

SCIENCE

MALE REPRODUCTIVE SYSTEM

Male reproductive system :

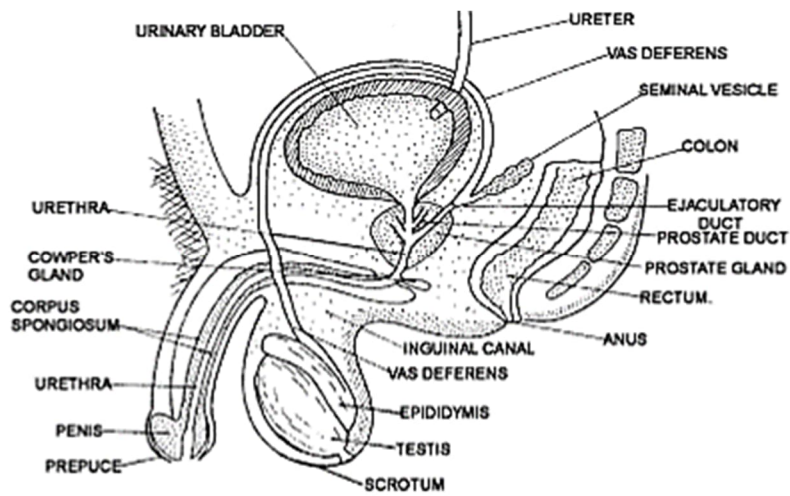
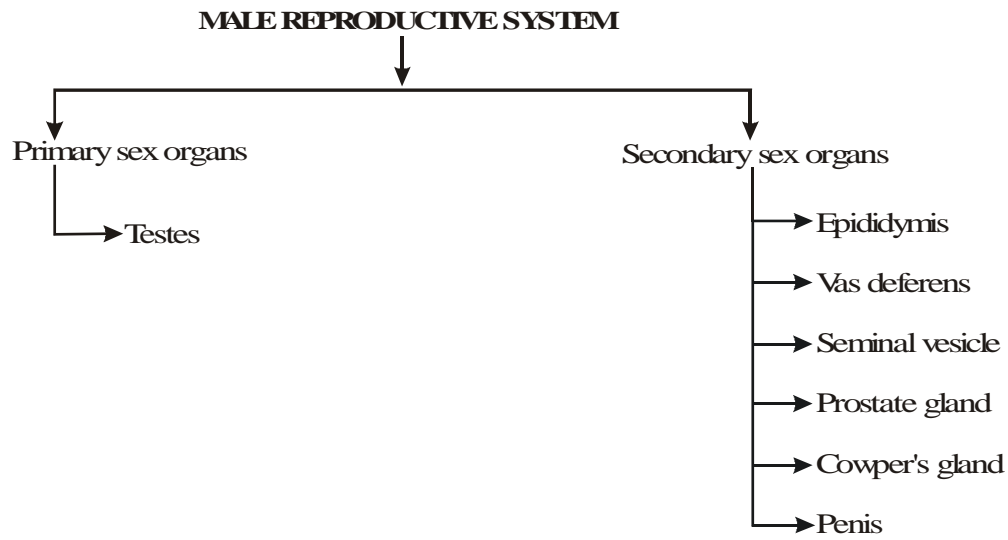


Fig.: Male reproductive system

• **Male reproductive system comprises of following parts**

(i) Testes (ii) Duct system (iii) Urethra (iv) Penis (I) Testis :

- They are soft, smooth, pinkish, oval organs. They are present in a sac like structure called as scrotum.
- It consists of convoluted seminiferous tubules.
- In between seminiferous tubules, there are interstitial cells known as Leydig cells which secrete male hormone called as testosterone. This hormone helps in the growth and development of male sex hormone.
- Scrotum : It is a pouch of pigmented skin arising from the lower abdominal wall which protect testes
- Scrotum has temperature 1 – 3 °C lower than body temperature which favours the formation of sperms.

