

Male Reproductive System

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Unit 4.2

4.2 Journal

We typically think that cancer occurs mostly in older individuals. However, testicular cancer occurs most often in teens and young men. Why do you think that teens may have a number of misconceptions about the reproductive system?

Objectives

- Describe 3 functions of the male reproductive system.
- Identify 5 ways to keep the male reproductive system healthy.

Structure and Function

- The three main function of the male reproductive system
 - Produce sex hormones
 - Produce and store sperm
 - Deliver sperm to the female reproductive system
- **Sperm** - the reproductive cells in men
- **Fertilization** - when the sperm cell joins with an egg

Testes

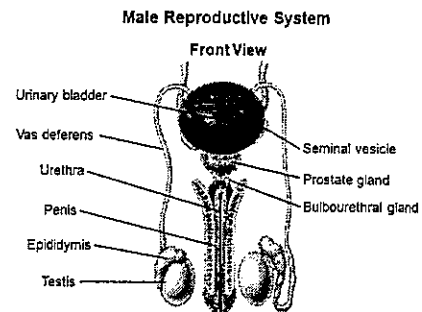
- **Testes (testicles)** - two oval-shaped reproductive glands
- Two main functions:
 - Produce testosterone
 - Produce sperm
- **Testosterone** - affects the production of sperm and signals certain changes during puberty such as the growth of facial hair.

Testes

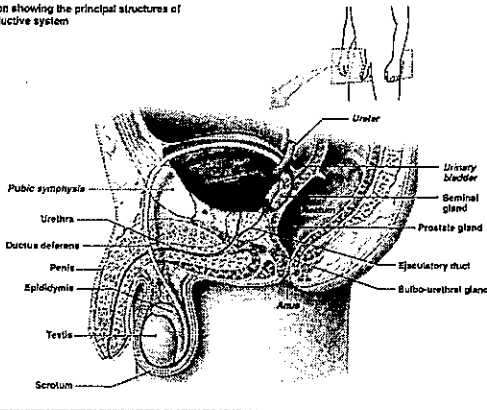
- The testes hang outside of the main body cavity within a sac of skin called the **scrotum**.
- Temperature of the testes is a few degrees lower than the temperature inside the body
 - Helps the sperm to develop properly and survive

Penis

- The external sexual organ through which sperm leave the body.
- The tip of the penis is covered with loose skin, called **foreskin**.
- **Circumcision** - the surgical procedure where the foreskin is removed shortly after birth
 - Usually based on cultural/religious reasons



A sagittal section showing the principal structures of the male reproductive system

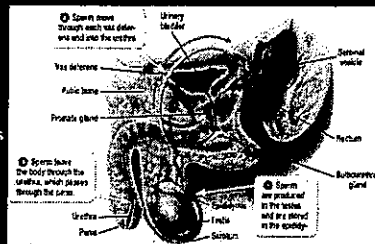


Sperm Production

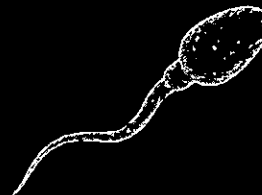
- Once a male reaches puberty, millions of sperm are produced in the testes each day.
- Sperm production begins in the hypothalamus
 - Hypothalamus signals pituitary gland
 - Pituitary gland releases LH (luteinizing hormone) and FSH (follicle stimulating hormone)
 - LH signals the testes to begin making testosterone
 - Testosterone and FSH then signal the production of sperm

The Pathway of Sperm

- Sperm are produced in the testes. They mature and are stored in the epididymis.
- Sperm travel through the vas deferens to the seminal vesicles.
- Seminal vesicles add a fluid that provides a source of energy for the active sperm.
- The prostate gland adds a fluid that protects the sperm.
- The bulbourethral glands add a fluid that protects sperm from acidic conditions in the urethra.



Release of Sperm



- The mixture of sperm cells and fluids from the accessory glands is called semen.
- The ejection of semen from the penis is called ejaculation.
- The urethra—the tube that passes through the penis to the outside of the body—carries urine as well as sperm.

Keeping Healthy

- Caring for the male reproductive system involves
 - Cleanliness
 - Protection from sexually transmitted infections
 - Protection from trauma
 - Self-exams
 - Regular medical check-ups

Cleanliness

- Wash external organs - penis and scrotum - daily
- Drying the groin area well after showering can prevent fungal infections that can cause jock itch

Protection from Sexually Transmitted Infections (STIs)

- Healthy choices regarding sexual behavior can prevent serious infections of the reproductive system
- Some barrier methods can also help prevent the spread of STIs, but they can fail
 - Not 100% success rate in stopping pregnancy or STIs

Protection from Trauma

- During athletic activities, males should wear a protector or "cup"
- Tight clothing should be avoided
 - Can cause irritation in the groin area
- Be careful when lifting heavy objects
 - Inguinal hernias - if testicles push into the scrotum - surgery almost always needed

