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## EC88-421 AIDS / STDs

Leon H. Rottmann

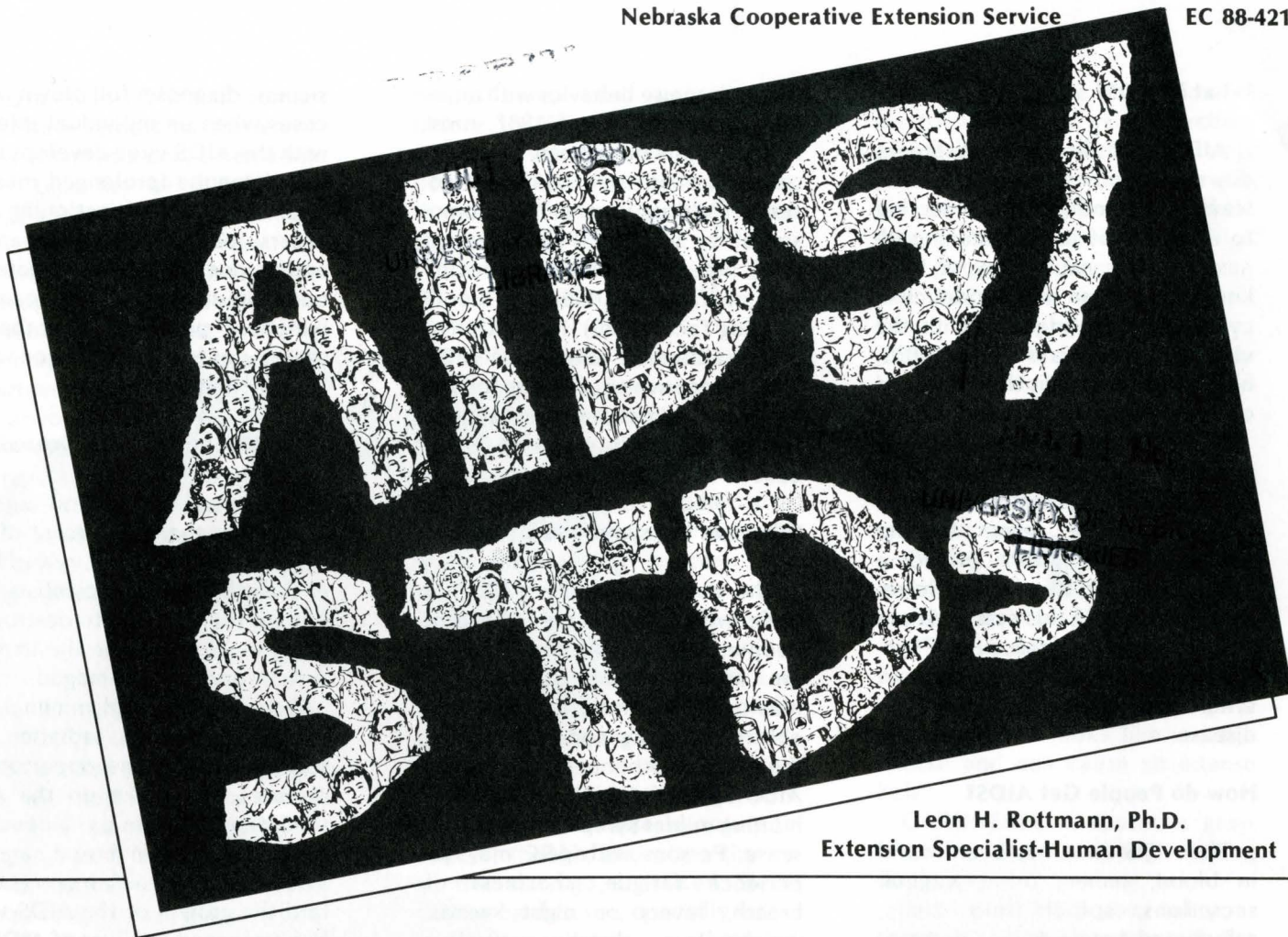
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## The Sexually Transmissible Diseases

"This is not an age for the faint of soul." With this pronouncement, the Surgeon General for the United States, C. Everett Koop, aptly summed up the challenge of Acquired Immune Deficiency Syndrome (AIDS) education. With the Centers for Disease Control (CDC) predicting 270,000 AIDS cases and 179,000 deaths by the end of 1991, the issue is no longer **whether** to teach about AIDS, but how to teach about AIDS as effectively as possible.

