Male Reproductive System

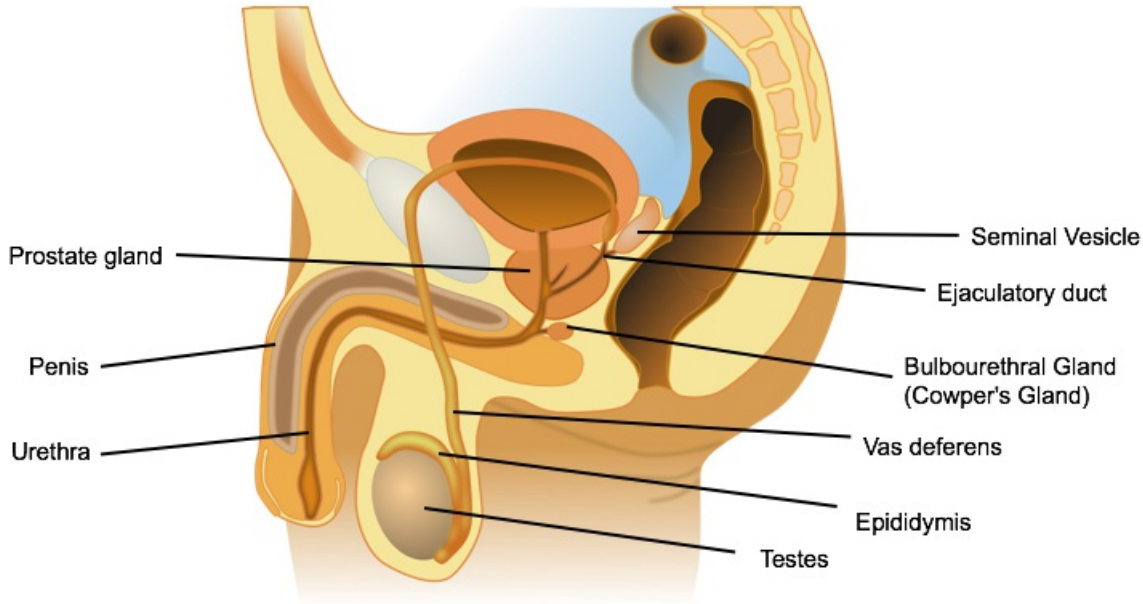
by Sophia

WHAT'S COVERED

In this lesson, you will learn to identify the components and function of the male reproductive system. Specifically, this lesson will cover:

1. Male Reproductive Structure

The **male reproductive system** is a body system in which sperm is produced. As you go through the structure, please refer to the image below as a reference.



TERM TO KNOW

Male Reproductive System

The reproductive system of males is primarily designed to produce and mature gametes (sperm) and deliver them to the female they are mating with; the primary organs of the male reproductive system are the testes, while the accessory organs would be the epididymis, vas deferens, seminal vesicles, bulbourethral glands, prostate gland, urethra, and the penis.

2. Sperm Formation

Males have two **testes** that produce sperm and secrete testosterone. Testosterone is the male sex hormone that plays various roles throughout the body. Once sperm have formed in the testes, they'll move into the **epididymis**. This is where sperm are allowed to mature. Sperm are also stored in this location until they are ready to be released.

TERMS TO KNOW

Testes
A structure of the male reproductive system in which sperm are formed.

Epididymis
The location where sperm mature and are stored after being produced.

3. Sperm Movement

The **vas deferens** is a tube connected to the epididymis. Once a male becomes aroused, sperm will move from the epididymis into the vas deferens. The vas deferens will then transport sperm all the way to the **seminal vesicle**.

Each testicle will have the same type of loop that the sperm will travel through. Seminal vesicles will secrete components of semen; one of these components is fructose, which provides energy to sperm. **Semen** is essentially sperm mixed in with glandular secretions and is what will be expelled from the **penis** during sexual activity.

TERMS TO KNOW

Vas Deferens
A tube that carries sperm from the epididymis during sexual arousal.

Seminal Vesicle
A component of the male reproductive system which secretes fructose, which is used by sperm as a source of energy.

Semen
A combination of sperm and other glandular secretions that is expelled from the penis during sexual activity.

Penis
The male sex organ.

4. Sperm Expulsion

From the seminal vesicle, sperm will travel into the ejaculatory duct. Muscle contractions will propel sperm through the seminal vesicle and ejaculatory duct. From there, the sperm will move into the urethra.

During this process, sperm will also pass through the **prostate gland**. The prostate gland secretes substances

that become a part of semen. These substances are going to buffer the acidity within the vagina so that sperm are able to move through to the uterus.

DID YOU KNOW

Prostate cancer, which is the cancer of the prostate gland, is a common cancer among men. It is generally screened by a rectal exam or a Prostate Specific Antigen (PSA) blood test.

Bulbourethral glands, also known as Cowper's gland, are going to add to semen as well. They secrete lubrication, which is going to neutralize the acid in the urethra to protect sperm. The urethra is a tube that serves to transport both urine and semen out of the penis. If semen is moving through the same tube as urine, and urine has high acidity, that is not ideal for sperm.

As semen travels through the prostate gland and by bulbourethral glands, many secretions will be added to it. These secretions ensure the safety of sperm as they travel through the urethra before being ejaculated from the penis.

TERMS TO KNOW

Prostate Gland

A gland which produces and secretes substances that buffer the acidity of the female reproductive tract to ensure ideal conditions for sperm.

Prostate Cancer

Cancer of the prostate gland.

Bulbourethral Gland (Cowper's Gland)

A gland that secretes substances to neutralize the acidity of remnants of urine in the urethra.

LEARN MORE

Explore the male reproductive system in three dimensions using augmented reality (AR)!

If you're on a laptop or desktop computer: Scan the QR code using the camera on your smartphone or tablet.

If you are on a phone or tablet **click here**.

MAKE THE CONNECTION

If you're taking the Human Biology Lab course simultaneously with this lecture, it's a good time to try the Introduction to the Male Reproductive System: Dive inside the duct system! Activity in Unit 6 of the Lab course. Good luck!

SUMMARY

This lesson has been an overview of the structures associated with the **male reproductive system**. Specifically, you learned about how **sperm is formed, moves through the reproductive system, and is then expelled**.

Keep up the learning and have a great day!

Source: THIS WORK IS ADAPTED FROM SOPHIA AUTHOR AMANDA SODERLIND

ATTRIBUTIONS

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TERMS TO KNOW

Bulbourethral Gland (Cowper's Gland)
A gland that secretes substances to neutralize the acidity of remnants of urine in the urethra.

Epididymis
The location where sperm mature and are stored after being produced.

Male Reproductive System
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Penis
The male sex organ.

Prostate Cancer
Cancer of the prostate gland.

Prostate Gland
A gland which produces and secretes substances that buffer the acidity of the female reproductive tract to ensure ideal conditions for sperm.

Semen
A combination of sperm and other glandular secretions that is expelled from the penis during sexual activity.

Seminal Vesicle
A component of the male reproductive system which secretes fructose, which is used by sperm as a source of energy.

Sperm
The male gamete. As gametes, sperm have only half the normal amount of DNA. If a sperm fertilizes the female gamete (an egg aka oocyte), the fertilized embryo will have exactly the correct amount of DNA (1/2 from the sperm + 1/2 from the egg = 1 tiny human).

Testes
A structure of the male reproductive system in which sperm are formed.

Vas Deferens

A tube that carries sperm from the epididymis during sexual arousal.