Male Reproductive system

Chapter 43

Section 1

Male Reproductive system

- Functions of the male reproductive system:

1. To produce sperm cells.

1. To deliver sperm cells to the female reproductive system.

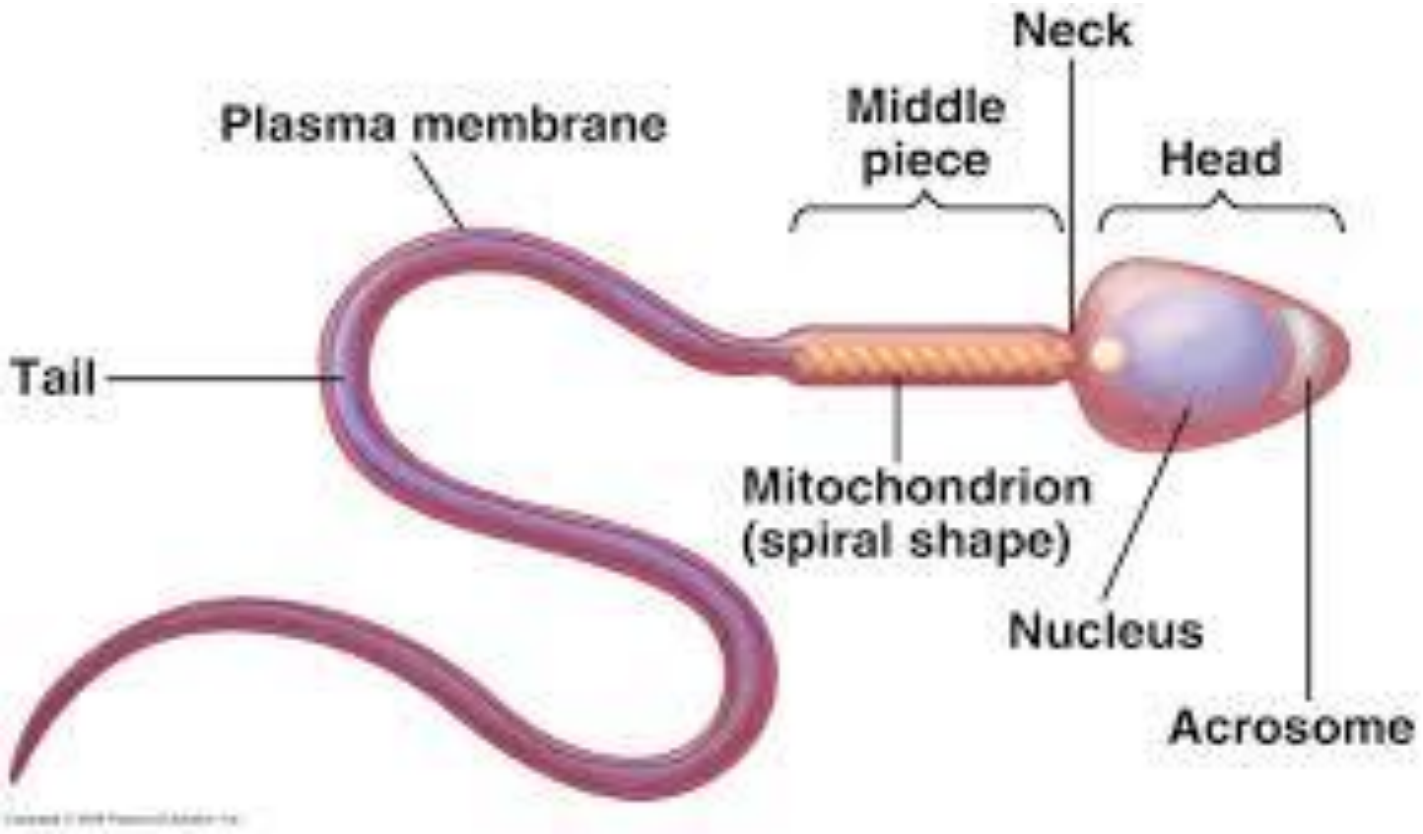
Sperm {male sex cells}

Structure of the sperm

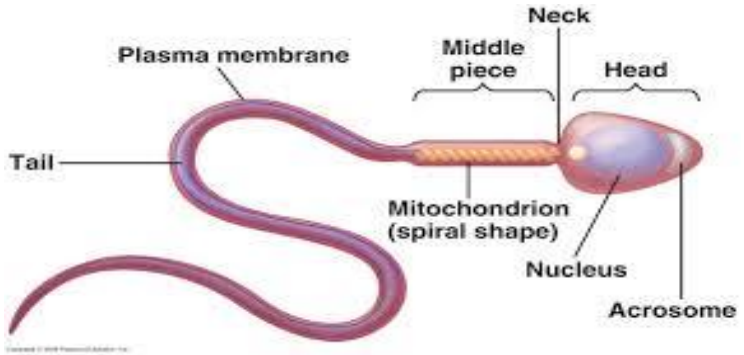
Sperm {male sex cells}
Structure of the sperm

