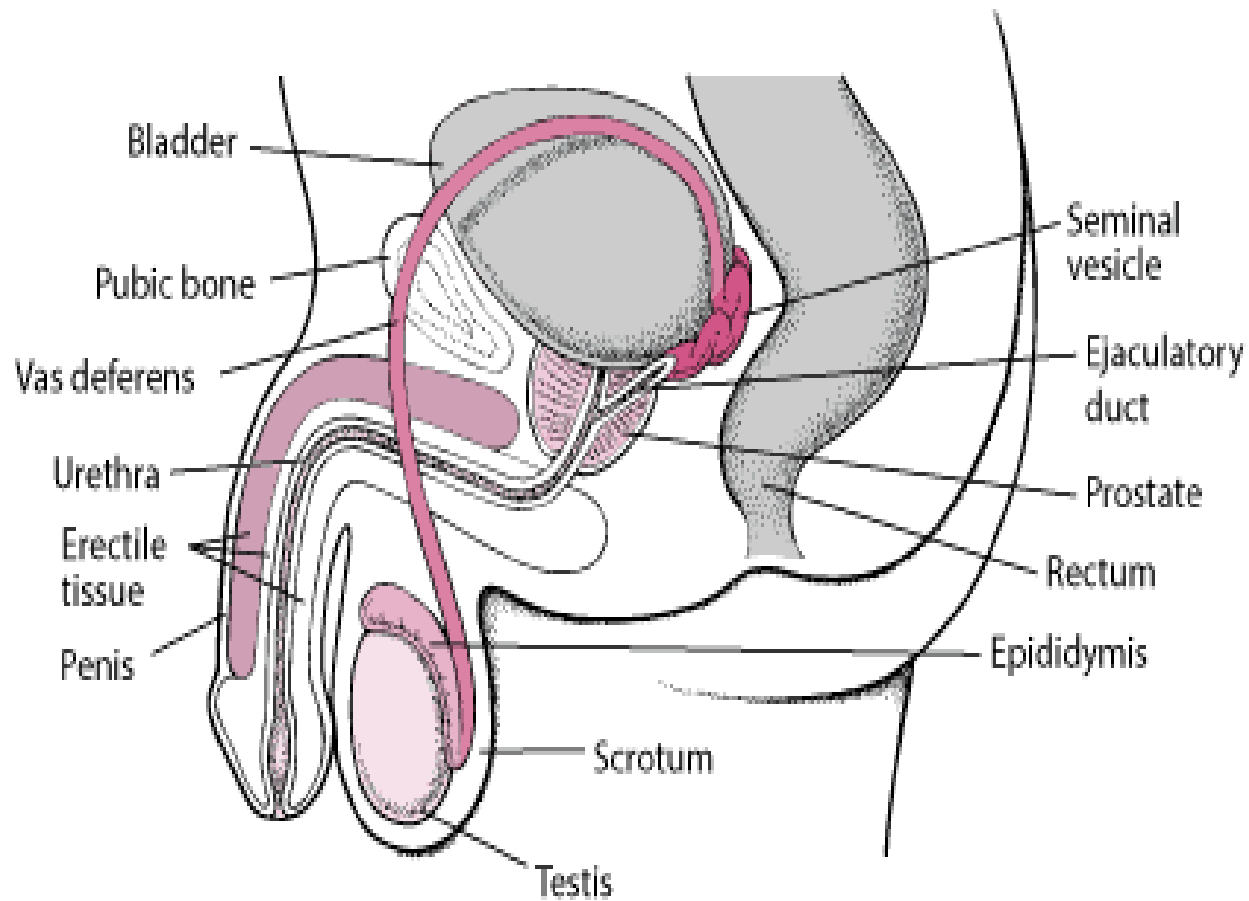
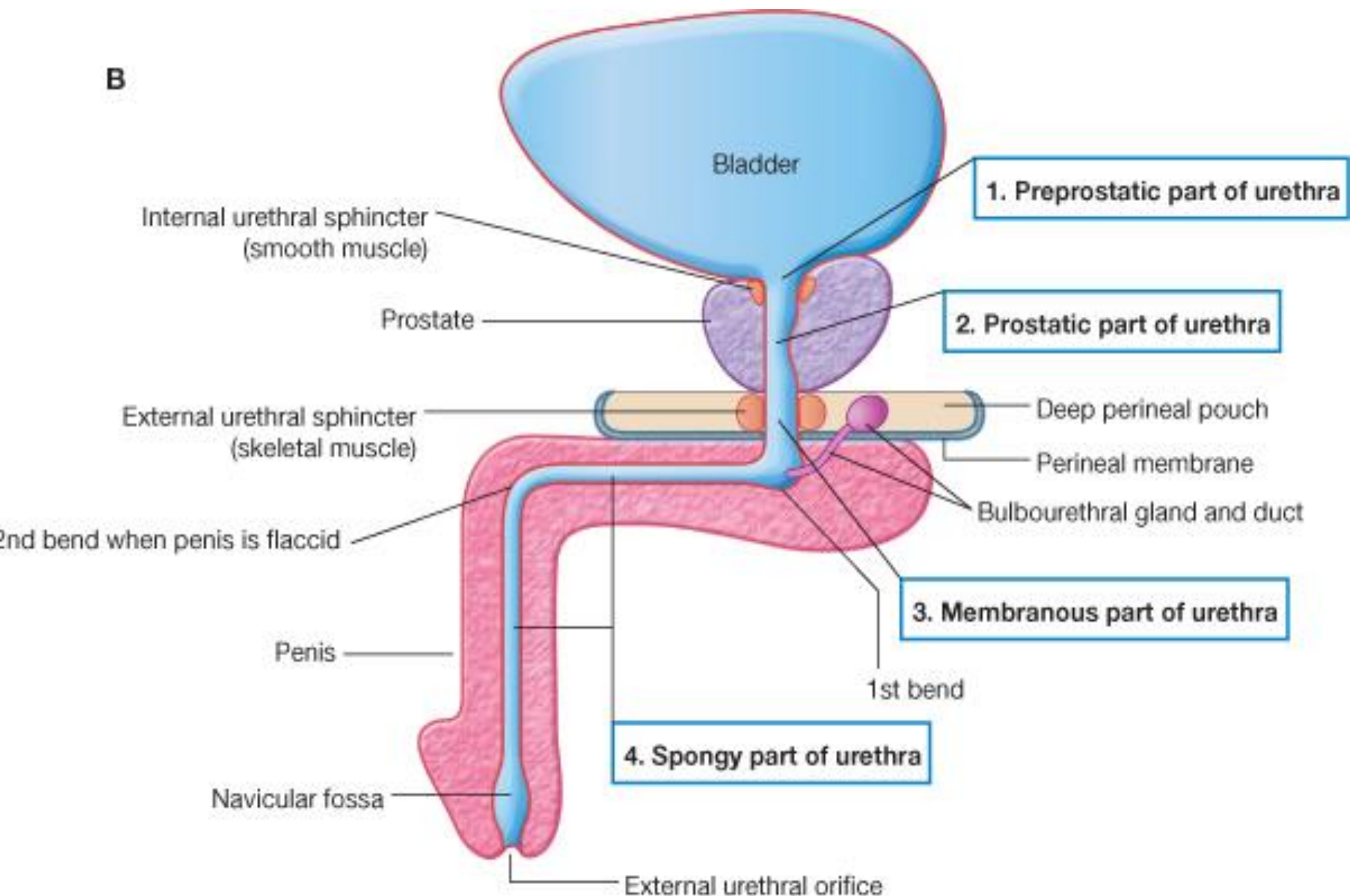


**ANATOMY**  
**Male External genitalia**  
**2022**  
**TALIB JAWAD**

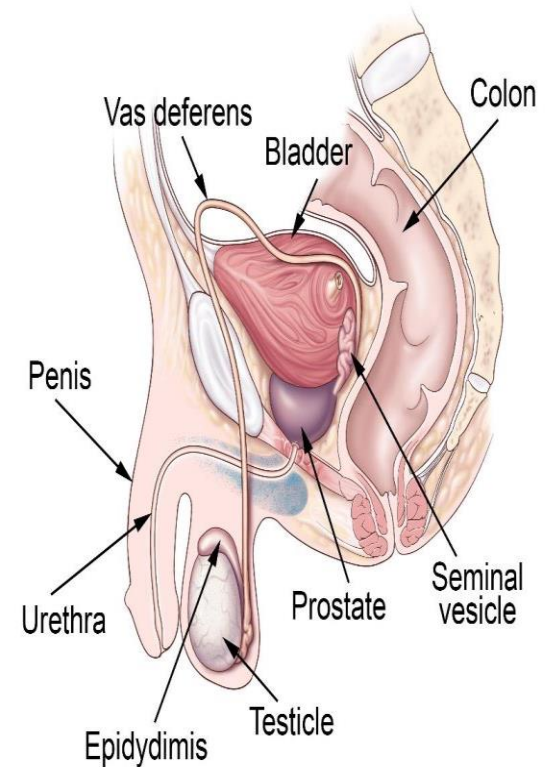


The male reproductive system includes the **penis**, **scrotum**, **testes**, **epididymis**, **vas deferens**, **prostate**, and **seminal vesicles**.

**B**



- The male reproductive system is mostly located outside of the body. These external organs include the penis, scrotum and testicles. Internal organs include the vas deferens, prostate and urethra. The male reproductive system is responsible for sexual function, as well as urination.



# Functions

- They produce, maintain and transport sperm (the male reproductive cells) and semen (the protective fluid around the sperm).
- They discharge sperm into the female reproductive tract.
- They produce and secrete male sex hormones.

**Not: The male reproductive system is made up of internal (inside your body) and external (outside your body) parts.**

**Together, these organs help you urinate (rid your body of liquid waste materials), have sexual intercourse and make children.**

# How does the male reproductive system function?

- The entire male reproductive system is dependent on hormones. These are chemicals that stimulate or regulate the activity of your cells or organs. **The primary hormones** involved in the functioning of the male reproductive system are follicle-stimulating hormone (**FSH**), luteinizing hormone (**LH**) and testosterone.

- As the penis fills with blood, it becomes rigid and erect, which allows for penetration during sex. The skin of the penis is loose and elastic, allowing for changes in penis size during an erection.



