



About STDs: Most Common Questions

1. *What Are STDs?*

Sexually transmitted diseases (STDs) are spread through sexual contact. Sexual contact includes vaginal, anal, or oral intercourse, as well as skin-to-skin contact with sexual organs (penis, vagina, anus, and mouth). Sexually transmitted diseases can also be spread from a pregnant woman to her child. There are more than 25 STDs. The most common STDs in America are: **Chlamydia, gonorrhea, bacterial vaginosis, syphilis, HIV/AIDS, genital warts** (caused by a virus called human papillomavirus—HPV), **hepatitis B, trichomoniasis, pubic lice, scabies, and herpes.**

2. *How Are STDs Transmitted?*

Some STDs (syphilis, Chlamydia, gonorrhea, bacterial vaginosis, HIV) are transmitted by body secretions such as semen, blood, and vaginal fluids. Because of this, when sex toys are used and shared, there is a risk of spreading STDs. Although the risk is relatively low, the first documented case of the spread of HIV through the use of sex toys was reported in 2003.

Other STDs, such as herpes or HPV (the virus causing genital warts), can be transmitted via skin-to-skin contact. Pubic lice and scabies are associated with close body contact, not necessarily sexual contact. It's possible to become infected with pubic lice or scabies as a result of contact with infested clothes, sheets, or towels.

3. *What Are the Symptoms of STDs?*

It is important to remember that some STDs cause no symptoms, and when symptoms do occur, they are often not recognized. Most people with STDs have no symptoms. You can be infected and infect someone else without knowing it. However, there are some common signs to watch for. The symptoms listed below are tricky. They can show up anywhere from 2 days to a couple of months after initial exposure to the disease. Sometimes, symptoms can show up as long as several years after the initial STD infection.

If you have any of these symptoms or think you have been exposed to an STD, contact a healthcare provider immediately. Specific symptoms might include:

- Bumps or blisters near the mouth or genitals;
- Burning or pain during urination or a bowel movement;
- Flu-like symptoms, including fever, chills, and aches;
- Swelling in the groin area.

Symptoms specific to women are:

- Unusual pain or discharge from the vagina;
- Pelvic pain;
- Unusual vaginal bleeding;
- Pain during intercourse;
- Increased severity of menstrual cramps or menstrual abnormalities (like a change in the amount of flow).

Symptoms specific to men:

- Discharge from the penis;
- Testicular pain;
- Pain during urination.

4. *How Are STDs Prevented?*

Not having sex is the best protection against sexually transmitted diseases. Having sex with only one uninfected partner who only has sex with you is also safe.

For sexually active people, using condoms (or other latex barriers) properly 100 percent of the time when they have vaginal, anal and oral sex is a proven way of reducing risk. But this will not prevent bacterial STDs 100 percent of the time.

Other STDs like genital herpes and HPV/genital warts, are transmitted primarily through skin-to-skin contact from sores or ulcers, or even infected skin or mucosal surfaces and fluids that look normal. Syphilis can also be transmitted this way, as well as through body fluids. These STDs can be passed even when no sores, warts, or other symptoms are present. Often, sores, warts, or lesions are very hard to see. Infected areas can be in genital areas that are covered or protected by a latex condom, but they can also occur in areas that are not covered or protected.

Latex condoms used correctly all of the time, can reduce the risk of these STDs **only** when the infected areas are covered or protected by the condom. The effectiveness of condoms in

protecting against STDs depends on the location of the sore or lesion. If these sores are present on a part of the genital area that is not covered by a condom, STD transmission can occur.

5. *How Are STDs Treated?*

There are two categories of STDs. Bacterial STDs are caused by bacteria, and viral STDs are caused by viruses. As a result of being caused by different microorganisms, bacterial and viral STDs vary in their treatment.

Bacterial STDs, such as gonorrhea, syphilis, bacterial vaginosis, and Chlamydia, are cured with antibiotics. There is a preventative vaccine for the most common strains of HPV or genital warts (viruses). Currently, this vaccine is recommended only for young women 26 years old and younger. Also there are preventative hepatitis (viruses) vaccines recommended for both male and female children. Some viral STDs such as HIV and herpes have no cure, but their symptoms can be reduced with treatment.

6. *How Can STDs Affect Me Long-term?*

Several STDs in addition to HIV/AIDS are quite serious. Diseases like syphilis, gonorrhea, and Chlamydia can have long-term consequences, including pelvic inflammatory disease, which can lead to sterility (losing the ability to get pregnant or to get someone pregnant) and chronic pelvic pain. Human papillomavirus (HPV), the virus that causes genital warts, is strongly linked to the development of cervical cancer. STD infection during pregnancy can cause pregnancy complications and, in some cases, lead to illness or death in the newborn.

7. *How Can I Avoid Getting an STD?*

No method except abstinence (no oral, vaginal, or anal sex) is 100 percent effective. Being in a long-term, mutually monogamous relationship (both you and your partner are only having sex with each other) with an uninfected person, can also be a means of avoiding an STD.

8. *How Can I Reduce My Risk of Getting an STD?*

According to the Centers for Disease Control and Prevention (CDC), all partners should get tested for HIV and other STDs before initiating sexual intercourse. However, if you decide to be

sexually active with a partner whose infection status is unknown or who is infected with HIV or another STD, you can reduce your risk of getting an STD by:

- **Asking a new sex partner if he or she has an STD, has been exposed to one, or has any unexplained physical symptoms. Do not have unprotected sex if your partner has signs or symptoms of STDs, such as sores, rashes, or discharge from the genital area.** Many common STDs have no symptoms but can still be transmitted to a sexual partner. If your partner has had sexual relations with someone else recently, he or she may have an STD, even if there are no symptoms.
- **Using a new condom for each act of insertive intercourse.** More and more people are using condoms. Research shows that latex condoms, when always used and used correctly, are highly effective in preventing the transmission of HIV, the virus that causes AIDS. In addition, correct and consistent use of latex condoms can reduce the risk of other STDs such as Chlamydia, gonorrhea and trichomoniasis. One of the problems with condoms is that many people use them incorrectly or only use them some of the time.
- **Getting regular checkups for STDs (even if you show no symptoms), and learning the common symptoms.** Most STDs are readily treated, and the earlier treatment is sought and sex partners are notified, the less likely the disease will do severe and/or permanent damage.

9. *If a Person Has No Symptoms, Can He or She Still Transmit an STD?*

People can be unaware they are infected with an STD for years. During that time, even though they show no symptoms, the STD can cause damage to their organs and tissues, and they can transmit the STD to their partners. This is why it is a good decision to wait to have sex or to protect yourself every time you do decide to have sex.

All pregnant women should be tested for STDs in their first and third trimesters to ensure their child does not become infected and/or can be treated appropriately. Chlamydia, gonorrhea, syphilis, trichomoniasis, and bacterial vaginosis (BV) can be treated and cured with antibiotics during pregnancy. There is no cure for viral STDs, such as genital herpes and HIV, but antiviral medication may be appropriate for pregnant women with herpes and definitely is for those with HIV. For women who have active genital herpes lesions at the time of delivery, a Cesarean delivery (C-section) may be performed to protect the newborn against infection. A Cesarean section is also an option for some HIV-infected women. Women who test negative for hepatitis B may receive the hepatitis B vaccine during pregnancy.

10. ***What Should I Do if I Think I Have an STD?***

If you think you may have an STD or have been sexually exposed to an individual with an STD, see a health care provider as soon as possible. You can visit your city/county health department, hospital, physician, or health care clinic. If you are a minor (under the age of 18) in the state of Tennessee, and according to State Statute T.C.A. 68-10-104(c), **“Any state, district, county or municipal health officer or any physician may examine, diagnose and treat minors infected with STDs without the knowledge or consent of the parents of the minors, and shall incur no civil or criminal liability in connection with the examination, diagnosis or treatment, except for negligence.”**

The presence of an STD can weaken your immune system and make you more susceptible to more infections, including HIV. The sooner you seek medical care, the sooner you can treat the infection, and the healthier you will be.

How to Talk to Your Health Care Provider about STDs

Many people think they aren't at risk of an STD, but sexually transmitted diseases are the most common type of infection. You might think it couldn't happen to you; however, you are at greater risk if:

- You ever had unprotected sex(no condom use);
- You and your sex partner ever had more than one sex partner;
- You don't know your sex partner's sexual history;
- You have symptoms such as bumps, rashes, sores, or burning near your genitals.

