26.3A: Anatomy of the Male Reproductive System

The male reproductive system includes external (penis, scrotum, epididymus, and testes) and internal (accessory) organs.

Learning Objectives

• Distinguish among the parts and functions of the male reproductive system

Key Points

• The functions of the male reproductive system include producing and transporting sperm, ejaculating sperm into the female reproductive tract, and producing and secreting male hormones.

• Most of the male reproductive system is located outside of the body. These external structures are the penis, scrotum, epididymis, and testes.

• The internal organs of the male reproductive system are called accessory organs. They include the vas deferens, seminal vesicles, prostate gland, and bulbourethral glands.

Key Terms

• semen: Contains spermatozoa, proteolytic and other enzymes, and fructose that promotes spermatozoa survival. It also provides a medium for sperm motility.

• spermatogenesis: The process of sperm production within the seminiferous tubules in the testes.

• testosterone: Steroid hormone produced primarily in the male testes and responsible for the development of male
secondary sex characteristics.

The organs of the male reproductive system are specialized for three primary functions:

1. To produce, maintain, transport, and nourish sperm (the male reproductive cells), and protective fluid (semen).
2. To discharge sperm within the female reproductive tract.
3. To produce and secrete male sex hormones.

### External Male Sex Organs

Most of the male reproductive system is located outside of the man’s body. These external structures are the penis, scrotum, epididymis, and testes.

![Male Reproductive System: Lateral view of male reproductive system with organs labeled.](https://med.libretexts.org/Bookshelves/Anatomy_and_Physiology/Book%3A_Anatomy_and_Physiology_(Boundless)/26%3A_…)

The penis is the male organ for sexual intercourse and urination. Semen and urine leave the penis through the urethra.

The scrotum is a loose, pouch-like sack of skin that hangs behind the penis, containing the testes.

The scrotum has a protective function, including the maintenance of optimal temperatures for sperm survival and function. For sperm development, the testes must maintain a temperature slightly cooler than normal body temperature. Special muscles in the wall of the scrotum contract and relax in order to move the testes near the body.

The epididymus is located at the back of the testis and connects it to the vas deferens. Its function is to store and carry sperm. The testis is the location for testosterone production. The coiled collection of tubes within the testes are the seminiferous tubules. Within these tubules, spermatogenesis takes place.

### Accessory Sex Organs

The internal organs of the male reproductive system are called accessory organs. They include the vas deferens, seminal vesicles, prostate gland, and bulbourethral (Cowper’s) glands.

- Vas deferens: Transports mature sperm to the urethra in preparation for ejaculation.
- Seminal vesicles: Sac-like pouches that attach to the vas deferens near the base of the bladder. The vesicles produce molecules such as fructose that serve as energy sources for sperm. The seminal vesicle fluid makes up most of the volume of a man’s ejaculate.
• Prostate gland: A walnut-sized structure located below the urinary bladder in front of the rectum. It contributes additional fluid to the ejaculate that serves as nourishment for sperm.

• Bulbourethral (Cowper's) glands: Pea-sized structures located on the sides of the urethra just below the prostate gland. These glands produce a clear, slippery fluid that empties directly into the urethra. Fluid produced by these glands lubricates the urethra and neutralizes acidity associated with residual urine.