# Male External Genitalia

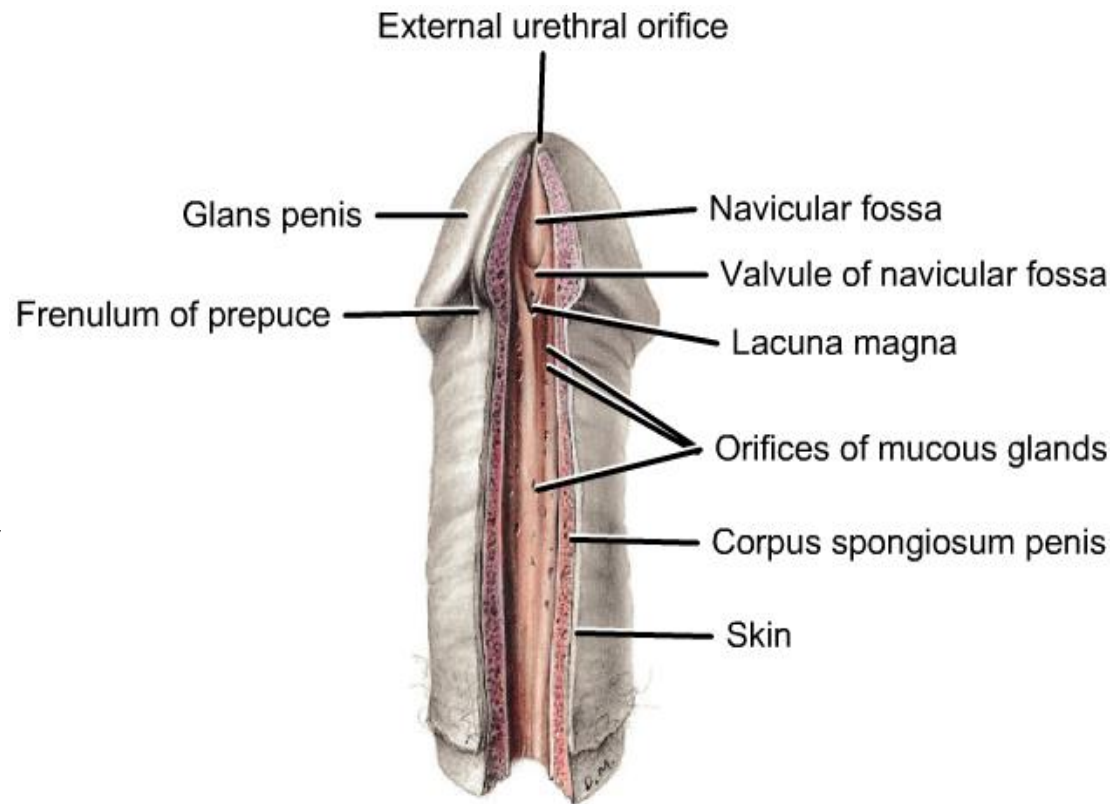
It includes:

**penis ,scrotum ,testis  
,epididymus and  
spermatic cord**

**penis:** male copulatory  
organ.

Made up of:

Root of penis and body  
penis



## Penis

The penis is the male organ for sexual intercourse. It has three parts:

- **The root:** This is the part of the penis that attaches to the wall of your abdomen.
- **The body or shaft:** Shaped like a tube or cylinder, the body of the penis is made up of three internal chambers. Inside these chambers there's a special, sponge-like erectile tissue that contains thousands of large spaces that fill with blood when you're sexually aroused.

## Root of penis

- Situated in the superficial perineal pouch.

- Composed of :

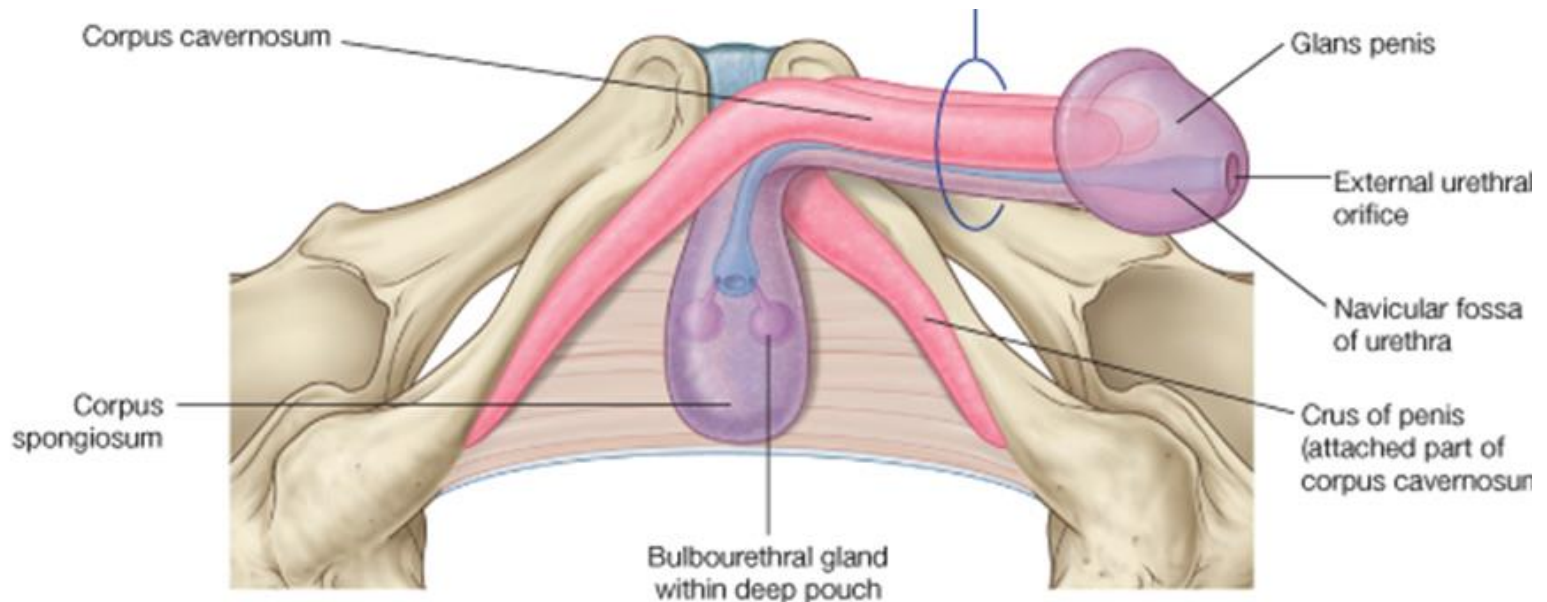
  - 2 crura and 1 bulb

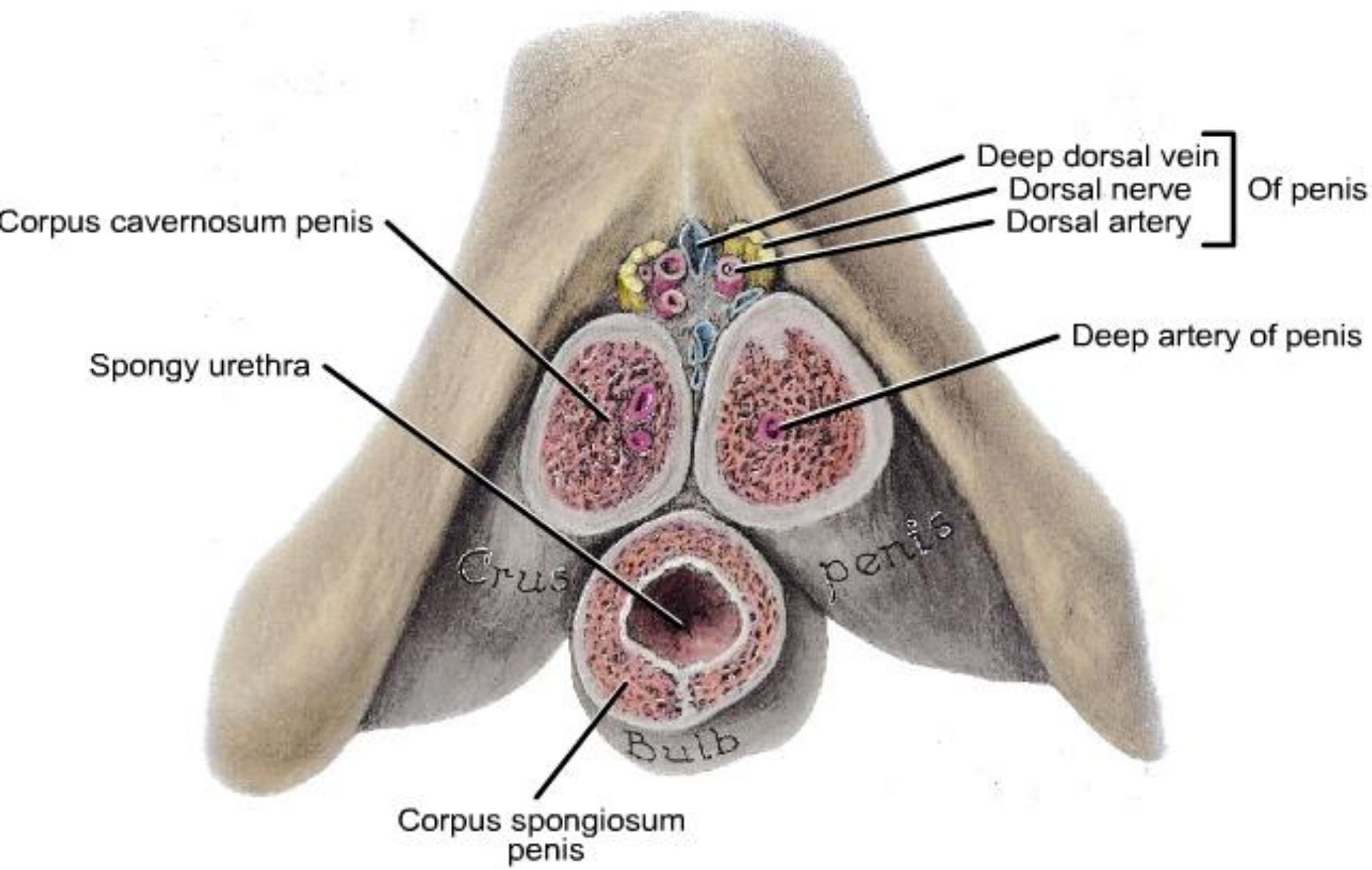
    - each crus is firmly attached to the margins of pubic arch and covered by ischiocavernosus m .

    - In between 2 crura ,the bulb is attached to perineal membrane and covered by bulbospongiosus m .