Effective AIDS education depends on an understanding of the current body of knowledge about the disease. Parents, teachers, or group leaders, who are secure in covering this subject will assist their family or audience members to make decisions based on their own grasp of the issue.

As the AIDS epidemic begins its eighth year of recognition in the

U.S., experts feel there are two signs of hope on the horizon: 1) the spread of the AIDS virus seems to be abating nationally; and, 2) treatment of those persons already infected seems promising.

With regard to the lessening of the spread of the AIDS virus, the Secretary for Health and Human Services, Dr. Otis Bowen, said, "We do not expect any explosion into the heterosexual population." That reflects a turnaround in the view from a year ago, when Dr. Bowen feared that the spread of AIDS would make the 14th century Black Plague look "pale" by comparison.

However, there are many reports in the literature illustrating examples of contradictory information. Contradictions are to be expected, along with a continual revision as new information is available and is shared with the

public. So, despite positive news about its lessening spread, "the more we know about the actual diseases of AIDS, the grimmer the picture," cautioned Dr. Harold Jaffe, head of AIDS epidemiology at CDC. "We're finding that sexual transmission of the virus is unpredictable, that one's chances of getting ill after being infected increase with time, and that a cure is a lot farther off than we once thought."

The point cannot be overemphasized: Without a vaccine or cure in sight, AIDS education is the only form of prevention or recourse we now have against the disease. Only when all of us recognize the seriousness of the disease and our own vulnerability to it are we likely to make responsible decisions about sexual behavior. Education with behavior changes as necessary becomes our primary goal.



## What is AIDS?

AIDS is a disease that breaks down the body's immune system, leaving the individual vulnerable to a variety of life-threatening illnesses. It is caused by a virus known as human immunodeficiency virus (HIV). Infection with the virus may not always lead to AIDS, but it will remain in the body and can be transmitted to others.

**Acquired** means the disease is passed from person to person, rather than being transmitted genetically. **Immune** refers to the body's defense system, providing protection from disease. **Deficiency** indicates that this system is unable to operate effectively. **Syndrome** describes the group of symptoms associated with the disease.

## How do People Get AIDS?

The AIDS virus has been found in blood, semen, urine, vaginal secretions, spinal fluid, tears, saliva, and breast milk. Of these, only semen, vaginal secretions, blood, and breast milk are now implicated in the transmission of the virus from one person to another.

The AIDS virus is most often transmitted through sexual contact and sharing of intravenous (IV) drugs, needles, and syringes. The virus may also be passed from an infected woman to her child, before or during birth, or in breast milk after birth.

In a small number of cases, AIDS has been transmitted through transfusion of blood or blood products. However, since 1985, an AIDS antibody screening test has made it possible to identify and discard infected blood. With current testing methods, getting infected from blood or a blood transfusion has about one in one million chance.

## Who gets AIDS?

The AIDS virus can be contracted by anyone who engages in sex-

ual or drug use behavior with an infected partner. As of 1987, most AIDS victims have been homosexual or bisexual men (65%); heterosexual IV drug users (17%); homosexual or bisexual IV drug users (8%); heterosexuals (4%); or recipients of transfused blood or blood-clotting factor (3%). In the United States about 60 percent of AIDS victims are white, 25 percent are black, and 14 percent are Hispanic. Women currently comprise 7 percent of AIDS cases in the U.S.

## What are the symptoms of AIDS?

The virus that causes AIDS has different effects on different people. Some people with the virus are asymptomatic carriers who may never become ill, but are capable of carrying and transmitting the disease. Other persons develop AIDS Related Complex (ARC) exhibiting milder symptoms of the disease. Persons with ARC may experience fatigue, shortness of breath, fevers or night sweats, weight loss, diarrhea, swollen glands, and skin lesions. These symptoms are similar to those of minor illnesses such as the flu, but may be recurring or never go away.

Persons who develop AIDS may initially have the same symptoms as those with ARC, but they go on to contract rare, often fatal illnesses. The most common are *Pneumocystis carinii* pneumonia (a protozoan lung infection) and Kaposi's sarcoma (a rare cancer).