- Head
- Midpiece
- Tail

Sperm {male sex cells}
Structure of the sperm

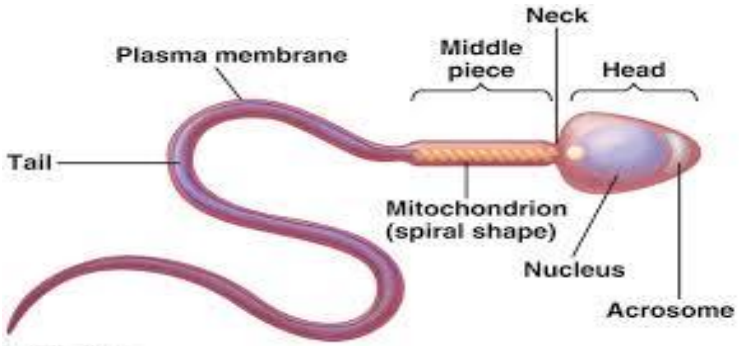


Structure of the sperm



- Head
  - Has little cytoplasm
  - Enzymes at the top of the head help penetrate an egg cell during fertilization.

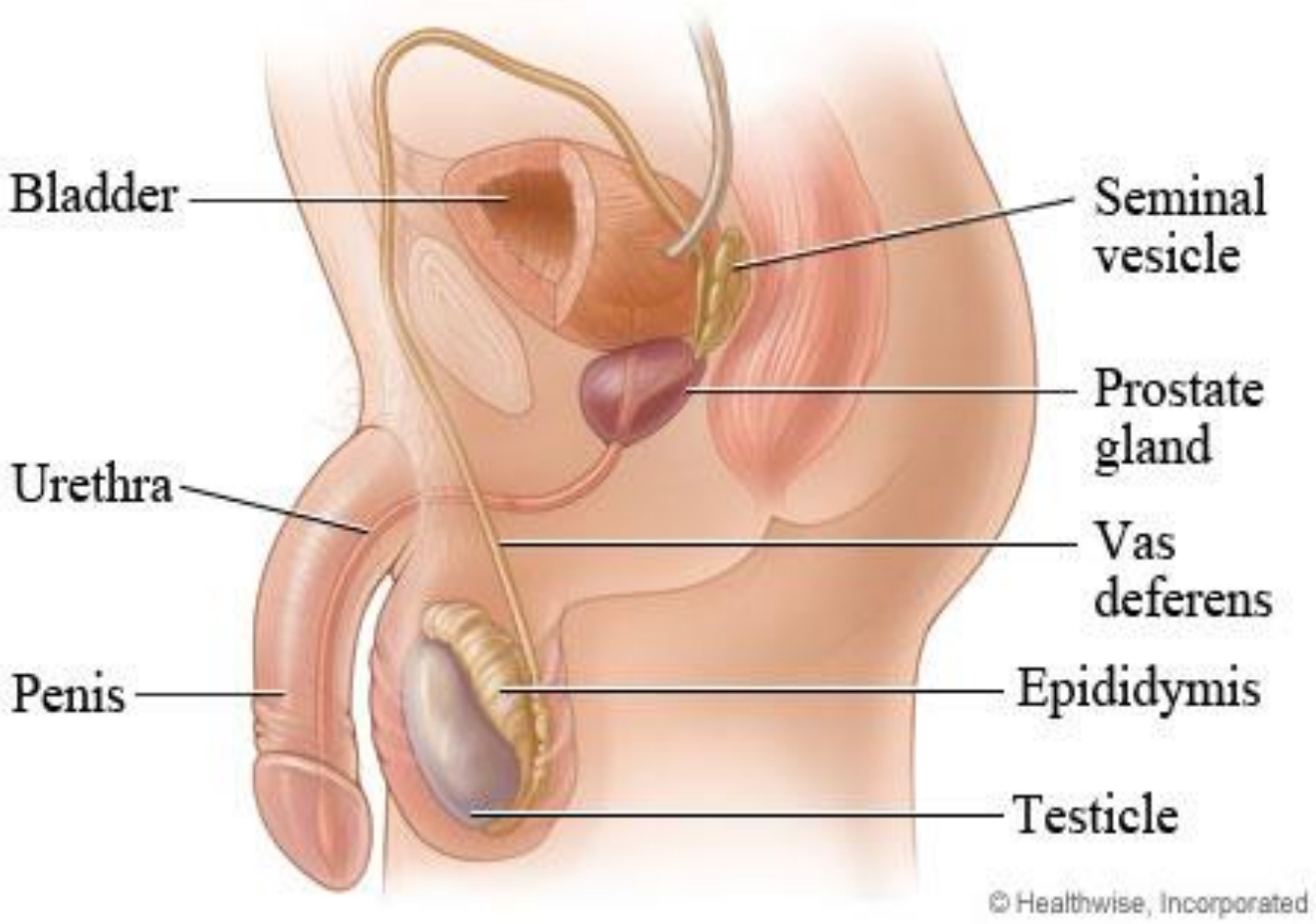
Structure of the sperm



- Midpiece
