

# ANATOMY & PHYSIOLOGY

## Lesson 2<sup>1</sup>

# 5

GRADE

### LEARNER OUTCOME<sup>2</sup> W-5.3:

Identify the basic components of the human reproductive system, and describe the basic functions of the various components; e.g., fertilization, conception.



#### MATERIALS:

1. POSTERS: Male Anatomy Definitions
2. CARDS: Male Anatomy
3. HANDOUT: Male Reproductive System
4. ANSWER KEY: Male Reproductive System



#### INTRODUCTION:

This lesson provides students with information about the male reproductive system.



#### APPROACHES/STRATEGIES:

#### NOTES:

##### A. Ground Rules

Ensure ground rules are established before beginning this lesson. For classes that have already established ground rules, quickly reviewing them can promote a successful lesson.

##### B. Anatomy and Physiology Crossword Puzzle Follow Up

(5 - 10 min)

1. Collect the handout: Anatomy and Physiology Crossword Puzzle that students completed for homework.

Correct the handout and return to students to use as review.

##### B. Male Anatomy Matching Game<sup>3</sup>

(20 min)

*Students identify the basic components of the male human reproductive system, and can describe the basic functions of the various components*

1. Display the Male Anatomy Definitions posters around the room.
2. Divide students into two teams.

3. Distribute the Male Anatomy cards to each team. (Each set should be on a different color paper.)
4. Have teams decide under which definition each word belongs and post the words on the appropriate poster.
5. Distribute the Male Anatomy handout and ask the students to fill in the blanks for each component of the reproductive system during the review.
6. Review each team's responses referring to the Male Anatomy answer key and the following guidelines:

### **External Genitals:**

#### **Penis**

- The male external sex organ.
- Semen and urine are discharged from the penis.
- It is made up of spongy material that fills up with extra blood (becomes erect) when sexually aroused.
- There is no bone in the penis.
- The penis continues to grow as does the rest of the body. Size varies from person to person.

#### **Foreskin**

- The skin on the end of the penis that retracts during an erection.
- This skin may be partially removed in a procedure called circumcision.
- Boys who have not been circumcised should cleanse beneath the foreskin of the penis regularly. It is important not to pull the foreskin back if it is still attached to the head of the penis. It will disengage naturally.

#### **Circumcision**

- A procedure to remove the foreskin from the penis conducted by a doctor.
- It is usually done soon after birth.
- Many boys are circumcised and many are not. It doesn't effect the function of the penis.

#### **Scrotum**

- The sac that holds the testicles.
- The testicles have to be kept at a certain temperature just below body temperature in order to produce healthy sperm. The scrotum pulls the testicles closer to the body if it is cold and lowers away from the body if it is hot.



You may want to make the answer key into an overhead and use it as a visual aid during the discussion. It may be easiest to break the review into three main topics: external genitals, internal reproductive system, and how the reproductive system functions. Interspersing direct instruction with questions helps the students to remain engaged and stay focused on the lesson.



Circumcision is the cutting away of the *foreskin*, the skin that covers the head of the penis. The surgery is usually performed when a baby is only a few days old and is elective which means the parents have made a choice to have their baby circumcised. In some cultures, the procedure is performed later in life. The choice is usually based upon religious, cultural or traditional reasons. There is a belief that a circumcised penis is more hygienic. Uncircumcised males simply need to wash regularly making sure to pull back the foreskin to clean the head of the penis.

## **Anus**

- The opening at the end of the digestive tract where feces leaves the body.
- It is not part of the reproductive system, but is part of the digestive system.

## **Internal Reproductive System:**

### ***Testicles***

- The male sex glands.
- They are held in the scrotum.
- They are on the outside of the body so that they can stay cooler than body temperature for healthy sperm production.
- It is normal for one to hang lower.
- This is a very sensitive area of the body. It is important to protect the testicles during contact sports, etc.

### ***Vas Deferens***

- This is a narrow tube that carries sperm from the testicles to the urethra.

### ***Seminal Vesicles***

- Two small pouches behind the bladder that produce and store seminal fluid.
- This fluid mixes with sperm and other fluid to produce semen.

### ***Urethra***

- Urine and semen pass through this tube to the outside of the body.
- Urine and semen cannot come out at the same time. There are two branches to the urethra, one from the bladder and the other from the vas deferens. When the penis is ready to release semen, a valve blocks off the branch to the bladder so urine cannot escape. It is similar to the difference between swallowing and breathing. Air goes to the lungs and food or liquid goes to the stomach even though both substances pass through the esophagus.

### ***Bladder***

- The sac that holds the urine produced by the kidney.
- It is not part of the reproductive system, but the urinary system.



