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Anatomy

The Male Reproductive System

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The Reproductive system includes the following:

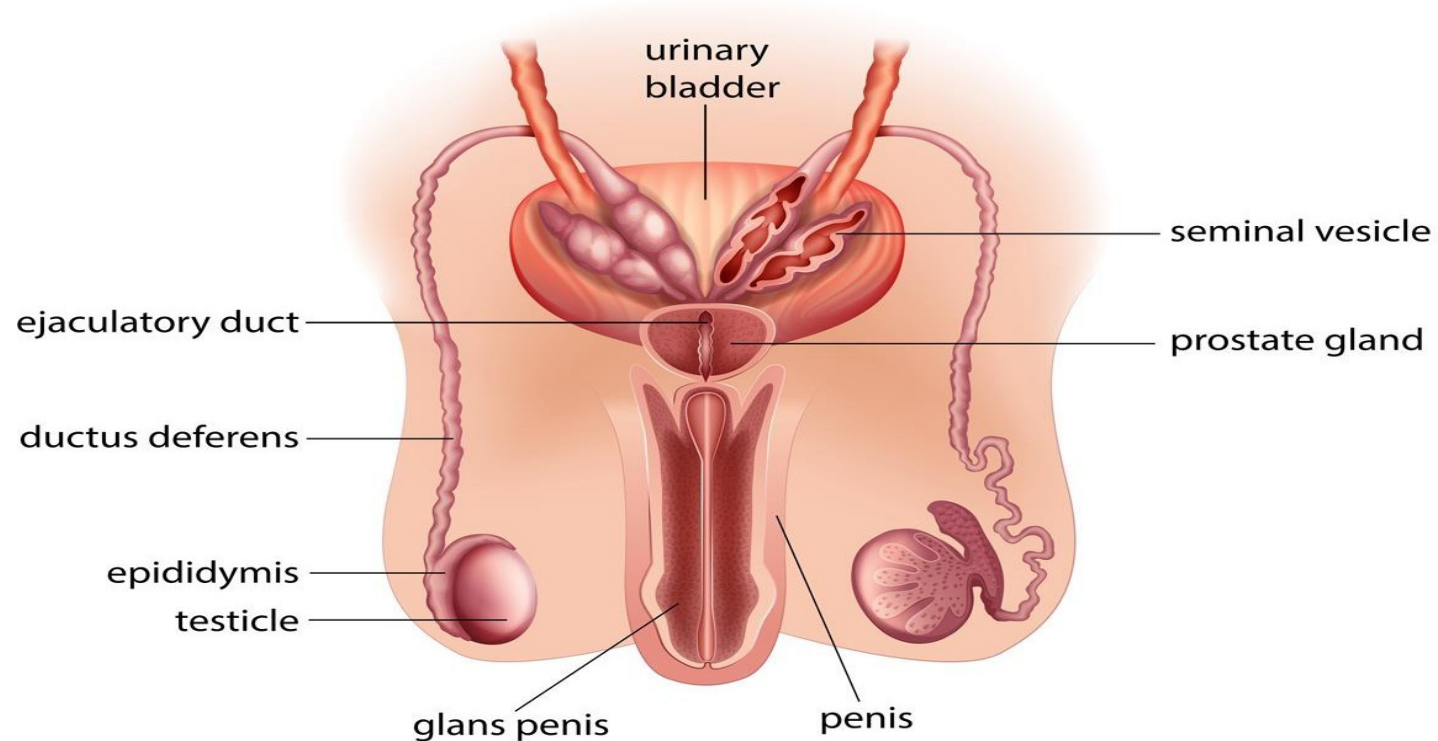
- **Gonads:** or reproductive organs that produce gametes & hormones.
- **Ducts:** that receive and transport the gametes.
- **Accessory glands & organs that secrete fluids (into the same glands or other excretory ducts).**
- **External genitalia.**
- The male and female reproductive systems are functionally different:
 - *in an adult male, the testes or male gonads secrete sex hormones called **androgens (testosterone)** & produce **½ billion sperm each day.**
 - *in an adult female the ovaries or female gonads, typically release **only one immature gamete (called oocyte)** per month.

