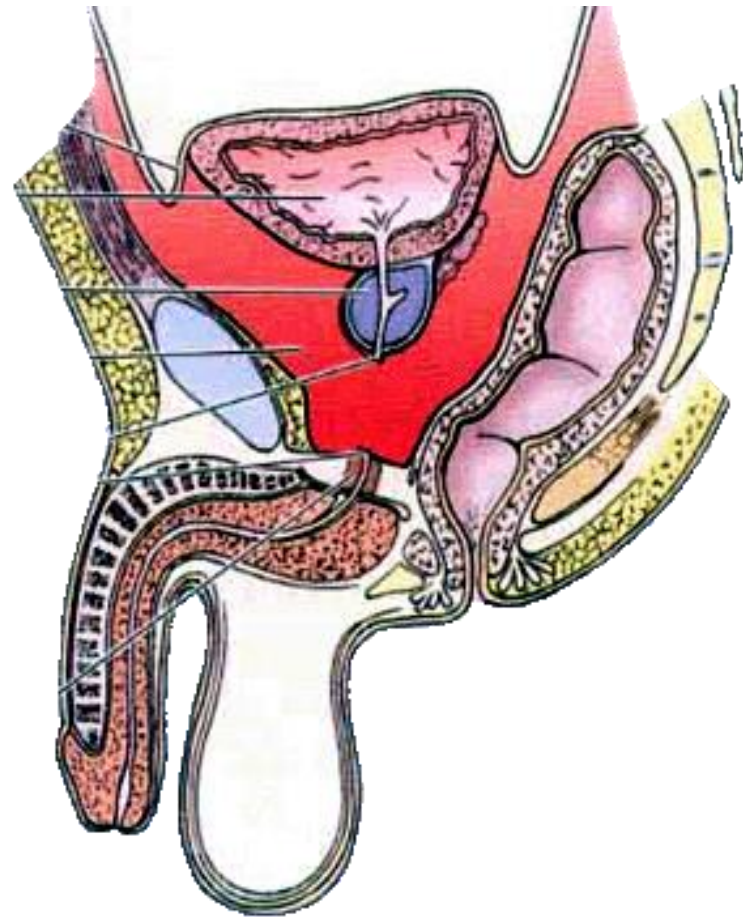
Testicular neoplasms are the most important cause of firm, painless enlargement of the testis. The peak incidence is between the ages of 20 and 34 years. In adults, 95% of testicular tumors arise from germ cells, and all are malignant. Neoplasms derived from Sertoli or Leydig cells (**sex cord/stromal tumors**) are uncommon and, in contrast to tumors of germ cell origin, usually pursue a benign clinical course.

The etiology of testicular neoplasms is not known.



