

Your Reproductive System

This lesson will help you find answers to questions that teens often ask about their reproductive system. For example:

- ▶ What happens when a male ejaculates?
- ▶ Why do females menstruate and males do not?
- ▶ At what age do females begin to menstruate?

Words to Know

reproductive
system
sperm
menstruation
menstrual cycle

The Producer of New Life

Reproduction is the process by which life is maintained from one generation to the next. All human life results from the union of two cells, one from the mother and one from the father. These cells are produced in the **reproductive** (ree-pruh-DUHK-tiv) **system**. The human reproductive system *consists of body organs that are involved in the production of offspring*. **Figure 10.30** shows the cells produced by the male and female reproductive systems.

Unlike other human body systems, organs in the male and female reproductive systems are not the same. As a result, each system requires different care. In addition, the potential problems of each system are different.

Figure 10.30
Cells of the Reproductive Systems

- A** The sperm in this photograph are magnified. Approximately 400 million sperm are present in the semen released during a single ejaculation.



- B** The egg cell in this photograph is magnified. At birth, a female has hundreds of thousands of immature egg cells in her ovaries.

The Male Reproductive System

The male reproductive system produces **sperm**. Sperm are *male reproductive cells*. These cells join with female reproductive cells to produce new life. The union of male and female reproductive cells is called fertilization. Males begin to produce sperm when they reach puberty, usually between the ages of 12 and 15.

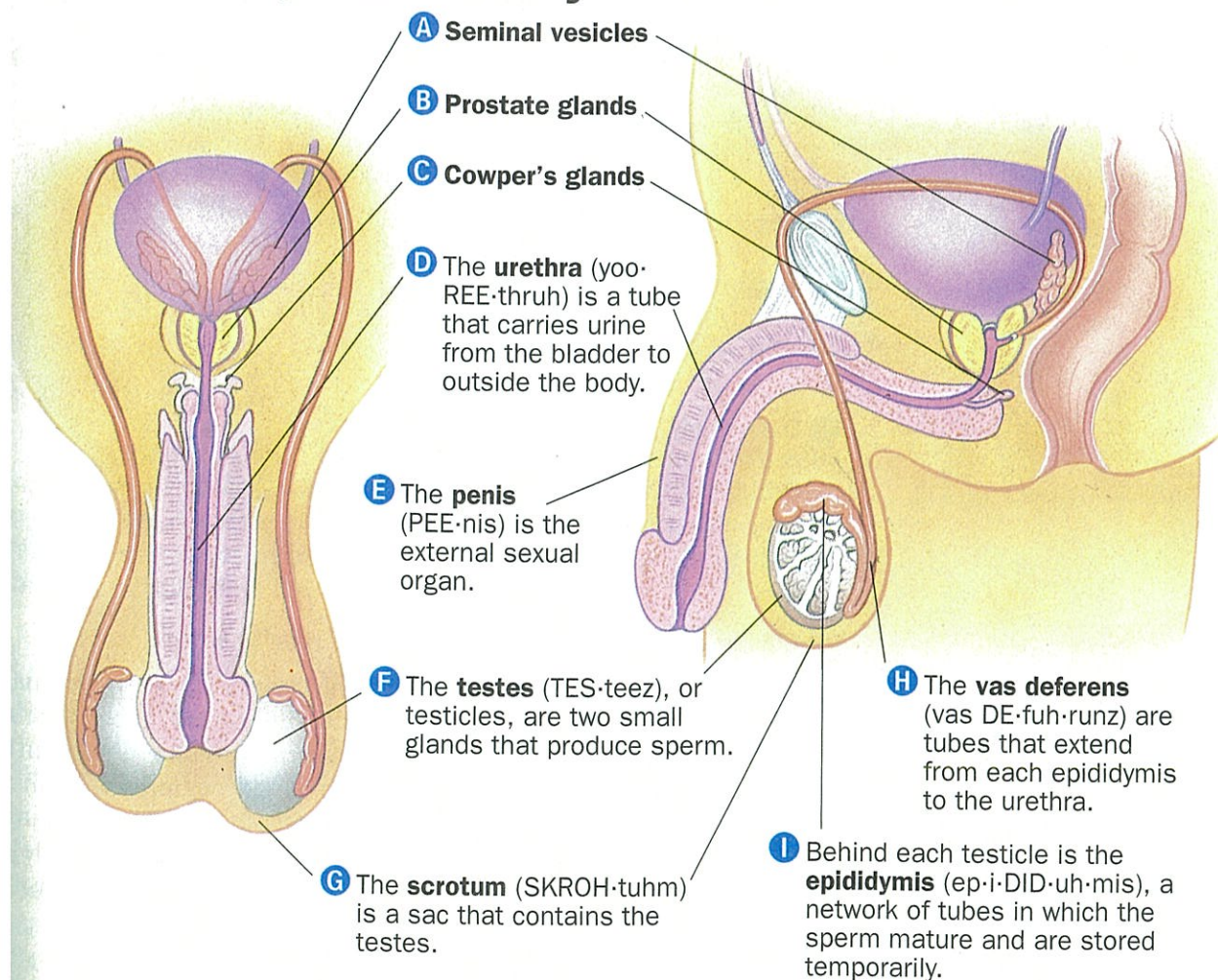
The male reproductive system includes the different organs involved in the production and storage of sperm and the release of sperm to the outside. **Figure 10.31** shows the male reproductive organs and describes what they do.