Male Reproductive System

The male reproductive system performs the following functions:

Produces, maintains and transports sperm (the male reproductive cells) and **protective fluid (semen)**.

Produces and secretes male **sex hormones** responsible for **maintaining** the male reproductive



Organs of the Male Reproductive System

- Two testes
- Two epididymides
- Two different ducts (vas deference)
- Two spermatic cords
- Two seminal vesicles
- Two ejaculatory duct
- A prostate gland
- A penis

The **Male Reproductive System** consisting of the male gonads: testes

reproductive ducts— epididymis, ductus deferens, ejaculatory ducts, and urethra,

accessory sex glands— seminal vesicles, prostate & bulbourethral glands

and **The external genitalia** the **scrotum & penis**.

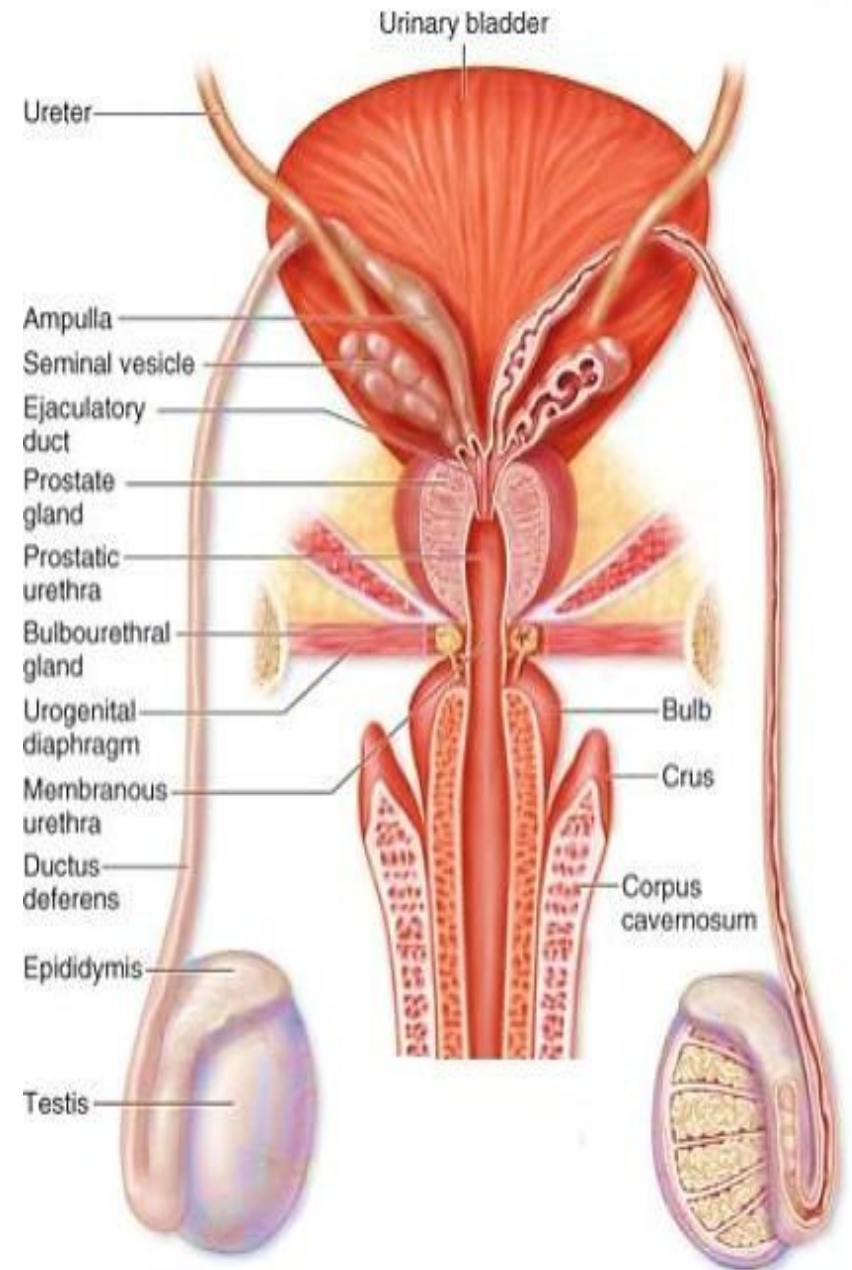
The testes (male gonads) produce sperms, the reproductive ducts transport, store & mature the sperms, scrotum supports the testes .