CT and MRI Findings in Testicular Cancer

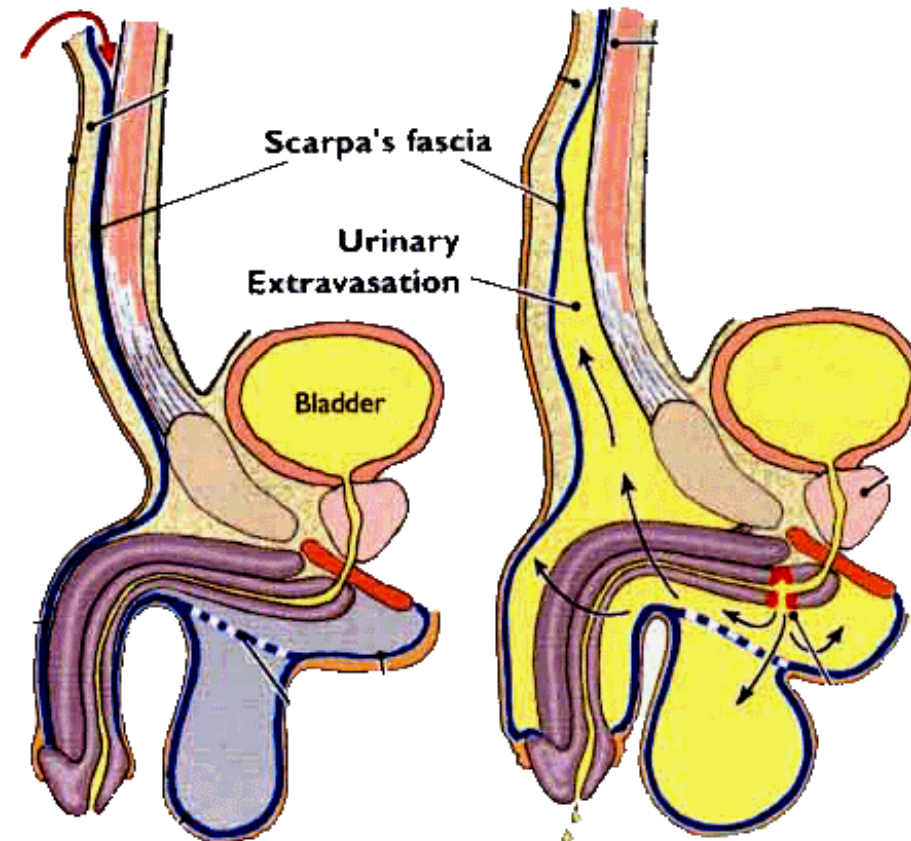




Superficial perineal space

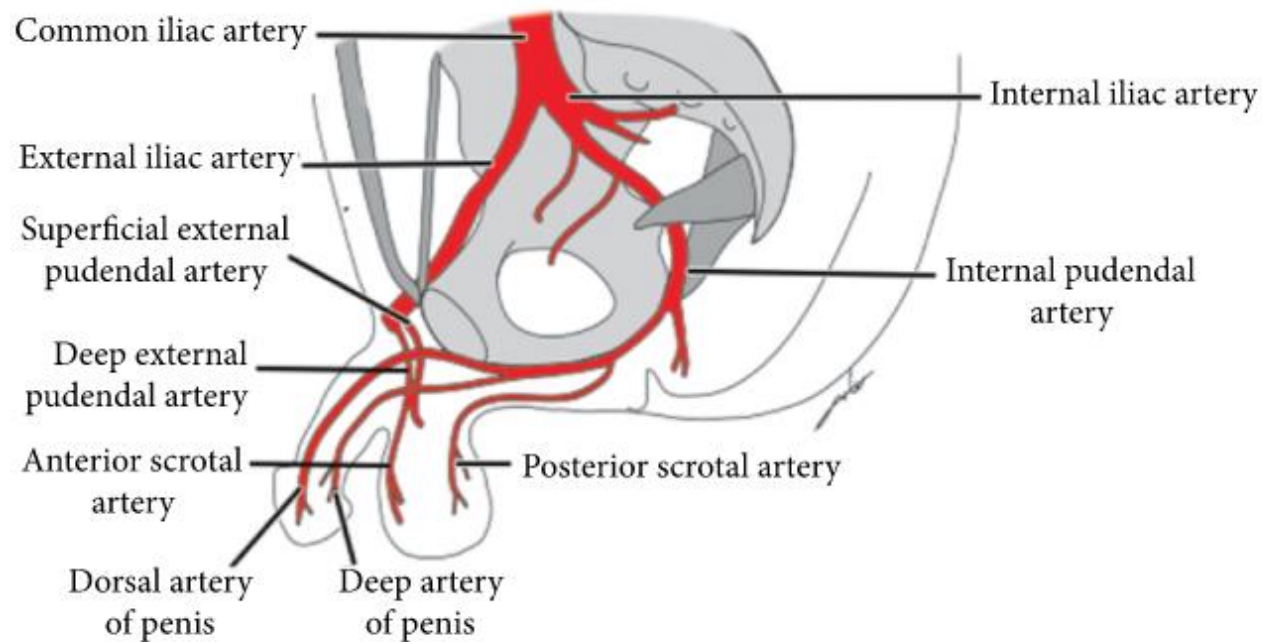
Boundaries

- Lies between inferior fascia of urogenital diaphragm and superficial fascia of perineum
- Space open anteriorly (In rupture of cavernous part of urethra, urine can extravasate from scrotum upward in front of symphysis pubis into anterior abdominal wall deep to membranous fascia of Scarpa)



