Learning About the Reproductive Systems

During adolescence, the female and male bodies mature and develop secondary sex characteristics. Females and males become capable of reproduction, even though they are not prepared to become parents. This lesson discusses the reproductive systems and reproductive health.

What You’ll Learn
1. Discuss physical and emotional changes during puberty. (pp. 227, 235)
2. Describe the functions of the female and male reproductive organs. (pp. 228, 236)
3. Identify concerns of reproductive health. (pp. 230, 238)
4. Identify ways to protect reproductive health. (pp. 232, 240)

Why It’s Important
Your body is going through many dynamic changes. What causes these changes? How will they affect you? This lesson will provide answers.

Key Terms
- puberty
- ovaries
- Fallopian tube
- uterus
- Pap smear
- testosterone
- epididymis
- vas deferens
- prostate gland
- Cowper’s glands

Writing About Puberty Suppose that one of your classmates doesn’t seem to be physically developing as fast as the rest of the students in your class. He is shorter and thinner than the other boys, and his voice is constantly cracking. Some of your classmates make fun of him behind his back. After reading the information about puberty in males on page 235, write an entry in your health journal about why your classmates should not make fun of the boy.
When a female is around eight years old, the pituitary gland increases its production of a hormone called FSH. FSH travels through the bloodstream to the ovaries and causes them to secrete estrogen. Estrogen is a hormone produced by the ovaries that stimulates the development of female secondary sex characteristics and affects the menstrual cycle. Secondary sex characteristics are physical and emotional changes that occur during puberty.

How to manage emotions During puberty, a female may notice that she has sudden emotional changes and sexual feelings. Estrogen and other hormones cause these changes as hormone levels fluctuate. Everyday occurrences may produce intense feelings.

A female may be puzzled at some of her emotional reactions, but she should know that most changes in mood are normal. She must take responsibility for behaving responsibly even though her emotional reactions may change rapidly.

The increase in estrogen also produces sexual feelings. Sexual feelings result from a strong physical and emotional attraction to another person. Females must set limits, stick to these limits, and practice abstinence.

How to accept physical changes Physical changes that occur during puberty become noticeable between the ages of 8 and 15. This maturing process is affected by heredity, diet, health habits, and health status. For example, a female with an inadequate diet may mature more slowly. A female who overtrains for a sport may have a delayed menstrual cycle.

During puberty, a female must become comfortable with her maturing body. Body image is the perception a person has of his or her body’s appearance. A female is more likely to have a positive body image when she is well-educated about her body. She should try not to compare her body to those of other females the same age. Knowing that females mature at different rates can help a female avoid comparisons. She should ask her parents, guardian, or physician when she has questions about her growth and development.

Female Secondary Sex Characteristics

Physical changes that occur during puberty:

- increase in height
- widening of the hips
- softer and smoother skin
- growth of pubic and underarm hair
- increase in breast size
- enlargement of external genitalia
- formation of mature ova
- beginning of menstruation
The reproductive system is a major body system. Reproduction is the mechanism that maintains life from one generation to another. The female reproductive system consists of organs in the female body that are involved in producing offspring.

What to Know About the Female Reproductive System

External female reproductive organs

The external female reproductive organs are called the vulva. The vulva consist of the mons veneris, the labia majora, the labia minora, the clitoris, and the hymen. The mons veneris is the fatty tissue that covers the front of the pubic bone and serves as a protective cushion for the internal reproductive organs.

During puberty, hair begins to cover both the mons veneris and the labia majora. The labia majora are the heavy folds of skin that surround the opening of the vagina. The labia minora are two smaller folds of skin located within the labia majora. The clitoris and the openings of the urethra and the vagina are located within the labia minora.

The clitoris is a small structure located above the opening of the urethra. The hymen is a thin membrane that stretches across the opening of the vagina. The hymen has small openings in it. Some females do not have a hymen. Other females break or tear the hymen when they ride bicycles or horses or exercise strenuously.