You might find it difficult talking to others, including your health care provider, about sexual topics. It can be embarrassing and uncomfortable. If you think you could have an STD, the longer you wait, the harder it can be to treat. Your health care provider is your first step towards protecting your sexual health. Remember that your health care provider is there *for you*.

How to Begin

You might expect your health care provider to begin the conversation about your sexual health. This isn't always true. Also, you will probably be more comfortable discussing this before the exam, while you are clothed. Here are some suggestions to begin the talk:

“I have a new boyfriend/girlfriend and we don't always use condoms. Am I at risk of a sexually transmitted disease?”

“My girlfriend found out she has Chlamydia. I'd like to be tested for Chlamydia and other STDs.”

“I have been dating several people and I’ve had sex with them. I want to be tested for STDs.”

“I have a new girlfriend and before we consider a sexual relationship, I want to be tested for STDs.”

What to Tell Your Health Care Provider

Your health care provider needs to know specific information about you to best assess your risk of STDs. You should be prepared to openly discuss:

- Your sexual history;
- Your current sexual practices;
- Your condom use;
- If you are female, whether you could be pregnant;
- Any symptoms you might have.

What to Ask Your Health Care Provider

It’s always a good idea to plan for your appointment. What questions do you want answered by your provider? Take the time to think ahead and then write them down. Sometimes during an appointment, you might forget to ask a question. If you have it written down, you don’t have to worry about remembering it. It is also a good idea to write down your health care provider’s answers to your questions, as well. You should ask:

- Could I have an STD and not know it?
- How often should I be tested for STDs?
- Should I be tested for any STD today?
- (If female) How often should I get a pap smear?
- How can I protect myself and my partner from STDs?

How to Talk to Your Partner

Talking about STDs can be difficult. *However, the most important thing you can do with your partner before having sex is to have this conversation while you are both sober and in a good mood.* So, if you’re feeling a sexual attraction towards your partner, now is the time for the discussion. If you wait until after you have sex, you haven’t protected yourself or your partner, and it can make it more difficult to have this important conversation. What should you do?

- Remember that STDs are a *medical* issue, like the flu or chickenpox. Sometimes if you think of it as a medical issue, it can make it easier to discuss.
- Research the topic, prepare. The more facts you have, the easier it will be to discuss from a non-emotional viewpoint.
- Plan what to say. There's nothing wrong in practicing your approach.
- Know what you want—ultimately what is the end result you're seeking from having this conversation?
- While social networking might encourage the use of e-mail and texting, this is an important conversation to have in person.
- Timing is everything—choose the right time to discuss this privately. You *don't* want to start the conversation in the heat of the moment or after you've had sex, or when you are under the influence of alcohol and/or drugs. You also don't want to discuss this when you're surrounded by people. Choose a quiet, safe place.
- If your partner becomes defensive, remind your partner of how much you care about him/her and you as well as each other's health. Recognize that this can be difficult for him/her to discuss.
- Don't let the discussion become an interrogation of you and your partner's risk factors. You might begin by naming of few of your own risk factors for HIV/AIDS/STDs and ask him/her to name a few. Keep the discussion non-emotional and deal in factual information. Bring articles or brochures for your partner to read.
- Ask your partner to consider going with you for STD testing before committing to sex. You can call it "a ritual of modern dating." This can make it easier for both of you to get tested.
- Share your test results with each other.

If You Are Diagnosed with an STD

According to the Centers for Disease Control and Prevention (CDC), in the U.S. alone there are approximately 19 million new STD cases each year, about half of which occur among youth ages 15-24 years old. The good news is that all sexually transmitted diseases can be treated or cured. Some are bacterial infections (Chlamydia, gonorrhea, bacterial vaginosis, and syphilis) which can be cured with antibiotics. Others are viral infections (herpes, HIV, HPV) which can't be cured, but they can be treated to relieve symptoms. If you are diagnosed with an STD, here are some suggestions:

- Make peace with yourself. Don't feel guilty, dirty, or that you're a bad person for having an STD. Remember, you are taking responsibility for your sexual health by getting diagnosed and treated. You are protecting yourself and others by doing this.
- Follow the treatment advice of your provider. Repeat to your provider how you should treat/cure the infection. This helps you better understand what you will need to do.
- Ask your provider how you can prevent infecting your sexual partner and follow her/his advice.
- Tell your partner that you are being treated for an STD and that s/he should also be tested. You can begin the conversation by saying, "I have something important to discuss with you."

- Present the facts of the infection and what your partner will need to do. Give your partner as much information as possible.
- Understand that your partner may be upset. Give them time to adjust to the news. If s/he breaks up with you over this, then your relationship wasn't as strong as you believed. On the other hand, working through this can make your relationship stronger. Always remember that you are being responsible by informing her/him.
- Avoid sex until both you and your partner have successfully completed treatment.
- If your provider recommends a follow-up visit, make the appointment and participate in the subsequent care.

However embarrassing, it is absolutely imperative that you inform your current and recent partners. Anonymous notification via an e-card is better than not informing partners of STD status:

<http://www2c.cdc.gov/ecards/index.asp?category=174>

How Did I Get This STD?

Most people don't realize that, like most infectious diseases, STDs take time to develop. The time from the moment of exposure to a bacterium, virus or parasite until signs and symptoms of the disease appear is called the incubation period. Many STDs can stay inactive in your system for days, weeks, months or years. So, before you consider accusing your partner of infidelity, consider the following:

- **Bacterial Vaginosis** – The incubation period is anywhere from 12 hours to 5 days.
- **Chancroid** – The incubation period is anywhere from 3 - 5 days, though it can extend up to 2 weeks.
- **Chlamydia** - Generally if there are symptoms they will start to show in 1 to 3 weeks. Up to two-thirds of all women and one half of all men have no symptoms; others have symptoms so mild that they go unnoticed. If you're diagnosed, it is important to notify your partner(s). Chlamydia can be transmitted at delivery from mother to child.
- **Genital Warts (HPV)** - Only certain strains even show symptoms and when they do it could be a month to many years.
- **Gonorrhea** – The incubation period is 1 to 14 days. Half of all women and approximately 10 percent of all men have no symptoms, so if you're diagnosed, it is important that you notify your partner(s). A pregnant woman can transmit the disease to her unborn child at the time of delivery. To prevent blindness, a newborn's eyes are treated with silver nitrate or antibiotics at the time of birth.
- **Hepatitis** - Here are descriptions of the most common forms of hepatitis -- A through D -- in the U.S. All cause inflammation of the liver.

- **Type A Hepatitis** - Is contracted through anal-oral contact, by coming in contact with the feces of someone with hepatitis A, or by eating or drinking hepatitis A contaminated food or water. The incubation period is 14 to 45 days.
 - **Type B Hepatitis** - Can be contracted from infected blood, seminal fluid, vaginal secretions, or contaminated drug needles, including tattoo or body-piercing equipment. It can also be spread from a mother to her newborn. The incubation period is 60-150 days, with 90 days as the average.
 - **Type C Hepatitis** - Is not easily spread through sex. You're more likely to get it through contact with infected blood, contaminated razors, needles, tattoo and body-piercing equipment, or manicure or pedicure tools that haven't been properly sanitized, and a mother can pass it to her baby during delivery. Most people do not have early symptoms of hepatitis C. In fact, most people (about 80 percent) who are infected with the hepatitis C virus (HCV) have no symptoms -- even after many years. You can look and feel perfectly healthy, yet still be infected with the disease and infect others.
 - **Type D Hepatitis** - A person who is infected with the hepatitis D virus must also have a hepatitis B infection in order for the hepatitis D virus to multiply. For people who are infected with the hepatitis B virus at the same time as the hepatitis D virus, symptoms of hepatitis D can begin 4 weeks to 12 weeks (on average) after infection with the hepatitis D virus. The virus can be passed through contact with infected blood, contaminated needles, or by sexual contact with a hepatitis B-infected person.
- **Herpes** - The incubation period is 5 to 20 days. Herpes can stay dormant for years but can show symptoms around three months after infection. If a pregnant woman has an active case at the time of delivery, a Cesarean section will be performed to prevent infection and possibly death to her unborn child.
 - **HIV/AIDS** - It can take as little as 90 days to years to develop.
 - **Pubic Lice** - As long as a week if it's the first time you've had pubic lice; as little as a day if this is a recurrence. Symptoms can't really be missed and will generally show within a couple of days to a couple of weeks.
 - **Scabies** - Scabies is a parasite and is hard to miss. It can take as long as a week if it's the first time you've been infected; a day if it's a recurrence.
 - **Syphilis** – The incubation period is 1 to 3 months. Syphilis goes through three different stages which can be hard to identify. A pregnant woman can transmit it to her unborn child during pregnancy and delivery.
 - **Trichomoniasis** – If symptoms appear, it takes 3 to 28 days to develop.