Students may have different views regarding circumcision. In different cultures, male circumcision may be practiced for religious reasons or by custom. There is controversy regarding the social and sexual advantages and disadvantages of male circumcision. Few well-conducted studies exist to support a strong position for or against the practice. On the other hand, female circumcision, the partial or total removal of the female's external genitalia, is associated with a high risk of long term illness or dysfunction and with a risk of death for both girls and women. While this is so, it is a practice valued by some cultures as a religious requirement, and is considered by these cultures as a necessary rite of passage to womanhood, an assurance of cleanliness or improved marriage prospects, a means of preventing promiscuity, an enhancement of male sexuality, or a facilitation of childbirth.<sup>4</sup>

## How the Reproductive System Functions:

### **Erection**

- The brain can send a message to the penis causing it to become larger, longer and firmer. It will stand out from the body.
- Although boys may experience erections when they are younger, they seem to occur more often, and “out of the blue” during puberty.
- Erections are a normal process of growing up.
- They can happen when you least expect them (first thing in the morning, during sleep, vibrations from riding a bicycle, sexual arousal).
- Erections can go away by themselves or after ejaculation.

### **Sperm**

- The male reproductive cell.
- These cells are very small (over 300 million in 5 ml of semen).
- Millions are made every day in the testicles.
- The sperm travel up the vas deferens and mix with fluid from the seminal vesicle and prostate to form a white, sticky fluid called semen.

### **Semen**

- The combination of sperm and fluid from the seminal vesicle and prostate that is ejaculated from the penis.

### **Ejaculation**

- Although boys may experience erections at an early age, they are not able to ejaculate until their bodies begin producing sperm and semen during puberty.
- First ejaculation normally occurs as early as 13 or as late as 17 years of age.
- Wet dreams (when a boy gets an erection then ejaculates while he is sleeping) begin during puberty. This is the body’s way of adapting to the commencement of sperm and semen production. Some boys have wet dreams and others do not. Wet dreams end later in puberty once the body is used to producing sperm and semen.

## **C. Class Discussion**

*Students review their knowledge of the male reproductive system, develop resiliency skills around male anatomy issues, and identify support people.*



Students may have different views concerning nocturnal emissions. It is important to be sensitive to these views, but to reassure students that “wet dreams” are a normal occurrence during puberty.

**(10 min)**

1. What are some of the good things about being a male?
  - Encourage students to provide appropriate comments.
2. What are some reasons a boy might get an erection?
  - Sexual arousal
  - Excitement
  - Vibrations
  - Wet Dream
3. How do you think a boy might feel if he gets an unwanted erection or has a wet dream?
  - Embarrassed
  - Shy
  - Excited
4. What are some ways to cope with an unwanted erection?
  - Focus on something else until it goes away
  - Sit down
  - Put your hands in your pockets to try to hide it
  - Wear baggy pants if it keeps happening
  - Remember that it is probably more noticeable to you than to anyone else
5. What are some ways to cope with a wet dream?
  - Change your sheets
  - Wash your pajamas or underwear
6. If you have questions about the male anatomy and/or puberty changes, who can you ask?
  - Parent
  - Trusted adult
  - Nurse
  - Doctor



### **QUESTION BOX:**

**(10 min)**

If time permits, address student questions.



### **SELF REFLECTION:**

- During the lesson, were:
- Ground rules being followed?
  - Good practices established regarding group work and discussion?

What will you change for future classes with this group?

What will you change for future use of this lesson?



## STUDENT ASSESSMENT:

During the lesson, did students:

- Knowledge:**
- Identify the basic components of the male human reproductive system?
  - Become familiarized with appropriate terms for male reproductive anatomy?
  - Describe the basic functions of the various components of the male reproductive system?
- Skills:**
- Participate in class discussion and exemplify listening and appropriate speaking skills?
  - Develop coping skills around male puberty issues?
  - Identify support people?
- Attitudes:**
- Demonstrate awareness and understanding of the changes that occur during puberty?

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<sup>1</sup> Adapted from: Canadian Federation for Sexual Health. (2005). Beyond the basics: A sourcebook on sexuality and reproductive health education. Ottawa: Author

<sup>2</sup> Alberta Learning. (2002). Health and life skills, Kindergarten to grade 9. Retrieved July 4, 2007, from [http://www.education.gov.ab.ca/K\\_12/curriculum/bysubject/healthpls/healthgi.asp](http://www.education.gov.ab.ca/K_12/curriculum/bysubject/healthpls/healthgi.asp)

<sup>3</sup> Adapted from: Planned Parenthood Southeastern Pennsylvania. (1999). Steps toward adolescence.

<sup>4</sup> EngenderHealth. (2005). Sexuality and Sexual Health Online Mini-Course, Chapter 3, Module 6. Retrieved 08/08/2007 from: [www.engenderhealth.org/res/onc/sexuality/anatomy/pg5.html](http://www.engenderhealth.org/res/onc/sexuality/anatomy/pg5.html)

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