

Male Reproductive system

Chapter 43

Section 1

Male Reproductive system

- Functions of the male reproductive system:
 1. To produce sperm cells.
 2. To deliver sperm cells to the female reproductive system.

Sperm {male sex cells}

Structure of the sperm



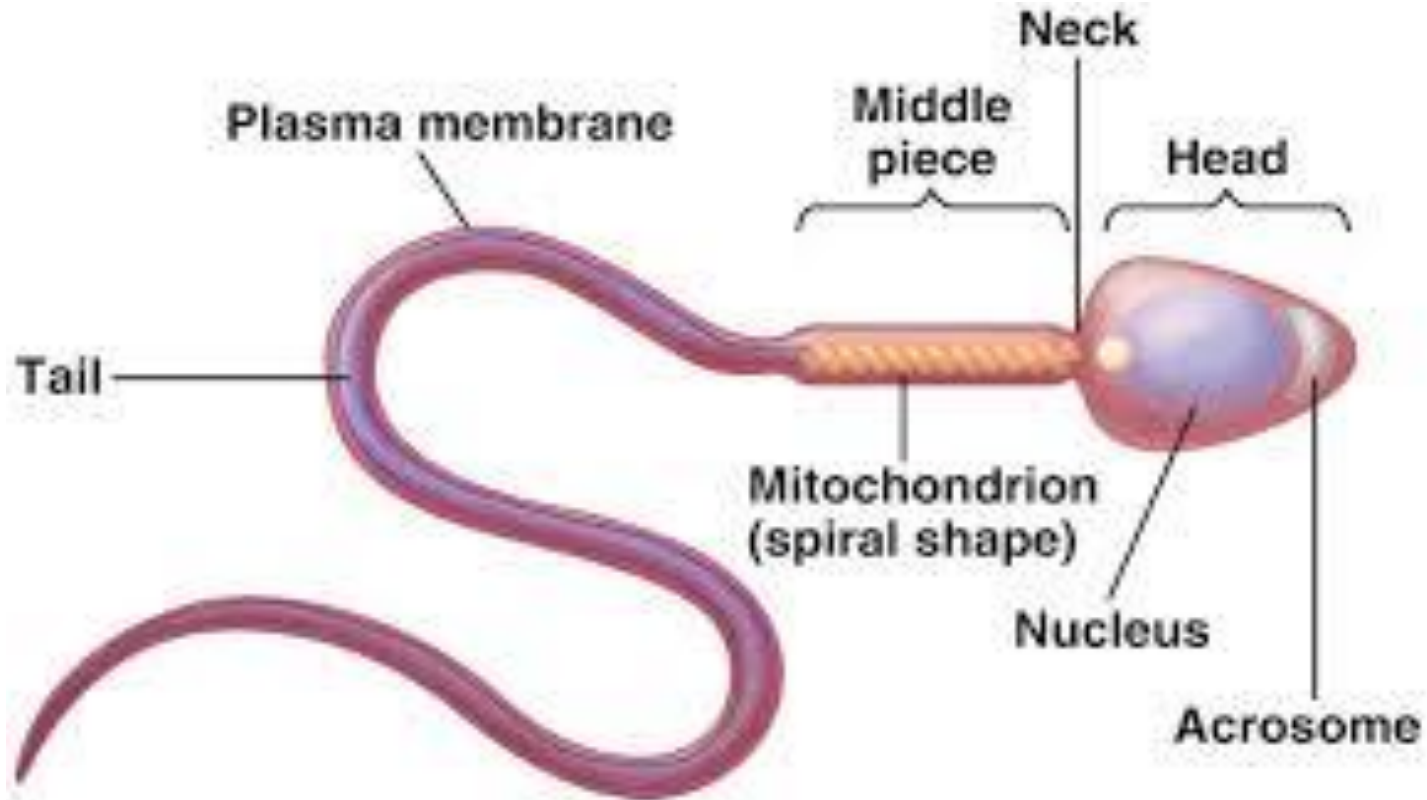
Sperm {male sex cells}

Structure of the sperm

- Head
- Midpiece
- Tail

Sperm {male sex cells}

Structure of the sperm



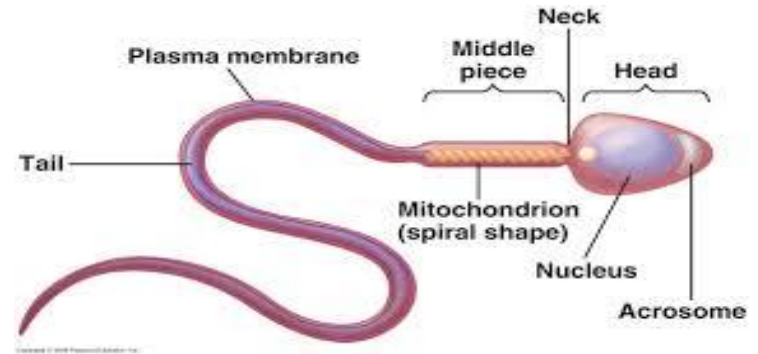