Sperm are produced in the testes and stored in the epididymis. When they leave the epididymis, they travel to the vas deferens. There they mix with seminal (SE-mi-nuhl) fluid produced by the seminal vesicles, the prostate glands, and the Cowper's glands. The mixture of sperm and fluids is called semen (SEE-muhn). The action that forces the semen through the urethra and out of the body is called ejaculation (i·ja·kyuh·LAY·shuhn).

in your journal

How might knowing the correct names for the parts of your reproductive system help when you have a medical checkup? Write your answer in your journal.

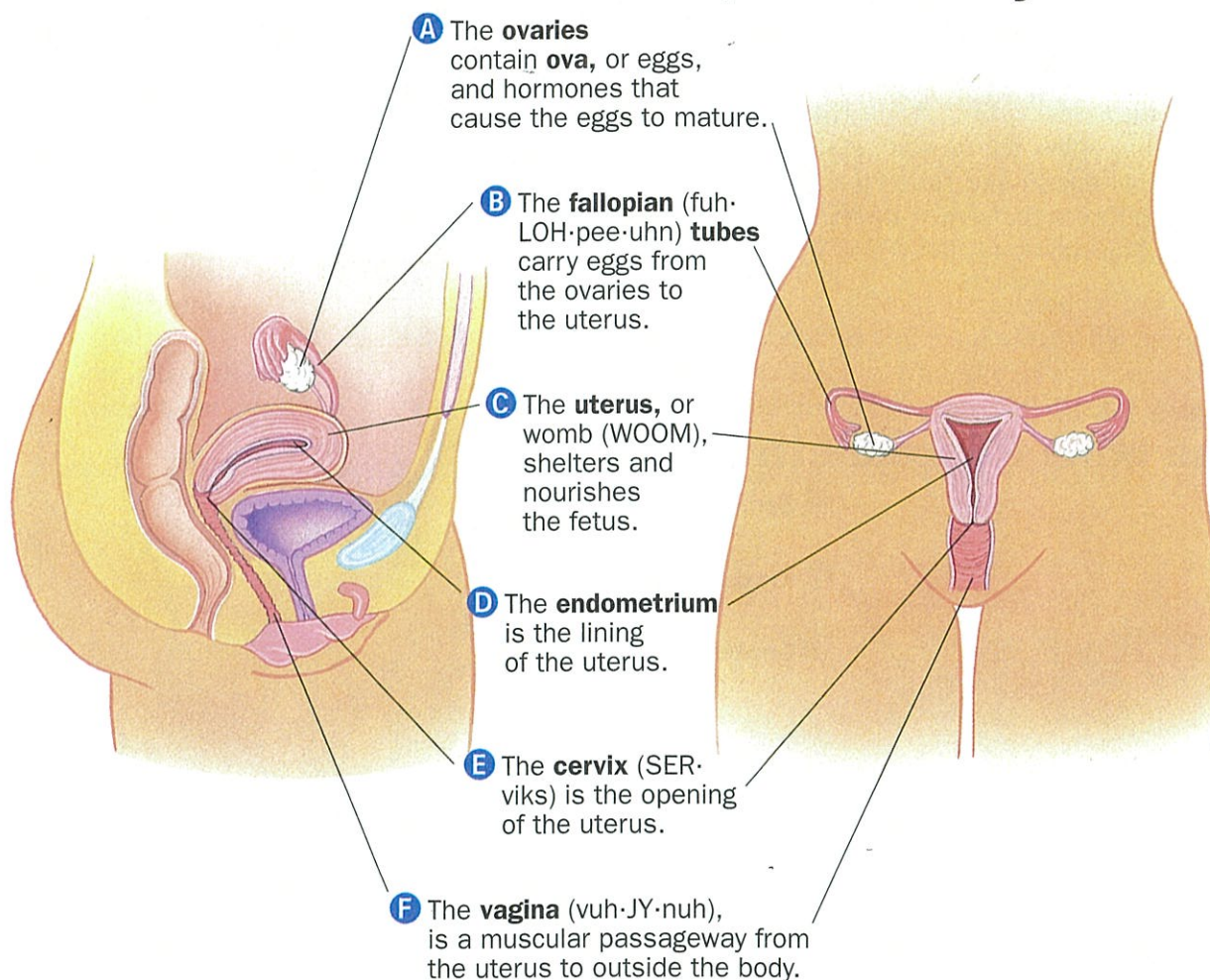
Figure 10.31
The Male Reproductive System