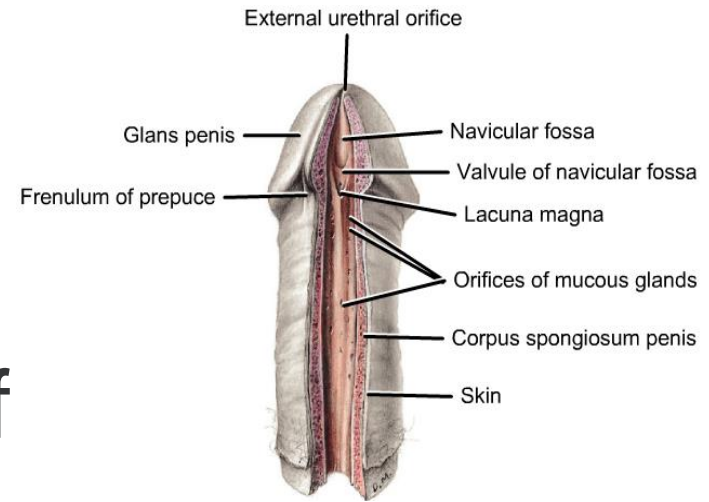
    - Deep surface pierced by urethra

    - (in its floor dilatation=intrabulbar fossa)



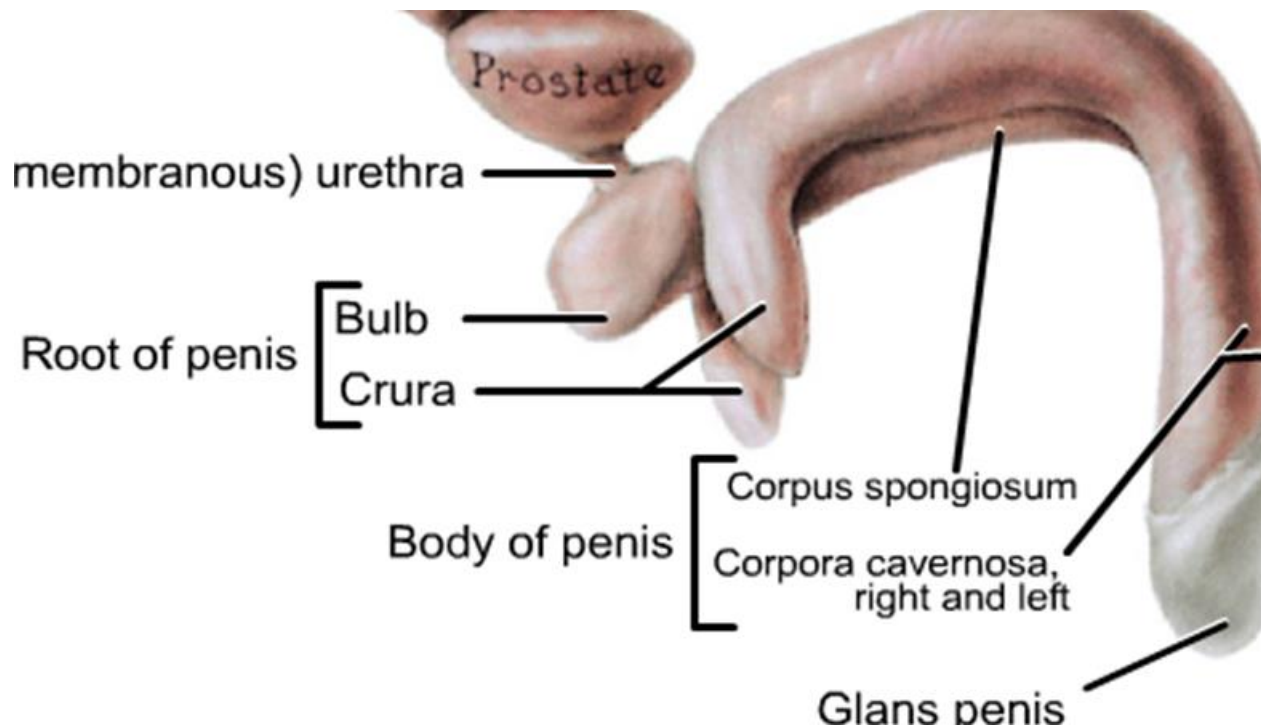


- **The glans:** This is the cone-shaped end of the penis. The glans, which is also called the head of the penis, is covered with a loose layer of skin called foreskin. This skin is sometimes removed in a procedure called [circumcision](#).

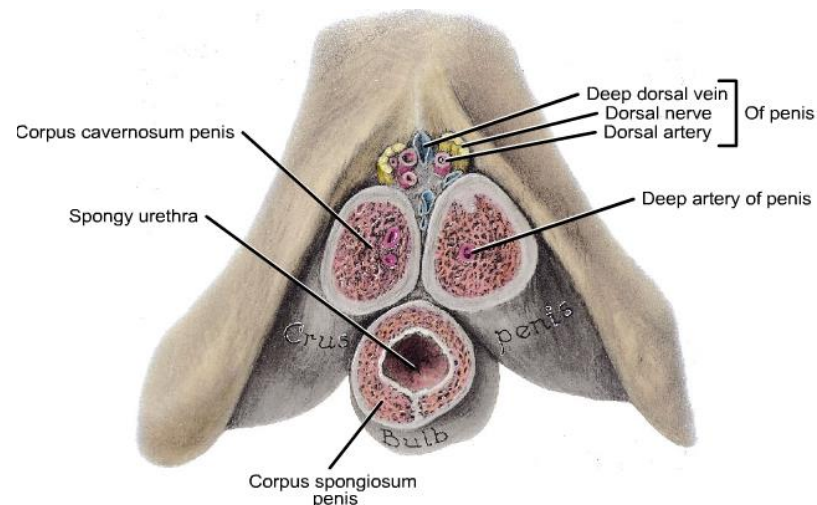


# Body of penis

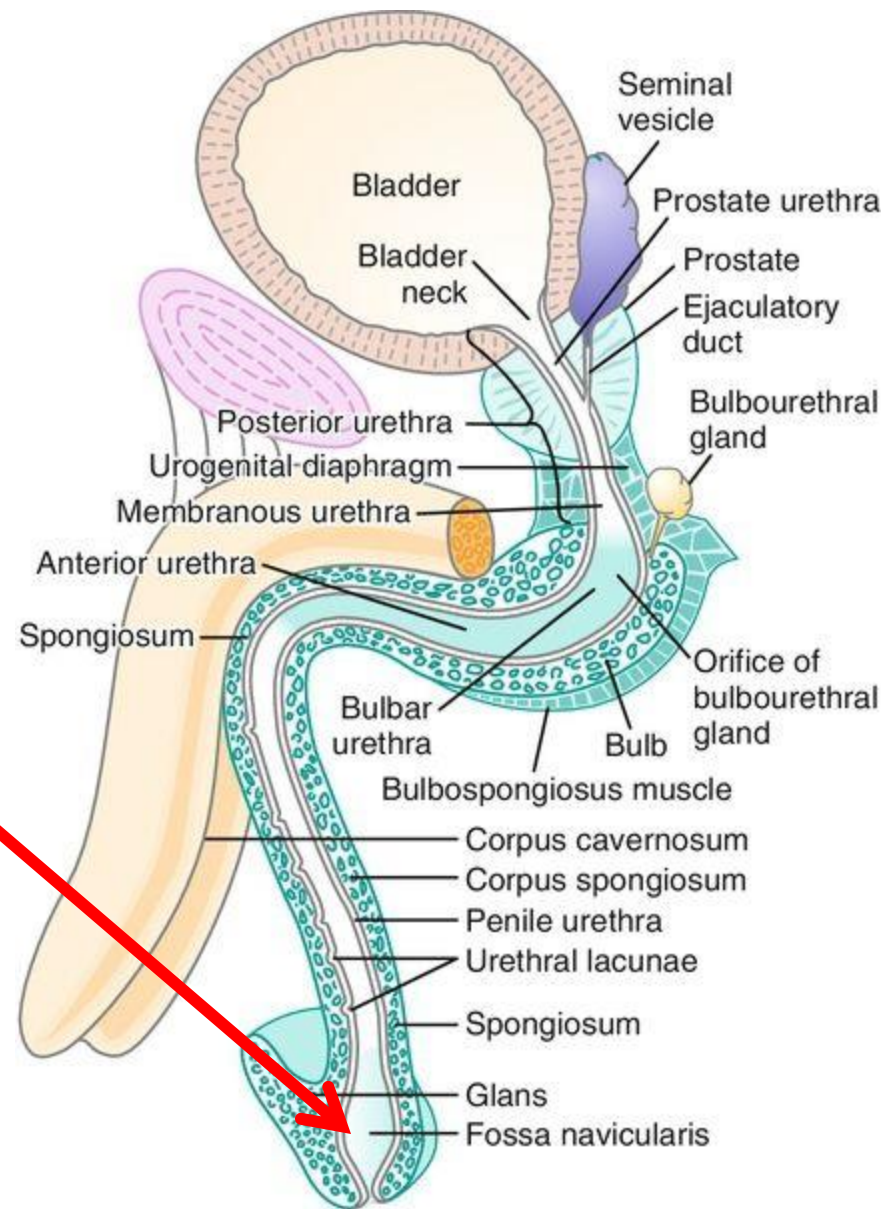
- Free portion
- It is composed of 3 elongated erectile tissue : r and l corpora cavernosa and median corpus spongiosum.