Copyright © 2004 Pearson Education, Inc.

Structure of the sperm

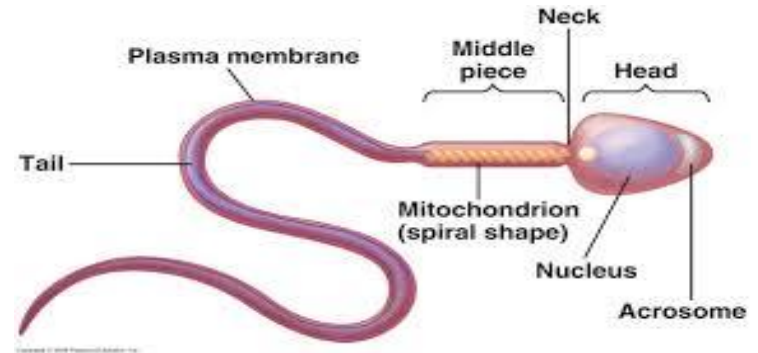
- Head

- Has little cytoplasm

- Enzymes at the top of the head help penetrate an egg cell during fertilization.



Structure of the sperm



- **Midpiece**

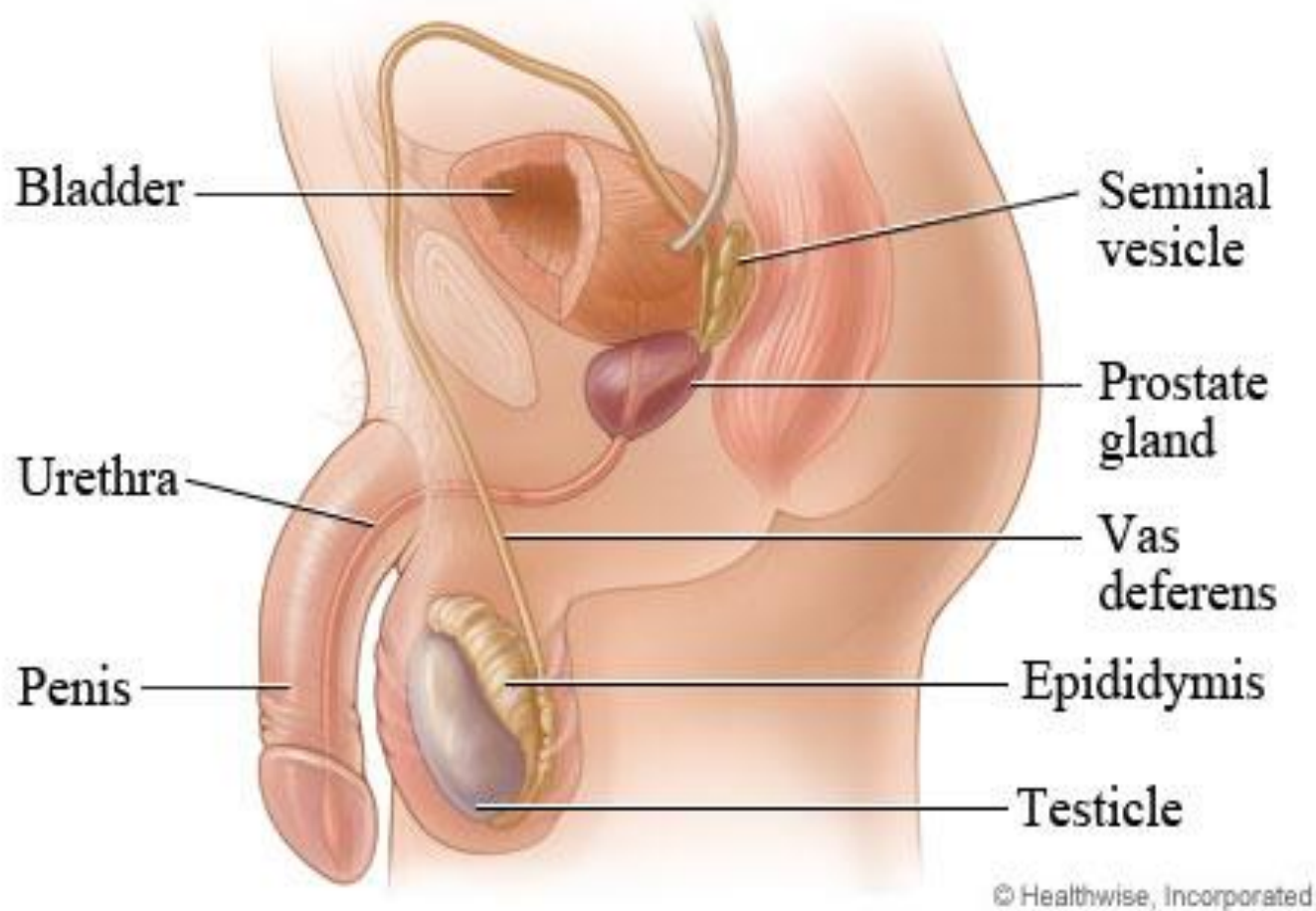
- Contains mitochondria which supplies the sperm with energy to propel themselves through the female reproductive system