The Female Reproductive System

The female reproductive system has three important functions. They are to produce and store egg cells, to allow fertilization to occur, and to nourish and protect the fertilized egg until it is ready to live outside the female's body. **Figure 10.32** shows the female reproductive organs and describes what they do.

Figure 10.32
The Female Reproductive System



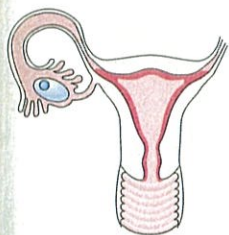
The Menstrual Cycle

As a female reaches puberty, hormones cause egg cells to mature. The ovaries begin to release one mature egg cell each month. As a result of this process, called *ovulation* (ahv·vuh·LAY·shuhn), the uterus thickens in preparation to receive and begin to nourish a fertilized egg. If fertilization does not occur, the thickened lining breaks down. This material is then expelled from the female's body. *The flow of the lining material out of the female body is called menstruation* (men·struh·WAY·shuhn).

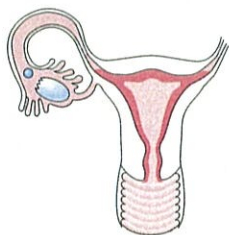
Menstruation usually lasts from 5 to 7 days. The **menstrual** (MEN-struhl) **cycle** is *the time from one menstruation to another*. A cycle usually is about 28 days, but it may vary from one female to another. In addition, stress or illness may affect the hormones that control the menstrual cycle. **Figure 10.33** shows what happens during the menstrual cycle.

Most girls begin menstruation between the ages of 9 and 16. For the first year or two, the ovulation and menstrual cycles may not be regular. That is not a cause for concern. The menstrual cycle normally varies greatly from one female to another. Some girls experience cramps, nausea, or dizziness when they menstruate. Some always have cycles of the same length. Others have irregular cycles.

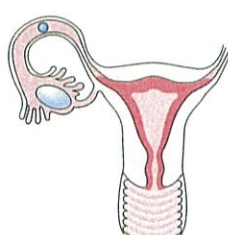
Figure 10.33
The Typical Menstrual Cycle



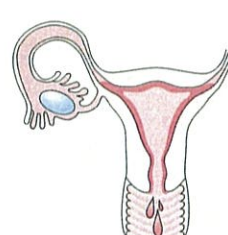
1 On days 1 through 13 of the cycle, even while menstruation is occurring, a new egg cell is maturing inside the ovary.



2 On day 14 of the cycle, ovulation occurs and the mature egg is released into one of the fallopian tubes.



3 From day 15 through day 20, the egg travels through the fallopian tube.



4 On day 21 the egg enters the uterus. After 7 days, if the egg has not been fertilized, menstruation begins.

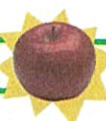
Fertilization

When a male's sperm enters a female's vagina, it travels to a fallopian tube. Fertilization may occur, especially if there is a mature egg waiting. A sperm cell unites with an egg cell to produce a fertilized egg, and small hairs lining the fallopian tube move the egg through the tube into the uterus.

The fertilized egg attaches itself to the wall of the uterus. There it begins to grow and develop into a baby. The uterus has several layers of tissue and a rich supply of blood to nourish the baby during its months of development. The mother's body provides the baby with food and oxygen as it develops.

After about 40 weeks in the uterus, the baby is ready to be born. At that time, muscles in the wall of the uterus begin to contract. These contractions open the cervix. The baby is pushed out of the uterus through the cervix. It passes through the vagina until it is outside the mother's body.