Internal female reproductive organs

The internal female reproductive organs are the ovaries, Fallopian tubes (also known as oviducts), uterus, and vagina. The ovaries are female reproductive glands that produce ova and estrogen. The ovaries are situated in the lower abdomen. A female is born with between 200,000 and 400,000 immature ova in her ovaries. About 375 of these ova will mature and be released in a female’s lifetime. During puberty, the ova begin to develop. Each developing ovum is enclosed in a small, hollow ball called a follicle. Each month an ovum may take several days to move through a Fallopian tube.
during a regular menstrual cycle, an ovum matures and is released from its follicle. **Ovulation** is the release of a mature ovum from one of the two ovaries.

When an ovum is released from an ovary, it enters one of the Fallopian tubes. A **Fallopian tube** (oviduct) is a tube through which an ovum moves from an ovary to the uterus. A female has two Fallopian tubes—thin tubes about four inches long. Each tube is close to an ovary. The end of each tube is shaped like a funnel.

During the menstrual cycle, a mature ovum moves toward the uterus. If fertilization occurs, it usually occurs in a Fallopian tube. An ovum that is not fertilized either disintegrates in the uterus or leaves the body during menstruation.

The **uterus** is a muscular organ that receives and supports the fertilized ovum during pregnancy and contracts during childbirth to help with delivery. The **cervix** is the lowest part of the uterus that connects to the vagina. The **vagina** is a muscular tube that connects the uterus to the outside of the body. The vagina is the female organ for sexual intercourse, the birth canal, and the passageway for the menstrual flow.
During adolescence, females start to take more and more responsibility for their own health care. The following questions and answers provide information on female reproductive health.

**What to Know About Female Reproductive Health**

**What products can be used to absorb the menstrual flow?** Pads, panty shields or liners, and tampons are products that can be used to absorb the menstrual flow. A pad is a thick piece of cotton that is worn inside underpants, which absorbs the menstrual flow as it leaves the vagina. A pad should be changed every four to six hours. A panty shield or liner is a thin strip of cotton that is worn inside underpants to collect the menstrual flow. It is usually worn on days when flow is light and may be worn with a tampon for extra protection. A tampon is a small tube of cotton placed inside the vagina to absorb the menstrual flow. The tampon collects the menstrual flow before any of the flow leaves the vagina. A female who wears a tampon can swim during her period without fear that the menstrual flow will get on her bathing suit or into the water. Tampons should be changed at least every four to six hours.

**How can menstrual cramps be reduced?** Some females have painful menstrual cramps caused by contractions of the uterus. This is normal. A warm bath and moderate exercise may relieve the cramps. Reducing the amount of caffeine and sodium in the diet also may reduce menstrual cramps. A female can speak with her parents, guardian, or physician about using medications, such as ibuprofen, that help reduce menstrual cramps.

**What is premenstrual syndrome (PMS)?** A combination of physical and emotional symptoms that affect a female a week to ten days prior to menstruation is premenstrual syndrome (PMS). These symptoms may include weight gain, mild to severe menstrual cramps, bloating, swollen breasts, headache, backache, constipation, mood swings, cravings, anxiety, and depression. A female can help reduce weight gain, bloating, and swelling by avoiding caffeine and salt. This reduces the chances that she will retain fluids. She also can exercise regularly to produce beta-endorphins that improve mood and reduce anxiety and depression. A physician can prescribe medications to lessen the symptoms of PMS.
What causes a missed menstrual cycle?
The absence of menstruation is amenorrhea (ay me nuh REE uh). The menstrual cycles of some females do not begin at puberty. This type of amenorrhea may be caused by underdeveloped female reproductive organs, poor general health, and/or emotional stress. Some females miss additional menstrual cycles after their first menstrual cycle. This type of amenorrhea is often caused by pregnancy, a reduction in red blood cell levels resulting from stress, overtraining, eating disorders, drastic weight loss, and anemia.

What does a pelvic examination include? An examination of the internal female reproductive organs is a pelvic examination. A Pap smear usually is done when this examination is performed. A Pap smear is a screening test in which cells are scraped from the cervix and examined to detect cervical cancer.

