

The Male Reproductive System



Objectives

After studying this chapter, you will be able to:

- **Name the parts of the male reproductive system and discuss the function of each part**
- **Define combining forms used in building words that relate to the male reproductive system**
- **Identify the meaning of related abbreviations**
- **Name the common diagnoses, clinical procedures, and laboratory tests used in treating the male reproductive system**

Objectives

Cont'd

- **List and define the major pathological conditions of the male reproductive system**
- **Explain the meaning of surgical terms related to the male reproductive system**
- **Recognize common pharmacological agents used in treating the male reproductive system**

Structure and Function

The Male Reproductive System

- The sex cells (**spermatozoa**) or sperm are produced in the male gonads or **testes**.
- **Scrotum** is a sac located outside the body that houses the testes.
- **Spermatogenesis** requires a lower temperature than body temperature for safe development of sperm.

Structure and Function

The Male Reproductive System

- **Testosterone** is the main male hormone
- **Epididymis** is located at the top of each testes which are a group of ducts that store sperm

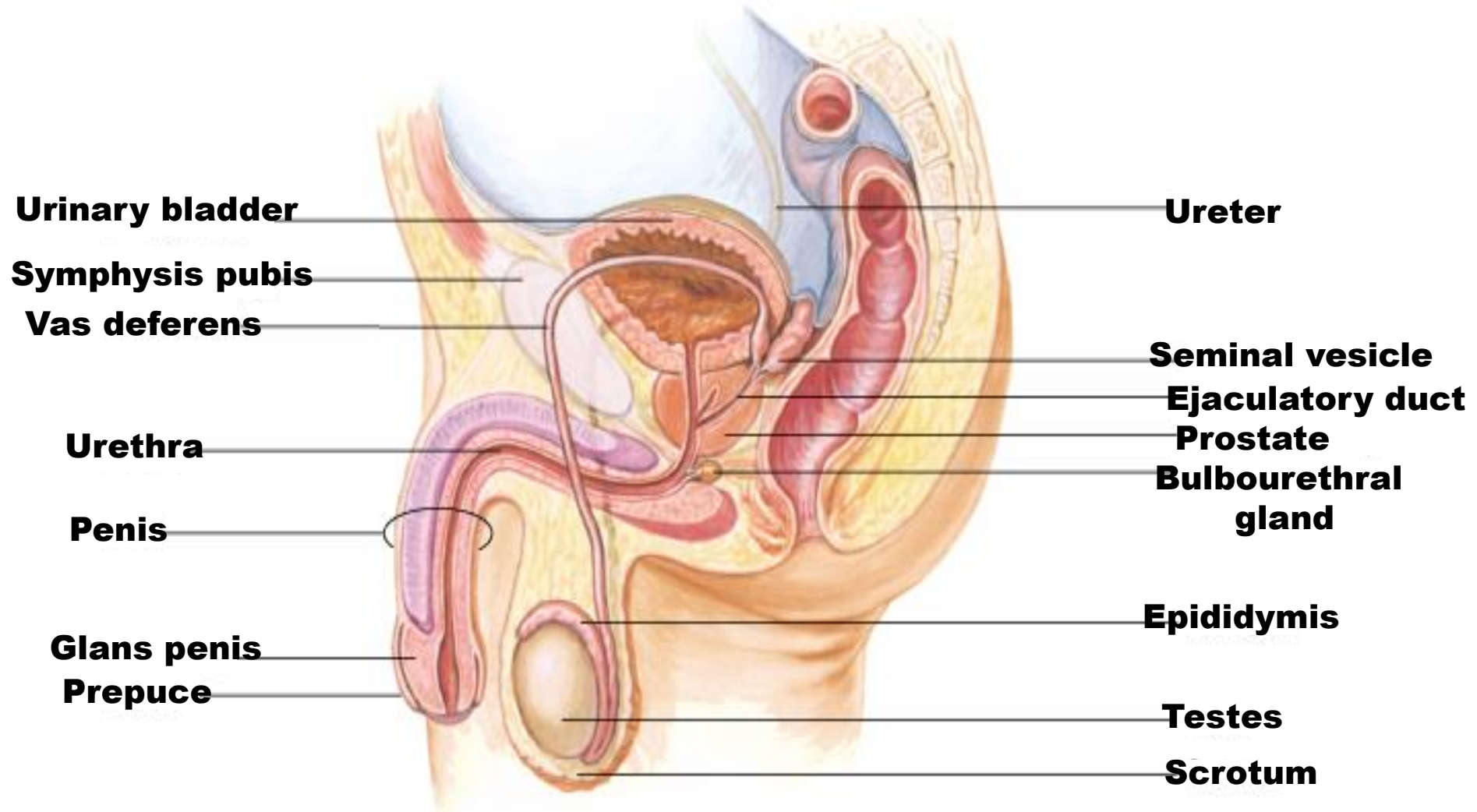
Glands

■ **Prostate**

■ **Cowpers**

Structure and Function

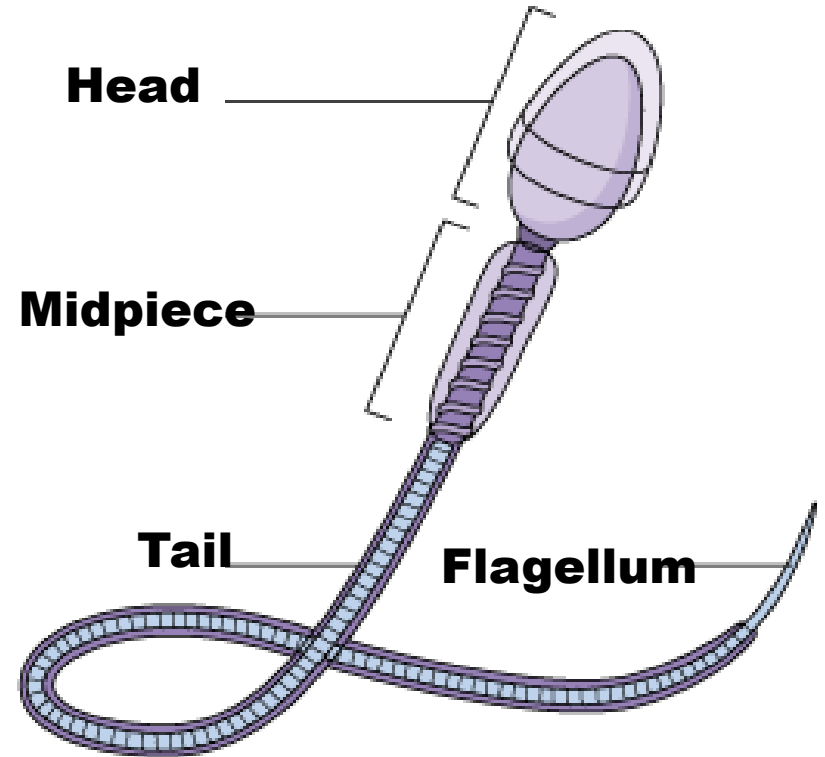
The Male Reproductive System



Structure and Function

Spermatozoon

- Microscopic cell
- Consists of a head and tail (**flagellum**)
- Genetic material (chromosomes) are located in the head
- Motility occurs by means of the flagellum



NOTE: Identical twins result from one ovum splitting after being fertilized by a single sperm.
Fraternal twins are the result of two sperm fertilizing two ova.

