Chapter 24: Sexually Transmitted Diseases and HIV/AIDS

Lesson 1: Sexually Transmitted Diseases

A. What Are STDs?

Main Idea: Anyone who has sexual contact with another person risks contracting a sexually transmitted disease.

- **Sexually** _____________ **diseases (STDs)** — infections ________ from person to person through sexual ________.
- Also known as sexually transmitted _____________ (STIs)
- STDs are _____________ diseases.
- For an infection to occur, a person must engage in sexual ________ that involves ________ genital ________ or the exchange of ________ or other body ________ with someone infected with an STD.
- Some STDs are caused by a ________ infection and can be ________ with medication; others are caused by ________ and are ________.
- Several of the most common STDs are often ________ — individuals show ________ symptoms, or the symptoms are ________ and disappear after the ________ of the infection.
- An individual with an ________ STD may ________ pass the infection on to ________ sexual partners.
- It is estimated that approximately ___ million young people between the ages of ___ and ___ will become infected with an STD each ________.

### STDs in the United States

<table>
<thead>
<tr>
<th>STD</th>
<th>Estimated Number of New Cases Each Year</th>
<th>Reported Cases (2004-2005)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Papillomavirus (HPV)</td>
<td>___ million</td>
<td>___ million</td>
</tr>
<tr>
<td>Chlamydia</td>
<td>___ million</td>
<td></td>
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<tr>
<td>Genital Herpes</td>
<td>___ million</td>
<td></td>
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<tr>
<td>Gonorrhea</td>
<td>___</td>
<td></td>
</tr>
<tr>
<td>Trichomoniasis</td>
<td>___ million</td>
<td></td>
</tr>
<tr>
<td>Syphilis</td>
<td>___</td>
<td></td>
</tr>
<tr>
<td>Hepatitis B</td>
<td>___</td>
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</tr>
</tbody>
</table>

- ________ are more likely to suffer ________ from STDs, and effects are more ________.
- The CDC estimates that direct medical ________ connected to STDs are now at more than 14.1 ________ a year.

B. Common STDs

Main Idea: There are approximately 25 different STDs, six of which are considered the most common.

**Six most common STDs:**

1. **Genital HPV Infections**
   - Caused by human papillomavirus (___), a group of more than ___ kinds of viruses. More than ___ of these are transmitted through sexual ________.
   - HPV infections can cause genital ________, which appear as ________ or ________ near or on the genitals.
   - Most genital HPV infections do not have ________ and will disappear ________ medical treatment.
   - Some HPV infections, if not diagnosed and ________, may cause abnormal ___ tests or, more seriously, may result in certain types of ________ cancer.
   - A ________ treatment is now available. It is not a ___ but is recommended to ________ the number of cases of ________ cancer.
2. Chlamydia
   - A ________ infection that affects the _______ organs of both males and females.
   - About ___ million Americans contract _______ each year; young females _______ times more often than males.
   - Chlamydia is still the most __________ STD among ________.
   - If untreated, can cause serious complications. Females can develop pelvic ___________ disease (____) and suffer chronic pelvic pain or ________. Can also lead to infertility in ___. Pregnant females with chlamydia can deliver _________, and the infants born to infected mothers may develop ___ disease or ____________, as well as _______ complications.
   - Females with Chlamydia are up to __ times more likely to become infected with ____.

3. Genital Herpes
   - Genital herpes is caused by the herpes _________ virus.
   - Herpes simplex 1 usually causes cold _______ in or near the _________.
   - Herpes simplex ___ typically causes ________ sores.
   - Both types can infect the _______ and the ________.
   - In the U.S., about ___ million people ages ____ and older have contracted genital herpes.
   - Many people are _____________.
   - The first _______ will usually appear as _______ on the genitals or rectum within ___ weeks of the virus being ____________. The blisters ________, leaving sores that can take several weeks to _______. Usually the first sores are followed by shorter, less _______ outbreaks that can occur on and off for ___________.
   - Antiviral treatments can lessen the ____________ of outbreaks, but there is no ___________.

4. Gonorrhea
   - A ________ STD that usually affects _______ membranes.
   - The ________ most commonly reported _______ disease in the U.S.
   - CDC estimates that more than ________ Americans are infected with gonorrhea each year, but only half are _____________.
   - Males are ____________ ; females show only ________ symptoms.
   - Left untreated, it can cause severe health problems, such as _____________. The bacteria can also spread to the _______ and cause permanent damage to the body's ________.
   - Females can pass the infection to their ________ during _________. Babies may contract ________ infections that cause _____________.

