CONCEPT: OVERVIEW OF THE MALE REPRODUCTIVE SYSTEM

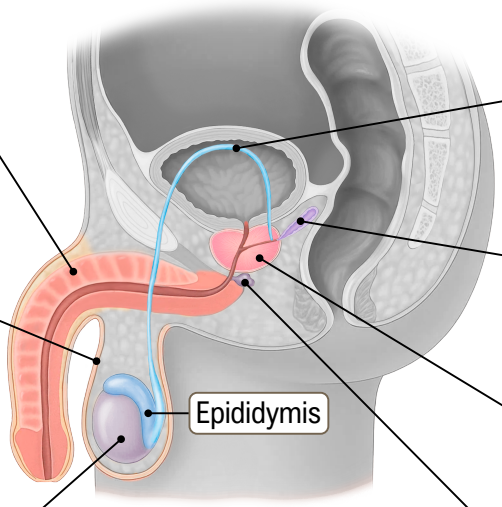
Introduction to Male Reproductive System

- Responsible for producing _____ and male sex hormones.
- Includes internal & external genitalia.
  - **External Genitalia:** outside _____ cavity.
  - **Internal Genitalia:** _____ and ducts inside pelvic cavity.

1. Penis
- Organ of copulation.
- Contains _____.

2. Scrotum
- Holds & protects _____.
- Regulates temperature of testes.

3. Testes & Epididymis
- Testes produce sperm & testosterone.
- Epididymis _____ & matures sperm.



4. Vas Deferens
- Carries sperm from epididymis to inside the pelvic cavity.

5. Seminal Vesicles
- Produce seminal fluid.

6. Prostate Gland
- Secretions help keep the sperm alive.

7. Bulbourethral Glands
- Helps to keep urethra lubricated.

EXAMPLE

Match each of these descriptions with the correct organ/structure of the male reproductive system.

1) Produces secretion to keep the urethra lubricated.	
2) Produce seminal fluid.	
3) Stores and matures sperm.	
4) Carries sperm cells into the pelvic cavity.	

a) Seminal vesicles
b) Urethra
c) Bulbourethral glands
d) Epididymis
e) Vas deferens

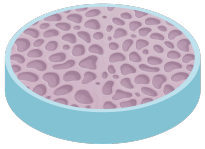
CONCEPT: OVERVIEW OF THE MALE REPRODUCTIVE SYSTEM

External Genitalia: Penis

Penis Anatomy

- Male sex organ containing _____ tissue encased in skin.
  - Sexual stimulation causes erection due to increased blood flow into _____ spaces.
- **Urethra** in the penis delivers _____ outside the body.
- **Glans Penis:** Head of the penis, naturally covered by foreskin (prepuce).
  - Foreskin is sometimes removed in circumcision.

Cavernous Spaces



Small blood-filled _____ in the erectile tissue.

EXAMPLE

Which of the following statements about the anatomy of the penis is true?

a) Cavernous spaces store sperm cells until they are ready to be released outside the body.

b) Glans penis is a part of the penis that contains the inferior portion of the urethra.

c) Vas deferens is a narrow muscular tube that carries semen outside the body.

d) Erection is caused by increased retention of blood in the erectile tissue arteries.