- **Tail**

- Is a powerful flagellum that enables the sperm cell to move

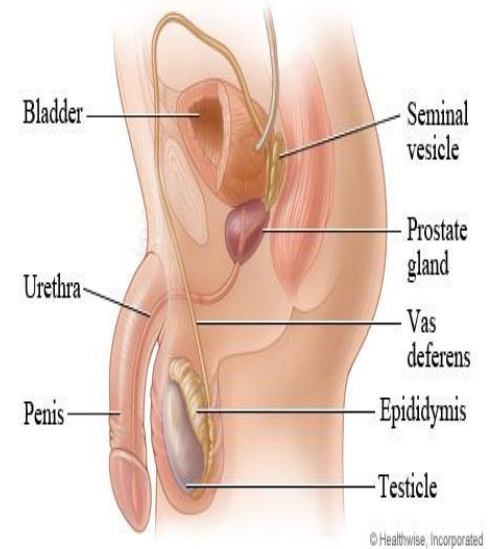
fig.3, page 997

Male Reproductive system



Functions of the male reproductive system

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

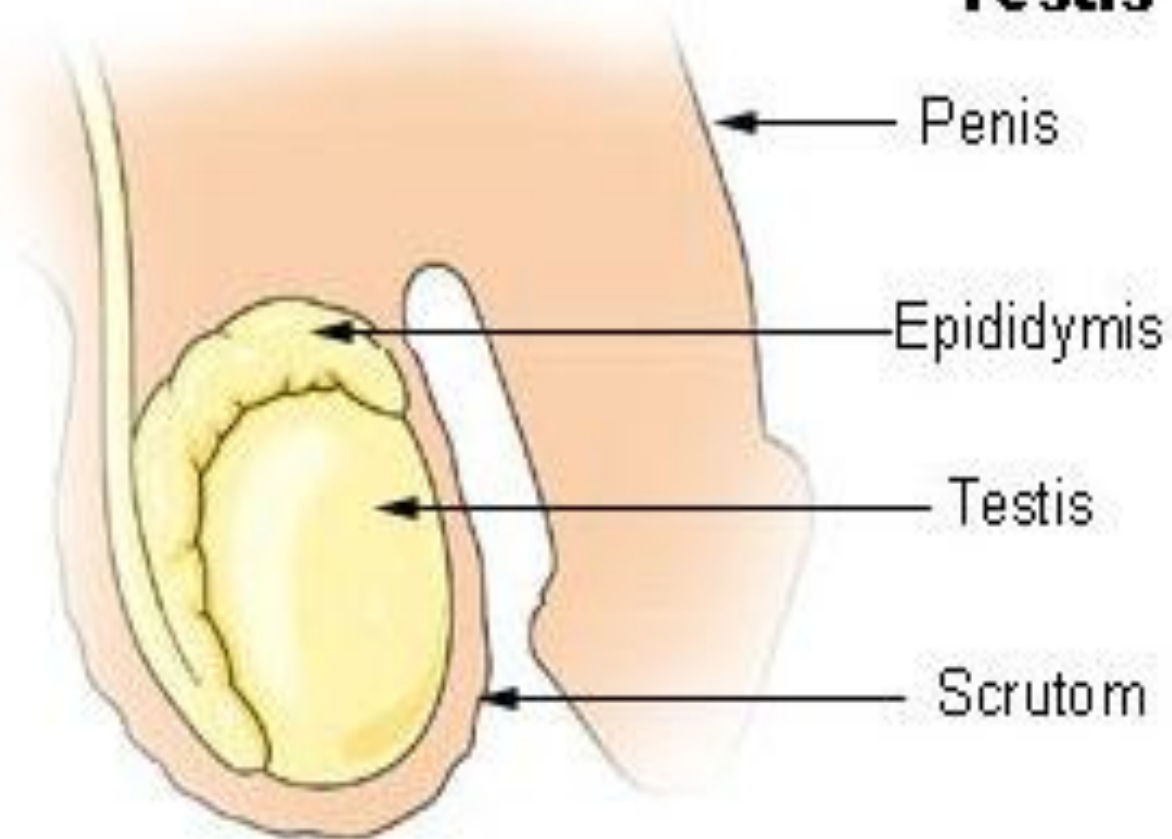


Testes (testis → singular)

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

Fig. 1 , pg 996

Testis