5. Trichomoniasis
   - Caused by a ___________ protozoan that results in infections of the _____, urethra, and _________.
   - About _______ million new cases every year in U.S.
   - Although the disease may not produce symptoms, some males have a temporary irritation inside the _____, mild ________, or slight _______ during and after _______ or ejaculation.
   - Many infected females often experience ________, an inflammation of the vagina characterized by _________, odor, irritation, and ________. Also, likely to contract ___.
   - Babies born to females with trichomoniasis are often __________ and have low birth _________.

6. Syphilis
   - An infection caused by a small bacterium called a ________, attacks many parts of the body.
- People with syphilis develop sores in the ______ area lasting a couple of ______.
- The disease is passed from one person to another by ______ contact with the ______ during sexual ______.
- 3 stages:
  Primary stage—a ______ appears on the ______ genitals or the vagina. At this stage, the disease can be easily ______. If the infection goes untreated, the sore ______, but the infection ______.
  Second stage—the infection produces a skin ______. The untreated rash will ______, but the infection ______ and progresses to the ______ stage.
  Third stage—can damage ______ organs, cause ______ dementia, and may cause ______.

<table>
<thead>
<tr>
<th>STD</th>
<th>Symptoms in Males</th>
<th>Symptoms in Females</th>
<th>Possible Long-Term Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Genital HPV infection</td>
<td>Genital ______ on the penis, scrotum, ______, anus, or thigh</td>
<td>Genital ______ in or around the vagina, vulva, cervix, or ______</td>
<td>Development of ______ cancer in females</td>
</tr>
<tr>
<td>Chlamydia</td>
<td>Penis _______; burning during _______; itching or burning sensations around the penis</td>
<td>Lower abdominal or back _______; nausea; fever; bleeding between periods; pain during _______; muscle ache; headache; abnormal vaginal discharge; burning sensation when urinating</td>
<td>In males, ______ of urethra</td>
</tr>
<tr>
<td>Genital Herpes</td>
<td>______ on or around genitals or rectum; sores that can take weeks to heal; ______-like symptoms, including fever and swollen glands</td>
<td>Blisters on or near vagina or rectum; sores that can take ______ to heal; flu-like symptoms, including fever and swollen ______</td>
<td>In females, ______ distress; can cause ______-threatening infection in baby born to mother with the disease</td>
</tr>
<tr>
<td>Gonorrhea</td>
<td>Burning sensation when urinating; ______ yellow, or white discharge from penis; painful, swollen ______</td>
<td>Pain or burning when _______; increased vaginal discharge; vaginal ______ between periods</td>
<td>In males, painful condition of testicles leading to ______ if untreated (epididymitis)</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>In females, chronic pain and infertility</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>______ ; higher susceptibility to other STDs; premature or ______-birth weight babies born to infected pregnant females</td>
</tr>
<tr>
<td>Trichomoniasis</td>
<td>Temporary irritation inside penis; mild _______ after urination or ejaculation</td>
<td>Thick, gray or green vaginal discharge with strong ______; painful urination; vaginal itching</td>
<td>______ ; higher susceptibility to other STDs; premature or ______-birth weight babies born to infected pregnant females</td>
</tr>
<tr>
<td>Syphilis</td>
<td>Single ______ on the genitals (sores disappear but infection remains); skin rash</td>
<td>Single sore on the vagina (sores ______ but infection remains); skin rash</td>
<td>Serious damage to ______ organs, including brain, ______, and nerves</td>
</tr>
</tbody>
</table>

C. The STD Epidemic

Main Idea: Accurate health information and responsible behavior will help fight the STD epidemic.
The CDC estimates that each year, __ million people are infected with an STD. Almost ___ are under the age of ___.

Many STDs are undiagnosed and untreated because of:
- _________________ or fear.
- Lack of ____________.
- ______________. If symptoms disappear, they may mistakenly believe they are ___.
- People may not have all the ___ and may receive wrong information from ________.
- __________ policies. State laws require health care providers to ______ certain but not ___ STDs. Infected individuals may __________ transmit the disease to others.

Lesson 2: Preventing and Treating STDs

A. Prevention Through Abstinence

Main Idea: The most successful method to prevent the spread of STDs is abstinence.
- About ___ million American teens contract STDs ____________.
- ____________—a class of ______ agents that ______ disease-causing microorganisms while leaving the patient ____________.
- The only method that is ___% ____________ in preventing the contraction and spread of STDs is ____________.

Follow these guidelines:
- Avoid dating someone who is ______ active or who ______ you to go beyond your ________.
- Avoid ________ where you may feel pressured to engage in sexual activity.
- Avoid people who make ___ of your decisions or urge ______-risk behaviors, including use of ______ or drugs.
- Choose ______ outings where you can enjoy the company of ________ and avoid pressure to engage in sexual activity.
- Be ____ about your decision to practice abstinence, and ______ it with others who are ______ to you.
- Practice ______ skills. Use ______ and body ______ to resist the pressure to engage in sexual activity.

