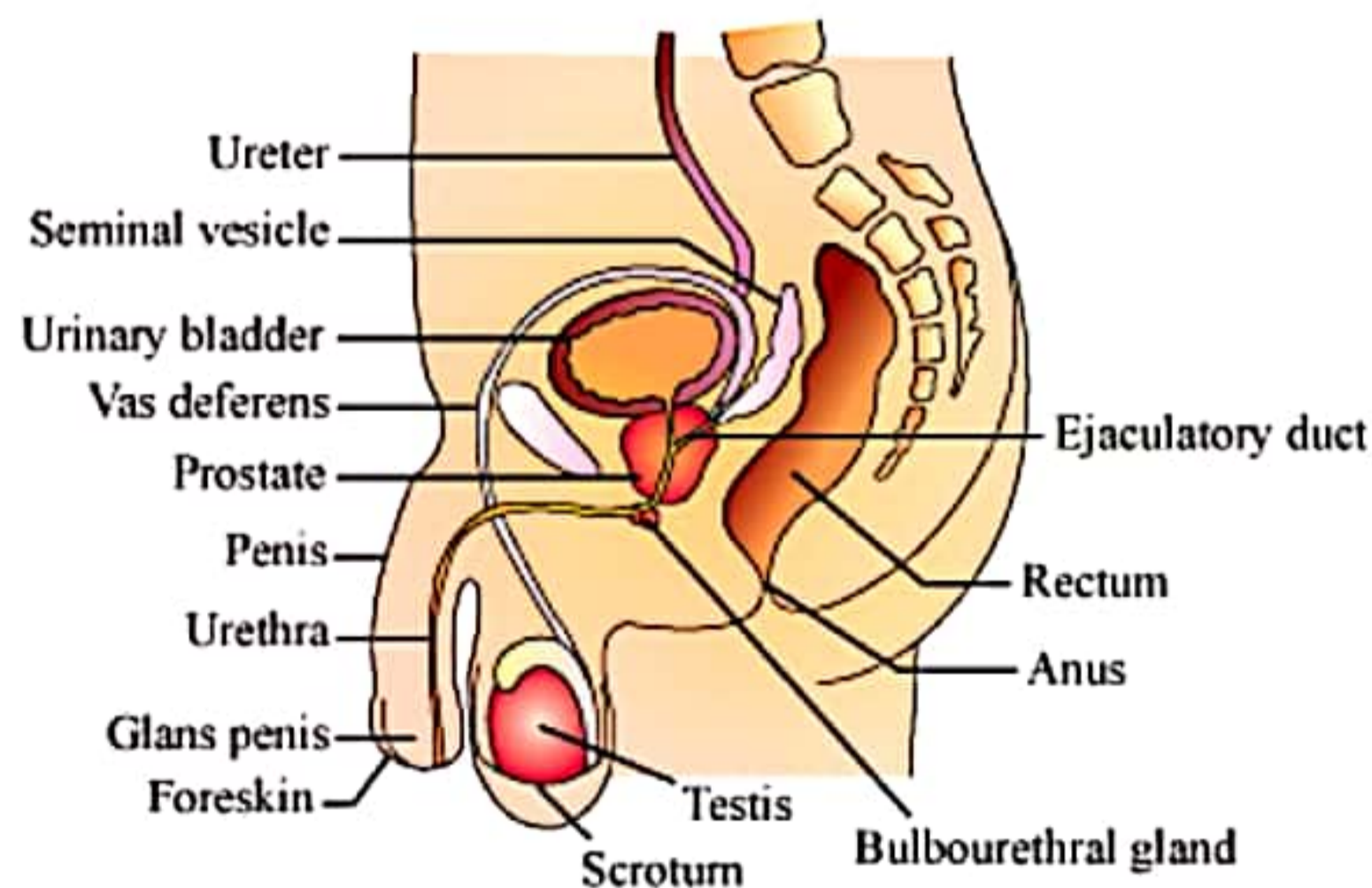


Human Reproduction

Male and Female Reproductive Systems

- Human beings reproduce sexually and are viviparous.
- In humans, the reproductive phase starts after puberty.
- It involves:
 - Gametogenesis
 - Insemination
 - Fertilisation
 - Implantation
 - Gestation
 - Parturition

The Male Reproductive System



- It is located in the pelvic region.
- It consists of:
 - A pair of testes
 - Accessory glands and ducts
 - External genitalia

Testes

- Situated within the **scrotum**, which protects the testes and also helps in maintaining the temperature.
- Each testis is 4 to 5 cm in length, and 2 to 3 cm in width, and has about 250 compartments called **testicular lobules**.
- Testicular lobules have **seminiferous tubules** which are the sites of sperm formation.
- Seminiferous tubules are lined by two types of cells:
 - **Male germ cells** – They undergo meiosis to form sperms.
 - **Sertoli cells** – They provide nourishment to the germ cells.
- Region outside the seminiferous tubules is called the interstitial space, which contains **Leydig cells** (interstitial cells). The Leydig cells produce androgens.

Accessory Ducts and Glands

- Accessory ducts include:
 - Rete testis
 - Vasa efferentia
 - Epididymis
 - Vas deferens
- The seminiferous tubules open into the vasa efferentia through the **rete testis**.
- The vasa efferentia open into the **epididymis**, which leads to the **vas deferens**. The vas deferens opens into the urethra along with a duct from the seminal vesicle called the **ejaculatory duct**.

- The ejaculatory duct stores the sperms and transports them to the outside
- The urethra starts from the urinary bladder, extends through the penis and opens via the **urethral meatus**.
- Accessory glands include:
 - A pair of seminal vesicles
 - Prostate gland
 - A pair of bulbourethral glands
- The secretions of these glands make up the seminal plasma, and provide nutrition and a medium of motility to the sperms.