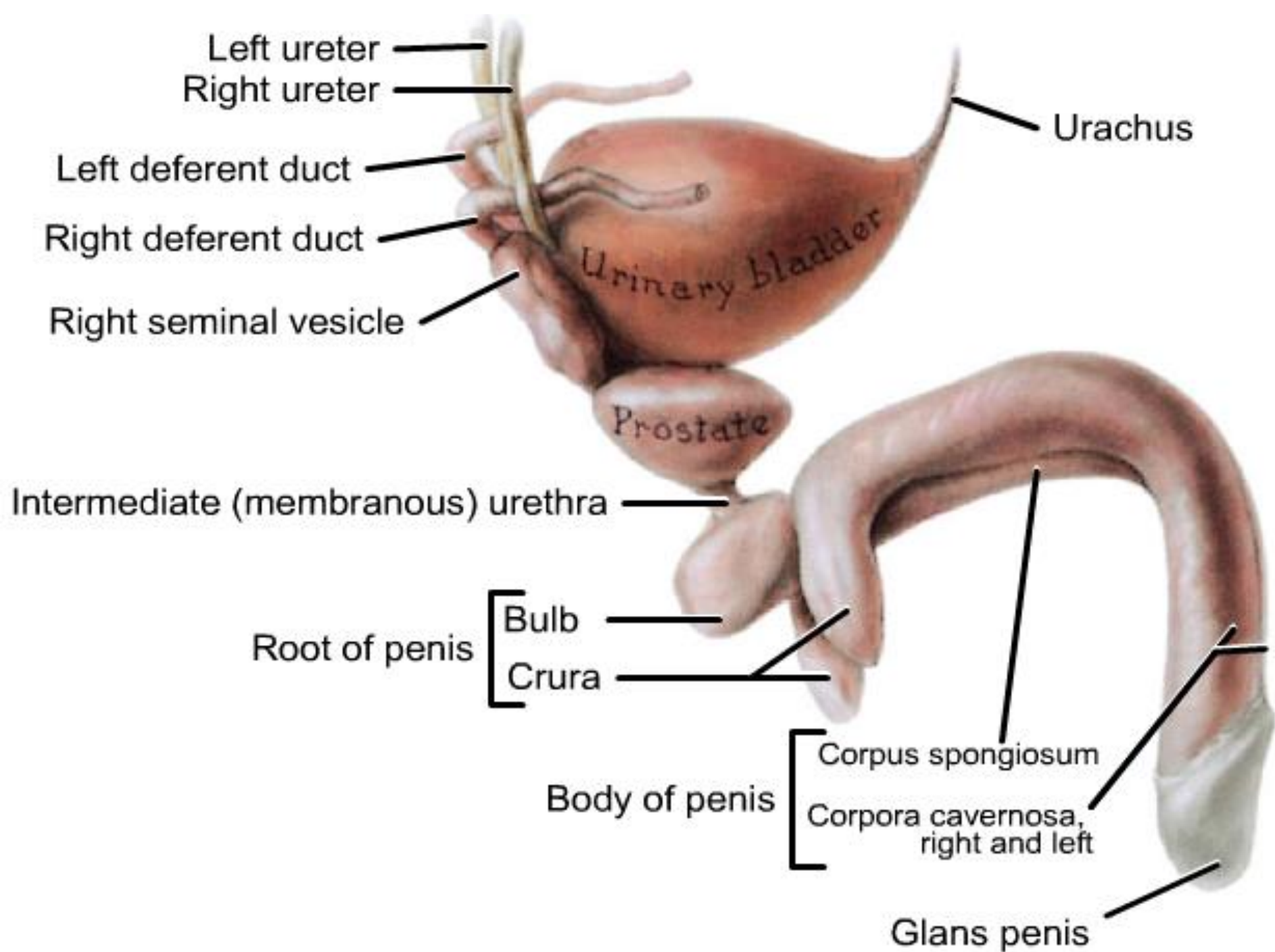
- **The corpora cavernosa join beneath the pubis (penile hilum) to form the major portion of the body of the penis.**  
terminate under cover of glans penis in a blunt conical extremity surrounded by strong fibrous envelope tunica **albuginea** ,supf long fib surr both ,deep circular surr each, and form **median septum**.

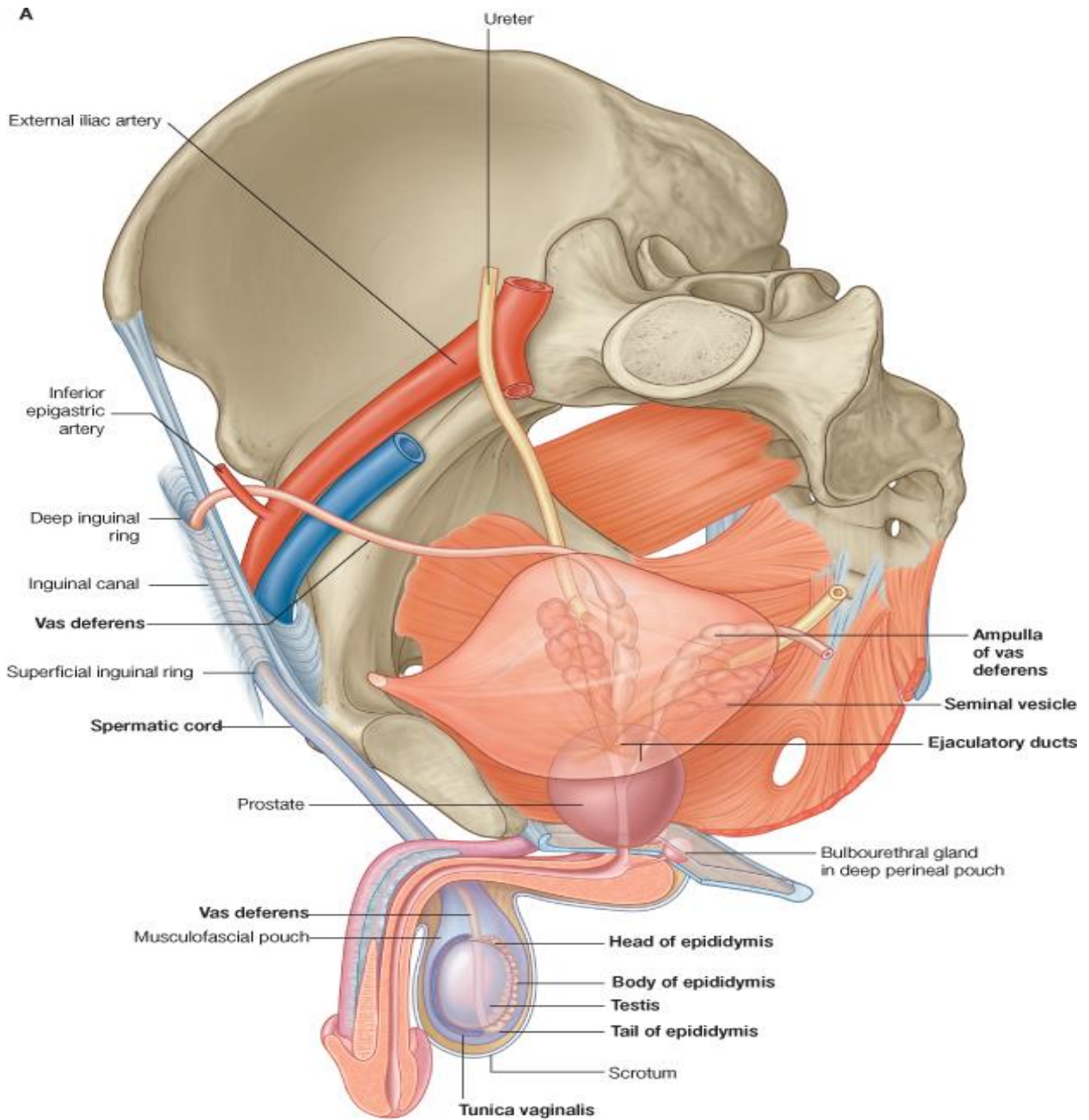


- The corpus spongiosum is continuation of bulb, terminal part expands to form **glans penis**, within it urethra dilates forming **navicular fossa**
- The corona separates the base of the glans from the shaft of the penis



