**Vocabulary**

sexually transmitted disease (STD) | syphilis
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sexually transmitted infection (STI) | acquired immune deficiency syndrome (AIDS)
epidemic | human immunodeficiency virus (HIV)
abstinence | opportunistic infection
infertility | asymptomatic stage
human papillomavirus (HPV) | symptomatic stage
chlamydia | EIA
gonorrhea | Western blot
genital herpes | pandemic
trichomoniasis |   

**Directions:** In the appropriate spaces in the box below, write the number of the term on the right that matches each definition on the left. When you are finished, the rows, columns, and diagonals should all add up to the same number.

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<td>1. abstinence</td>
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<td>4. pandemic</td>
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**Diagonal:**

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Putting on the Pressure

Directions: Many teens want to remain abstinent but are unprepared to deal with situations in which they may be pressured to engage in sexual activity. It helps to consider such situations in advance and think of ways to respond in order to avoid the pressure. The following exercises illustrate such situations. In the space provided, describe how each teen might respond to the situation in order to avoid being pressured into sexual activity. Explain your response in each case.

Exercises
1. Kurt has invited his girlfriend Jennifer to go for a ride in the country in his new car. No one else is going. She doesn’t know what to tell him.

2. Carrie keeps asking her boyfriend Tino to come over to her house when no one is home. He always makes up an excuse to get out of going because he doesn’t want to hurt her feelings by just saying no.

3. Kuancheng wants to remain abstinent, but his friends keep bragging about their sexual activity and embarrassing him because of his lack of experience. He’s wondering whether he should reconsider his decision to remain abstinent in order to get his friends to back off.
4. At the beach, Yolanda runs into a group of the most popular teens in her class. They have a cooler full of alcoholic beverages and invite her to join them. Yolanda is thrilled about being asked to join the group but not about the drinking. She doesn’t know what to say.

5. Whenever Ashleigh goes to a movie with her boyfriend Zach, he wants to become intimate. His behavior makes Ashleigh feel uncomfortable, so she tries to ignore it. She wishes he would get the message and stop trying so hard.
Disease Detective

**Directions:** Some STDs have similar symptoms or no symptoms at all, so making a diagnosis requires further evaluation or testing. Other sexually transmitted diseases have fairly distinctive symptoms, making them easier to diagnose. Assume you are a physician’s assistant and it is your job to make preliminary diagnoses and recommend testing, if necessary, to determine the causes of illness. In each of the following cases, the patient has an STD. Based on the patient’s symptoms or circumstances, make a preliminary diagnosis. State how the diagnosis can be confirmed and how the disease can be treated.

**Cases**

1. Patient A is a 21-year-old male. He is concerned about several small, pinkish bumps he has noticed on his penis. The tops of the bumps are cauliflower-like in appearance.

2. Patient B is a 21-year-old female. Her boyfriend told her that he has a discharge from his penis. She has no symptoms herself, but she is worried she might have an STD because they have had physical contact.

3. Patient C is a 19-year-old male who has found blisterlike sores on his genitals. The sores are painful, and they come and go.
4. Patient D is a 23-year-old married female who has noticed a discharge and odor from her vagina, along with itching and irritation. Her husband has no symptoms, but both are concerned about an STD.

5. Patient E is a 27-year-old male who has had a skin rash, swollen lymph nodes, and fever for a week. When questioned about any other recent symptoms, he recalls having a painless reddish sore on his penis a few weeks earlier. The sore healed on its own, so he did not see the doctor about it at the time.
Directions: Many people are confused about which behaviors and situations put them at risk of HIV infection. Pretend that you are an HIV/AIDS expert and you operate an Internet information service to answer teens’ questions about HIV. Read each of the following e-mail questions received from teens. Then, in the space provided, write a response based on what you have learned about HIV transmission.

1. I just found out that the new guy in my gym class was infected with HIV through a blood transfusion when he was a child. I asked the gym teacher if we could get HIV from the guy, and he said not if we avoid physical contact with him. Now, whenever we play basketball, I’m afraid to get aggressive for fear of bumping into him. What should I do?

2. I heard you can get HIV through body fluids. Does this mean I can get it from the sweat of an infected person? Should I avoid going into the sauna at the health club in case someone with HIV has been sweating in there before me?

3. My parents said I can have my navel pierced, but I am worried about picking up HIV. Should I be worried?
4. I live next door to a woman with AIDS. We have a lot of mosquitoes at this time of year, and I am afraid if one bites her and then bites me I could become infected with HIV. How likely is that?

5. Last week, I was introduced to an aunt I never met before, and she gave me a big hug. Later I found out that she is infected with HIV. Now I am worried that she may have transmitted the virus to me when she hugged me. What should I do?