Most Common Sexually Transmitted Infections (in alphabetical order):

1. [Bacterial Vaginosis](#)
2. [Chancroid](#)
3. [Chlamydia](#)
4. [Genital Warts \(HPV\)](#)
5. [Gonorrhea](#)
6. [Hepatitis B](#)
7. [Herpes](#)
8. [HIV/AIDS](#)
9. [Pubic Lice](#)
10. [Scabies](#)
11. [Syphilis](#)
12. [Trichomoniasis](#)

Bacterial Vaginosis

What is it?

It is a change in the normal bacteria of the vagina. The exact cause of BV is unknown. There are many bacteria that live in a normal vagina. When you have BV, there are not enough “good” bacteria. This causes harmful bacteria to grow in the vagina, causing the vaginal environment to be out of balance. It is known that BV is associated with having a new sex partner or having multiple sex partners.

What are the symptoms?

Most women with BV have no symptoms at all. Sometimes a woman has more vaginal discharge than usual. The discharge might be milky with a “fishy” odor. The odor can be worse after sex. Other symptoms women may experience include itching or burning in or near the vagina.

How serious is it?

BV is usually not serious. In some cases, however, it can cause infections in the uterus and fallopian tubes. It is important to treat BV, especially before having an IUD inserted, or tests done on the uterine lining. BV during pregnancy may cause the baby to be born too soon.

How is it diagnosed?

The health care provider will do a few simple tests in the clinic. Looking at the vaginal discharge under the microscope for bacteria and checking the acid level of the vagina are two tests that help the health care provider decide if a woman has BV.

How is it treated?

The health care provider can prescribe an antibiotic, taken by mouth, called metronidazole or Flagyl®. There is also a vaginal cream. This medicine can cause nausea or a metal aftertaste in the mouth for some people. Take it with food. **DO NOT DRINK ALCOHOL ANY TIME WHILE TAKING THIS MEDICINE.** This medicine can cause severe nausea and vomiting when combined with alcohol. Either use a condom or do not have sex until you have finished taking the antibiotic. The health care provider can order antibiotic vaginal creams or gels which work just as well, but the cost is higher. The side effects are less with vaginal antibiotics.

How can I reduce my chances of getting it?

The following basic prevention steps can help reduce the risk of upsetting the natural balance of bacteria in the vagina and developing BV:

- Be abstinent.
- Limit the number of sex partners.
- Do not douche.
- Use all of the medicine prescribed for treatment of BV, even if the signs and symptoms go away.

Chancroid

What is it?

Chancroid is a bacterial disease that is spread only through sexual contact. Uncircumcised men are at much higher risk than circumcised men for getting chancroid from an infected partner. Chancroid is a risk factor for the HIV virus.

The disease can also be spread when pus-like fluid from the ulcer is moved to other parts of the body or to another person by contact such as touch.

What are the symptoms?

- Symptoms usually occur within 4-10 days from exposure. They rarely develop earlier than three days or later than 10 days.
- The ulcer begins as a tender, elevated bump, and then becomes a pus-filled, open sore with ragged edges.
- The ulcer is soft to the touch (unlike a syphilis chancre that is hard or rubbery). The term soft chancre is frequently used to describe the chancroid sore.
- The ulcers can be very painful in men but women are often unaware of them.
- Because chancroid is often asymptomatic in women, they may be unaware of the lesion(s).
- Painful lymph glands may occur in the groin, usually only on one side; but they can occur on both sides.

How serious is it?

Untreated chancroid often results in ulcers occurring on the genitals. Sometimes the ulcers persist for weeks or months.

How is it diagnosed?

Diagnosis is made by isolating the bacteria *Hemophilus ducreyi* in a culture from a genital ulcer. The chancre is often confused with syphilis, herpes or lymphogranuloma venereum; therefore, it is important that your health care provider rule out these diseases.

Chancroid, cont'd.

How is it treated?

Chancroid may be successfully treated with certain antibiotics. Lesions and ulcers can be expected to heal within two weeks.

What about my partner?

Chancroid is contagious as long as the infected person has any open sores. The open sores contain bacteria and any contact with these sores can result in infection.

Chlamydia

What is it?

Among the more than 20 STDs that have now been identified, Chlamydia is the most frequently reported, with an estimated 4 million new cases nationwide each year. For 2009, Tennessee had 11,519 diagnosed cases of Chlamydia. Chlamydia infections are caused by a bacterium, *Chlamydia trachomatis*, and are transmitted during vaginal, oral or anal sexual contact with an infected partner. It can also spread from an infected pregnant woman to her child at birth.

What are the symptoms?

About three-fourths of infected women and about one half of infected men may have no symptoms at all. This is one reason Chlamydia is dangerous: asymptomatic individuals do not seek treatment and therefore can pass the infection on to others. If symptoms appear at all, it is usually one to three weeks after contact. Women report vaginal discharge, vaginal bleeding between periods, abdominal pain that is sometimes accompanied by fever and nausea, and burning or pain during urination. Men with the infection report burning or pain during urination and a discharge from the penis. If left untreated, individuals can develop complications from the infection.

What kinds of complications can Chlamydia cause?

In women, Chlamydia can result in pelvic inflammatory disease (PID), a serious complication that can cause both infertility and ectopic pregnancy among women of childbearing age. The infection also may be passed by a pregnant woman to her newborn baby during delivery, resulting in neonatal eye infection or pneumonia. In men, Chlamydia infections can lead to pain or swelling in the scrotum. This can be a sign of epididymitis, an inflammation of a part of the male reproductive system located in the testicles. Both PID and epididymitis can cause infertility.

Other complications include proctitis (inflamed rectum) and conjunctivitis (inflammation of the lining of the eye). A particular strain of Chlamydia causes another STD called *lymphogranuloma venereum*, which causes major swelling and inflammation of the lymph nodes in the groin. Also, because of the symptoms associated with Chlamydia, infected individuals have a 3 to 5 times increase in the risk of acquiring HIV (the virus that causes AIDS) if exposed to the virus during sexual intercourse.

To help prevent the serious consequences of Chlamydia, screening at least annually for Chlamydia is recommended for all sexually active women age 25 years and younger. An annual screening test also is recommended for older women with risk factors for Chlamydia (a new sex partner or multiple sex partners). All pregnant women should have a screening test for Chlamydia.

How is Chlamydia diagnosed?

Several new tests for diagnosing Chlamydia have been developed recently. These tests are inexpensive and the results are available within two to three days. These new tests detect genetic material from Chlamydia and are very accurate. Urine, as well as genital secretions, can be collected as a specimen for these new test methods.

How is Chlamydia treated?

Chlamydia infections are treated with a seven-day course of antibiotics, usually doxycycline or erythromycin. A single dose of azithromycin also effectively treats Chlamydia infections. Penicillin is not effective against Chlamydia.

A person must be sure to take all of the prescribed medication, even if symptoms disappear before taking all the antibiotics. An infected person should refrain from all sexual contact until completing the medication, and it is very important that all sex partners be tested and treated to prevent possible medical complications, re-infection and further spread of the disease.

Women whose sex partners have not been appropriately treated are at high risk for re-infection. Retesting should be considered for women, especially adolescents, three to four months after treatment. This is especially true if a woman does not know if her sex partner received treatment.

How can Chlamydia be prevented?

Not having sex is the best protection against Chlamydia and other STDs. Having sex with only one uninfected partner who only has sex with you is also safe.

How can I reduce my risk of getting Chlamydia?

The use of latex condoms during sexual intercourse when always and correctly used can reduce the risk of transmission of Chlamydia. Because Chlamydia is highly contagious and yet may cause no symptoms, all men and women who have sexual contact with more than one partner should be tested regularly for the disease. Constant awareness and protection are necessary because a person who has once contracted the disease does not become immune. Many people acquire Chlamydia more than once.

Genital Warts or HPV (Human Papillomavirus)

What is genital HPV infection?

Genital HPV infection is a sexually transmitted disease (STD) that is caused by human papillomavirus (HPV). Human papillomavirus is the name of a group of viruses that includes more than 100 different types. More than 30 of these viruses are sexually transmitted, and they can infect the genital area of men and women including the skin of the penis, vulva (area outside the vagina), or anus, and the linings of the vagina, cervix, or rectum. These HPV types can also infect the mouth and throat. Most people who become infected with HPV will not have any symptoms and will clear the infection on their own.