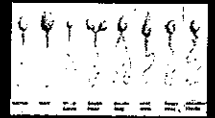


Self-Exams

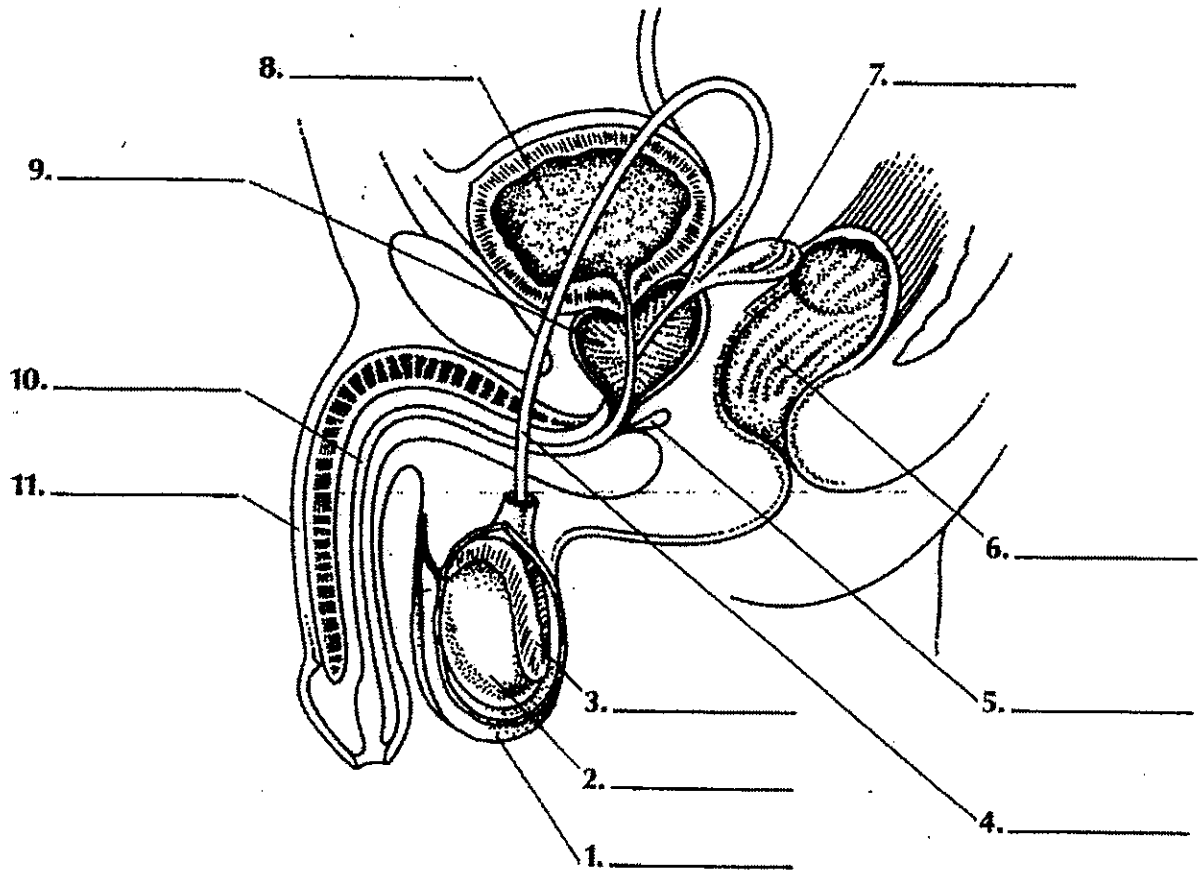
- Pay attention to your body!
- Certain conditions should not be self-treated and require a medical examination
 - Pain when urinating
 - Unusual discharge
 - Sores on the genitals
- Examine testes for testicular cancer (most common cancer in males 15-34 years old)
What to look for:
 - Feel for lumps or hard places (the size of a pea)
 - Look for hard lumps, or smooth, round masses or any change in size, shape or texture of testes
 - Don't confuse the epididymis for a lump - it appears as a small "bump" on the back side of the testis

Regular Medical Checkups

- Medical exams throughout life can help ensure reproductive health
- Starting at age 50, men are encouraged to get screened for prostate cancer during their regular exams
 - Prostate gland could become enlarged or develop into cancer
 - Prostate cancer is second most common cause of cancer death in older men (4/100 cancer)
- Infertility - the condition of being unable to reproduce
 - May be inability to produce healthy sperm or the production of too few sperm
 - Three common causes - exposure to certain chemicals, having mumps after puberty, or having an undescended testis



Reproductive System of Human Male



Key: testis, penis, vas deferens, urethra, epididymis, seminal vesicle, bulbourethral gland, rectum, bladder, scrotum, prostate

Using the key, label the diagram above with the correct names of each structure.