## How is AIDS detected?

There is a test for antibodies to the AIDS virus. Positive test results mean that a person has been infected with the virus, but the person will not necessarily develop the disease. Antibodies are special chemicals that the body makes when it is exposed to a variety of environmental factors. Antibodies help the immune system to fight off such things as a virus, but with the AIDS virus, the antibodies are unable to do an adequate job. Phy-

sicians diagnose full-blown AIDS cases when an individual infected with the AIDS virus develops wasting, dementia (prolonged memory loss, cognitive functioning disorders, personality disturbances), and/or one of the life-threatening opportunistic infections (cancers, lymphoid problems, or other diseases) not found in a person with a healthy immune system.

## Can AIDS be treated or cured?

At present, there is no cure for AIDS. Less than 12 percent of persons with AIDS have survived longer than three years. Scientists have not yet found a way to destroy the AIDS virus or restore the immune system once it is damaged.

Doctors have had minimal success in using drugs, radiation, and surgery to treat the opportunistic diseases that make up the AIDS syndrome. A drug, zidovudine (generic), Retrovin (brand name) or axidothymidine, which seems to retard the growth of the AIDS virus, has prolonged the lives of AIDS patients in short-term studies.

## How can people protect themselves from getting AIDS?

There is virtually no risk of contracting the AIDS virus if the individual does not engage in sexual intercourse and does not share hypodermic or tattoo needles or syringes. To reduce the chances of infection with the AIDS virus, the Public Health Service recommends that individuals engage in a mutually monogamous relationship; use a latex condom; avoid sex with persons who have engaged in high-risk behavior or who have a positive AIDS antibody test; and, avoid sexual activities, including anal intercourse, that could cause cuts or tears in the lining of the rectum, vagina, or penis.

## How contagious is AIDS?

There is no evidence that the AIDS virus is transmitted by or-



inary contact (nonsexual) with AIDS patients, individuals infected with the AIDS virus, or objects these individuals have touched. No AIDS cases have been attributed to coughing, sneezing, hugging, eating from the same plate, sharing bathrooms, or using public swimming pools.

Persons caring for family members with AIDS are not at increased risk for the infection unless they engage in sexual activities or share intravenous drug paraphernalia. However, health professionals who care for patients with the AIDS virus must follow prescribed safety procedures when handling blood and tissue samples from these patients. The message to the public is: Don't get wet with semen, blood, breast milk or vaginal secretions from an individual who may have the potential or having been infected with the AIDS virus.

### **Can children with AIDS attend school?**

The Centers for Disease Control (CDC) recommend that the decision to allow children with AIDS to attend school be based on the child's physical condition, neurologic development, behavior, and interaction with others. A team consisting of the child's physician, parents, school officials, and local public health officials should make the decision.

Because the disease cannot be spread through ordinary student contact, the CDC recommends that most infected children of school age be allowed to attend school and after-school day care. However, the CDC cautions that school attendance by infected pre-school children or neurologically-handicapped youngsters is not advisable in an unrestricted school setting.

### **How should we treat AIDS victims?**

People with AIDS need understanding and emotional support from their families and friends, and members of their communities.

Families of AIDS patients also need help because they are living with the reality that a loved one is dying. Concerned individuals can provide valuable support to both victims and families.

### **What is the likely economic impact of AIDS?**

The direct costs of AIDS—including personal medical costs, but excluding lost work time were 0.4 percent of total national spending on health care in 1986. Such costs may gross to 1.5 percent of total health expenditures in 1991.

The costs of AIDS in 1986, totaling \$1.7 billion nationwide, constituted 24 percent of the direct cost of all infectious disease in 1980. That was before the AIDS epidemic had seriously hit the U.S. The average cost of treating AIDS over a patient's lifetime, which is not likely to exceed \$80,000, is similar to the lifetime cost of treating other serious illnesses. For men between the ages of 34 and 45, the average lifetime cost of heart attack is \$67,000; for cancer of the digestive system, \$47,500; and for leukemia, \$28,500.

The loss of earnings by AIDS patients will be especially great because many of them become ill in their prime working years. The average lost earnings of a person with AIDS will be between \$541,000 and \$623,000.