Some of these viruses are called “high-risk” types, and may cause abnormal Pap tests. They may also lead to cancer of the cervix, vulva, vagina, anus, or penis. Others are called “low-risk” types, and they may cause mild Pap test abnormalities or genital warts. Genital warts are single or multiple growths or bumps that appear in the genital area, and sometimes are cauliflower-shaped.

HPV is not the same as herpes or HIV (the virus that causes AIDS). These are all viruses that can be passed on during sex, but they cause different symptoms and health problems.

How common is HPV?

Approximately 20 million Americans are currently infected with HPV. At least 50 percent of sexually active men and women acquire genital HPV infection at some point in their lives. By age 50, at least 80 percent of women will have acquired genital HPV infection. About 6.2 million Americans get a new genital HPV infection each year.

How do people get genital HPV infections?

The types of HPV that infect the genital area are spread most often through genital contact. Most HPV infections have no signs or symptoms; most infected persons are unaware they are infected, yet they can transmit the virus to a sex partner. Rarely, a pregnant woman can pass HPV to her baby during vaginal delivery. A baby that is exposed to HPV very rarely develops warts in the throat or voice box.

What are the signs and symptoms of genital HPV infection?

Most people who have a genital HPV infection do not know they are infected. The virus lives in the skin or mucous membranes and usually causes no symptoms. Some people get visible genital warts, or have pre-cancerous changes in the cervix, vulva, anus, or penis. Very rarely, HPV infection results in anal or genital cancers.

Genital warts usually appear as soft, moist, pink, or flesh-colored swellings, usually in the genital area. They can be raised or flat, single or multiple, small or large, and sometimes cauliflower-shaped. They can appear on the vulva, in or around the vagina or anus, on the cervix, and on the penis, scrotum, groin, or thigh. After sexual contact with an infected person, warts may appear within weeks, months, or not at all.

Genital warts are diagnosed by visual inspection. Visible genital warts can be removed by patient applied medications such as Podofilox and Imiquimod or by treatments performed by a health care provider known as cryosurgery or by applying a weak acid solution. Some individuals choose to forego treatment to see if the warts will disappear on their own. No treatment regimen for genital warts is better than another and no one course of therapy is ideal for all cases.

How is genital HPV infection diagnosed?

Most women are diagnosed with HPV on the basis of abnormal Pap tests. A Pap test is the primary cancer-screening tool for cervical cancer or pre-cancerous changes in the cervix, many of which are related to HPV. Also, a specific test is available to detect HPV DNA in women. The test may be used in women with mild Pap test abnormalities, or in women older than 30 years of age at the time of Pap testing. The results of HPV DNA testing can help health care providers decide if further tests or treatment are necessary. No HPV tests are available for men at this time.

Is there a cure for HPV?

There is no “cure” for HPV infection, although in most women the infection goes away on its own. The treatments provided are directed to the changes in the skin or mucous membrane caused by HPV infection, such as warts and pre-cancerous changes in the cervix.

What is the connection between HPV infection and cervical cancer?

All types of HPV can cause mild Pap test abnormalities which do not have serious consequences. Approximately 10 of the 30 identified genital HPV types or “high-risk” types can lead to the development of cervical cancer. Research has shown that for most women (90 percent), cervical HPV infection becomes undetectable within two years. Although only a small proportion of women have persistent infection, persistent infection with “high-risk” types of HPV is the main risk factor for cervical cancer.

A Pap test can detect pre-cancerous and cancerous cells on the cervix. Regular Pap testing and careful medical follow-up, with treatment if necessary, can help ensure that pre-cancerous changes in the cervix caused by HPV infection do not develop into life-threatening cervical cancer. The Pap test used in U.S. cervical cancer screening programs is responsible for greatly reducing deaths from cervical cancer. Most women who develop invasive cervical cancer have not had regular cervical cancer screening.

How can I reduce my risk for genital HPV infection?

The surest way to eliminate risk for genital HPV infection is to refrain from any genital contact with another individual. There are several ways that people can lower their chances of getting HPV:

- Vaccines can protect males and females against some of the most common types of HPV. These vaccines are given in three shots. It is important to get all three doses to get the best protection. The vaccines are most effective when given before a person's first sexual contact, when he or she could be exposed to HPV.
 - **Girls and women:** Two vaccines (Cervarix and Gardasil) are available to protect females against the types of HPV that cause most cervical cancers. One of these vaccines (Gardasil) also protects against most genital warts. Both vaccines are recommended for 11 and 12 year-old girls, and for females 13 through 26 years of age, who did not get any or all of the shots when they were younger. These vaccines can also be given to girls as young as 9 years of age. It is recommended that females get the same vaccine brand for all three doses, whenever possible.
 - **Boys and men:** One available vaccine (Gardasil) protects males against most genital warts. This vaccine is available for boys and men, 9 through 26 years of age.

For those who choose to be sexually active, a long-term, mutually monogamous relationship with an uninfected partner is the most likely to prevent future genital HPV infections. However, it is difficult to determine whether a partner who has been sexually active in the past is currently infected.

For those choosing to be sexually active and who are not in long-term mutually monogamous relationships, reducing the number of sexual partners and choosing a partner less likely to be infected may reduce the risk of genital HPV infection. Partners less likely to be infected include those who have had no or few prior sex partners.

HPV infection can occur in both male and female genital areas that are covered or protected by a latex condom, as well as in areas that are not covered. While the effect of condoms in preventing HPV infection is unknown, condom use has been associated with a lower rate of cervical cancer, an HPV-associated disease.

Gonorrhea

What is gonorrhea?

Gonorrhea is a sexually transmitted disease (STD) caused by a bacterium, *Neisseria gonorrhoeae* (gonococcus), that grows and multiplies in moist, warm areas of the body such as the cervix, urethra, throat or rectum. In women the cervix is the most common site of infection. However, the disease can spread to the uterus and fallopian tubes, resulting in pelvic inflammatory disease. This can cause infertility and ectopic pregnancy (a pregnancy outside the uterus).

How is gonorrhea spread?

Gonorrhea is most commonly spread during genital contact, but it can also be passed from the genitals of one partner to the throat of the other during oral sex. Gonorrhea of the rectum can occur in people who practice anal intercourse and may also occur in women due to the spread of the infection from the vaginal area. Gonorrhea can be passed from an infected woman to her newborn infant during delivery.

What are the symptoms of gonorrhea?

The early symptoms of gonorrhea are often mild, and most women who are infected have no symptoms. If symptoms do develop, they usually appear within 2 to 10 days after sexual contact with an infected partner, although a small percentage of patients may be infected for several months without showing symptoms.

The initial symptoms in women include a painful or burning sensation when urinating or an abnormal vaginal discharge. More advanced symptoms, which indicate progression to pelvic inflammatory disease, include abdominal pain, bleeding between menstrual periods, vomiting or fever.

Many men with gonorrhea may have not symptoms at all. Some men have a discharge from the penis and a burning sensation during urination that may be severe. These symptoms appear within 3 to 5 days after sexual contact.

Symptoms of rectal infection in men and women include discharge, anal itching and sometimes painful bowel movements. Symptoms of gonorrhea in the throat may vary from a mild to a severe sore throat.

How is gonorrhea diagnosed?

Several laboratory tests are available to diagnose gonorrhea. A doctor or nurse can obtain a sample for testing from the parts of the body likely to be infected (cervix, urethra, rectum, or throat) and send the sample to a laboratory for analysis. Gonorrhea that is present in the cervix or urethra can be diagnosed in a laboratory by testing a urine sample. A quick laboratory test for gonorrhea that can be done in some clinics or doctor's offices is a gram stain. A gram stain of a sample from a urethra or a cervix

allows the doctor to see the gonorrhea bacterium under a microscope. This test works better for men than for women.

How is gonorrhea treated?

Because penicillin-resistant gonorrhea is widespread, non-penicillin antibiotics, such as ceftriaxone, is used to treat most gonococcal infections. Gonorrhea often occurs together with Chlamydia infection, another common STD. Therefore, physicians usually prescribe a combination of antibiotics, such as ceftriaxone and doxycycline, to treat both diseases. Women who are pregnant should not take doxycycline and are usually given an alternative antibiotic, such as erythromycin.

Regardless of what drug is prescribed, it is important that the patient take the full course of medication. Although medications will stop the infection, it will not repair any permanent damage done by the disease. People who have had gonorrhea and have been treated can get the disease again if they have sexual contact with persons infected with gonorrhea. All sex partners of a person with gonorrhea should be tested and treated properly even if they do not have symptoms of infection.

Does gonorrhea have any complications?