  - Contains mitochondria which supplies the sperm with energy to propel themselves through the female reproductive system
- Tail
  - Is a powerful flagellum that enables the sperm cell to move

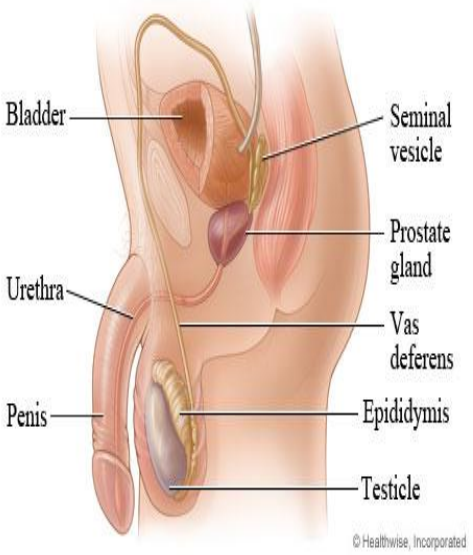
fig.3, page 997

Male Reproductive system



Functions of the male reproductive system

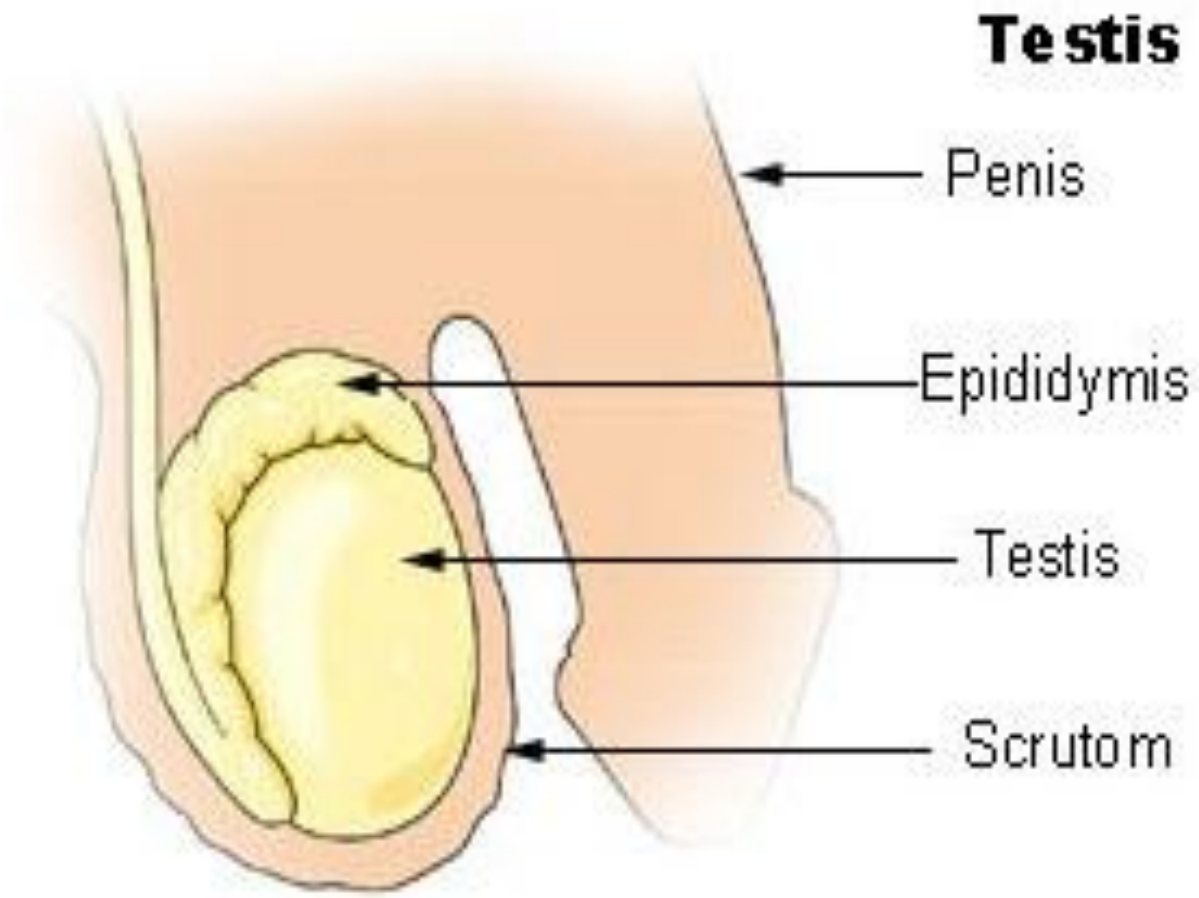
- To produce sperm cells.
- To deliver sperm cells to the female reproductive system.