### **Additional Resources**

Additional materials on AIDS available through the office of the Cooperative Extension Service in your area:

- Fact Sheet #23: AIDS AND TEENAGERS: An Information Summary for Youth.
- Fact Sheet #24: AIDS: An Information Summary for Adults.

The following toll-free hotlines provide current information; all three services have additional print information that can be made available.

- 1-800/342-AIDS - Centers for Disease Control
- 1-800/342-7514 - U.S. Public Health Service
- 1-800/234-TEEN - Teen-Staffed Hotline on AIDS

The following resources are suggestions of helpful educational materials which are available.

- *AIDS Prevention Program for Youth*, (1987). American Red at local chapters or National Headquarters, Washington, D.C. 20006. This is a comprehensive junior and senior high school program consisting of a video, student workbook, and teaching guide.

- *AIDS—The Preventable Epidemic* (1987). Oregon State Health Division, P.O. Box 231, Portland, OR 97207. This program consists of three lessons plans designed for grades 9-12.

- *AIDS: What Young Adults Should Know* (1987). W.L. Yarber. American Alliance for Health, Physical Education, Recreation and Dance, 1900 Association Drive, Reston, VA 22091. The program consists of three class lessons with a teacher and student guide.

- *AIDS and the Public Schools* (1986). National School Boards Association (NSBA), 1680 Duke St., Alexandria, VA 22314. This report regarding AIDS issues, and teaching recommendations.

- *AIDS and Children: Information for Parents of School-Age Children* (1986). A brochure that discusses AIDS information and answers parents' questions about transmission of the virus in various settings.

- *How to Talk to Your Children about AIDS*, SIECUS, 32 Washington Place, Fifth Floor, New York, NY 10003. A booklet that helps parents discuss sexuality and AIDS with children. Age-appropriate suggestions are offered for parents of preschoolers, young children, pre-teens, and teens.

- *Surgeon General's Report on Acquired Immune Deficiency Syndrome* (1987). C.E. Koop, U.S. Public Health Service AIDS Clear-



inghouse, P.O. Box 14252, Washington, D.C. 20044. A report that can provide information useful for high school classes or parent meetings, including facts about AIDS transmission and prevention. Includes a listing of organizations offering help.

### **What about sexually transmitted diseases other than AIDS?**

**STD's: Everyone's Problem.** The terms STD's may be new to you. It stands for **Sexually Transmitted Diseases**, and if you have one, you're not alone. Over 10 million people from all walks of life—from students to executives—get STD's every year. You may be embarrassed or worried and wonder: "What now?" If so, you should know most STD's can be treated, others can be controlled, and all can be prevented. You're the key. By learning what to expect, you can help make treatment effective and prevention possible.

### **What are your risks for STD's?**

STD's are a fact of life. If you are sexually active—whatever your age, race, occupation, or sexual preference—you're at risk. And, your risk is increasing because more and more people are getting STD's. New STD's are also being identified. The key to **reducing your risk** is to be informed about STD's. Your risk is increased by the number of sexual contacts outside a monogamous relationship.

### **What can you do?**

If you think you have an STD, remember you have a disease, not a stigma, go to a doctor or clinic right away. Some STD's are minor, but others are serious and have dangerous complications. But there's hopeful news, too. If you learn to recognize STD symptoms and get early treatment, most infections can be quickly and painlessly cured. It is important to note, however, that this does not

include AIDS.

### **Recognize Symptoms**

How do you know if you have an STD? One clue is physical symptoms—your body's way of telling you something is wrong. Be alert to changes in your body. When something feels or looks different, seek medical care right away. Even if it isn't an STD, you may have another problem that requires professional treatment.

**Burning.** In men and women: burning, especially with urination, may be an STD or a bladder infection. In either case, only a doctor can diagnose and treat the problem.

**Discharge.** In men: a white or clear, often thick, discharge from the penis may be a sign of gonorrhea, chlamydia, or other STD's. A discharge may appear in the rectum if infected during anal sex.

In women: any unusual discharge—often accompanied by itching, burning, or odor—may be a sign of gonorrhea, chlamydia, or vaginitis.

**Lumps and Bumps.** In men and women: lumps, bumps, and other skin changes near the genitals may be venereal warts, herpes, or syphilis.

**Sores.** In men and women: painful or itchy sores on or near the sex organs may be herpes; painless sores may be syphilis.