Untreated gonorrhea can cause serious and permanent health problems in both women and men. The bacteria can spread to the bloodstream and infect the joints, heart valves or the brain. In men, gonorrhea can cause epididymitis, a painful condition of the testicles that can lead to infertility if left untreated. The most common consequence of gonorrhea, however, is pelvic inflammatory disease (PID), a serious infection of the female reproductive organs that occurs in an estimated 1 million American women each year. PID can scar or damage cells lining the fallopian tubes, resulting in infertility in as many as 10 percent of women affected. In others, the damage prevents the proper passage of the fertilized egg into the uterus. If this happens, the egg may implant in the tube; this is called an ectopic or tubal pregnancy and is life-threatening to the woman if not detected early.

An infected woman who is pregnant may give the infection to her infant as the baby passes through the birth canal during delivery. Most states require that the eyes of newborns be treated with silver nitrate or other medication immediately after birth to prevent gonococcal infection of the eyes, which can lead to blindness. Because of the risk of gonococcal infection to both mother and child, doctors recommend that a pregnant woman have at least one test for gonorrhea during her pregnancy.

Because of the symptoms associated with gonorrhea, infected individuals have 3 to 5 times increase in the risk of acquiring HIV (the virus that causes AIDS) if exposed to the virus during sexual intercourse.

How is gonorrhea prevented?

Not having sex is the best protection against acquiring gonorrhea and other STDs. Having sex with only one uninfected partner who only has sex with you is also safe.

How can I reduce my risk of getting gonorrhea?

Condoms, when always and correctly used, can reduce the risk of transmission of gonorrhea. Because gonorrhea is highly contagious and yet may cause no symptoms, all men and women who have sexual contact with more than one partner should be tested regularly for the disease. Constant awareness and precautions are necessary because a person who has once contracted the disease does not become immune. Many people acquire gonorrhea more than once.

If a person has been diagnosed and treated for gonorrhea, he or she should notify all recent sex partners so they can see a health care provider and be treated. This will reduce the risk that the sex partner will develop serious complications from gonorrhea and will also reduce the person's risk of becoming re-infected.

Hepatitis B

What is hepatitis?

Hepatitis is an inflammation of the liver caused by certain viruses and other factors, such as alcohol abuse, some medications and trauma. Its various forms affect millions of Americans. Although many cases of hepatitis are not a serious threat to health, infection with certain hepatitis viruses can become chronic and can sometimes lead to liver failure and death.

How many kinds of viral hepatitis are there?

There are four major types of viral hepatitis, all caused by different viruses: hepatitis A, hepatitis B, hepatitis C and delta hepatitis (hepatitis D).

What is hepatitis B and how is it transmitted?

Infection with the hepatitis B virus (HBV) may be without any symptoms, mild or severe. Among adults infected by HBV, 90 to 94 percent recover completely and have no long term effects. Six to ten percent will become chronic carriers of HBV and will be at risk of developing cirrhosis or liver cancer. Over time, hepatitis B can destroy the liver (cirrhosis) and can cause liver cancer.

HBV is spread by direct contact with blood or other body fluids of infected people (hepatitis D is spread the same ways as HBV; however, it can only be acquired in the presence of hepatitis B virus).

Since the disease is not easily spread, persons with HBV do not pass the virus to others through casual contact, such as shaking hands or sharing a work space or bathroom facilities. Hepatitis B is most commonly transmitted by sharing drug needles, by engaging in high-risk sexual behavior (especially anal sex), from a mother to her baby during childbirth and in the health-care setting.

What are the symptoms of hepatitis B?

Many people infected with viral hepatitis have no symptoms. For example, about one-third of people infected with HBV have a completely "silent" disease. When symptoms are present, they may be mild or severe. The most common early symptoms are mild fever, headache, muscle aches, fatigue, loss of appetite, nausea, vomiting and diarrhea. Later symptoms can include dark coffee-colored rather than dark yellow urine, clay-colored stools, abdominal pain, and yellowing of the skin and whites of the eyes (jaundice).

About 15 to 20 percent of patients develop short-term arthritis-like problems. Another 30 percent of those with hepatitis B develop only mild flu-like symptoms without jaundice. Very severe hepatitis B is rare, but it

is life-threatening. Signs and symptoms which require immediate medical attention include prolonged blood clotting time, personality changes and agitated behavior.

Can people with no symptoms pass hepatitis B to others?

Some people infected with HBV become chronic carriers of the virus, although they may have no symptoms. There are an estimated 1.5 million HBV carriers in the United States and 300 million carriers worldwide. Children, when exposed to HBV, are at greatest risk of becoming carriers. Up to 90% of babies who become infected at birth with HBV, and up to half of youngsters who are infected before 5 years of age, become chronic carriers.

How is hepatitis B diagnosed?

Several blood tests can detect signs of HBV even before symptoms develop. These tests measure liver function and identify HBV antigens (certain parts of the hepatitis B virus) or antibodies (proteins produced by the body in response to the virus) in the blood.

How is hepatitis B treated?

There are no specific treatments for the symptoms of viral hepatitis B. Doctors recommend bed rest, adequate fluid intake, a healthy diet and avoidance of alcoholic beverages.

A synthetic form of the protein interferon alpha is used to treat people with chronic hepatitis B. The drug improves liver function in some people with hepatitis and reduces symptoms, although it may cause side effects such as headache, fever and other flu-like symptoms.

Most patients with mild to severe hepatitis begin to feel better in two to three weeks and recover completely within four to eight weeks. People with HBV infection, who also become infected with the hepatitis C virus at the same time, may be at particular risk for developing severe, life-threatening hepatitis.

Many chronic carriers remain symptom free or develop only a mild condition, of hepatitis B. However, approximately 25 percent go on to develop the most serious complications of viral hepatitis: cirrhosis of the liver, liver cancer and immune system disorders.

How can hepatitis B be prevented?

The most effective means of preventing hepatitis B virus infection is to avoid contact with the blood and body fluids, including semen and vaginal secretions, of infected individuals. People who have hepatitis B virus infection should:

- avoid sharing items that could infect others, such as razors or toothbrushes;

- protect sex partners from exposure to semen, vaginal fluids or blood through the proper use of latex condoms.

There are several vaccines available to prevent hepatitis B. Vaccination should be considered by people at high risk of infection: men who have sex with men, men and women with multiple partners, people who receive dialysis or blood products, household and sexual contacts of HBV carriers, and users of street drugs who share needles. Many health care and laboratory workers who handle blood and other body fluids also are vaccinated. People who come into direct contact with the blood or body fluids of an HBV carrier may receive one or more injections of hepatitis B immune globulin, sometimes in combination with hepatitis B vaccine. Immune globulin offers temporary protection, while the vaccine provides long-term immunity.

In an effort to eliminate chronic carriers of HBV, the U.S. Centers for Disease Control and Prevention (CDC) recommends that all newborn babies be vaccinated against the hepatitis B virus. The CDC and other groups have recommended that pregnant women be screened for hepatitis B as part of routine prenatal care. If the mother is infected, her baby can be given hepatitis B immune globulin and vaccine immediately after birth.

Herpes

What is herpes?

Herpes is a contagious viral infection that affects an estimated 45 million Americans (more than one in five). The infection is caused by the herpes simplex virus (HSV). There are two types of HSV and both can cause the symptoms of genital herpes. HSV type 1 most commonly causes sores on the lips (known as fever blisters or cold sores), but it can cause genital infections as well. HSV type 2 most often causes genital sores, but it also can infect the mouth. The virus remains in certain body nerve cells for life, causing periodic symptoms in some people. Many people who are infected with HSV never develop any symptoms.

How is herpes transmitted?

The infection is usually acquired by sexual contact with someone who has genital herpes. People with oral herpes can transmit the infection to the genital area of a partner during oral-genital sex. Herpes infections also can be transmitted by a person who is infected with HSV but has no noticeable symptoms. Such asymptomatic shedding of the virus may be fairly common, occurring from 5 percent to 20 percent of the time in infected individuals.

What are the symptoms of herpes?

Symptoms of a first episode of genital herpes vary widely from person to person. They usually occur within two to 10 days of exposure and typically involve small red bumps that may develop into blisters and open lesions. These “bumps” appear at the site of infection, which may be in or around the vaginal area, the cervix, the penis, urinary tract of both men and women, and around the anal opening, buttocks or thighs. Sores also may appear on other parts of the body where broken skin has come into contact with HSV. Over a period of days, the sores become encrusted and then heal without scarring. Other symptoms of a first episode of genital herpes may include fever, headache, muscle aches, swollen glands in the groin area, painful urination or vaginal discharge.