(II) Duct system :

1. **Vasa efferentia** : Testis is connected to epididymis through a fine tubule called as vasa efferentia. They help in conduction of sperms.
2. **Epididymis** : They are long tubules which lie compacted along the testis from their upper ends to lower back side. Its walls are muscular and glandular to provide or secrete nutritive fluid which provides nourishment to the sperms.
3. **Vas deferens** : Paired epididymal duct finally opens into vas deferens.
4. **Ejaculatory duct** : They are short, straight, muscular tubes, each formed by the union of vas deferens and duct of seminal vesicles.

(III) **Urethra** : It arises from urinary bladder forming a urinogenital canal. It carries urine, sperm and secretion of seminal vesicles, prostate and Cowper's glands.

(IV) **Penis** : It is a male copulatory organ which also passes urine.

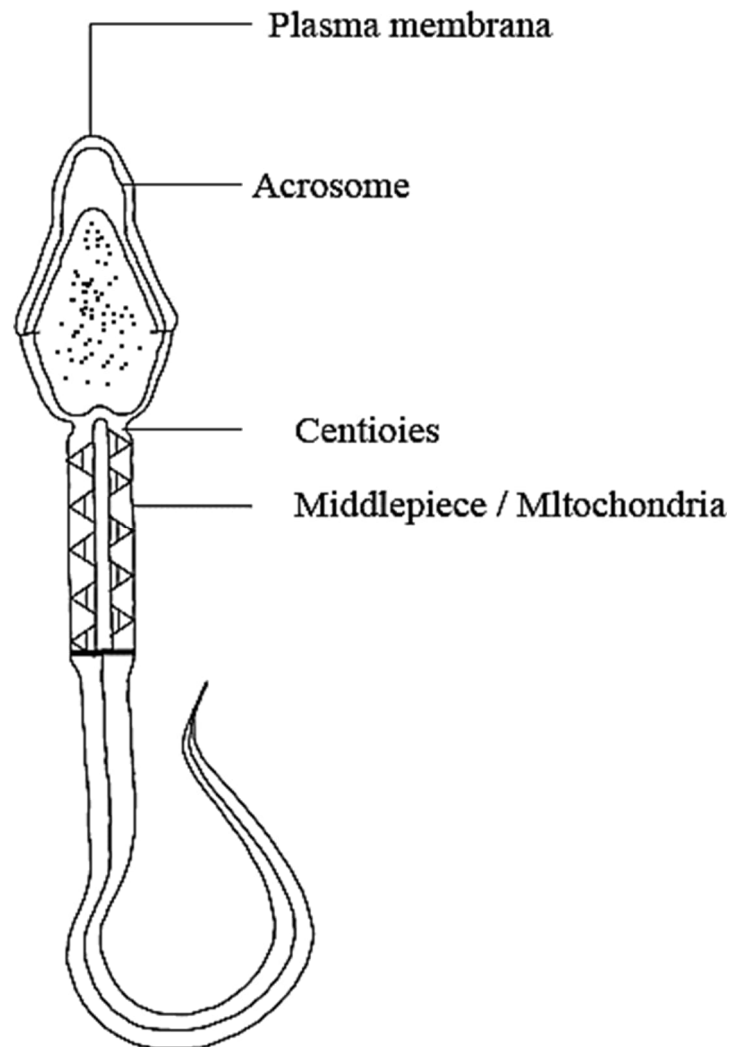
Semen : Sperm + secretion of accessory glands.

- Semen has chemicals for nourishment of sperms neutralizing the acidity of urethra and vagina, stimulating their movement in female tract.

Structure of Sperm : Each sperm consists of following parts :

(i) Head (ii) Neck (iii) Middle piece (iv) Tail

- **Head :** It is oval in structure. It is composed of a large nucleus and a small acrosome. It is formed of golgi complex. It consists of hydrolytic enzymes and is used to contact & penetrate the egg during fertilization.



- **Middle piece :** It is cylindrical in human sperms. It consists of mitochondrial ring in a thin layer of cytoplasm. Mitochondria is coiled around the axial filament. It provides energy & it is said to be the power house of the sperm.

- **Neck :** It is very short and contains two centrioles .

- **Tail :** It is very long, slender and tapering. It's main function is to provide movement to the sperm.

Spermatogenesis : This process of formation of sperm from spermatogonia is called as spermatogenesis.