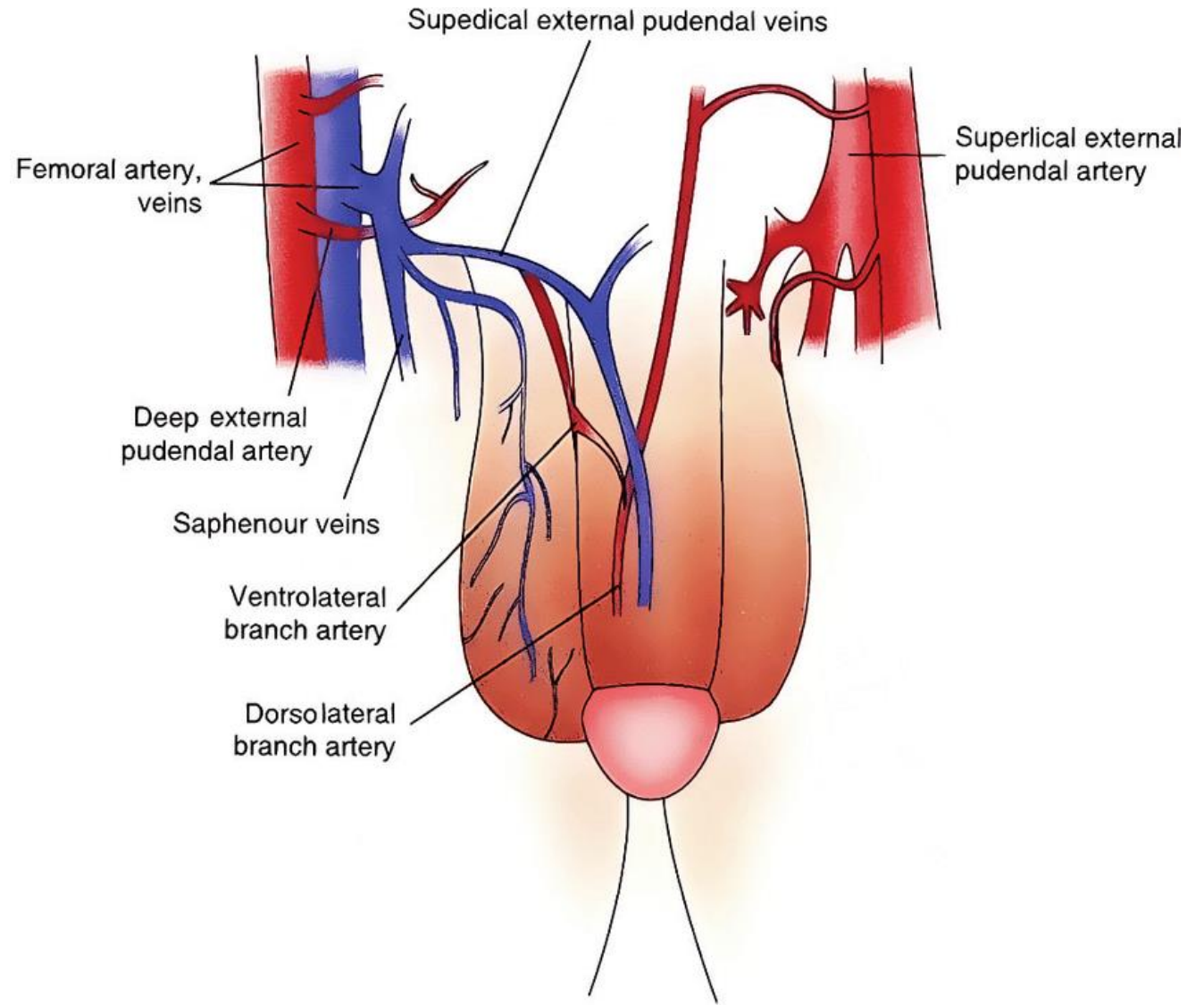
Arterial Supply of The Scrotum

1. Perineal branch of internal pudendA.
2. External pudendal branches of the femoral A.
3. Cremastic A. branch of inferior epigastric A.



Venous Drainage of The Scrotum

The scrotal veins accompany the arteries. The external pudendal vein enter the great saphenous veins