Seminiferous tubules:

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

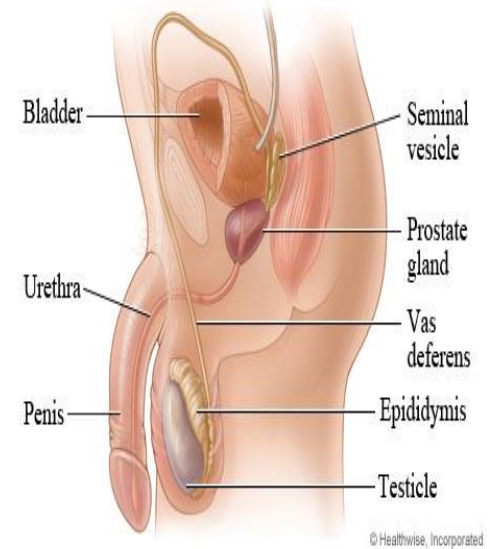
The functioning of the testes is regulated by two hormones:

1) LH : Luteinizing Hormone

2) FSH: Follicle Stimulating Hormone

from

} anterior pituitary gland

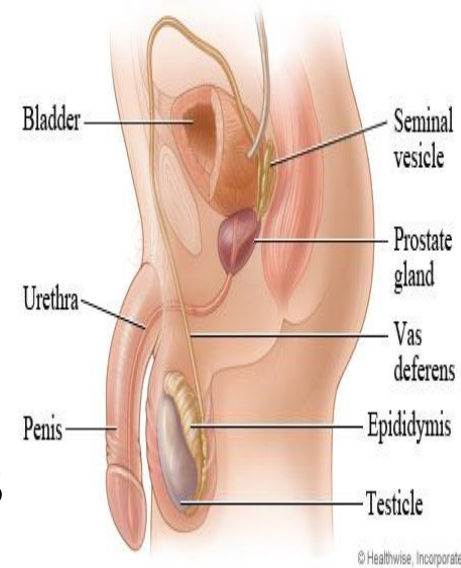


LH (Luteinizing Hormone):

- 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.