What is a yeast infection? A yeast infection is a vaginal infection caused by a fungal organism. Symptoms include a thick, malodorous discharge, vaginal and labial itching, and painful urination. If you suspect you have a yeast infection, see your doctor. He or she will probably prescribe an over-the-counter ointment or prescription pill that will eliminate the infection.

What is toxic shock syndrome (TSS)? A severe illness that results when vaginal bacteria secrete a toxin that gets into the bloodstream is toxic shock syndrome (TSS). The incidence of TSS in the U.S. is 1–2 per 100,000 women ages 15–44. Most TSS cases occur in females who are using tampons. Early flu-like symptoms of TSS include a high fever of more than 102°F, vomiting, diarrhea, dizziness, fainting, and a rash that resembles sunburn. A female’s blood pressure may drop suddenly. Complications of TSS include kidney and heart failure and difficulty breathing. Females should change tampons often. Regular absorbency tampons that are changed often are better than superabsorbent tampons that are worn for longer periods of time.

A pad should be worn at night instead of a tampon. Tampon use should be discontinued if fever or other signs appear. Prompt medical care is needed if symptoms occur.

What is female infertility? A condition of the reproductive system that impairs the ability of a female to become pregnant is infertility. Conception, or fertilization, depends on many factors, such as the production of a healthy ovum by the female and healthy sperm by the male, and unblocked Fallopian tubes that allow the sperm to reach the ovum. Infertility is not the same as sterility, which is the inability to conceive under any circumstances.

The most common female factor in infertility is associated with ovulation. An ovum may not be released each menstrual cycle, menstrual periods may be irregular, or Fallopian tubes may be blocked.

A female can control some of the risks of infertility, including STDs such as PID, tobacco and marijuana use, intense exercise over a period of time, and excessive use of alcohol. Other factors are poor general health, stress, eating disorders, drastic weight loss, and anemia.

Mini-Review
1. What is PMS?
2. What are the symptoms of TSS?
Protecting and maintaining the health of your reproductive system is important, not only at your present age, but also over your entire life span. How well you protect your reproductive health now will influence your health as you grow older.

**How to Protect Female Reproductive Health**

**Practice abstinence from sex.** Abstinence from sex is choosing not to be sexually active. Practicing abstinence prevents teen pregnancy and infection with sexually transmitted diseases.

**Make a note of any questions you have about cramps, mood swings, or heavy menstrual flow.** Share this information with your parents or guardian and your physician.

**Practice good menstrual hygiene habits.** Change your pad, panty shield, or tampon every four to six hours. Wear a pad or panty shield at night to reduce the risk of toxic shock syndrome (TSS). Change underpants often and wash your genitals daily to avoid vaginal odor.

**Choose habits that prevent or lessen menstrual cramps.** Exercise regularly and reduce the amount of caffeine and salt in your diet. Reducing the amount of caffeine in your diet also will help reduce the number of benign fibrocystic lumps that sometimes form in breast tissue.

**Keep a calendar to record information about your menstrual cycle.** Keep track of the number of days in each cycle. Keep track of the number of days that you menstruate. Know the date of your last menstrual period.

**Perform monthly breast self-examinations.** Safeguard your health by performing a breast self-examination each month after your menstrual flow stops.

**Have regular medical checkups.** Take the calendar on which you have recorded information about your menstrual cycles with you to your medical checkup. Go over the recorded information with your physician. Your parents or guardian and your physician will determine the appropriate age for you to begin having a pelvic examination and Pap smear.

**Seek medical attention when you show signs of infection.** Vaginal discharge, lumps, and rashes are symptoms of infection. You may have a yeast infection or a sexually transmitted disease.
Breast cancer

Breast cancer is one of the most common types of cancer in women. According to the National Cancer Institute, the following are risk factors for developing breast cancer: being over the age of 50; having no pregnancies; having a first child after the age of thirty; having a family history of breast cancer especially among immediate family members such as a mother or sister.

In addition to conducting breast self-examinations, it is important to have regular medical checkups. While most breast lumps are not cancerous, many females will develop breast cancer.