Structure and Function

The Sperm Pathway

Testes

Sperm

Epididymis

Vas deferens

Seminal vesicles

Ejaculatory duct

Prostate gland

Urethra

**Expulsion
from the body**

Combining Forms and Abbreviations

Combining Form	Meaning
andr (o)	men
balan (o)	glans penis
epididym (o)	epididymis
orch (o)	testes
prostat (o)	prostate gland
sperm (o)	sperm

Combining Forms and Abbreviations

Abbreviation

Meaning

AIH	artificial insemination homologous
BPH	benign prostatic hypertrophy
PED	penile erectile dysfunction
PSA	prostate-specific antigen
SPP	suprapubic prostatectomy
TURP	transurethral resection of the prostate

Diagnostic, Procedural, and Laboratory Terms

Male Examination

- **Digital rectal exam (DRE)** checks for rectal and prostate abnormalities
- **Prostate-specific antigen (PSA)** is a blood test to screen for prostate cancer
- **Semen analysis** determines quality and quantity of sperm



Diagnostic, Procedural, and Laboratory Terms

X-ray and Imaging Procedures

Urethrogram

- X-ray of the urethra and prostate

Sonogram

- May be used during needle biopsies of the testicles or prostate

NOTE: Hormone replacement is given to males who have a deficiency of male hormones



Pathological Terms

cryptorchism

anorchism

hypospadias

**Developmental
Defects**

epispadias

hydrocele

varicocele

phimosis

aspermia

Pathological Terms

Inflammatory Conditions

Prostatitis

- inflammation of the prostate

Balanitis

- inflammation of the glans penis

Epididymitis

- inflammation of the epididymis

Other Conditions

Peyronie's disease

- curvature of the penis due to a hardening in the interior penis structure

Seminoma

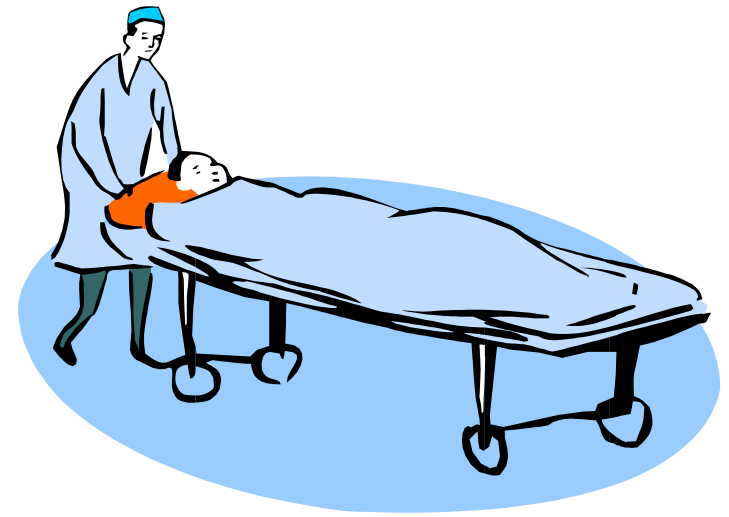
- common tumor of the testicles

Chancroids

- venereal sore caused by a bacterial infection

Surgical Terms

The most common surgery of the male reproductive system is **circumcision**.



Other Procedures

- **Epididymectomy**
- **Prostatectomy**
- **Orchiectomy**
- **Vasectomy**

NOTE: The reversing of a vasectomy is called a vasovasostomy

Pharmacology



Medications are given for the following reasons:

- **Hormone replacement therapy**
- **To restore sexual function**
- **To build muscle mass**

Apply Your Knowledge

Harry, age 57 will have a bilateral orchidectomy. Which of the following effects from this surgery should be expected?

A. Failure to urinate

B. Failure to produce sperm

C. Increased sperm retention

Answer: B. Failure to produce sperm

Apply Your Knowledge

Marsha and Bill have just given birth to a stillborn child with numerous genetic defects. After several tests and counseling, the couple is informed that the sperm was defective.

Which part of the sperm most likely was faulty?

A. head

Answer: A. head

B. tail

C. flagellum

Apply Your Knowledge

Starting with the production of sperm in the testes, trace the path that sperm will travel by filling in the blanks.

testes



sperm



epididymis



vas deferens



seminal vesicles



expulsion from
the body



urethra



prostate gland



ejaculatory duct