CONCEPT: OVERVIEW OF THE MALE REPRODUCTIVE SYSTEM

External Genitalia: Scrotum, Testes, and Epididymis

Scrotum

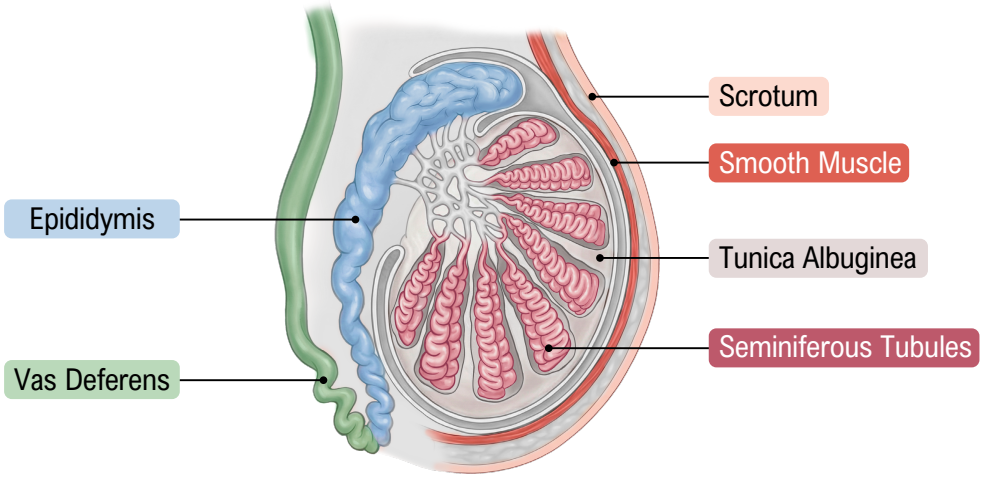
- Pouchlike structure located posterior and inferior to _____.
- **Smooth muscle** fibers inside the scrotum _____ in cold conditions to preserve heat.

Testes

- Oval-shaped organs produce testosterone and sperm (spermatogenesis).
- **Tunica Albuginea:** Fibrous tissue divides the interior of testes into multiple _____.
- **Seminiferous Tubules:** Coiled _____ located inside each lobe, site of spermatogenesis.

Epididymis

- Long highly coiled tubes lie on the _____ side of each testis.
- Stores and matures sperm cells until they are ready to be released into **vas deferens**.



EXAMPLE

Identify each of the following statements as true (T) or false (F).

1) Tunica albuginea is a fibrous tissue layer that divides the inside of a testicle into multiple lobes.	
2) The epididymis is a highly coiled tube that lies on the lateral side of the testicle.	
3) A layer of skeletal muscle inside the scrotum relaxes in warm conditions to lose heat.	
4) Seminiferous tubules are coiled structures that serve as the site for spermatogenesis.	

CONCEPT: OVERVIEW OF THE MALE REPRODUCTIVE SYSTEM

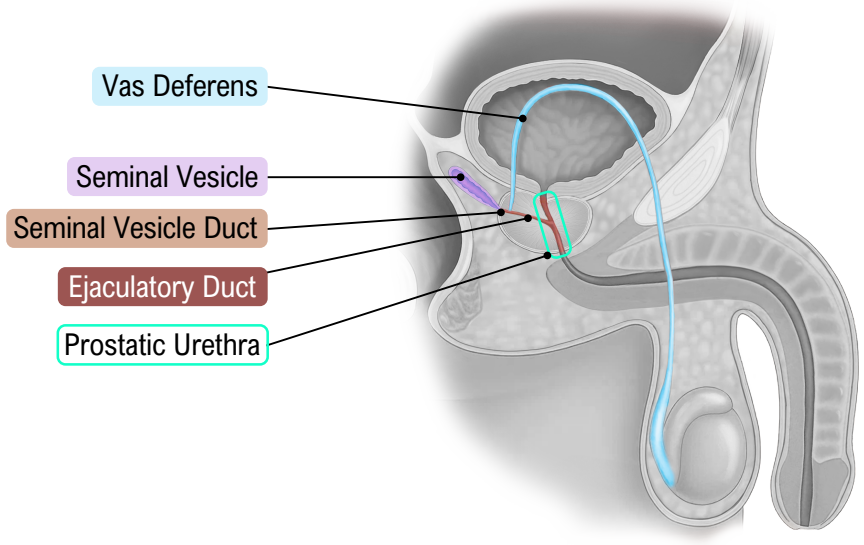
Internal Genitalia: Ves Deferens and Seminal Vesicles

Vas Deferens

- **Vas/Ductus Deferens:** Slim muscular tube, continuation of _____.
  - Carries sperm into the pelvic cavity.