There are several options in treating breast cancer. In a lumpectomy, the lump itself and a small amount of surrounding tissue are removed. In a partial mastectomy, the lump, some breast tissue, the lining over the chest muscles beneath the tumor, and some lymph nodes are removed. In a total mastectomy, the entire breast and possibly a few lymph nodes may be removed. These procedures may be followed by chemotherapy or radiation. It is important to understand that with early detection and treatment, the chances of successfully treating breast cancer increase.

Activity: Using Life Skills

Practice Healthful Behaviors: Performing Breast Self-Exams

You can help safeguard your health by doing a regular self-exam of your breasts. The self-exam can help you detect lumps or changes that could be a sign of cancer. Cancer treatment is more effective when the cancer is detected early. The self-exam takes only a few minutes. If you would like to make a health behavior contract, follow these steps. 1) Write your name and the date. 2) Write the healthful behavior you want to practice as a health goal. 3) Write specific statements that describe how this healthful behavior reduces health risks. 4) Make a specific plan for recording your progress. 5) Complete an evaluation of how the plan helped you accomplish the health goal.

1. Do the self-exam once a month approximately a week after menstruation ends.

2. To feel the right breast, place your right hand behind your head and use your left hand. To feel the left breast, reverse this procedure.

3. In the shower or bath, feel each breast with three fingers, holding them flat. Move your fingers in a circular, clockwise motion over the entire breast area. Start at the outside and move toward the nipple. Include the area between the breast and the armpit and the armpit itself. Press firmly enough to feel the tissue of your breast. Check for any lumps or changes in breast tissue.

4. Repeat step 3 while lying down. Place a pillow behind your shoulder on the side you are checking.

5. Stand in front of a mirror, with your arms at your sides, and observe your breasts. Look for any changes in size or shape, such as puckering, swelling, dimpling, or changes in the skin texture or in the nipple.

6. Clasp your hands behind your head. Press your hands forward. Look again for any changes in size or shape of the breasts.

7. With your arms at your sides, gently squeeze each breast just behind the nipple. Check for any discharge.

8. If you discover any changes or something abnormal, talk to your doctor.

Resources are available to help you learn how to perform a breast self-exam.
The monthly series of changes that involves ovulation, changes in the uterine lining, and menstruation is the **menstrual cycle**. The period in the menstrual cycle in which the unfertilized egg and the lining of the uterus leave the body is **menstruation**.

**What to Know About the Menstrual Cycle**

Females often describe menstruation as their “period.” The menstrual cycle usually occurs over 28 days. This means a female will have her period every 28 days. However, many teens have irregular cycles and the length of their menstrual cycles varies. Menstruation usually lasts about five days; however, the number of days also may vary. Refer to the outline that follows for the series of changes that occur during a 28-day menstrual cycle. Pages 232–233 in this lesson discuss female reproductive health and how to protect it.

**Days 1–5** Menstruation occurs. The menstrual flow consists of about two ounces of blood. Some females may notice small particles. These are small pieces of uterine lining. At the same time, a new ovum is maturing in the ovary.

**Days 6–12** The uterine lining begins to thicken. The uterus prepares for ovulation and the possibility that an ovum will be fertilized.

**Days 13–14** Ovulation occurs. A follicle in an ovary bursts, and an ovum is released into one of the Fallopian tubes.

**Days 15–20** The corpus luteum secretes hormones to support a pregnancy. The **corpus luteum** is a temporary gland that secretes progesterone. The corpus luteum is formed when the remains of the burst follicle close. **Progesterone** is a hormone that changes the lining of the uterus. As the uterine lining changes, it prepares to support a fertilized ovum. If an ovum is fertilized, the corpus luteum continues to secrete progesterone throughout pregnancy.

**Days 21–28** The corpus luteum disintegrates if an ovum is not fertilized. Progesterone is no longer secreted. The cells in the lining of the uterus die without progesterone. The unfertilized ovum disintegrates. The menstrual cycle begins again with menstruation.
Puberty is the stage of growth and development when both the male and female bodies become capable of producing offspring. It is a period of great physical and emotional changes.

