

## 19.1

### The Male Reproductive System

During the early teen years, the male reproductive system reaches maturity. Hormones released by the pituitary gland stimulate the testes to begin producing the male sex hormone testosterone.

**Testosterone:** Starts physical changes, broadening shoulders, muscle development, facial and body hair, and deepening of the voice.

**Sperm:** Male reproductive cells. The production of sperm and the transfer of it to the female's body during sexual intercourse are the two main biological functions of the male reproductive system.

#### External Male Reproductive Organs

**Testes:** Two small glands that produce sperm.

**Scrotum:** Holds the testes in a sac that hangs outside the body, keeps warm and protects.

**Penis:** A tube-shaped organ attached to the trunk of the body just above the testes.

**Semen:** A thick fluid containing sperm. Ejaculated during sexual intercourse.

**Fertilization:** The union of a reproductive cell from a male and one from a female.

**Circumcision:** Surgical removal of the foreskin of the penis—for male children.

#### Internal Male Reproductive Organs

**Epididymis:** Coiled tubes in males that temporarily store sperm.

**Vas Deferens:** Pair of connecting tubes that propels sperm just before ejaculation.

**Urethra:** Passageway through which both semen & urine leave the body. Not at the same time. A muscle near the bladder controls whether semen or urine passes through.

**Care for Male Organs** – Proper protection, clothing, cleanings and self-examinations.

#### Problems

Sexually transmitted diseases (STDs), hernia, sterility, enlarged prostate gland, cancer of the prostate gland or testes.

**Sterility:** Inability to reproduce. Results from temperature change, smoking, STDs, or malfunction of one of the internal male reproductive organs. 1<sup>st</sup> sign of *testicular cancer* is usually a slight enlargement of one of testes.

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### The Female Reproductive System

Female Reproductive Cell is called an ovum (female egg or sex cell).

Sperm from the male enters the female reproductive system through the vagina.

*Vagina: A muscular, elastic passageway that extends from the uterus to the outside of the body.* Sperm from male enters female through the vagina.

Females have two sex glands. These are called **ovaries**; they house the ova and produce female sex hormones.

**Ovulation:** The ovaries release one mature ovum, or egg, each month. Ovaries normally switch off each month releasing an egg.

**Fallopian Tubes:** Pair of tubes with fingerlike projections that draw the ovum in.

The cell that results from the union of sperm and ovum is called a **zygote**. The zygote, or fertilized egg, travels through the fallopian tube and attaches itself on the wall of the uterus.

**Uterus:** A small, muscular, pear-shaped organ to which the fertilized ovum attaches.

**Menstrual Cycle:** The time from the beginning of one menstrual period to the onset of the next – is usually 28 days. Most start between the ages of 10-15 years old. May be irregular at first, but hormones will regulate cycle. Poor nutrition, stress, and illness influence the cycle.

#### Care of the Female Reproductive System

Cleanliness and use of sanitary napkins and tampons is important. Breast self-examinations should be done a week after the start of the menstrual period.

#### Problems of the Female Reproductive System

**Menstrual Cramps:** At the beginning of the period, usually mild, lasting several hours. Light exercise can help relieve cramps.

- Premenstrual Syndrome (PMS)
- Toxic Shock Syndrome (bacterial infection related to tampon use)

#### Infertility Problems

Blocked Fallopian Tube (leading cause of female infertility)

Endometriosis

Pelvic Inflammatory Disease (PID)

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### Preventing STDs

An **epidemic** is an outbreak of an infectious disease that affects a large population. STDs are said to be a(n) epidemic in the United States.

#### Sexually Transmitted Diseases and Adolescents

-2/3 of all STD cases occur in adolescents and young adults

-1/4 of all sexually active teens will contract an STD before graduating high school, why?

#### Who is at greatest risk:

1. Having more than one sexual partner rather than committing to a single, long-term relationship.
2. Engaging in unprotected sex.
3. Selecting high-risk partners. Individuals with multiple partner or intravenous drug users.