**Itching.** In men and women: itching in and around sex organs may be herpes, scabies, or crabs. In women: itching may be caused by vaginitis.

**Abdominal Pain.** In women: abdominal pain can mean pelvic inflammatory disease (PID) a complication of chlamydia, gonorrhea, or other infections. See a doctor right away.

**No Symptoms.** Some symptoms take months, even years, to develop, especially in women. If you suspect you have been exposed to an STD, seek medical care.

**If Symptoms Go Away.** Don't think you're cured. Symptoms may

come and go, but the disease stays and, unless treated, often gets worse. Any of these symptoms could indicate a disease that is not an STD.

### **Get Early Treatment**

If you think you have an STD, act quickly to seek medical care. Don't let embarrassment or confusion keep you from getting help. Treatment is confidential, and if you're a minor, you don't need parental consent. Get your partner to treatment, too. Acting quickly will help you both avoid serious complications.

Be sure to tell the doctor or clinic you suspect an STD because you may not be checked for one otherwise. Tests also may need to be done. If an STD is diagnosed, take all prescribed medication, use precautions to prevent reinfection or spread of the disease, and return for follow-up care.

### **What are some common sexually transmittable diseases?**

#### **CHLAMYDIA**

Chlamydia is the fastest growing STD, especially among young people 15 to 25. It's already more widespread than gonorrhea. It may be overlooked because it's often symptomless and may not be tested for. In women, it may not be noticed until its later and more serious stages. If untreated, chlamydia can cause sterility in both women and men.

**Symptoms.** Chlamydia can be like a time bomb: at first, it's symptomless, then complications flare up. When early symptoms do appear, they're often mild: an odorless discharge and burning urination. A complication in women is pelvic inflammatory disease (PID), a major cause of sterility and ectopic (tubal) pregnancy. PID symptoms include fever, pain during sex, and abdominal pain.

**Treatment.** Men diagnosed with chlamydia should tell their part-



ners right away. Often a woman doesn't have symptoms; she learns she has chlamydia only when a sex partner tells her he is infected. When diagnosed early, chlamydia can be cured easily with antibiotics. New tests for chlamydia are becoming more widely available.

**Prevention.** The best way to avoid chlamydia is to know your sex partner. If either of you has sex with anyone else, use precautions—especially condoms—and have regular medical checkups. A pregnant woman should be especially cautious because untreated chlamydia can cause eye, ear, or lung infections in her baby.

## HERPES

Over 20 million people have herpes. This viral infection is so widespread that support groups for people with herpes have formed in many cities. At present the infection has no cure and, understandably, you may worry about herpes. Many people, though, get only one outbreak. Others learn to control the infection.

**Symptoms.** Herpes sores come and go, but the virus remains. Symptoms begin with one or more fluid-filled blisters that open into sores. Sores may be painful and accompanied by swollen glands. Oral herpes produces sores around the mouth; genital herpes produces sores around the genitals. (The common childhood infection of oral herpes is not to be confused with genital herpes, the STD).

**Treatment.** Herpes can't be cured, but it can be controlled. A drug called acyclovir may speed healing and prevent recurrences. You can help, too: Keep herpes sores clean and dry, and don't scratch them. Pregnant women who have had herpes should tell their doctors so that precautions might spare the baby from being infected.

**Prevention.** To prevent getting or spreading herpes, avoid sex during flare-ups and learn to recognize the sores. If you touch a

herpes sore, wash your hands before touching your eyes, your mouth, or your partner. Use a condom between flare-ups. Reduce the stress in your life; stress can trigger herpes outbreaks.

## VENEREAL WARTS

Venereal warts (caused by the virus, papillo) often are so tiny they're hard to see, but they can still cause big trouble: babies of mothers with venereal warts can be born with warts. Studies also show a link between venereal warts and genital cancers. But there's optimistic news, too. Caught early, venereal warts are easily treated.

**Symptoms.** Venereal warts can be flat or shaped like little cauliflowerers. They grow on the penis, vagina, cervix, and in and around the rectum and throat. The growths may take months after exposure to appear, though, and often they're so tiny they go unnoticed. Since they're hard to see, especially in the vagina or rectum, a thorough medical exam is necessary to diagnose them.