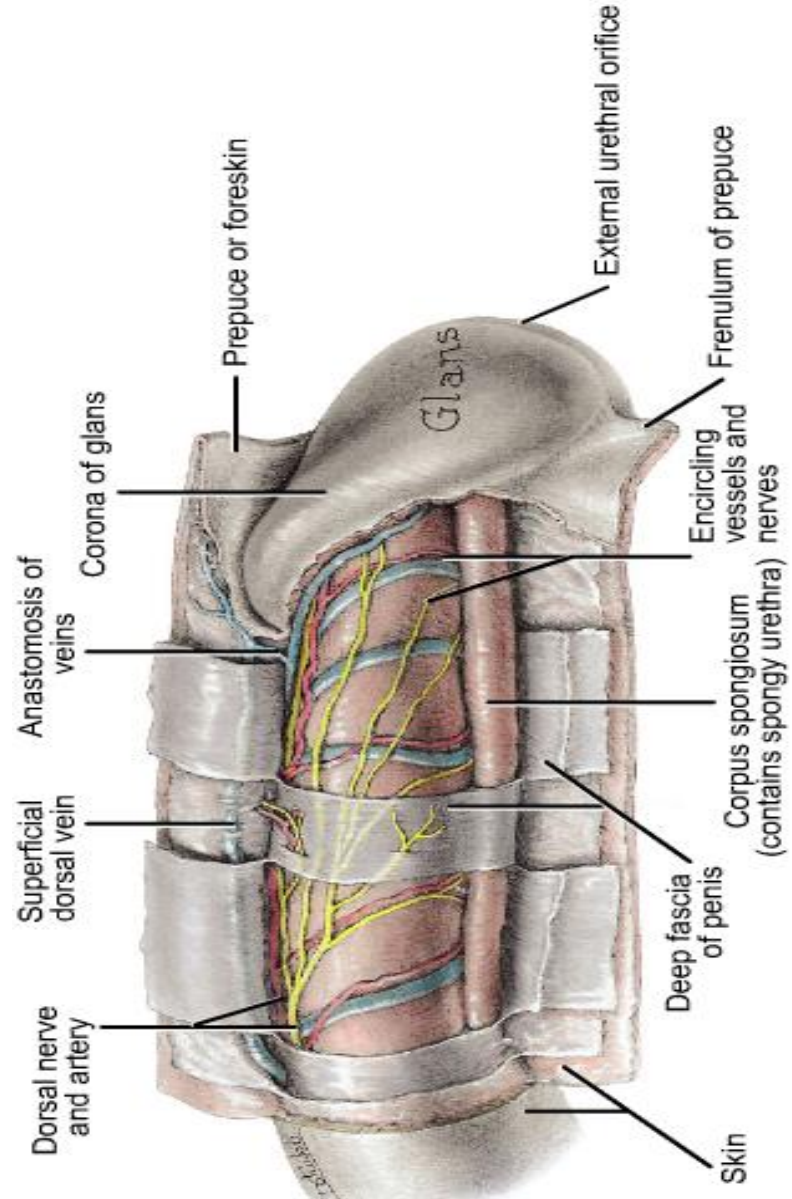


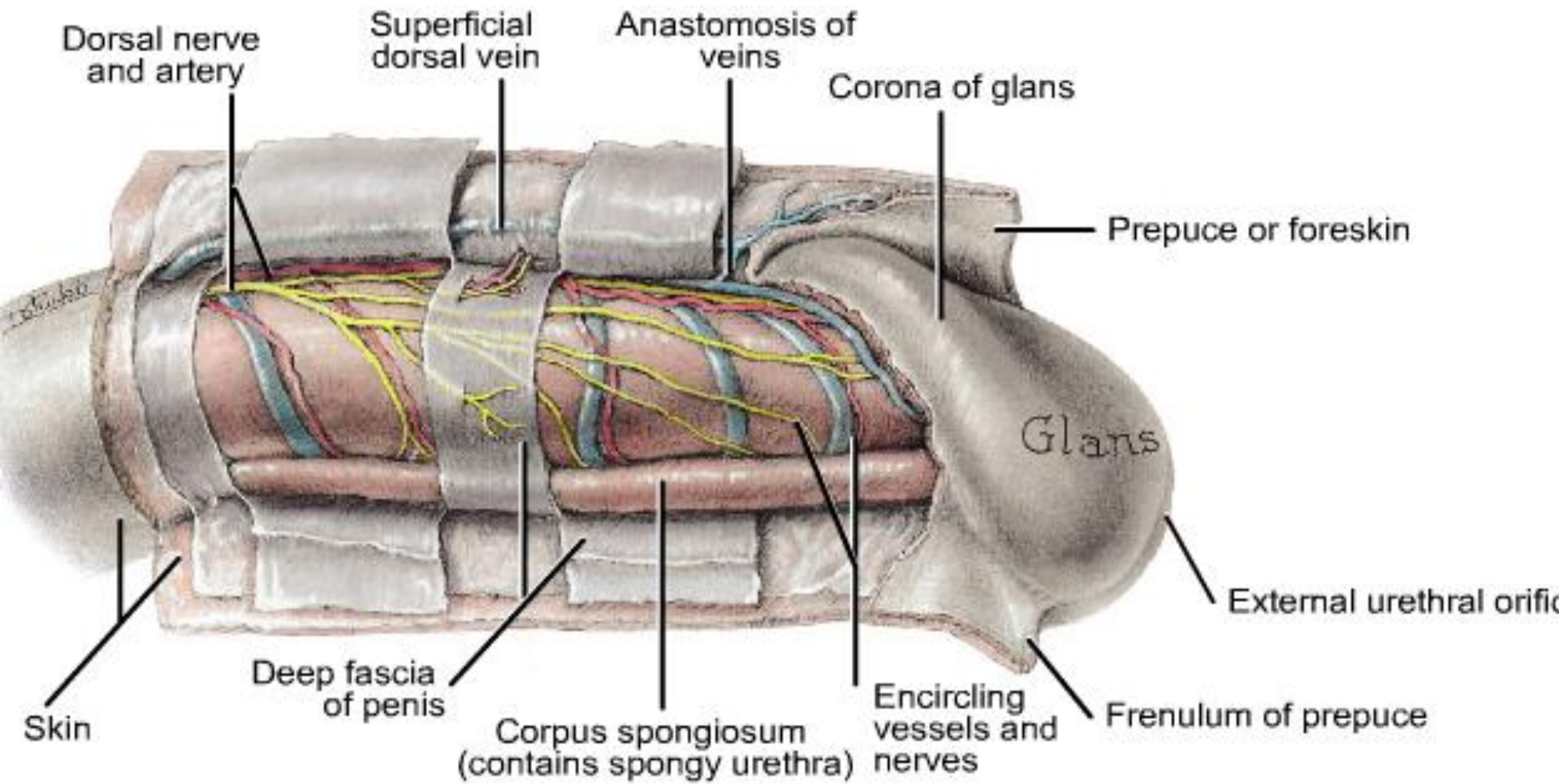




# Skin of penis

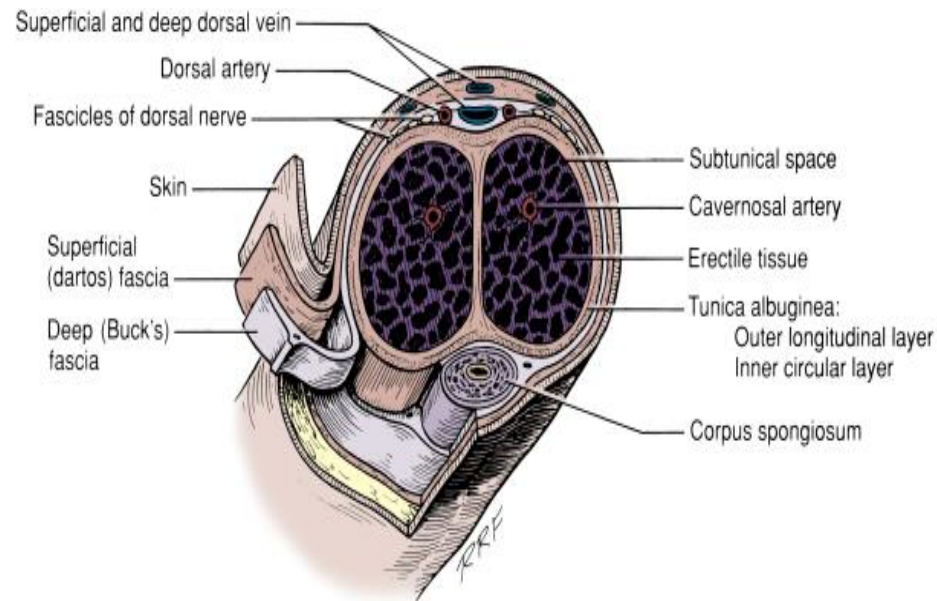
- Skin is very thin
- **prepuce or foreskin** :at the neck skin is folded ,covers glans and can be retracted
- **frenulum** :on the under surface of glans median fold of skin .
- **Prepuccial sac** :Potential space between glans and prepuce.
- **Smegma**: sebaceous matrial secreted by seb glands on the corona glandis and neck of penis ,collected in prepuccial sac.

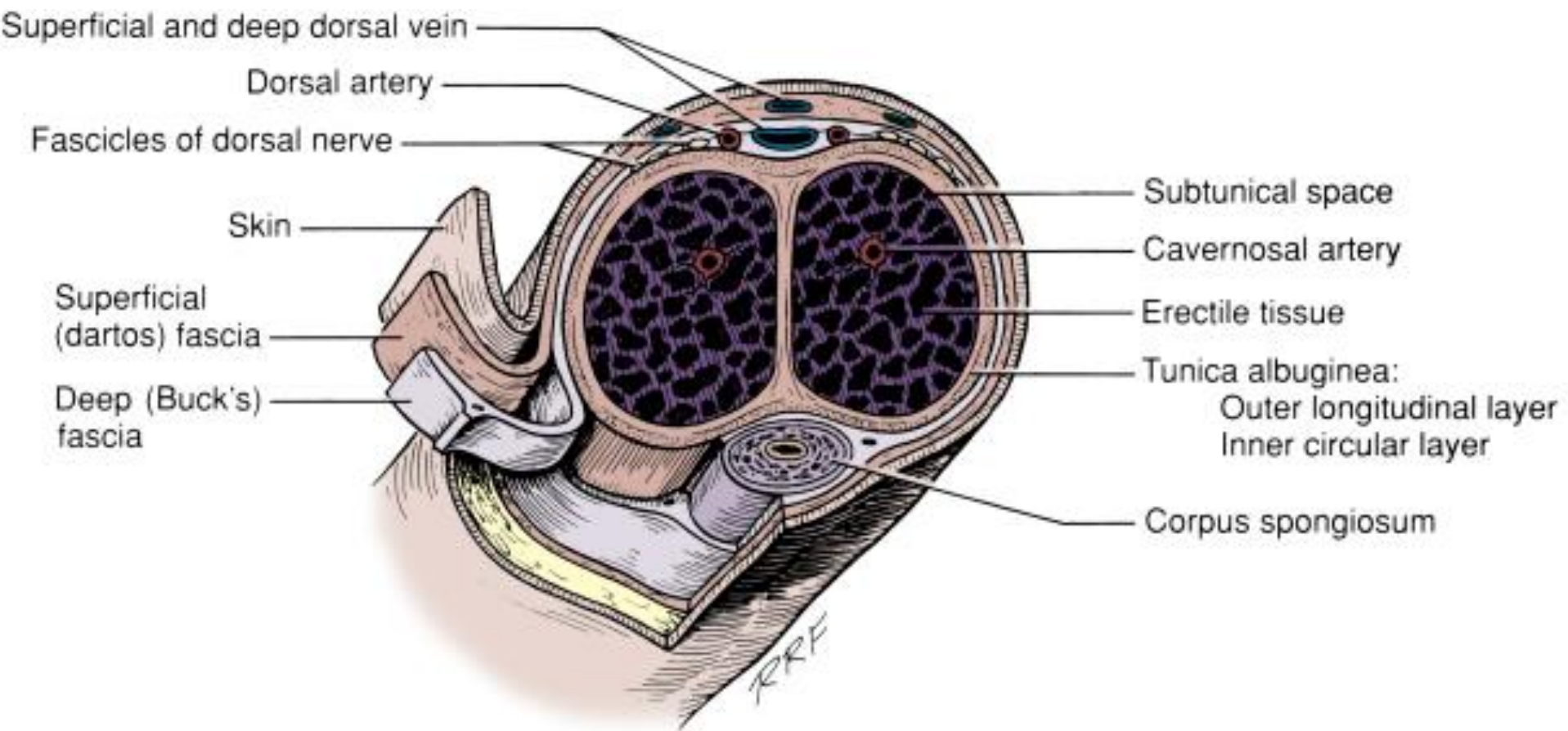




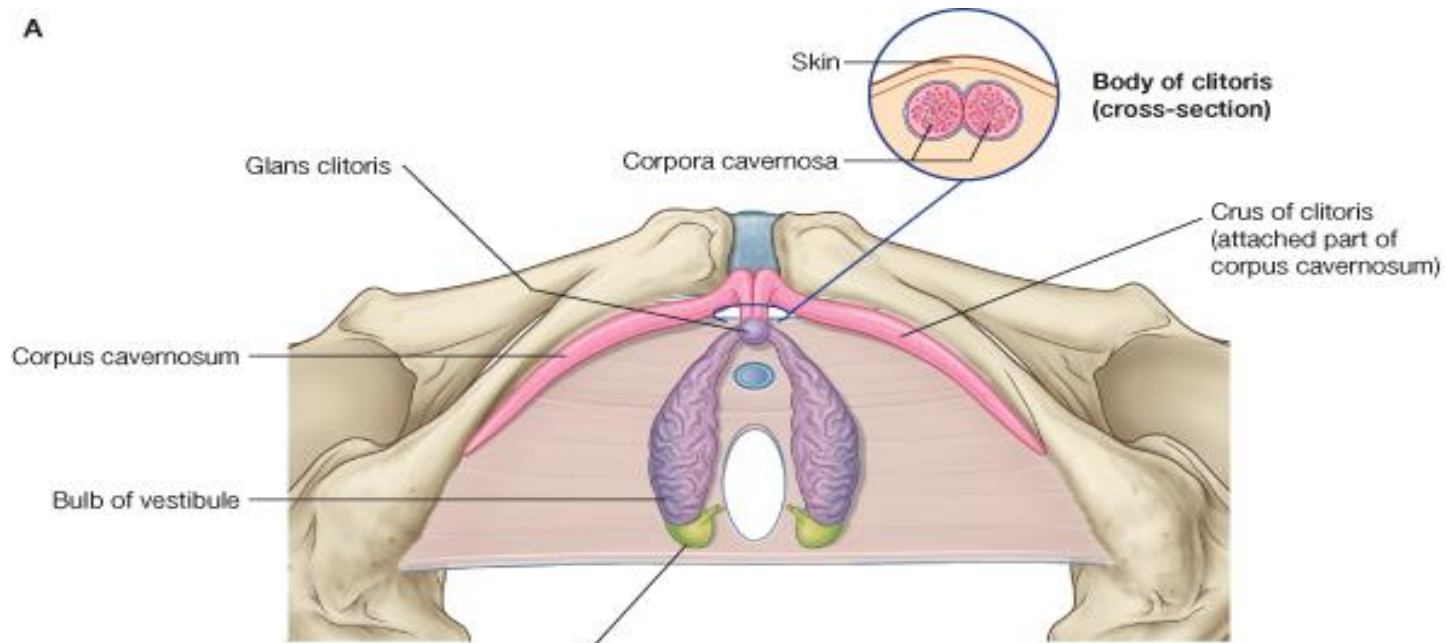
# Superficial fascia of penis

- Areolar tissue devoid of fat
- Continuous with scarpas f above and colles f below
- It contains superficial dorsal vein of penis
- Deepest layer is called bucks fascia ,surrounds all 3 erectile tissues but doesn't extend to glans , deep to it there are deep dorsal vein ,dorsal artries and dorsal nerves of penis