What to Know About Puberty in Males

During puberty, the male’s pituitary gland increases its production of a hormone called LH. LH travels through the bloodstream to the testes and causes them to secrete testosterone.

**Testosterone** is a hormone that produces the male secondary sex characteristics. Secondary sex characteristics are the emotional and the physical changes that occur during puberty.

How to manage emotions During puberty, a male may notice that he has sudden emotional changes and sexual feelings. Testosterone is responsible for causing these changes. As testosterone levels fluctuate, a male experiences sudden changes in his emotions.

A male may become angry or say things he does not mean to say. He may feel insecure or edgy for no reason. He may be puzzled when he has such intense feelings, but he should know that changes in emotions are normal during puberty.

Males are accountable for the way they respond to emotional changes. Lesson 10 explains how to express emotions in healthful ways.

The increase in testosterone that happens during puberty also produces sexual feelings. Sexual feelings result from a strong physical and emotional attraction to another person. Males must learn to set limits, stick to these limits, and practice abstinence. Lesson 16 explains how to set limits and how to resist pressure to be sexually active.

How to accept physical changes Physical changes that occur in a male during puberty become noticeable between the ages of 12 and 15. The maturing process that happens in puberty is affected by several factors, including heredity, diet, health habits, and health status.

For example, a male who regularly lifts weights may develop a more muscular body than a male who does not. Another example is a male who is short for his age. He may have biological relatives who also are short.

Voice Change As a male matures, his voice has a deeper tone and his Adam’s apple becomes more prominent.

Male Secondary Sex Characteristics

Following are some physical changes that occur during puberty:

- increase in height
- longer and heavier bones
- broader shoulders
- thicker and tougher skin
- deepened voice
- growth of facial hair, pubic hair, and body hair
- enlargement of penis, scrotum, and testes
- formation of sperm
The male reproductive system consists of organs in the male body that are involved in producing offspring. The physical changes that produce sexual maturity are caused by the increased production of male hormones.

What to Know About the Male Reproductive System

**External male reproductive organs**

The external organs of the male reproductive system are the penis and the scrotum. The **penis** is the male sex organ used for reproduction and urination. The **scrotum** is a saclike pouch that hangs under the penis and holds the testes. The scrotum helps regulate the temperature of the testes.

The **testes** are male reproductive glands that produce sperm cells and the hormone testosterone. The scrotum hangs from the body so that the testes have a temperature 3–5 degrees lower than the rest of the body. If it becomes too cool, the scrotum will contract, bringing the testes closer to the body for warmth. Sperm are protected in this way.

**Sperm** are male reproductive cells. A sperm is made up of a head, which contains the nucleus of the cell; a body; and a tail. A sperm measures about 1/6000th of an inch long. Sperm make up about 2–5 percent of semen.

**Internal male reproductive organs**

The internal male reproductive organs include the testes, seminiferous tubules, epididymis, vas deferens, seminal vesicles, ejaculatory duct, prostate gland, Cowper's glands, and urethra.

The testes are divided into several sections that are filled with seminiferous tubules. The **seminiferous** (se muh NIH fuh ruhs) **tubules** are a network of coiled tubules in which sperm are produced. **Spermatogenesis** (spur mah tuh JE nuh suhs) is the process by which sperm are produced. Sperm development is a result of a hormone produced by the pituitary gland.

After sperm are produced in the seminiferous tubules, they move by contractions from the testes to the epididymis. The **epididymis** (e puh DIH duh mus) is a comma-shaped structure along the upper rear surface of the testes. Sperm mature in the epididymis. Some sperm are stored in the epididymis, but most move to the vas deferens after they mature.

The **vas deferens** are two long, thin tubes that act as a passageway for sperm and a place for sperm storage. They extend from the epididymis in the scrotum up into the abdomen. The walls of the vas deferens are lined with cilia.
The contractions of the vas deferens, along with the action of the cilia, help transport sperm. In the abdomen, the vas deferens circle the bladder and connect with the ducts of the seminal vesicles to form the ejaculatory duct.