The Male reproductive system:

- In the **testes** the sperm cells or spermatozoa, travel within the **epididymis** → the **ductus deferens** or **vas deferens** → the **ejaculatory duct** → & the **urethra**.

□ Accessory organs: the **seminal vesicles**, the **prostate gland** & the **bulbourethral glands** secrete into the **ejaculatory ducts** & **urethra**.

The **external genitalia** consist of the **scrotum**

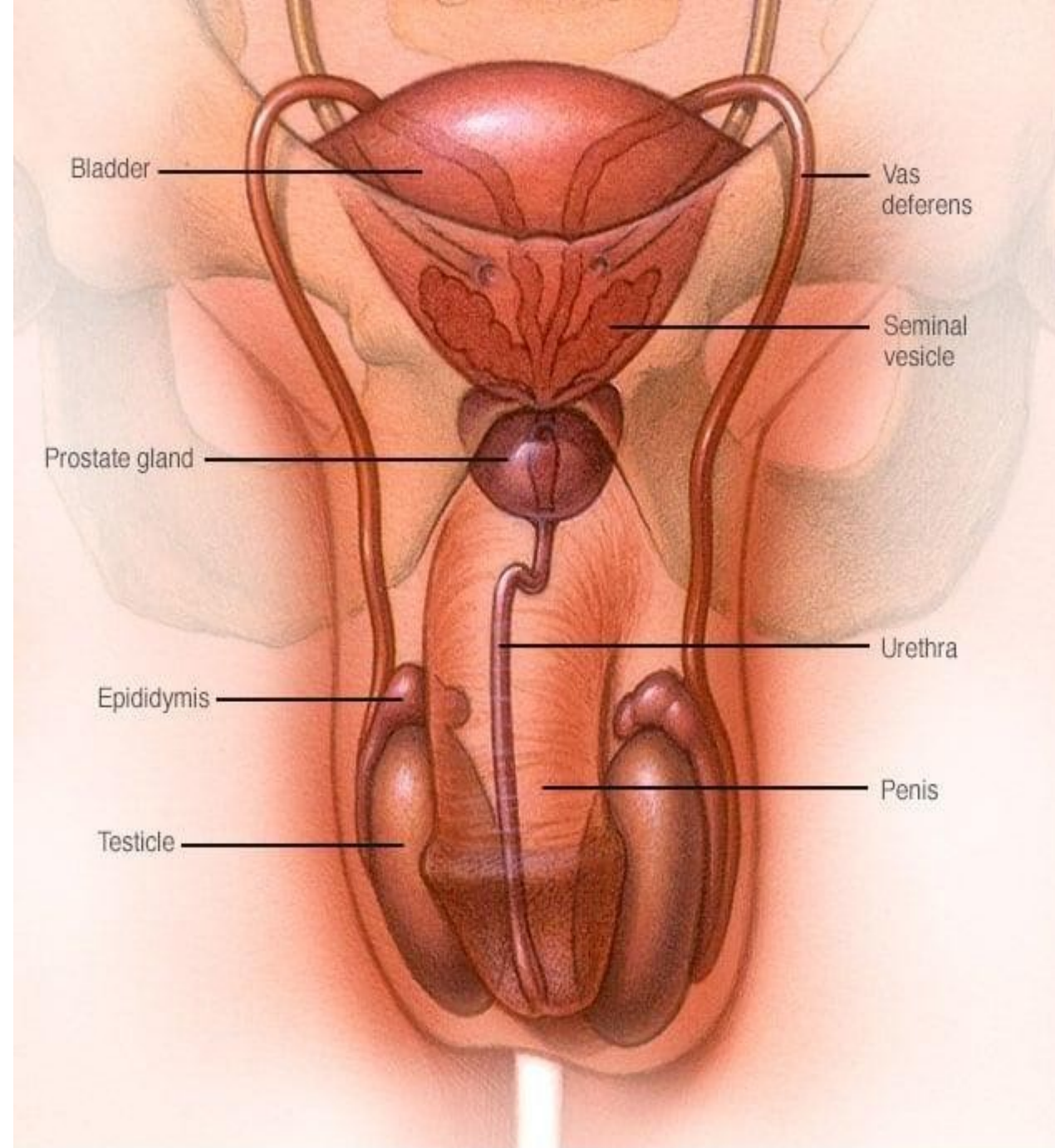


Unlike in the female reproductive system, most male reproductive organs are not located internally. They include:

Penis: The penis is made up of two parts, the **shaft** and the **head**. The urethral opening at the tip of the penis.

Scrotum: The scrotum is the sac-like organ hanging behind and below the penis. It contains the testicles (also called testes), as well as many nerves and blood vessels.

Testicles (testes): The testes (oval organs that lie in the scrotum) are the primary male reproductive organ.



• **The testes** are the male reproductive glands that are about 4.5 cm long, 2.5 cm wide and 3 cm thick and surrounded by three layers of tissues namely, **tunica vaginalis, tunica albuginea, tunica** and **vasculosa**.

• A testis is composed up to 900 **coiled seminiferous tubules** in which the sperms are formed. Between these tubules are **interstitial cells** or **Leydig cells** which produce the testosterone hormone after puberty.

• **The coiled seminiferous tubules** are folded and tightly packed to form the **epididymis** which comes out of the scrotum in the form of vas deference.