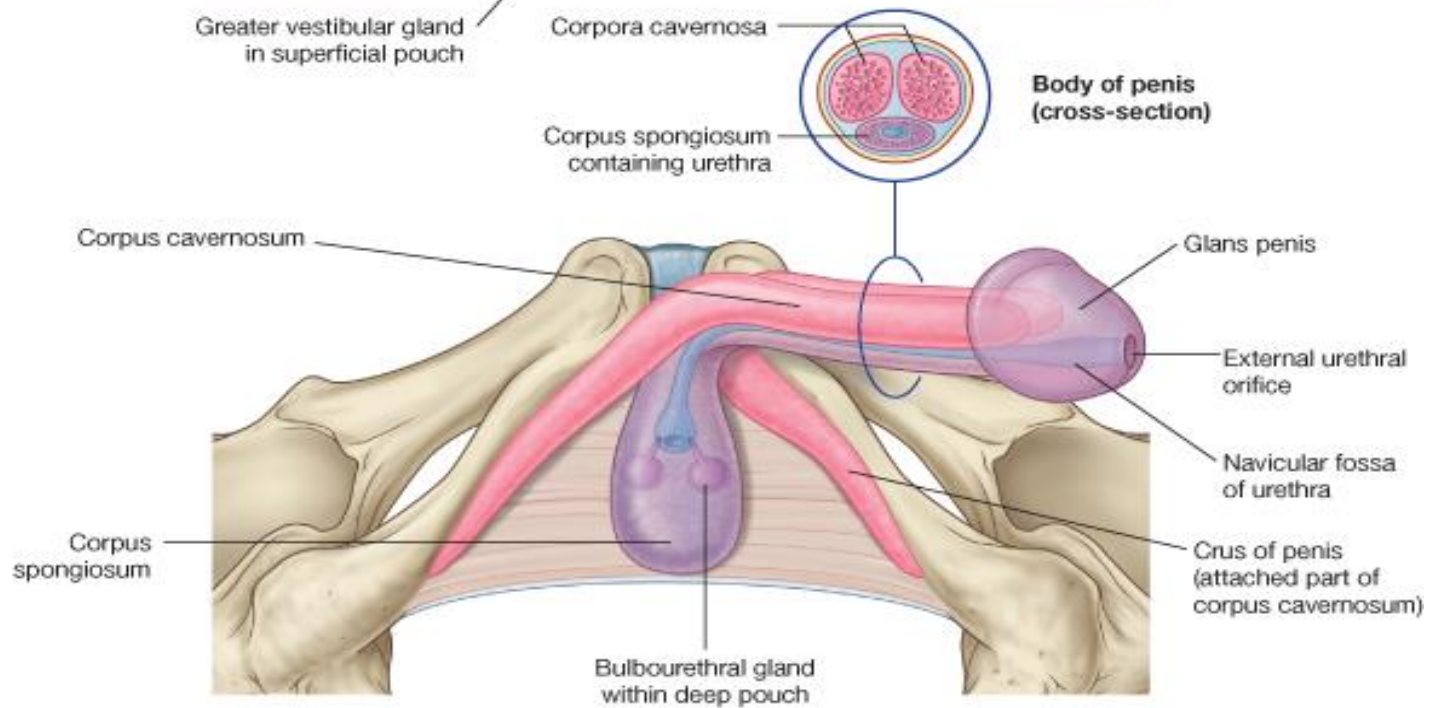




**A**

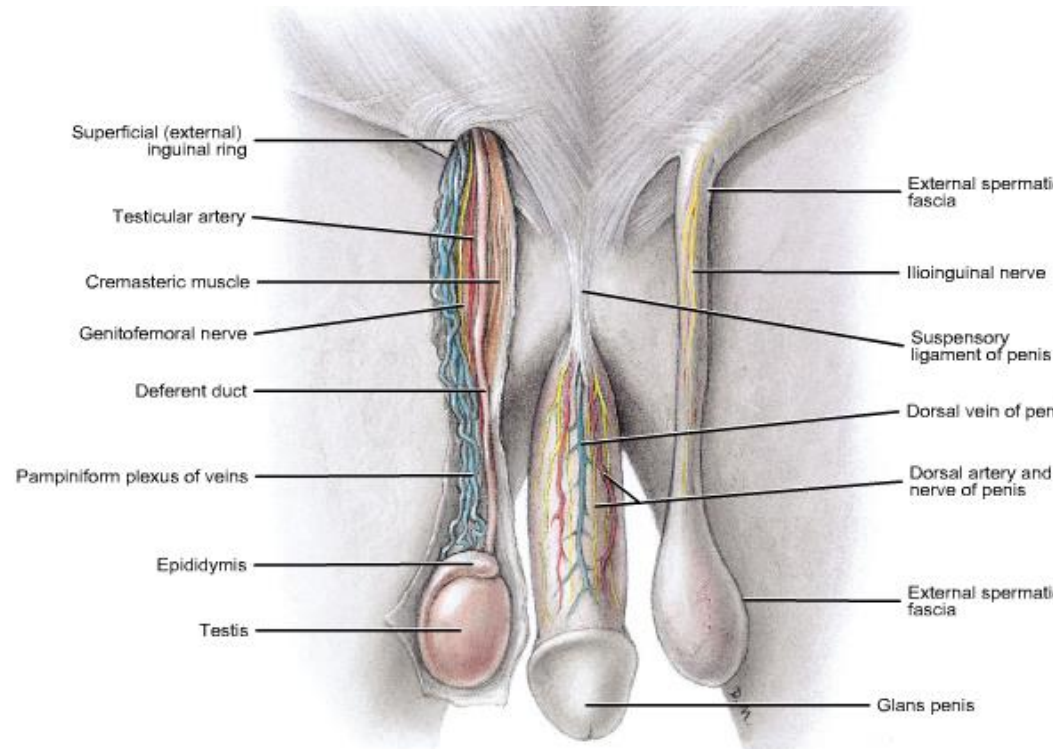


**B**

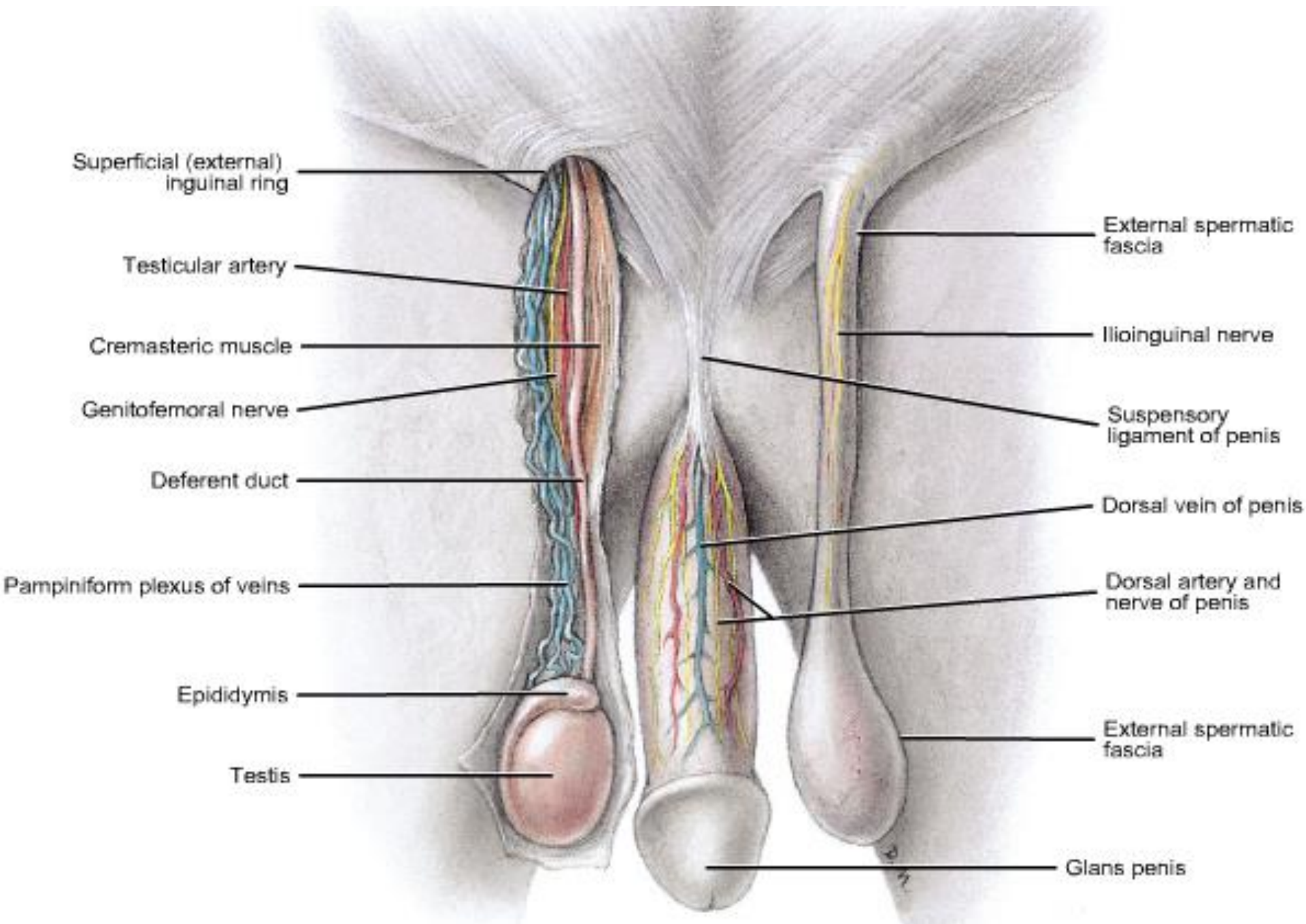


# The supports of body of penis

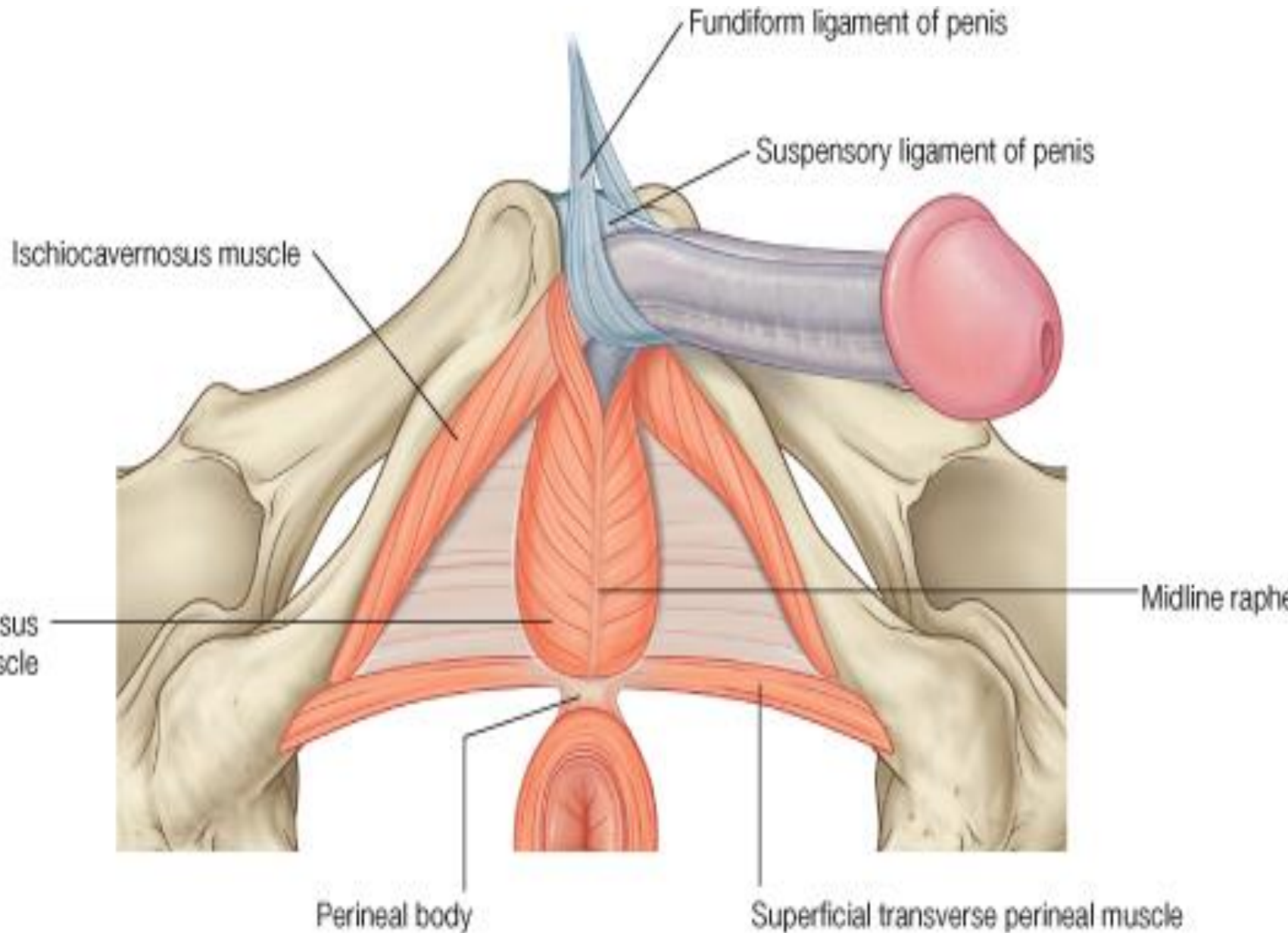
- 1- the fundiform ligament:  
extends downwards from  
linea alba and splits to  
enclose the penis
- 2- suspensory ligament : it  
lies deep to the 1<sup>st</sup>  
, extends from the pubic  
symphysis and blends  
below with the fascia on  
each side of the penis.