The **seminal vesicles** are two elongated saclike glands at the base of the bladder that secrete a fluid rich in sugar that nourishes the sperm and helps them move. They contribute up to 60 percent of the fluid in ejaculate.

The **ejaculatory duct** is a short, straight tube that passes into the prostate gland and opens into the urethra. The urethra serves as a passageway for sperm and urine to leave the body.

The **prostate gland** is a gland that produces a fluid that helps keep sperm alive. The prostate gland is about the size of a chestnut. The prostate gland is located beneath the bladder and surrounds the urethra. Without the fluid from the prostate gland, fertilization would be almost impossible because many sperm would die.

The **Cowper’s glands** are located beneath the prostate gland. The Cowper’s glands are two small glands about the size of peas that secrete a clear, lubricating fluid into the urethra as part of the semen.

**Semen** is the fluid that is released by the reproductive tract. Semen contains sperm and fluids from the seminal vesicles, prostate gland, and Cowper’s glands.

An **erection** is a process that occurs when the penis swells with blood and elongates. An erection may be followed by ejaculation.

**Ejaculation** is the passage of semen from the penis and is a result of a series of involuntary muscular contractions. After ejaculation, the penis returns to a nonerect state.

---

**Mini-Review**

1. What is testosterone?
2. What are the male glands that produce sperm cells?
3. What is spermatogenesis?
What is circumcision? The end of the penis is covered by a piece of skin called the foreskin. **Circumcision** is the surgical removal of the foreskin from the penis. This procedure usually is performed on the second day after birth. Circumcision may reduce the risk of urinary infections and cancer of the penis. Males who are not circumcised should pull the foreskin back and cleanse the penis regularly to prevent smegma from collecting. **Smegma** (SMEG muh) is a substance that forms under the foreskin, consisting of dead skin and other secretions.

What causes an inguinal hernia? In a developing fetus, the testes pass from the abdomen into the scrotum through the inguinal canal during the seventh month of pregnancy. Then the inguinal canal closes to keep the intestines from also passing into the scrotum. In some males, the inguinal canal does not completely close off. The intestines pass into the inguinal canal and the male develops an inguinal hernia. An **inguinal hernia** is a hernia in which some of the intestine pushes through the inguinal canal into the scrotum. Lifting heavy objects sometimes stresses this area and is the cause of the hernia. An inguinal hernia may be painful. It can be repaired surgically.

How can having mumps after puberty cause sterility? **Mumps** is a viral infection that affects the salivary glands. Mumps usually occurs in childhood. There is a vaccine to prevent mumps, but some people do not get mumps in childhood, nor do they get the mumps vaccine. If a male has mumps after puberty, the virus can affect the testes. The virus causes swelling of the testes. The seminiferous tubules may be crushed and become incapable of producing sperm. This causes sterility. **Sterility** is the inability to produce offspring.

Why should males have a digital rectal examination? **Prostate cancer** is the second most common cancer in males. A major symptom of prostate cancer is an enlarged prostate. Physicians use digital rectal examinations to examine males for symptoms of prostate cancer. A **digital rectal examination** is an examination in which the physician inserts a finger into the rectum and examines...
the internal reproductive organs and the rectum for irregularities. The American Cancer Society recommends that males over the age of 40 have a digital rectal examination annually. Having a PSA (Prostate Specific Antigen) test also is recommended for males over 50. A male should have this test at age 40 if there is a family history of prostate cancer. This blood test detects if protein production in the prostate is elevated. If it is, it can mean that cancer of the prostate exists.

**What is testicular self-examination?**
Testicular cancer is one of the most common cancers among males between the ages of 15 and 34. The best way to detect testicular cancer is by doing regular testicular self-examinations. A testicular self-examination is a screening procedure for testicular cancer in which a male checks his testes for lumps or tenderness. If detected early, testicular cancer has a high rate of cure. Teen males should begin the habit of performing testicular self-examination.

**What is male infertility?** Infertility is a condition in which the ability to produce offspring is impaired. The prime cause of male infertility concerns his sperm. Sperm may be affected by mumps, sexually transmitted diseases, injuries, or hormone disorders.