Can herpes reoccur?

After invading the skin or mucous membranes, the virus that causes genital herpes travels to the sensory nerves at the end of the spinal cord. Even after the skin lesions have disappeared, the virus remains inside the nerve cells in a suppressed state. In most people, the virus reactivates from time to time. When this happens, the virus travels along the nerves to the skin, where it multiplies on the surface at or near the site of the original herpes sores, causing new lesions to erupt. It also can reactivate without any visible sores. At these times, small amounts of the virus may be shed at, or near, sites of the original infection, in genital or oral secretions, or from unapparent lesions. This shedding is rare, but it is sufficient to infect a sex partner.

The symptoms of periodic episodes are usually milder than those of the first episode and typically last about a week. A recurrent outbreak may be identified by a tingling sensation or itching in the genital

area or pain in the buttocks or down the leg. Sometimes no visible sores develop. At other times, blisters appear that may be very small and barely noticeable or may break into open sores that crust over and then disappear. The frequency and severity of the recurring episodes vary greatly. While some people recognize only one or two recurrences in a lifetime, others may experience several outbreaks a year. The number and pattern of recurrences often change over time for an individual. Scientists do not know what causes the virus to reactivate. Recurrences are not predictable. Some people with herpes report that their recurrences are brought on by other illnesses, stress, exposure to sunlight, or menstruation.

How is herpes diagnosed?

The sores of genital herpes in its active stage are usually visible to the naked eye. Several laboratory tests may be needed, however, to distinguish herpes sores from other infections. The most accurate method of diagnosis is by viral culture. A blood test can detect antibodies to the virus, which indicate that the person has at some time been infected with the herpes virus, but it cannot determine whether a person has an active genital herpes infection. During an active herpes episode, whether primary or recurrent, it is important to follow a few simple steps to speed healing and to avoid spreading the infection to other sites of the body or to other people:

- Keep the infected area clean and dry to prevent secondary infection from developing.
- Try to avoid touching the sores; wash hands after contact with the sores.
- Avoid sexual contact from the time symptoms are first recognized until the sores are completely healed, that is, until scabs have fallen off and new skin has formed over the site of the lesion.

The oral medication acyclovir shortens the course of a first episode and limits the severity of recurrences if taken within 24 hours of onset of symptoms. People who have very frequent episodes of the disease can take oral acyclovir daily for up to one year to suppress the virus' activity and prevent most recurrences. Acyclovir does not cure herpes, but it interferes with the virus' ability to reproduce itself. Other drugs that work in a similar way are famciclovir and valacyclovir.

Does herpes cause any complications?

Genital herpes infections do not cause permanent disability or long-term damage in healthy adults. However, in people who have suppressed immune systems, herpes episodes can be long-lasting and unusually severe. Regardless of severity of symptoms, genital herpes frequently causes psychological distress in people who know they are infected.

A pregnant woman who develops a primary episode of genital herpes can pass the virus to her fetus and may be at higher risk for spontaneous abortion and premature delivery. If a woman has active genital herpes at delivery, a Cesarean delivery is usually performed. Half of fetuses/infants who acquire herpes in this manner either die or suffer neurologic damage. Early detection and therapy can limit many serious complications.

Genital herpes, like other genital ulcer diseases, increases the risk of acquiring HIV, the virus that causes AIDS, by providing point of entry for HIV. Persons with HIV can have severe herpes outbreaks, and this may help transmit both herpes and HIV infections to other persons.

Can herpes be prevented?

Not having sex is the best protection against herpes and other STDs. Having sex with only one uninfected partner who only has sex with you is also safe.

How can I reduce my risk of getting herpes?

Latex condoms, when always and correctly used, can reduce the risk of genital herpes and other STDs, but only when the infected areas are covered or protected by the condom. Herpes lesions may occur in areas that can be covered or protected by a condom, but they also may occur in areas that cannot be covered or protected by a condom.

HIV/AIDS

What is AIDS?

AIDS is a disease that causes the body to lose its natural protection against infection. It is caused by the human immunodeficiency virus (HIV). The virus, which is found in the blood and other body fluids of infected individuals, attacks certain white blood cells that protect the body against illness. A person with AIDS is more likely to become ill from infections and unusual types of pneumonia and cancer that healthy persons normally can fight off. Currently, there is no vaccine or cure for AIDS.

How does someone get HIV?

HIV is not easy to get. Both men and women can become infected and can give the virus to someone else. HIV is found in the blood, semen and vaginal secretions of infected persons and can be spread in the following ways:

- Having sex – vaginal, anal or oral – with an HIV-infected person (male or female);
- Sharing drug needles or injection equipment with an HIV-infected person to inject or "shoot" drugs;
- An HIV-infected woman may pass the virus to her baby during pregnancy, birth, or by breastfeeding.

HIV **cannot** be spread in the following ways:

- Shaking hands, hugging or simple kissing;
- Coughs or sneezes, sweat or tears;
- Mosquitoes, toilet seats or donating blood;
- Eating food prepared or handled by an infected person;
- Everyday contact with HIV-infected persons at school, work, home or anywhere else.

The most common modes of exposure to HIV are:

- Sex between men who have sex with men;
- Injectable drug use;
- Heterosexual contact, primarily with injectable drug users.

Because HIV-infected persons may look and feel healthy, many are unaware they are infected and able to infect others. Only an HIV antibody test can determine exposure to the virus. Too often, people at greatest risk of HIV infection do not know their high-risk behaviors can result in HIV infection, or they are unwilling or unable to change those high-risk behaviors.

How is HIV diagnosed?

An HIV antibody test, either from a blood sample or an oral sample, can tell whether a person's body has been infected with the virus. If it has, his/her immune system makes proteins called antibodies. It takes most people up to 12 weeks after exposure to develop detectable antibodies ("window period"), but some may take as long as six months. If a person's test is positive for HIV antibodies, it means s/he is infected and can infect others. If the test is negative, it generally means an individual is not infected. But, because the "window period" may be as long as six months, a person should be tested again if, in the six months prior to the test, s/he engaged in behavior that could transmit the virus.

Anonymous or confidential counseling and testing services are available at all local health departments and most community health agencies, including some outreach testing sites. A trained counselor will help an individual understand the test, test results and how to protect his/her health whether the person is infected or not. A personal physician can also perform the test.

How can infection with HIV be prevented?

To avoid infection through sex, a person should not have anal, vaginal or oral sexual intercourse. An individual should only have sex with someone who is not infected and who has sex only with that individual. A person should use latex condoms always and correctly each time s/he has vaginal, anal or oral sex to greatly lower the risk of infection. Drugs can impair judgment. An individual should never share needles or injection equipment to inject drugs or steroids. HIV in blood from an infected person can remain in a needle, syringe or other item, and then be injected directly into the bloodstream of the next user.

Is HIV treatable?

People who are infected with HIV can do many things to live healthier and longer lives. First, they must take care of themselves by eating right, getting plenty of exercise and sleep, and by avoiding exposure to airborne and foodborne germs. There are also medications that slow the growth of the virus and delay or prevent certain life-threatening conditions. The Tennessee Department of Health provides FDA-approved prescription drugs through its AIDS Drug Assistance Program (ADAP) for HIV-infected patients who meet specific income guidelines.

Pubic Lice (Crabs)

What are public lice?

Pubic lice are parasites. Pubic lice are often referred to as crabs and are not to be confused with body lice. The scientific name for pubic lice is *Pediculus pubis*. Pubic lice need blood to survive but they can live up to 24 hours off a human body. Pubic lice have three very distinct phases: egg, nit (egg or young louse), and adult louse. The louse is the stage of the parasite that causes itching. Louse is the singular for lice (like mouse and mice).

How common are pubic lice?

In the United States, there are an estimated 3 million cases of pubic lice every year.

How do people get pubic lice?

Pubic lice are transmitted during skin-to-skin contact with an infected person. Even when there is no sexual penetration, an individual can get or give pubic lice. Pubic lice can be transmitted not only from sexual contact but also from non-sexual contact: from sleeping in an infested bed; using infested towels; or sharing infested underwear and clothes. Animals do not get or spread lice.

What are the signs or symptoms of pubic lice?

- The most common symptom of pubic lice is itching in the pubic area. The itching is caused by an allergic reaction to the bites, and usually starts about five days after a person gets pubic lice.
- If an individual has pubic lice s/he should look closely enough in the pubic area, and s/he may see small crab-like parasites that may be whitish-gray or rust colored.
- Lice eggs are small and oval-shaped. They are attached to the base of the hair (close to where it comes out of the body).
- A person may see "blue spots" for several days; these are the result of the bites.
- Pubic lice are usually found in the pubic area; however, they may be found in a person's armpits, eyelashes, and beard/mustache and sometimes in the hair on the head.