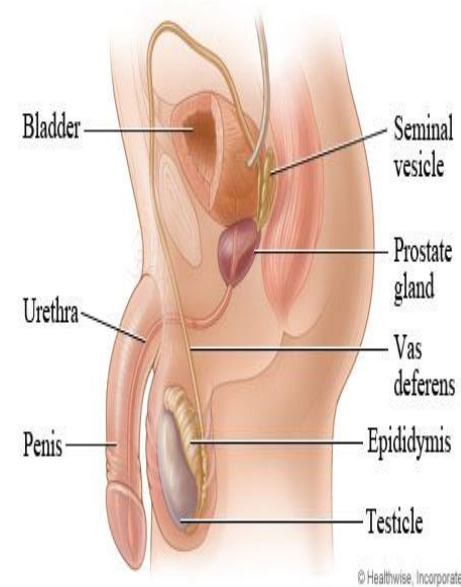
1) sperms produced in seminiferous tubules (not capable of swimming).

2) sperm enter a long coiled tube, Epididymis

functions of epididymis:

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

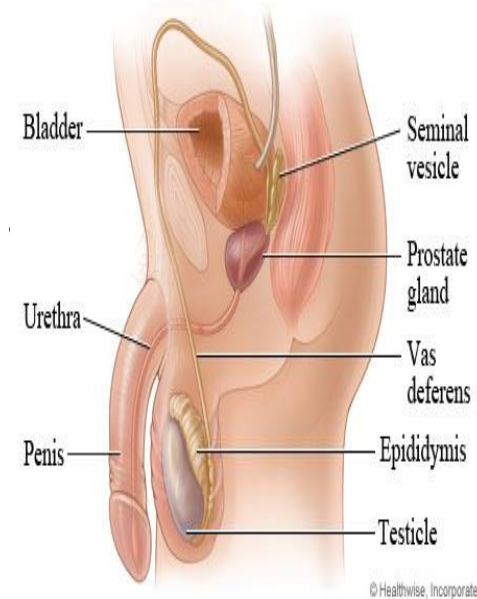
3) Vas deferens → long tube ; sperm cells move through the vas deferens into the urethra.



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.

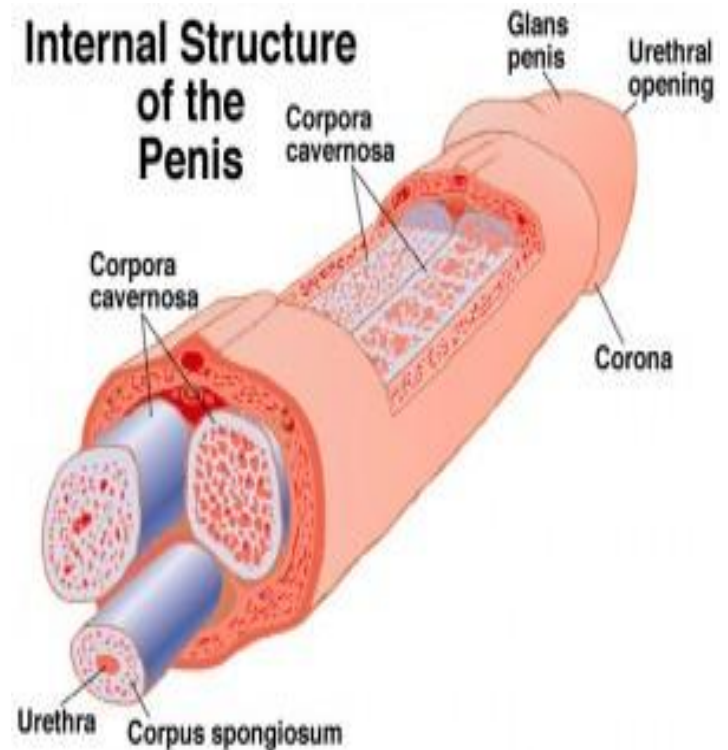
Exocrine glands	Fluid	Importance
Seminal vesicles {between bladder and rectum}	Rich with sugar	Provides sperm with energy
Prostate gland {Just below the bladder}	Alkaline	Neutralizes the acidity of the female reproductive system
Bulbourethral gland	Alkaline {before the semen leaves the body}	Neutralizes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

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.