1. Understanding the Risks
- Each month, about ________ teens are ________ with an STD.
- Teens are at high risk partly because many teens are ________ of a ________ past behavior.
- It’s ____________ to ______ at someone and tell if that person has an STD.
- Because many STDs go ____________, it is not enough for a partner simply to ___ that he or she is ____________.

2. Avoiding High-Risk Behaviors and STDs

High risk behaviors include:
- Being sexually active with more than _____ person. (This includes having a _____ of sexual relationships with one person at a _______.)
- Engaging in ____________ sex. (Even protected sex, or ______ protection, is not 100% ____________.)
- Engaging in sexual activity with high-risk _______. (Such partners include those with a ________ of being sexually active with more than ___ person and those who have ______ illegal drugs.)
- Using alcohol and other ______. (Alcohol can lower ________ and cause teens to engage in sexual activity when they might ________ choose not to.)
3. HPV Vaccine
   - **HPV**—a vaccine that can prevent **cancer**, pre-cancerous genital **(or sores)**, and genital **caused by genital HPV infection**.
   - Protects against **types of** infections.
   - Recommended for females **to** years old.
   - At this time, no **are** for any other types of STDs.

B. Diagnosing and Treating STDs
   *Main Idea: Only a health care professional can accurately diagnose and treat an STD.*
   - Many public health **provide information and treatment** of.
   - Not all genital infections are **; some are localized **infections or **.
   - Antibiotics can effectively treat **STDs, but **STDs are incurable. However, **can lessen the **from sores and skin irritations caused by STDs.

### Diagnosis Methods and Treatments for STDs

<table>
<thead>
<tr>
<th>STD</th>
<th>Diagnosis Method</th>
<th>Treatment/Cure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Genital HPV Infection</td>
<td>____ test in females; genital warts diagnosed by a _______ exam</td>
<td>No ____; warts may clear up _______ medication or by using medications applied by patient; or may clear up with _______ performed by a health care provider</td>
</tr>
<tr>
<td>Chlamydia</td>
<td>____ tests; tests on specimen collected from the infected</td>
<td>Treated and cured with __________.</td>
</tr>
<tr>
<td>Genital Herpes</td>
<td>____ inspection by a health care professional; testing of infected sore; _______ tests</td>
<td>No ____; antiviral medication can shorten and prevent __________.</td>
</tr>
<tr>
<td>Gonorrhea</td>
<td>_______ test (Gram's stain); _______ test</td>
<td>Treated and cured with <em><strong><strong><strong>; successful treatment becoming difficult due to increase of drug-</strong></strong></strong></em> strains; medication stops infection but cannot repair _______ done by disease</td>
</tr>
<tr>
<td>Trichomoniasis</td>
<td>_______ exam and ____ test</td>
<td>Prescription drug, metronidazole, given by mouth in a _______ dose; both _______ should receive treatment at the same _______.</td>
</tr>
<tr>
<td>Syphilis</td>
<td>_______ exam; _______ test</td>
<td>Curable with _______ or other antibiotics; treatment will not repair _______ already done</td>
</tr>
</tbody>
</table>

4. Act Responsibly
   - Practice abstinence.
   - Report any known infections.
   - It is responsibility of any person infected with an STD to notify everyone with whom he or she has had sexual contact.

Lesson 3: HIV/AIDS
A. What is HIV/AIDS?
Main idea: HIV/AIDS weakens the body’s immune system.

- **Human immunodeficiency virus (HIV)**—a virus that attacks the immune system.
- Once HIV enters the body, it finds and destroys the blood cells that cause disease.
- The final stage of an HIV infection is **immunodeficiency (AIDS)**—a disease in which the immune system is weakened.

More than million people around the world have of this disease, including more than Americans. Health care officials estimate that currently million people have HIV/AIDS.

The statistics:

- Approximately million of the people who have HIV/AIDS are in the to age group.
- of all new HIV infections are among people. Every day about young people become infected.
- HIV/AIDS is considered a —a outbreak of infectious disease.
- Many of the young people who are do not it.

B. Understanding HIV/AIDS

Main idea: HIV/AIDS is transmitted in a variety of ways.

HIV cannot outside the body. (Exposure to at room kills the virus.)
Can not be spread through transmission, shaking or , or from bites.
The virus has been found in , , and , but the amount is too small to be dangerous.
HIV is transmitted among only when one person’s broken blood, semen, or vaginal secretions comes in contact with another person’s broken or membranes.