How are pubic lice diagnosed?

The adult pubic louse resembles a miniature crab which has six legs, but their two front legs are very large and look like the pincher claws of a crab; this is how they got the nickname "crabs". A person might need a magnifying glass to help identify them. If uncertain, a person should have a health care provider perform an examination. The health care provider may need to use a microscope.

What is the treatment for pubic lice?

There is a cream rinse, called Permethrin, which is applied to the affected area and washed off after 10 minutes. Another option is Lindane (also known as Kwell). This is a shampoo that is left on for four minutes then it's washed off. **Kwell (Lindane) should not be used after a bath; *should not be used by (a) persons with extensive dermatitis; (b) pregnant or lactating women; and, (c) children under 2 years.***

After cure, a person may still have some itching as a result of a skin irritation or allergic reaction. If so, s/he can use hydrocortisone cream. Also, all clothes, bed linens, sleeping bags, etc., will need to be washed in hot water (at least 125-degrees F.) and dried. Clothes and other items that cannot be washed can be placed in a plastic bag for two weeks. Treatment should be repeated in 7 to 10 days if lice are still found.

How can pubic lice be prevented?

- Abstinence (not having sex).
- Mutual monogamy (having sex with only one uninfected partner).

How can I reduce my risk of getting infected?

- Limit the number of sex partners to reduce risk of all STDs.
- People should use latex condoms for all types of sexual penetration (oral, vaginal, anal). Latex condoms, when used consistently and correctly, can reduce the risk of transmission of other STDs, but are not considered effective against pubic lice.
- Careful consideration and open communication between partners may protect all partners involved from infection.
- Have regular check-ups if you are sexually active.
- If an individual has an STD, s/he shouldn't have sex (oral, vaginal, or anal) until all partners have been treated.
- Prompt, qualified, and appropriate medical intervention and treatment and follow-up are important steps in breaking the disease cycle.

Why should I worry about having pubic lice?

A person may get a secondary infection as a result of scratching.

Should I tell my partner?

Yes. Telling a partner can be hard. It's important that a person talk to his/her partner as soon as possible so s/he can get treatment. Also, it is possible to pass pubic lice back and forth. If a person gets treated but his/her partner doesn't, the person could get infected again. Wash all clothes, sheets, towels, etc., in hot water (at least 125-degrees F.).

Should I tell my healthcare provider that I had pubic lice?

Yes. If an individual has one sexually transmitted disease, s/he may be at risk for other infections. A person should ask his/her doctor or nurse about being tested for other STDs.

Scabies

What is scabies?

Scabies is a skin disease caused by a parasite. The female parasite burrows under the skin and begins laying eggs within 2-3 hours of infection and generally lays 2-3 eggs daily. The eggs hatch and become adult mites (a term referring to this parasite) within 10 days.

How do you get scabies?

The spread of scabies is more likely to occur when partners sleep together rather than with a brief sexual encounter. Scabies can also be spread from sleeping in infested bedding, wearing infested clothing, and through routine contact such as shaking or holding hands. Though unlikely, infection from a toilet seat may be possible.

How long does it take before symptoms appear?

The female mite burrows under the skin and begins laying eggs within hours (2-3 eggs daily). The eggs hatch and become adult mites within 10 days. Symptoms, primarily itching, appear approximately 4 weeks from the time of contact as a result of sensitization to the presence of immature mites.

How long are you infectious?

A person with scabies is considered infectious as long as they have not been treated. Infested pieces of clothing and bedding are considered infectious until treated. After treatment, a person may unknowingly re-infest themselves by coming into contact with the same person who had scabies to begin with or with someone else who has scabies.

What are the symptoms of scabies?

- Presence of the mite burrow(s), reddish brown lumps, nodules, or scratches on the skin, and constant itching. Itching is known to worsen at night.
- Common sites of infection are: webs and sides of fingers and toes; pubic and groin area, armpits; bends of elbows and knees; wrists; navel; breasts; lower portion of buttocks; occasionally the penis and scrotum; waist and abdomen. They are rarely found on the palms of the hands and soles of the feet, and rarely from the neck upward.

How is scabies diagnosed?

- Microscopic exams of scrapings from suspicious lump(s).

- Diagnosis is simple if family members or partners have the same symptoms.
- BIT - Burrow Ink Test may also indicate scabies. The suspicious area is rubbed with ink from a fountain pen. The surface is then wiped off with an alcohol pad; if the person is infected with scabies, the typical zigzag line of the burrow across the skin will appear.
- Shave biopsies -- a very fine layer of skin is shaved off and examined under a light microscope.
- Topical tetracycline may be applied to the area and examined under a special light to detect the burrows.

How is scabies treated?

- Recommended treatment is Permethrin (RID; A-200) cream applied to all areas of the body from the neck down.
- Alternative Treatments are: Kwell (Lindane) or Sulfur. **Kwell (Lindane) should not be used after a bath; should not be used by (a) persons with extensive dermatitis; (b) pregnant or lactating women; and, (c) children under 2 years.**
- Wear clean clothing and sleep between freshly laundered bed linens after treatment.
- Bedding and clothing should be washed and dried at very hot settings or dry-cleaned. Family members, close contacts and sexual partners may be treated simultaneously (depending on doctor's recommendation).
- Fumigation of living areas is not necessary.
- After treatment symptoms may persist, but a person may not be infectious.

What else do I need to do to get rid of scabies through sexual contact?

- Use medication as directed; treat all partners.
- Abstain from intimate or sexual contact until the treatment is complete and successful.
- Retest for cure is advised.
- Wash (using hot cycle) or dry-clean clothing or bed linen used by an infected person within the past **2 days**.

How can I keep from getting scabies?

- Abstinence (not having sex) is the best form of prevention.

- Mutual monogamy (having sex with only 1 uninfected partner who only has sex with you) is effective.

How can I reduce my risk of getting scabies?

- Limit the number of sexual partners to reduce exposure to all STDs.
- Use latex condoms for all types of sexual penetration (oral, vaginal, anal). Latex condoms, when always and correctly used, can reduce the risk of transmission of other STDs, but are **not** considered effective against scabies.
- Know your partner(s). Careful consideration and open communication between partners may protect all partners involved from infection.
- Have regular check-ups if you are sexually active.
- If you have an STD, don't have sex (oral, vaginal, or anal) until all partners have been treated.
- Quick and appropriate medical intervention and treatment and follow-up are important steps in breaking the disease cycle.

What about complications from scabies?

- Kwell may be harmful to the fetuses of pregnant women and may damage the nervous systems of newborns and children under the age of two.
- Secondary bacterial infections may be caused by forceful scratching.
- Scabies is not usually known to cause anything more than discomfort and inconvenience.

Syphilis

Syphilis was once the cause of destructive epidemics, but now can be effectively controlled with antibiotics.

What is syphilis?

Syphilis is a sexually transmitted disease (STD) caused by the bacteria *Treponema pallidum* that can move throughout the body, damaging many body organs over time. Medical experts divide the course of the disease into four stages: primary, secondary, latent and tertiary (late). An infected person who does not get treatment may infect others during the first two stages when lesions (sores) are present. In its late stages, untreated syphilis is not contagious, but it can cause serious heart abnormalities, mental disorders, blindness, other neurological problems and death.

How is syphilis spread?

The bacteria spread from the sores of an infected person to the mucous membranes of the genital area, the mouth or the anus of a sexual partner. It also can pass through broken skin on other parts of the body. The syphilis bacteria are very fragile, and the infection is not spread by contact with objects such as toilet seats or towels. A pregnant woman with syphilis can pass the bacteria to her unborn child, who may be born with serious mental and physical problems as a result of this infection.

The most common way to get syphilis is to have sex with someone who has an active infection with a sore or lesion. People at increased risk for syphilis, like those at high risk for other STDs, are those who have had multiple sex partners, have sexual relations with an infected partner, have been infected in the past with another STD and do not use condoms.

What are the symptoms of syphilis?

The first symptom of syphilis is a sore called a chancre, which can appear within 10 days to three months after exposure but generally occurs within three weeks. Because the chancre is ordinarily painless and sometimes occurs inside the body, it may go unnoticed. It is usually found on the part of the body exposed to the bacteria, such as the penis, the vagina or the rectum. A chancre also can develop on the cervix, tongue, lips or other parts of the body. The chancre disappears within a few weeks regardless of whether treatment is obtained.