**Treatment.** Venereal warts are more difficult to remove when they're bigger, so don't delay. They're usually removed with chemicals such as podophylline (except on pregnant women). Sometimes warts are frozen off with liquid nitrogen or surgically removed. Repeat treatments often are necessary to remove all warts: a single remaining wart can multiply.

**Prevention.** To prevent venereal warts, use condoms, know your partner, and get regular medical exams. Also, learn to manage stress—outbreaks of venereal warts may be related to your stress level. Pregnant women should be especially cautious. Babies can be infected with venereal warts during childbirth.

## VAGINITIS

Vaginitis is really a group of

diseases. The three most common are **trichomoniasis**, **yeast infection**, and **Gardnerella**. Although mainly a woman's problem, vaginitis can be carried and spread by men. In fact, trichomoniasis is often called the "ping pong" because sex partners don't know they have it and keep reinfecting one another. Some forms of vaginitis, such as yeast infections, also occur in women who are not sexually active. Most vaginitis is not an STD.

**Symptoms.** The vaginitis diseases all share a common symptom: discharge.

TRICHOMONIASIS produces a frothy, yellow discharge and causes persistent itching or burning. The discharge may have an unpleasant odor.

YEAST INFECTION produces a discharge that looks like cottage cheese and can cause an intense itch.

GARDNERELLA causes a grayish-white, watery, strong-smelling discharge.

**Treatment.** Both you and your partner should be treated for trichomoniasis to avoid reinfecting each other. Trichomoniasis is treated with a medication called metronidazole. Yeast infections are treated with anti-fungal vaginal suppositories or creams. Gardnerella is treated with ampicillin or metronidazole. Be sure to take all the medication prescribed for you.

**Prevention.** Vaginitis can be difficult for a woman to prevent. These precautions might reduce risk, however.

**Wash** the vaginal area daily with soap and water, rinse and dry.

**Don't use** douches or strong deodorant soaps; they upset the vagina's natural chemical balance, permitting the growth of yeast.

**Use cotton** or cotton-crotch undergarments: they provide better air circulation, which discourages infections.

## GONORRHEA

Gonorrhea is so widespread that a new infection occurs every 12



seconds. If untreated, gonorrhea can cause sterility and in women, pelvic inflammatory disease (PID).

**Symptoms.** Men may notice a discharge and painful urination. Women often have no early symptoms, but later they may develop discharge, abdominal pain, and fever. Sometimes there are no observable symptoms in men.

**Treatment.** Gonorrhea, a bacterial infection, can be quickly cured with antibiotics. However, some gonorrhea germs are penicillin-resistant; so if symptoms don't ease in a few days, go back for another medical evaluation.

**Prevention.** The best protection against gonorrhea is to know your sex partner. If sexually active, learn the symptoms of the infection, use condoms and other precautions to reduce risk, and get regular medical checkups.

## SYPHILIS

Syphilis is caused by a cork-screw-shaped bacteria. Unless treated, it can cause heart and brain damage, even death. Pregnant women can give the infection to unborn babies.

**Symptoms.** The first symptom of syphilis is a painless sore which may not be noticeable. Later symptoms include rash and fever. These symptoms disappear but, if untreated, the disease leads to serious damage years later.

**Treatment.** Syphilis is treated with antibiotics. Early treatment is important because symptoms of the infection may disappear, but the disease remains in the body and may progress to the next stage.

**Prevention.** As with gonorrhea and other STD's, knowing your sex partner is the best prevention against syphilis. If sexually active, use condoms and other precautions and get regular medical exams. Syphilis can be diagnosed by a blood test. It may be missed on a routine exam if the patient is asymptomatic.

## THERE ARE MORE STD's, TOO

Other STD's such as crabs, hepatitis B, and scabies add up to a major health problem. You can take an active role in preventing STD's. Stay alert to body changes, get early treatment, and practice prevention.

## STD's: You Can Control Them

Sexually transmitted diseases (STDs) are spreading at an **epidemic** rate. Over 25 different STD's have been identified and they're gaining on us despite our efforts at treatment and prevention. You can help control STDs by being alert and informed. Pay attention to your body: if something looks or feels different, seek medical care. Make sure your partner gets treatment, too. Better yet, try to avoid STD. Practice prevention—spread the facts, not the STDs. Working together we can control this epidemic.

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