6. My cousin has HIV. When I saw her a few days ago, she had a cold and accidentally sneezed on me. Today I woke up with a stuffy nose and sore throat. I think I caught her cold. Could I have caught her HIV as well?
Knowledge Is Power

Directions: In the year 2001, there were 40 million people worldwide infected with HIV. One key strategy for reducing the number of new HIV infections is HIV/AIDS education. The table below, compiled by the Centers for Disease Control and Prevention, shows the percentage of students who are educated about HIV and AIDS at school. Use the information in the table to answer the following questions.

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1. Would you consider the effort to educate high school students about HIV and AIDS to be successful? Why or why not?

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________________________________________________________________________

2. How do the percentages of students educated about HIV and AIDS at school compare for the years 1995 and 1999?

________________________________________________________________________

________________________________________________________________________

3. Take a survey of the students at your school to compare to the national survey. If possible, survey students in grades 9–12. Record your results in the last column of the table above.

4. What might account for any differences between the national data and the data for the students at your school?

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Chapter 25

STUDY TIPS:  • Read You’ll Learn To for each lesson.
  • Look up the meaning of any unfamiliar vocabulary terms.
  • Read the questions below before you read the chapter.

Directions: As you read the chapter, answer the following questions. Later, you can use this guide to review the information in the chapter.

Lesson 1
1. Give three reasons why the spread of STDs has been called a hidden epidemic.

2. Why are teens as a group at particularly high risk for infection with STDs?

3. Identify possible health consequences of STDs.

4. What is abstinence? What role does it play in the prevention of STDs?

5. List strategies that can help teens avoid pressure to engage in sexual activity.
Lesson 2
6. What health problems can be caused by the human papillomavirus?

The virus can cause genital warts and cancers of the cervix, penis, and anus.

7. Identify serious health complications that can occur if chlamydia is not treated.

In females, the infection can cause pelvic inflammatory disease and lead to chronic pelvic pain or infertility. It can also cause premature births and harm infants of infected mothers.

In males, the infection can lead to infertility.

8. Why does gonorrhea often go undiagnosed in females?

About half of females with gonorrhea have no symptoms.

9. What conditions are caused by the herpes simplex virus?

Type 1 usually causes cold sores, and type 2 usually causes genital sores. However, both types can infect the mouth and the genitals.

10. Briefly describe the stages of untreated syphilis.

The first sign of infection is a painless reddish sore, called a chancre, at the site of infection. Two to eight weeks later, infected individuals may experience a skin rash, swollen lymph nodes, and fever for a few weeks to a year. Two or more years after the initial infection, syphilis begins to attack the heart, blood vessels, and central nervous system. Sores may reappear. Eventually, the disease can damage internal organs and lead to paralysis, convulsions, or other serious complications.

Lesson 3
11. How does HIV affect the immune system?

HIV invades lymphocytes called T cells and causes them to produce new copies of the virus. The newly produced viruses break out of the T cells, destroy them, and infect other T cells. Then the process repeats itself, causing the number of T cells to decrease and the immune system to weaken.
12. What are opportunistic infections?

infections that occur in individuals who do not have healthy immune systems

13. State the risk behaviors known to transmit HIV.

Risk behaviors include sexual intercourse and sharing drug-injection needles

14. When can a pregnant woman who is infected with HIV pass the virus to her baby?

She can pass the virus during pregnancy, childbirth, or nursing.

Lesson 4

15. Name the stages of HIV infection. What are the features of each stage?

The first stage is early HIV infection. In about half of infected people, this stage features flu-like symptoms, such as fever, headache, and swollen glands. This is followed by the asymptomatic stage, in which there are no signs of illness. The third stage is the symptomatic stage, characterized by a severe drop in immune cells and symptoms such as weight loss and yeast infections. The fourth stage is AIDS, in which the immune system is severely damaged and one or more opportunistic illnesses occur. Brain cells may also be attacked in this stage.

16. How is HIV detected?

The EIA test is given first to determine whether HIV antibodies are present in the blood. If the EIA test is positive, the Western blot test is then performed to confirm the results.

17. Why is a cure for HIV infection so hard to find?

A cure is hard to find because HIV infects the very cells that regulate the immune response, and new strains of the virus constantly emerge. In addition, treatment can be costly, and severe side effects of the treatments cause people to stop treatment or take medicines infrequently, leading to drug-resistant strains of the virus.

18. Why is HIV called pandemic?

It is called pandemic because it has caused a global outbreak of infectious disease, infecting an estimated 40 million people worldwide.