Your Total Health

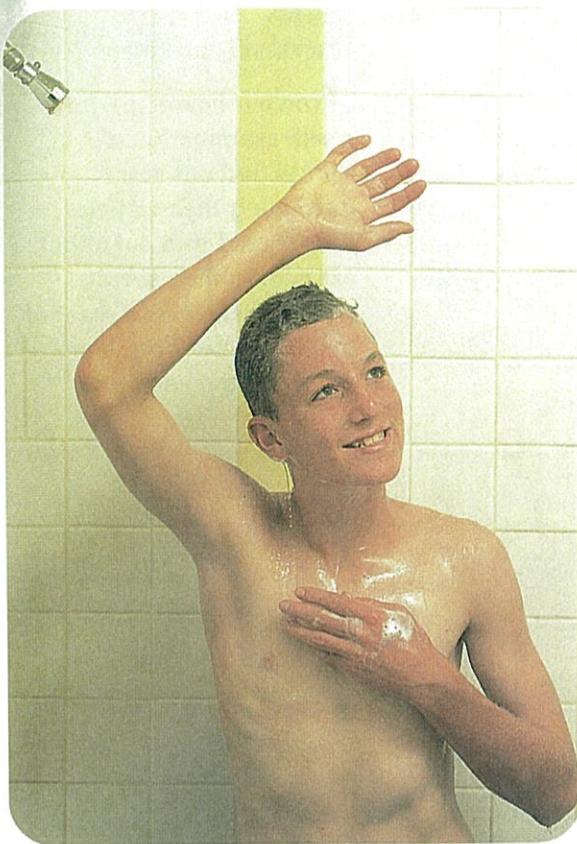


Self-Examination **ACTIVITY!**

Find out how to perform a self-examination. Boys should find out about examining their testicles. Girls should find out about examining their breasts. Write the steps on a sheet of paper and perform them, self-testing on a regular basis.

Caring for Your Reproductive System

You can care for your reproductive system by taking the following actions.



- Bathe or shower daily to keep your external reproductive organs clean.
- Males should avoid underwear or clothing that is too tight. They should wear protective gear when playing contact sports. Males should do self-examinations of their testes to check for lumps, swelling, or soreness and have regular physical checkups. **Figure 10.34** lists some problems of the male reproductive system.
- For females, cleanliness is especially important during menstruation. Sanitary pads and tampons should be changed often. Females should have regular checkups by a *gynecologist* (gy·nuh·KAH·lah·jist), a physician who specializes in the care of the female reproductive system. Females should also do breast self-examinations. **Figure 10.35** lists some problems of the female reproductive system.

Taking regular showers is one way to care for your reproductive system.

Figure 10.34
Problems of the Male Reproductive System

Disorder	Description	Treatment or Prevention
Testicular or prostate cancer	Uncontrolled cell growth that destroys glands and surrounding tissue	Surgery is usually required; self-testing and regular checkups can identify these diseases in early stages
Inguinal hernia	Part of the intestine pushes into the scrotum; caused by improperly lifting heavy objects	Surgery to repair weak spot in the abdominal wall; avoid lifting heavy objects
Sterility	Inability to produce healthy sperm in sufficient numbers to reproduce; caused by exposure to certain drugs or illness	No known cure
Enlarged prostate gland	A common problem associated with aging	Surgery

Figure 10.35

Problems of the Female Reproductive System

Disorder	Description	Treatment or Prevention
Premenstrual syndrome	Physical and emotional changes before menstruation; headaches, moodiness, irritability	May be relieved by regular exercise and changes in diet
Toxic shock syndrome	Rare, but serious bacterial infection associated with tampon use	Change tampons every 4–8 hours; consult package instructions or physician about proper use of tampons
Infertility	Inability to reproduce due to blockage in fallopian tubes or failure of ovaries to produce eggs	May be corrected by surgery or hormone treatment
Vaginitis	Infection of vagina; pain, itching, and discharge	Medication
Ovarian cysts	Growths on outside of ovary	Surgery to remove large cysts
Cancer	Can affect breasts, ovaries, uterus, cervix	Surgery, radiation, chemotherapy; self-examinations and check-ups can spot it early

Using complete sentences, answer the following questions on a separate sheet of paper.

Reviewing Terms and Facts

- Vocabulary** Define *menstruation*. Use it in an original sentence.
- List** Identify common disorders of the male and female reproductive system.

Thinking Critically

- Compare and Contrast** What happens if an egg is not fertilized? What happens if it is fertilized?
- Review** What are the three important functions of the female reproductive system?

Review

Lesson

8

Applying Health Terms

- Consumer Health** Pretend you are the author of a best-selling book about caring for the male or female reproductive system. Write a brief overview describing how the book can help improve the reader's chances for having and maintaining a healthy reproductive system.
- Health of Others** With a partner, write a skit in which you describe a discussion you might have with a younger brother or sister about growing up. Include questions and answers about the body changes to expect when he or she reaches puberty.