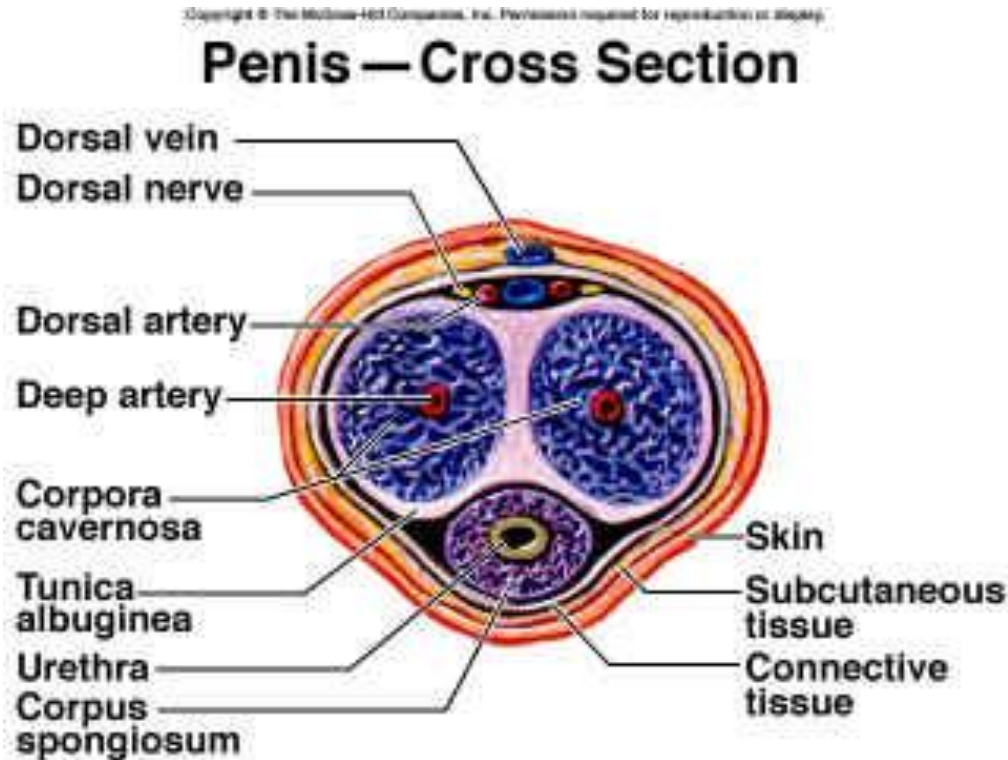


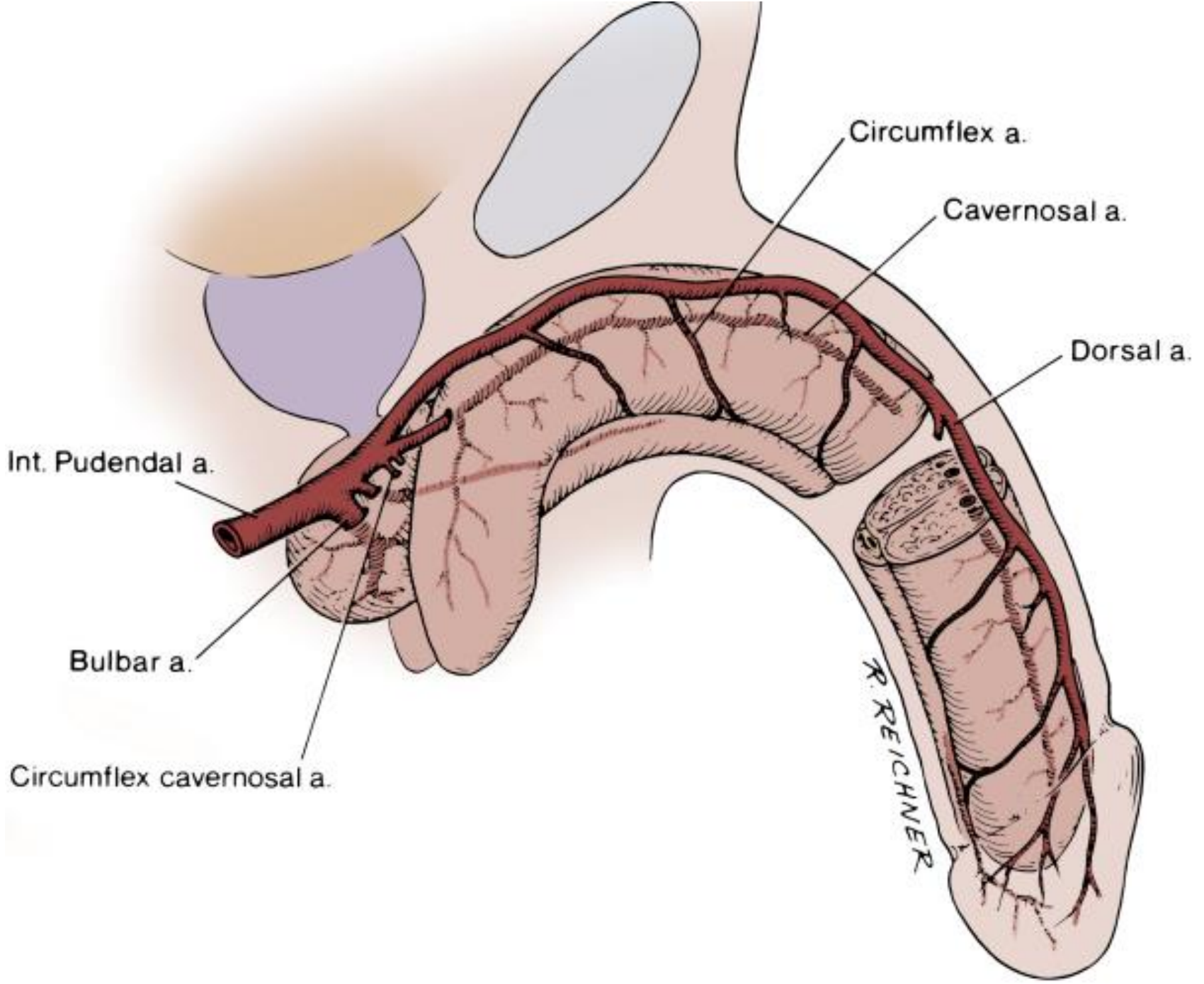
B



# Blood supply of penis

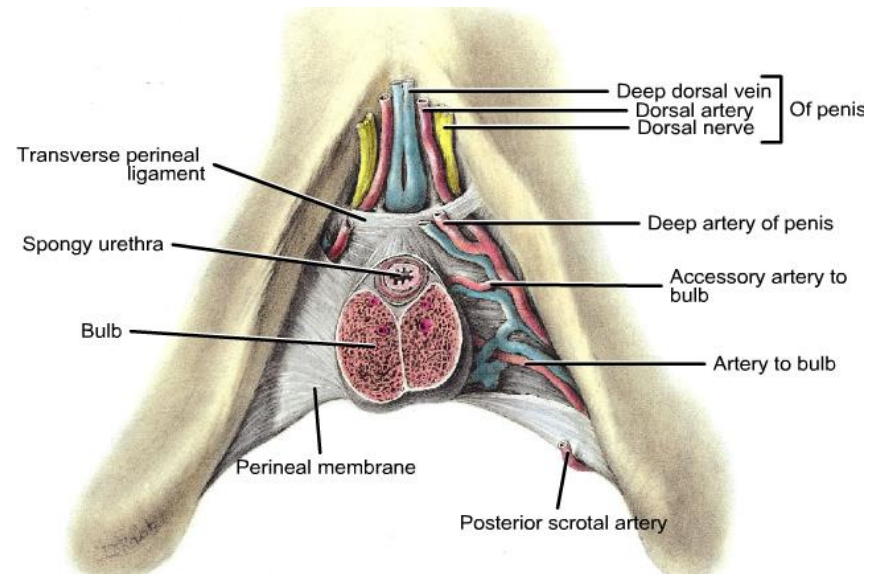
- A) internal pudendal artery through 3 branches: 1-deep artery of the penis=helicine arteries , runs in the corpus cavernosum. 2-dorsal artery of the penis ,runs on the dorsum deep to the deep fascia and supplies glans penis , distal part of c spong ,prepuce and frenulum.  
3-the artery of the bulb ,supplies the bulb and proxima part of c spong
- B) the femoral artery gives off superficial pudendal artery ,supplies skin and fasciae of penis.

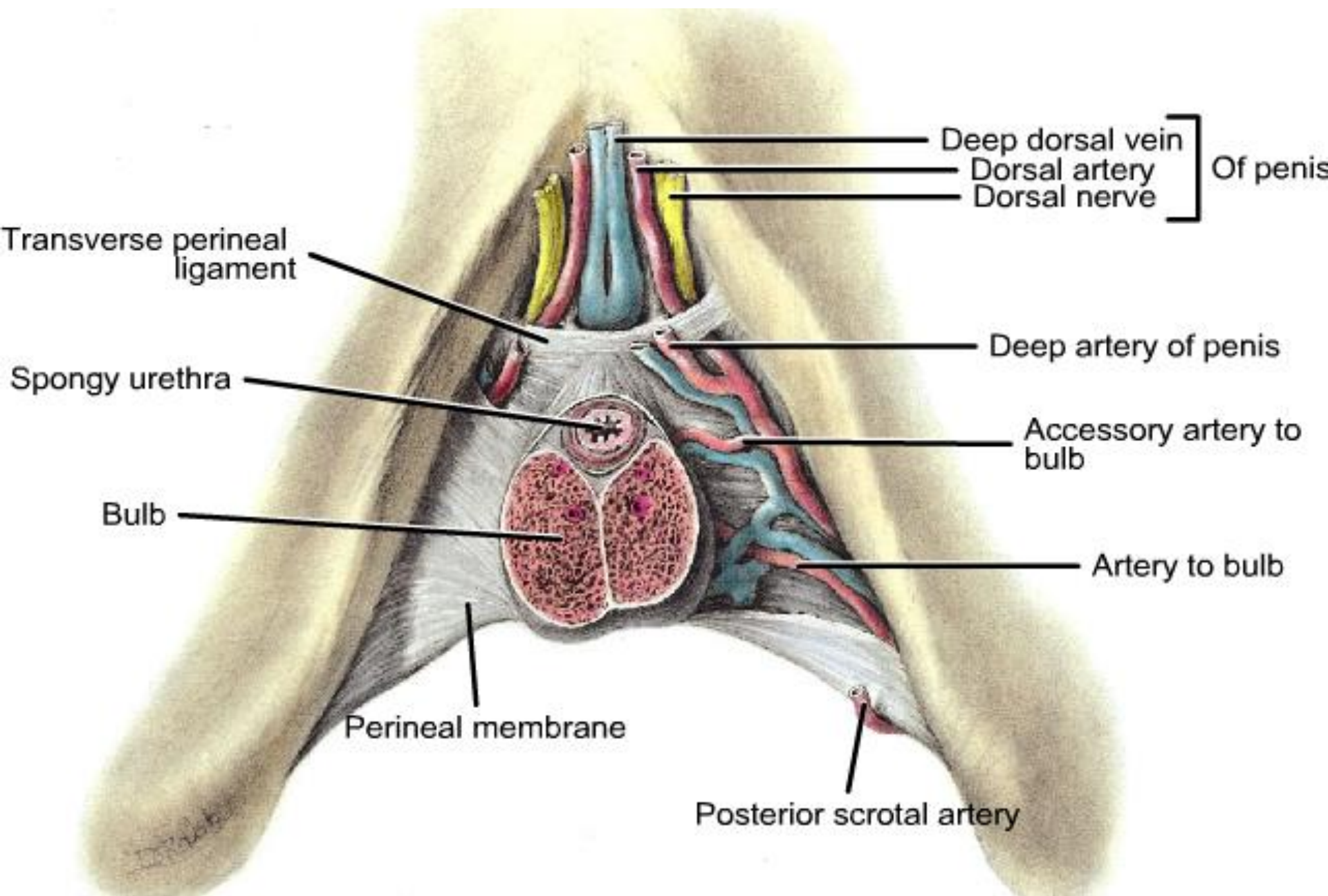




# Veins and lymphatics of the penis

- Superficial dorsal vein rt and lt branches drain in to **superficial external pudendal veins**
- **The deep dorsal vein** passes between perineal mem and pubic symphysis and drain in to prostatic plexus
- Other veins corresponding arteries
- **Lymphatics from glans drain in** to deep inguinal nodes lymph nodes
- From the rest of penis drain in to the superficial inguinal lymph nodes



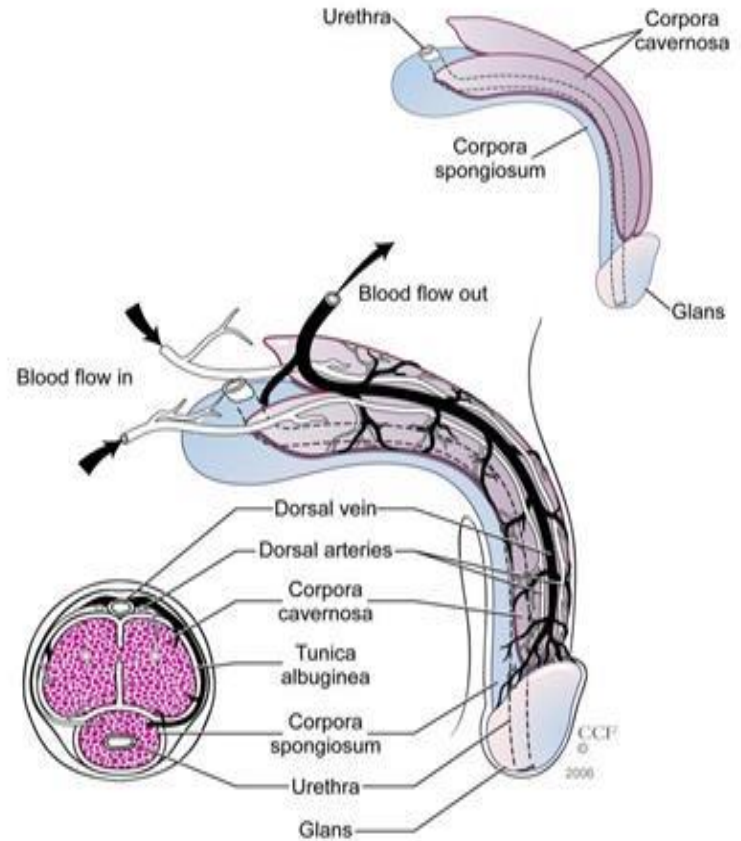


# Nerve supply of penis

- Sensory from dorsal nerve of penis and the ilioinguinal nerve
- **The muscles supplied by perineal branch of pudendal nerve**
- **Autonomic nerves are from pelvic plexus via prostatic plexus ,distributed through branches of pudendal nerve.**
- **Sympathetic nerves are vasoconstrictor , the Para sympathetic (S2,3,4) are vasodilator.**
- **Erection is controlled by Para sympathetic nerves.**

# What is the anatomy of the penis?

- The penis is made up of:
- Two chambers called the corpora cavernosa, which run the length of the organ and contain a maze of blood vessels shaped like cavernous spaces (like a sponge).





- The urethra, or channel for urine and sperm, which runs along the underside of the corpora cavernosa.
- Erectile tissue, which surrounds the urethra, two main arteries and several veins and nerves.
- The shaft, the longest part of the penis.
- The head (glans), which is at the end of the shaft.
- The meatus, or opening at the tip of the head where urine and semen are discharged.

# How does an erection occur?

- When the blood vessels of the corpora cavernosa relax and open up, blood rushes in through the cavernosus arteries to fill them. The blood then gets trapped under high pressure, creating an erection.

- An erection begins with sensory and mental stimulation. During sexual arousal, nerve messages begin to stimulate the penis. Impulses from the brain and local nerves cause the muscles of the corpora cavernosa to relax, allowing blood to flow in and fill the open spaces. The blood creates pressure in the corpora cavernosa, making the penis expand and creating an erection.

- FSH and LH are produced by the pituitary gland. It's located at the base of the brain and it's responsible for many functions in your body. FSH is necessary for sperm production (spermatogenesis). LH stimulates the production of testosterone, which is necessary to continue the process of spermatogenesis. Testosterone is also important in the development of male characteristics, including muscle mass and strength, fat distribution, bone mass and sex drive.

<https://my.clevelandclinic.org/health/articles/9117-male-reproductive-system>