Testes (testis ⟶ singular)

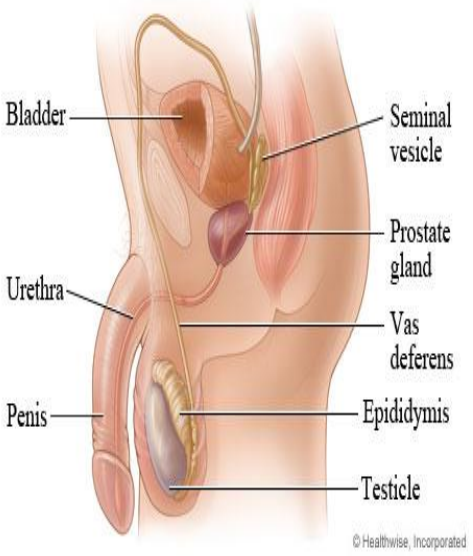
Begin to produce sperm during adolescent stage of development (puberty).

Fig. 1 , pg 996


Testis
Penis
Epididymis
Testis
Scrutom

Seminiferous tubules:

- Many tightly coiled tubules.
- Sperm cells are produced in the lining of seminiferous tubules.



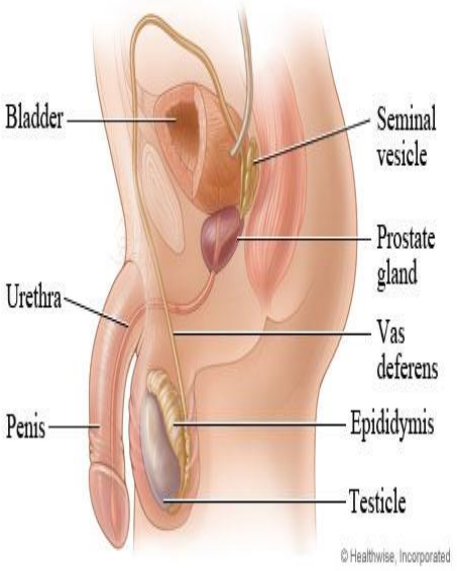
The functioning of the testes is regulated by two hormones:

1) LH : Luteinizing Hormone
2) FSH: Follicle Stimulating Hormone

from interior pituitary gland

LH (Luteinizing Hormone):

- Stimulates secretion of the sex hormone (testosterone).



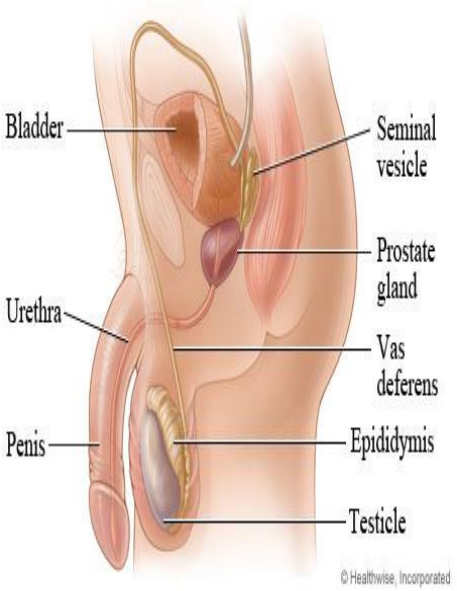
FSH (Follicle Stimulating Hormone):

- Stimulates sperm production in the testes

Maturation and storage of sperm cells:

Typical adult male produces several hundred million sperm cells each day.