Male Reproductive System: Testis

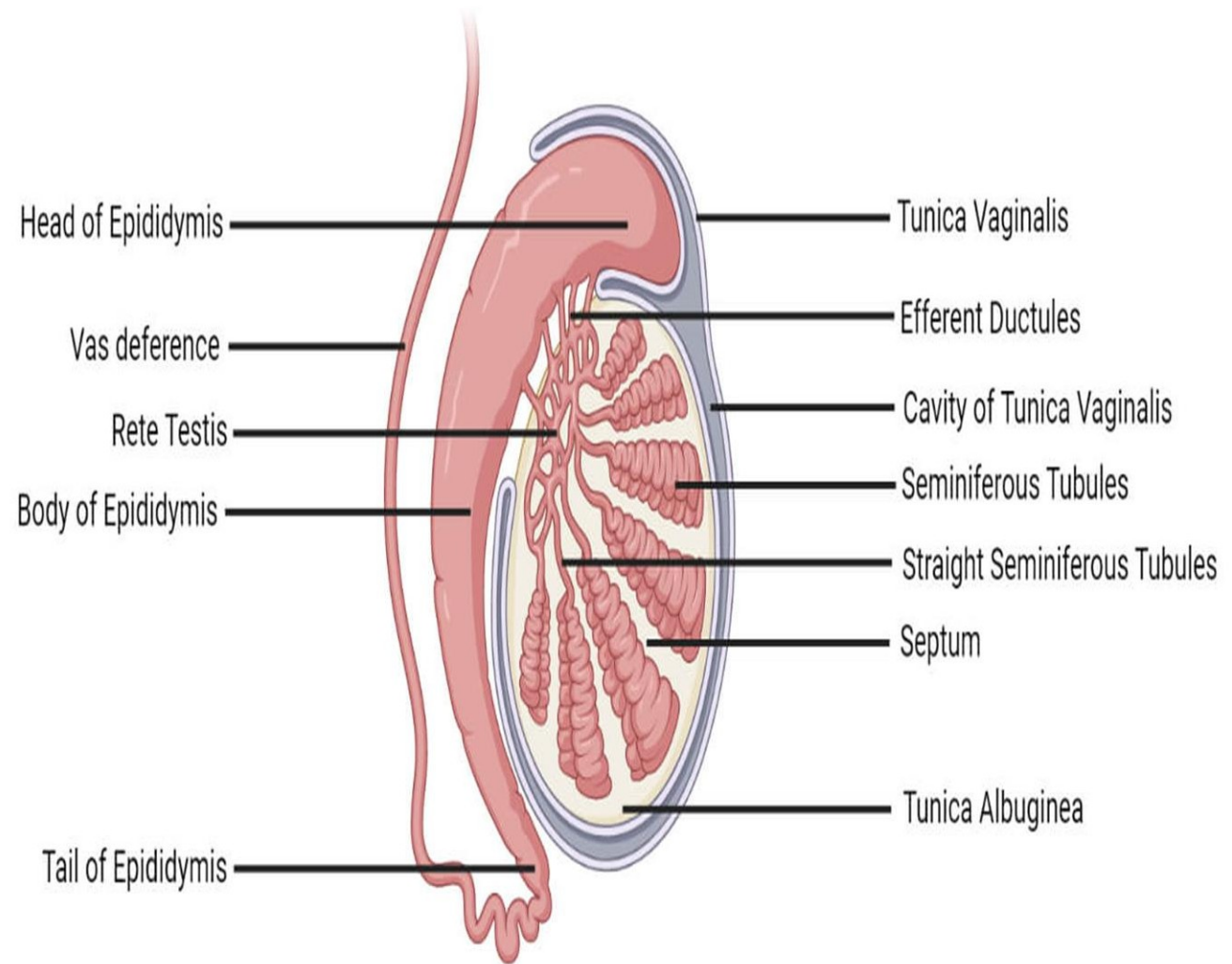


Figure: Structure of Testis

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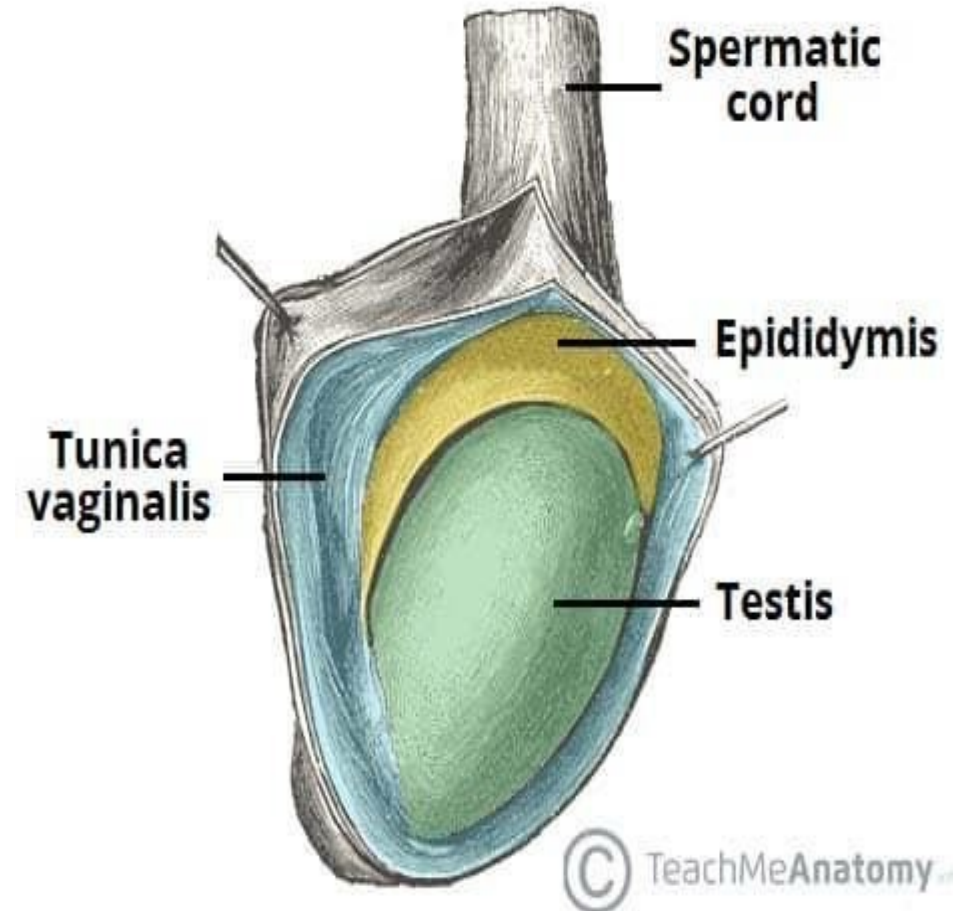
The testes and epididymis are paired structures, located within the scrotum. **The testes** are the site of sperm production and hormone synthesis, while the **epididymis** has a role in the **storage of sperm**. The testes are located within the scrotum, with the epididymis situated on the posterolateral aspect of each testicle. They are suspended from the abdomen by the **spermatic cord** – collection of **vessels, nerves** and **ducts** that supply the testes.