#### STDs and Your Future

- Some STDs can cause sterility, the inability to reproduce
- Infants born to mothers with STDs can be infected at birth (blindness & deformities)
- Some STDs are incurable
- Individuals with STDs are at a greater risk of cancer, and some STDs such as AIDS are fatal
- Pap tests primarily detect if cancer cells are present in female
- Practicing **Abstinence** (not have any form of sexual intercourse) greatly decreases risk of contracting an STD

Having **sexual activity** during the teen years can lead to unwanted consequences like (STDs), including an unplanned or unintentional **pregnancy** and the responsibility of becoming a parent. The increase in the amount of teens practicing **abstinence** has resulted in a **decrease** in the rates of **STD infection** over the past several years. In summary, your individual actions have consequences. The question is, are you willing to pay the price for them?

## Common STDs & Their Treatments

### Chlamydia

An infection caused by bacteria in reproductive organs. If untreated, can lead to urethritis in males and pelvic inflammatory disease in females. Most prevalent and on decline due to teens practicing abstinence.

### Gonorrhea

A bacteria that affects the urethra of the male and the cervix and vagina of the female.

### Trichomoniasis

A vaginal infection that can lead to urethra and bladder infections. Can lead to *urethritis* and *vaginitis*, a common inflammation of the female genitals that can be carried by males.

### Genital Warts

Pink or reddish warts with cauliflower-like tops that appear on the genitals. Caused by a virus called human papilloma virus (HPV). One of the causes of cervical cancer in woman.

### Genital Herpes

Blister-like sores in the genital area that are caused by the herpes simplex type 2 virus.

### Syphilis

Attacks many parts of the body and is caused by a small bacteria called a spirochete. If left untreated, it can damage vital organs like the heart, liver, kidneys, central nervous system, and the brain. Can cause heart disease, blindness, paralysis, and insanity.

Stages = Primary – Secondary – Latent – Neuro.

### Other STDs

**Pubic Lice:** Tiny insects attach to skin & hair in pubic area. Lice feed on blood & cause intense itching. Treated with medicated shampoo.

**Scabies:** Infestation of mites causing reddish, swollen bumps. Itching starts 4-6 weeks after infection. Treat with hot baths & medicated creams.

**Hepatitis B:** Caused by a virus that attacks the liver. Symptoms do not show up for 6 months. Vaccine is available.

**Human Immunodeficiency Virus (HIV):** The virus that causes AIDS. No current cure and is considered fatal.

## HIV Infection

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**HIV**, short for *human immunodeficiency virus*, is a virus that attacks the immune system. **Acquired immune deficiency (AIDS)** – The HIV infection combined with severe immune deficiency. Final stage of infection.

Lymphocytes or white blood cells help defend the body. Lymphocytes help your body fight disease-causing organisms, or pathogens. **Antibodies** are proteins that help destroy pathogens that enter the body. When HIV enters the bloodstream, it enters one type of lymphocyte called T-helper cells. HIV reproduces itself and destroys the **T-helper cells**. This reduces the ability of the body's immune system in defending itself.

### How HIV is Transmitted

**Sexual Intercourse:** Can be transmitted during any form of sexual intercourse. Having an STD that results in sores and bleeding or discharge also increases the risk of HIV entering the blood through small cuts in body.

**Sharing Needles:** (Intravenous drugs) If an infected person uses a needle and then someone else uses it, infection is very likely to occur.

**Blood transfusions**—less than 1 in 500,000 – Testing of blood in the United States has greatly reduces chances of receiving infected blood.

**Mother-to-child in birth**—20 to 30% of the time

### Teenagers at Risk

- AIDS now the leading cause of death for 25 to 44 age range. Most infected in their 20s. Incidence of HIV infection has been on the rise.
- AIDS is now the leading cause of death for women in 15 of the largest cities in the United States.