1) sperms produced in seminiferous tubules (not capable of swimming).



2) sperm enter a long coiled tube, Epididymis

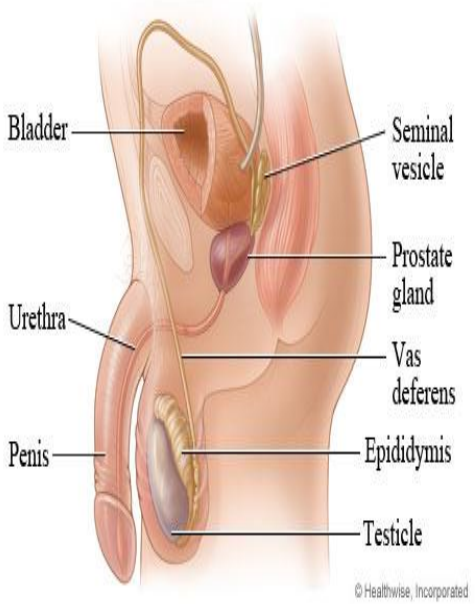
<u>functions of epididymis:</u>

- Sperm becomes mature (able to move).
- Sperm is stored for 2-3 days.

3)Vas deferens ⟶ long tube ; sperm cells move through the vas deferens into the urethra.

4) Sperm cells mix with fluids → sperm cell + fluid = **semen.**

5) Sperm leaves the body through the urethra



Semen** is sperm and fluids secreted by **exocrine glands.

Importance of fluids:

- Nourish the sperm.
- Aid sperm passage through the female reproductive system.

Exocrine glands	Fluid	Importance
Seminal vesicles {between bladder and rectum}	Rich with sugar	Provides sperm with energy
Prostate gland {Just below the bladder}	Alkaline	Neutralizes the acidity of the female reproductive system
Bulbourethral gland	Alkaline {before the semen leaves the body}	Neutralizes traces of acids in the urethra

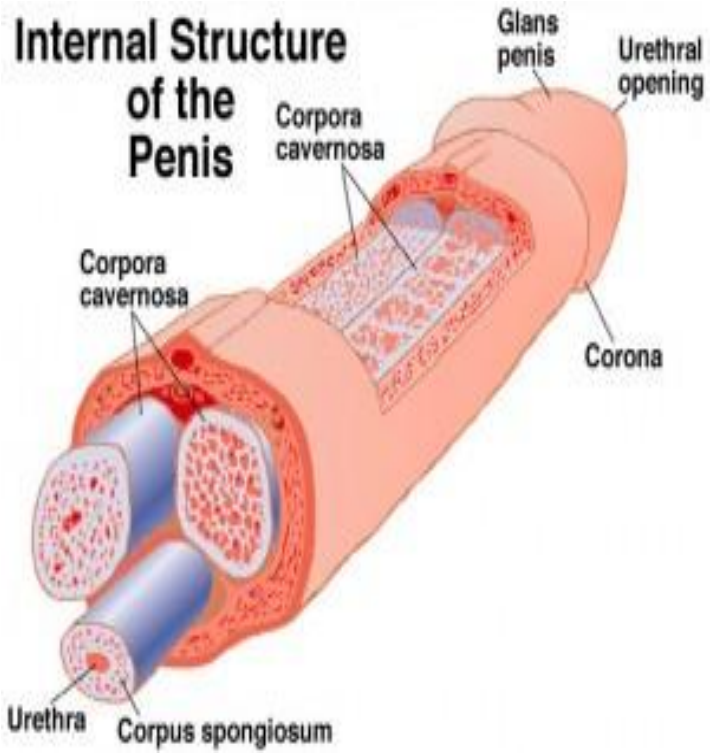
Male Reproductive system

Penis

- The male organ that deposits sperm in the female reproductive system

- The penis contains 3 cylinders of spongy tissues. When the spaces in these cylinders are filled with blood, the penis become **<u>erect</u>**

Figure 4, , Page 998



Male Reproductive system

- **Erection**

- Stiffening of the penis during ejaculation.

{Sexual intercourse}

- **Ejaculation**

- Releasing of semen out of the body through the penis.

- Forceful expulsion of semen.