HIV is spread in three ways:

- During sexual . It enters the through openings in tissues of the vagina, anus, mouth, or the opening in the penis. (People with STDs are more because the STDs change the body’s.)
- By sharing . (This includes drug use, body , and .)
- From to . Can happen through the cord, during , or through feeding. Certain medication might the baby from contracting HIV. The number of infected infants has in the United States now that pregnant females are routinely for HIV.

1. How HIV/AIDS Affect the Immune System

HIV attacks the body’s immune system by destroying (specialized blood cells that perform many immune functions). There are two types of lymphocytes—cells and cells. When HIV enters these cells, it itself and eventually the cell. As the cells are destroyed, the immune system becomes and weaker. The body then becomes vulnerable to —infections the body could off if the immune system were .

The stages of HIV:

- stage: can last for years or more. Largely confined to the nodes; no outward of infection.
- stage. Occurs in about of infected patients. Fever, sore throat, diarrhea, and lymph nodes.
- stage. Helper T cells fall to per milliliter of blood. -like symptoms, such as headache, body aches, swollen glands, diminished , weight loss, and skin .
- stage. Helper T cells drop to less than . One or more AIDS-opportunistic illnesses are .

When the has destroyed or impaired most of the immune system’s white blood cells, the patient is in the stage of HIV and is said to have . People with AIDS have immune
systems that are so _________ that they may ____ from illnesses from which they would ordinarily _________.

2. Giving or Receiving Blood: Is It Safe?
All _________ blood has been tested for HIV since _______. According to the CDC, “The U.S. blood supply is among the _________ in the ________.”

LESSON 4: Preventing and Treating HIV/AIDS
A. Preventing HIV/AIDS
Main idea: There are many actions you can take to avoid contracting HIV/AIDS.
According to the CDC:
More than one _________ Americans ___ with HIV, and _________ are infected each year.
About _________ of those will be young people between the ages of ___ and ___.
About ___% of the people in the ______ who are infected with HIV do not ____ they are infected.
The following healthful behaviors will help protect you:
  • Practice _____________.
  • Do not share _______.
  • Avoid _________ where drug and alcohol use might compromise your _________ making.
  • Use _________ skills when you feel _________ to engage in _________ behaviors.

Ask yourself:
  • What do I know about the _____ in my life and their _________?
  • Will they put ___ at ______ for getting HIV/AIDS?
  • How can I be sure another _________ is not HIV-_______?

B. Diagnosing HIV/AIDS
Main idea: Several tests are used to diagnose HIV/AIDS.
1. Types of Laboratory HIV Tests
  • ___ Test (_______ immunoassay)—a test that screens for the presence of HIV _________ in the _________. If _________, that means HIV antibodies are present, and the ___ test is _________. If second is positive, then the _________ Blot test is run. Both tests are more than ___% _____________.
  • Western ______ Test—a test that detects HIV antibodies and _________ the _____ of earlier ___ tests. If all ___ tests are positive, a person is _________ with HIV/AIDS. The combined tests are _____________. Many health departments and centers will pay of the _________.
  • Additional Tests
    > The ______, or ______ load test, shows how many ______ of the virus are _________ in the blood.
    > The ___ test looks at the ______ of white blood cells in a sample of blood.
--These two tests give a more _________ picture of an HIV-infected person’s condition.
--Also, helps doctors _________ the disease and determine how much _________, if any, a patient needs.
    > _________ test—an HIV test that produces ______ in only ____ minutes. Can be used in situations where the infected person might not come _____ to learn the _______. Results are ___ accurate; if positive, a _________ blot is done to confirm.
    > _____ Testing _____: marketed on the ______, in newspapers and magazines. Most are ___ trustworthy; make sure that it is approved by the _____. An ______-approved test requires providing a ____ of ____ blood, which is then
mailed to a ___. More than ___% accurate and are available within ____ weeks.

2. **Benefits of Early Diagnosis**
   - Begin proper ______ care early to _______ the progress of the virus.
   - Avoid _________ that could _______ HIV to others.
   - Gain _______ of mind when the results are __________.

C. **Treating HIV/AIDS**
   
   **Main Idea: Medications can slow the growth of HIV/AIDS, but there is no cure.**

   Since the early _____, drugs have been developed that _______ the growth of the human immunodeficiency virus and treat some of the _______. No drug yet exists to _____ HIV/AIDS.

   Many of the drugs available are also used to treat ______________ infections.

   To slow the growth of the AIDS virus, people take a __________ of drugs, a treatment known as highly ______ antiretroviral _______ (______). In 2006, the FDA approved a once-_____, single-_____ treatment for HIV/AIDS.