Some risks of infertility can be controlled. These include exposure to STDs, tobacco and marijuana use, intense exercise over a period of time, and excessive use of alcohol.
Protecting Male Reproductive Health

The care given to one body system affects the entire body. Protecting the reproductive system will help maintain and promote overall health now and in the future. Having regular check-ups is an important part of protecting health.

How to Protect Male Reproductive Health

Practice abstinence from sex. Abstinence from sex is choosing not to be sexually active. Practicing abstinence prevents teen pregnancy and infection with sexually transmitted diseases, including HIV and AIDS.

Bend at the knees and keep your back straight when lifting heavy objects. Use the correct technique when lifting heavy objects to help prevent the risk of an inguinal hernia.

Wear protective clothing and equipment when participating in sports and physical activities. Athletic supporters can be worn to provide extra support for the penis and testes. You should wear protective equipment, such as a cup, to prevent injury to these organs.

Perform testicular self-examinations. Testicular cancer is one of the most common cancers in younger males. Teen males should examine their testes for lumps and tenderness.

Seek medical attention when you show signs of infection. A discharge from the penis, tenderness in the scrotum, lumps, and rashes are symptoms of sexually transmitted diseases (STDs).

Bathe or shower daily. Keep your external reproductive organs clean to prevent infection and odor.

Maintain a positive body image. During puberty, a male must become comfortable with his maturing body. Body image is the perception a person has of his or her body’s appearance. A male is more likely to have a positive body image when he is knowledgeable about his body. For example, he should be aware that the growth spurt in males occurs later than it does in females and that males mature at different rates. A male should try not to compare his body to those of other males. A teen male should not compare his body to a professional athlete’s body. Professional athletes are older and have completed training programs that have affected their bodies. A male should ask his parents, guardian, or physician questions he has about growth and development.

Mini-Review

1. Why is a daily bath or shower a good plan?
2. What are symptoms of sexually transmitted diseases?
Key Terms Review

Match the following definitions with the lesson Key Terms on the left. Do not write in this book.

1. a comma-shaped structure along the upper rear surface of the testes
2. the stage of growth and development when females and males are able to reproduce
3. secrete a clear, lubricating fluid into the urethra
4. receives and supports a fertilized ovum
5. another name for an oviduct
6. produces a fluid that helps keep sperm alive
7. act as a passageway for sperm to travel
8. a screening test to detect cervical cancer
9. produce ova
10. hormone that produces male secondary sex characteristics

Recalling the Facts

11. What accounts for the fluctuating emotions in adolescents?
12. What are the symptoms of TSS?
13. What are the changes that occur during adolescence? Why are they important?
14. What is a Pap smear?
15. What is spermatogenesis?
16. What are four risk factors for breast cancer?
17. How often should a female conduct a breast self-examination?
18. What can males and females do to protect their fertility?

Critical Thinking

19. List three ways to protect your reproductive health. Explain why each is important and how you will plan to make each one part of your daily activity.
20. Why is a testicular self-examination important for a male?
21. How is the prostate gland related to fertilization?
22. Discuss how being aware of your reproductive health will help prepare you for adulthood.

Real-Life Applications

23. Why might moderate exercise help relieve menstrual cramps?
24. Explain the connection between abstinence and HIV infection.
25. How will protecting your reproductive system help you maintain and promote your overall health now and in the future?
26. Why are you more apt to have a positive body image when you are educated about your anatomy and physiology?

Activities

Responsible Decision Making

27. Write Your friend John tells you that his older brother had recently noticed that he had a lump next to one of his testicles. It is not painful, so his brother has decided that he will not do anything about it. Write a letter explaining to John why you think it is important for his brother to have a medical checkup. Refer to the Responsible Decision-Making Model on page 61 for help.

Sharpen Your Life Skills

28. Use Communication Skills

Suppose you are a physician who writes a column for a women’s magazine. Respond to a letter from a woman who has been trying to lose weight in a hurry. She skips breakfast and lunch and exercises for two hours every day. She feels tired and has missed her last two menstrual periods. She has not been sexually active. She wants to know why she hasn’t had a period.