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
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.
**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
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.
The Sperm Pathway

Testes → Sperm → Epididymis → Vas deferens → Seminal vesicles → Ejaculatory duct → Prostate gland → Urethra → Expulsion from the body
Combining Forms and Abbreviations

<table>
<thead>
<tr>
<th>Combining Form</th>
<th>Meaning</th>
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<tr>
<td>andr (o)</td>
<td>men</td>
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<tr>
<td>balan (o)</td>
<td>glans penis</td>
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<tr>
<td>epididym (o)</td>
<td>epididymis</td>
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<tr>
<td>orch (o)</td>
<td>testes</td>
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<tr>
<td>prostat (o)</td>
<td>prostate gland</td>
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<tr>
<td>sperm (o)</td>
<td>sperm</td>
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<tr>
<td>Abbreviation</td>
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<tr>
<td>AIH</td>
<td>artificial insemination homologous</td>
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<tr>
<td>BPH</td>
<td>benign prostatic hypertrophy</td>
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<tr>
<td>PED</td>
<td>penile erectile dysfunction</td>
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<tr>
<td>PSA</td>
<td>prostate-specific antigen</td>
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<tr>
<td>SPP</td>
<td>suprapubic prostatectomy</td>
</tr>
<tr>
<td>TURP</td>
<td>transurethral resection of the prostate</td>
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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
### 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

Developmental Defects

cryptorchism

anorchism

hypospadias

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

Chancroid
• venereal sore caused by a bacterial infection
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
Medications are given for the following reasons:

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

B. tail

C. flagellum

Answer: A. head
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