Spermatic Cords

This cord is composed of a **testicular artery, testicular veins, lymphatics, testicular nerves,** and the **vas deferens (ductus deferens)**.

Spermatic cords are covered by a layer of **connective tissues** and **smooth muscles**.

The **arterial supply** to the testes and epididymis is via the paired testicular arteries, which arise directly from the **abdominal aorta**.



Vas Deferens: conveys sperm from the **epididymis** to the **ejaculatory duct** (formed by the convergence of the vas deferens and seminal vesicle duct). From the ejaculatory duct, sperm can pass through to the prostatic urethra.

Accessory Sex Glands

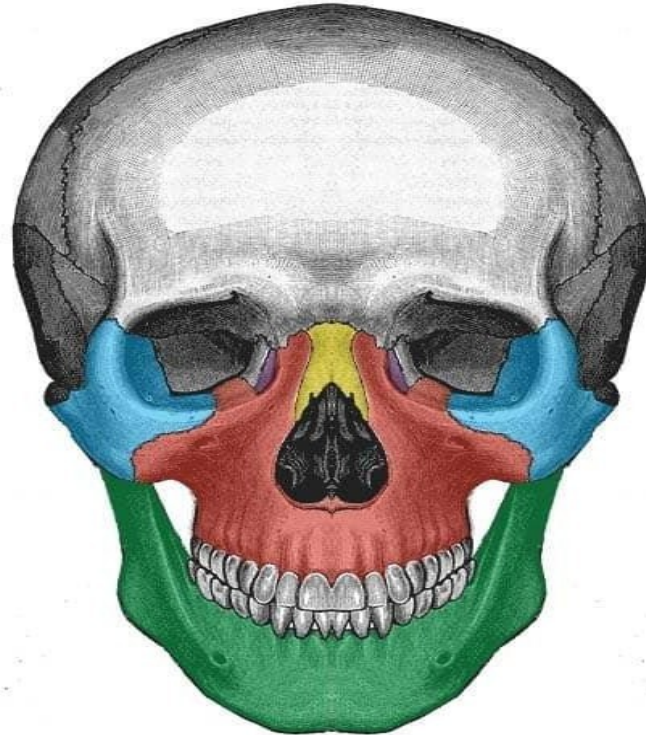
The **prostate gland** sits inferiorly to the bladder. It secretes **enzymes** into the semen which enters the **prostatic urethra** via the **prostatic ducts**.

The **bulbourethral glands, or Cowper's glands**, are located posterolaterally to the membranous urethra..

The **seminal vesicles** sit superiorly to the prostate, and drain into the prostatic urethra



THANK YOU!



-  Zygomatic
-  Maxilla
-  Nasal
-  Lacrimal
-  Mandible