Nerve Supply of the scrotum

Genital branch of genitofemoral nerve

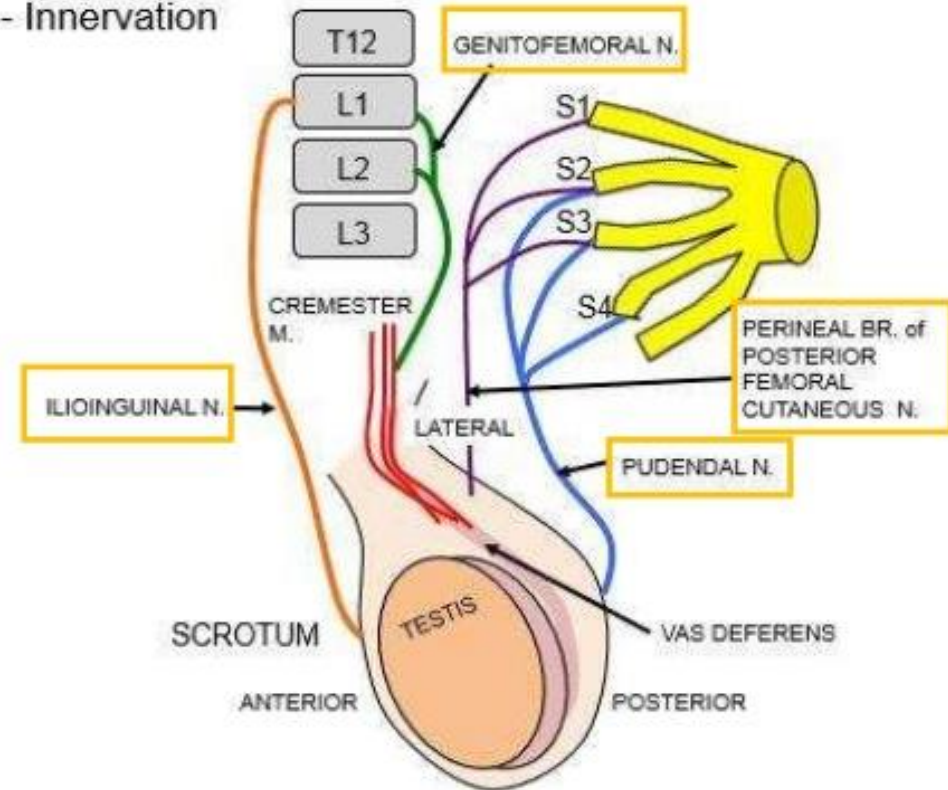
Scrotal branch of ilioinguinal nerve

Perineal branch of pudendal nerve

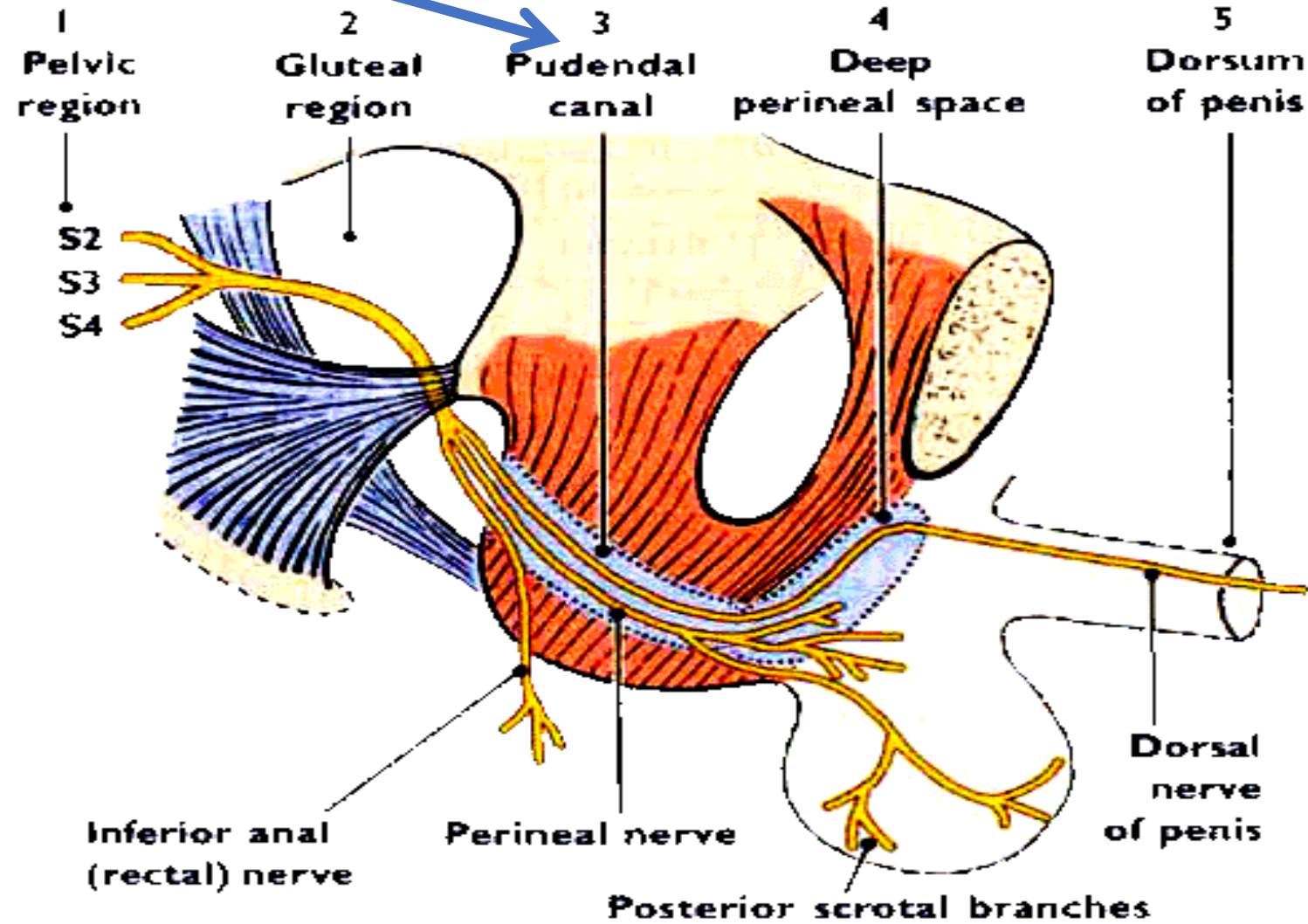
Perineal branches of posterior femoral cutaneous nerve

Innervation:

Scrotum - Innervation



Pudendal canal



Lymph Drainage of the Scrotum

Lymph from the skin and fascia, including the tunica vaginalis, drains into **the superficial inguinal lymph nodes**.