Secondary syphilis is marked by a skin rash that appears up to 10 weeks after the chancre heals. The rash may cover the whole body or appear only in a few areas, such as on the palms of the hands or soles of the feet. The rash usually heals within several weeks or months. Other symptoms — mild fever, fatigue, headache, sore throat, patchy hair loss and swollen lymph glands throughout the body — also may occur. These symptoms may be very mild and, like the chancre of primary syphilis, will disappear without treatment. The signs of secondary syphilis may come and go over the next one to two years.

The chancre (primary stage) and genital secondary rashes increase the risk of acquiring HIV, the virus that causes AIDS, by providing an accessible point of entry for HIV.

If untreated, syphilis then lapses into a latent stage during which the disease is no longer contagious and no symptoms are present. Many people who are not treated will suffer no further consequences of the disease. However, approximately one-third of those infected go on to develop the complications of late, or tertiary syphilis in which the bacteria damage the heart, eyes, brain, nervous system, bones, joints or almost any other part of the body. This stage can last for years, or even decades. Late syphilis can result in mental illness, blindness, other neurological problems, heart disease and death.

How does syphilis affect a pregnant woman?

It is likely that a pregnant woman with active syphilis who is not treated will pass the infection to her unborn child. Between 40 and 70 percent of such pregnancies will result in a syphilitic infant. About 25 percent of these pregnancies result in stillbirth or neonatal death.

Some infants with congenital syphilis may have symptoms at birth, but most develop symptoms between two weeks and three months later. These may include skin sores, rashes, fever, weakened or hoarse crying sounds, swollen liver and spleen, yellowish skin (jaundice), anemia and various deformities. Care must be taken in handling an infant with congenital syphilis because the moist sores are infectious.

The symptoms of syphilis may go undetected in infants. As infected infants become older children and teenagers, they may develop the symptoms of late congenital syphilis, including damage to their bones, teeth, sight, hearing and brain.

How is syphilis diagnosed?

Syphilis has sometimes been called "the great imitator" because its early symptoms are similar to those of many other diseases. People who have more than one sex partner should consult a physician about any suspicious rash or sore in the genital area. Those who have been treated for another STD, such as gonorrhea, should be tested to be sure they have not also acquired syphilis.

There are three ways to diagnose syphilis: a physician's recognition of its signs and symptoms; microscopic identification of syphilis bacteria; and blood tests. Usually, these approaches are used together to detect syphilis and identify the stage of infection.

While blood tests can provide evidence of infection, they may give false negative results (not show signs of infection despite its presence) for up to three months after infection. In addition, blood tests for syphilis can sometimes be positive even though a person is not infected with the disease. Interpretation of blood tests for syphilis can be difficult and repeated tests are sometimes necessary to confirm the diagnosis.

How is syphilis treated?

Syphilis usually is treated with penicillin, given by injection. Other antibiotics can be used for patients allergic to penicillin. It is important that people being treated for syphilis have periodic blood tests to ensure that they have been cured. Persons with syphilis that has invaded the nervous system may need to be retested for up to two years after treatment. In all stages of syphilis, proper treatment will cure the disease but, in late syphilis, damage already done to body organs cannot be reversed.

Having syphilis once does not protect a person from getting it again. Following successful treatment, people can still be susceptible to re-infection.

Can syphilis be prevented?

Not having sex is the best protection against acquiring syphilis and other STDs. Having sex with only one uninfected partner who only has sex with you is also safe.

Testing and treatment early in pregnancy is the best way to prevent syphilis in infants and should be a routine part of prenatal care. All women receiving prenatal care should be tested for syphilis during their first prenatal exam and during their last three months of pregnancy.

How can I reduce my risk of getting syphilis?

The open sores associated with syphilis may be visible and are infectious during the active stages of the disease. Any contact with these contagious sores must be avoided to prevent the spread of the disease. Latex condoms, when always and correctly used, can reduce the risk of syphilis and other STDs but only when the infected areas are covered or protected by the condom. (The open sores may occur in genital areas that can be covered or protected by a condom, but they also may occur in areas that cannot be covered or protected by a condom.)

Trichomoniasis

Trichomoniasis or “trich” is a common sexually transmitted disease (STD) that affects both women and men, although symptoms are more common in women.

What causes trichomoniasis?

Trichomoniasis is caused by the single-celled protozoan parasite *Trichomonas vaginalis*. The vagina is the most common site of infection in women, and the urethra is the most common site of infection in men.

How do people get trichomoniasis?

Trichomoniasis is a sexually transmitted disease that is spread through penis-to-vagina intercourse or vulva-to-vulva contact with an infected partner. Women can get the disease from infected men or women, and men usually get it only from infected women.

How common is trichomoniasis?

Trichomoniasis is one of the most common curable STDs in young, sexually active women. An estimated 5 million new cases occur each year in women and men.

What are the signs and symptoms of trichomoniasis?

Most men with trichomoniasis do not have signs or symptoms. Men with symptoms may have an irritation inside the penis, mild discharge, or slight burning after urination or ejaculation.

Many women do have signs or symptoms of infection. In these women, trichomoniasis causes a frothy, yellow-green vaginal discharge with a strong odor. The infection may also cause discomfort during intercourse and urination. Irritation and itching of the female genital area and, in rare cases, lower abdominal pain can also occur.

When do symptoms appear?

Symptoms usually appear within 5 to 28 days of exposure in women.

What are the complications of trichomoniasis?

Trichomoniasis in pregnant women may cause premature rupture of the membranes and pre-term delivery. The genital inflammation caused by trichomoniasis might also increase a woman's risk of

acquiring HIV infection if she is exposed to HIV. Trichomoniasis in a woman who is also infected with HIV can increase the chances of transmitting HIV infection to a sex partner.

How is trichomoniasis diagnosed?

To diagnose trichomoniasis, a health care provider must perform a physical examination and laboratory test. In women, a pelvic examination can reveal small red ulcerations on the vaginal wall or cervix. Laboratory tests are performed on a sample of vaginal fluid or urethral fluid to look for the disease-causing parasite. The parasite is harder to detect in men than in women.

How can trichomoniasis be prevented?

Not having sex is the best protection against trichomoniasis and other STDs. Having sex with only one uninfected partner who only has sex with you is also safe.

How can I reduce my risk of getting Trichomoniasis?

The use of latex or polyurethane condoms during vaginal intercourse, when always and correctly used, can reduce the risk of transmission of trichomoniasis. However, condoms do not provide complete protection from all STDs. Sores and lesions of other STDs on infected men and women may be present in areas not covered by the condom, resulting in transmission of infection to another person.

If you think you are infected, avoid sexual contact and see a health care provider. Any genital symptoms such as discharge or burning during urination or an unusual sore or rash should be a signal to stop having sex and to consult a health care provider immediately. If you are told you have trichomoniasis or any other STD and receive treatment, you should notify all of your recent sex partners so that they can see a health care provider and be treated.

What is the treatment for trichomoniasis?

Trichomoniasis can usually be cured with the prescription drug metronidazole, given by mouth in a single dose. The symptoms of trichomoniasis in infected men may disappear within a few weeks without treatment. However, an infected man, even a man who has never had symptoms or whose symptoms have stopped, can continue to infect a female partner until he has been treated. Therefore, both partners should be treated at the same time to eliminate the parasite. Persons being treated for trichomoniasis should avoid sex until they and their sex partners complete treatment and have no symptoms. Metronidazole can be used by pregnant women.

Having trichomoniasis once does not protect a person from getting it again. Following successful treatment, people can still be susceptible to re-infection.

For more information about STDs, talk to your health care provider or call:

The State of Tennessee HIV/STD Hotline: 1-800-525-2437

(Monday through Friday 8:00 to 4:30 p.m. CST)

OR

The CDC National STD Hotline: 1-800-227-8922

Other Informational Links:

American Social Health Association

<http://www.ashastd.org/>

Centers for Disease Control and Prevention

<http://www.cdc.gov/STD/>

E-Cards, Centers for Disease Control and Prevention

<http://www2c.cdc.gov/ecards/index.asp?category=174>

Get Yourself Tested

<http://www.gytnow.org/>

National Institute of Health Medline

<http://www.nlm.nih.gov/medlineplus/sexuallytransmitteddiseases.html>

U.S. Department of Health and Human Services

<http://www.womenshealth.gov/faq/sexually-transmitted-infections.cfm>

World Health Organization

http://www.who.int/topics/sexually_transmitted_infections/en/