Seminal Vesicles

- **Seminal Vesicles:** Located at the _____ side of the urinary bladder, produce **seminal fluid**.
  - **Seminal Fluid:** A fructose-rich fluid that nourishes the sperm.
    Connected to vas deferens through **seminal vesicle** _____.
  - **Ejaculatory Duct:** Union of vas deferens & seminal vesicle duct, drains into **prostatic urethra**.



EXAMPLE

Match each of these descriptions with the correct structural feature of the male reproductive system.

1) Initial section of the urethra surrounded by the prostate.	
2) Glands posterior to the urinary bladder produce essential fluid for sperm.	
3) A continuation of epididymis carries sperm towards prostatic urethra.	
4) Delivers sperm and seminal fluid into the urethra.	

a) Seminal vesicle
b) Prostate
c) Ejaculatory duct
d) Vas deferens
e) Prostatic urethra

CONCEPT: OVERVIEW OF THE MALE REPRODUCTIVE SYSTEM

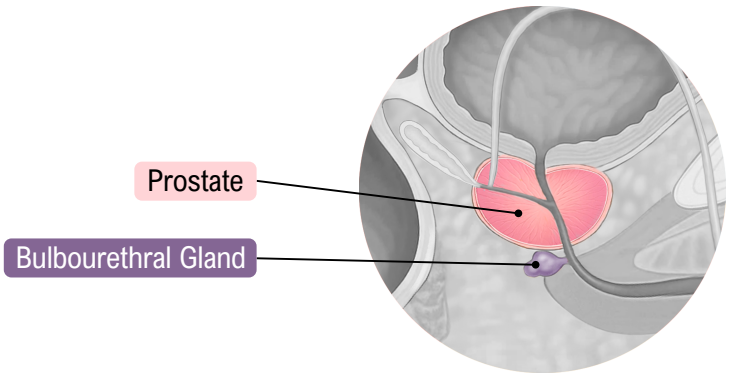
Internal Genitalia: Prostate and Bulbourethral Glands

Prostate Gland

- Located inferior to the urinary bladder, surrounds the initial portion of the urethra.
- Secretes **Prostatic Fluid** that helps to _____ the acidic pH of the urethra and the vagina.
  - Sperm requires alkaline pH to survive and function correctly.
- During ejaculation, prostate and internal urethral sphincter _____ to prevent mixing of urine & semen.

Bulbourethral Glands

- **Cowper Glands:** Small glands located on the _____ sides of the urethra, inferior to prostate.
- Connected to the urethra through a duct.
- Produce _____-like **Cowper's Fluid** that lubricates urethra and becomes part of the ejaculate.



Glands & Fluids Review		
Gland	**Fluid**	**Function**
Seminal Vesicle	**Seminal Fluid**	_____ source of sperm.
Prostate	**Prostatic Fluid**	Protects sperm from _____.
Bulbourethral Gland	_____ **Fluid**	Lubrication of urethra.

CONCEPT: OVERVIEW OF THE MALE REPRODUCTIVE SYSTEM

EXAMPLE

Which of the following statements about male reproductive system is true?

a) Sperm requires acidic pH to survive and function correctly.

b) Prostatic urethra is the initial portion of the urethra located superior to the prostate.

c) Cowper glands are located anterior to prostate on the lateral sides of the urethra.

d) Prostate produces an alkaline secretion that neutralizes the acidity of the urethra.

PRACTICE

Which of the following statements about male reproductive system is false?

a) The urethra is part of both the urinary and reproductive systems in males.

b) Epididymis is a highly coiled structure that lies posterior to the testis.

c) Cowper glands help the internal urinary sphincter to contract during ejaculation.

d) Ejaculatory duct drains sperm and seminal fluid into prostatic urethra.