

PATIENT EDUCATION



The American College of
Obstetricians and Gynecologists
WOMEN'S HEALTH CARE PHYSICIANS

Chlamydia, Gonorrhea, and Syphilis

Chlamydia and gonorrhea are the two most common sexually transmitted infections (STIs). Cases of syphilis, another STI, have been increasing over the past 15 years. These three STIs can cause serious, long-term problems if they are not treated, especially for teenagers and young women. It is important to learn how to recognize the signs and symptoms of these STIs and take steps to prevent them.

This pamphlet explains

- symptoms of, testing for, and treatment of these STIs
- complications and health risks
- prevention

Sexually Transmitted Infections

There are many STIs. This pamphlet focuses on chlamydia, gonorrhea, and syphilis. These STIs can cause long-term health problems and problems during pregnancy (see box “Problems During Pregnancy”). Having an STI also increases the risk of getting **human immunodeficiency virus (HIV)** if you are exposed to it.

Chlamydia

Chlamydia is the most commonly reported STI in the United States. It affects both men and women. It is especially common in young women.

Chlamydia is caused by a type of bacteria. The bacteria can be passed from person to person during vaginal sex, oral sex, or anal sex. Infections can occur in the mouth, reproductive organs, **urethra**, and rectum. In women, the most common place is the **cervix** (the

opening of the **uterus**). If left untreated, it can cause **pelvic inflammatory disease (PID)**. PID can lead to long-term health problems and affect a woman's ability to get pregnant (see box “Pelvic Inflammatory Disease”).

Symptoms

Chlamydia is a “silent” STI. It usually does not cause symptoms. When symptoms of chlamydia do occur, they may show up between a few days and several weeks after infection. They may be very mild and can be mistaken for a urinary tract or vaginal infection. The most common symptoms in women include

- yellow discharge from the **vagina** or urethra
- painful or frequent urination
- vaginal bleeding between periods
- rectal bleeding, discharge, or pain

In men, symptoms include

- discharge from the *penis*
- pain and burning during urination
- rectal bleeding, discharge, or pain

If you have any of these symptoms, or if you have a sex partner with symptoms, you should see your *obstetrician-gynecologist (ob-gyn)* and not have sex again until you do.

Testing

Most people with chlamydia do not know they have it. A yearly *screening test* for chlamydia is recommended for women younger than 25 years and for women 25 years and older with risk factors for chlamydia. Risk factors include having a new sex partner, having more than one sex partner, having a sex partner who has more than one sex partner, having a sex partner who has an STI, not using condoms consistently when not in a mutually monogamous relationship, having an STI now or in the past, or exchanging sex for money or drugs. Annual screening is not recommended for men.

In women, a chlamydia test can be done on a urine sample or on samples taken with a swab from the

Problems During Pregnancy

Having chlamydia, gonorrhea, or syphilis during pregnancy increases the risk of *preterm* birth, *prelabor rupture of membranes*, and *stillbirth*. These infections also can be passed from a woman to her baby:

- Babies may become infected with chlamydia during childbirth. Chlamydia in a newborn can cause eye infections that may lead to blindness and pneumonia.
- Gonorrhea also can be passed from an infected woman to her baby during child-birth. Gonorrhea in a baby usually causes eye infections.
- If a woman has syphilis during pregnancy, the disease can be passed to the *fetus* across the *placenta*. This can cause *congenital* syphilis in the baby. Congenital syphilis affects many of the body's organs, including the lungs, brain, skin, and bones.

Babies born to women with these infections are examined and tested after birth to see if they are infected. Treatment and special care are given if a baby is infected or, in some cases, as a precaution against infection.

Testing for these STIs during pregnancy is the best way to prevent babies from becoming infected. All pregnant women are tested for syphilis and chlamydia. Pregnant women with risk factors and all pregnant teenagers also are tested for gonorrhea. Treatment during pregnancy is safe and effective.

Pelvic Inflammatory Disease

Pelvic inflammatory disease (PID) is an infection that occurs when bacteria move from the vagina and cervix upward into the uterus and *fallopian tubes*. If a woman is infected with chlamydia or gonorrhea and does not receive treatment, PID can occur. Symptoms may include chills, fever, and pelvic pain. Some women may not have symptoms until PID has been present for a while.

PID may lead to long-term problems if it is not treated:

- *Infertility* can result from scarring of the fallopian tubes caused by PID.
- *Ectopic pregnancy* also can happen because of fallopian tube scarring. Unless it is treated quickly, ectopic pregnancy may cause the fallopian tube to rupture (burst). A ruptured fallopian tube is a life-threatening emergency that causes severe pain and heavy bleeding. If you have these symptoms and are pregnant, contact an ob-gyn right away.
- Chronic (long-lasting) pelvic pain may occur even after PID is treated.

vagina, mouth, throat, rectum, or the area around the cervix. You can do a self-swab of your vagina or rectum in an ob-gyn's office. You do not need to have a *pelvic exam* to get tested.

Treatment

Chlamydia is treated with an *antibiotic*. Your sex partners also need to be tested and treated. This includes anyone you have had sex with in the past 60 days or your last sex partner.

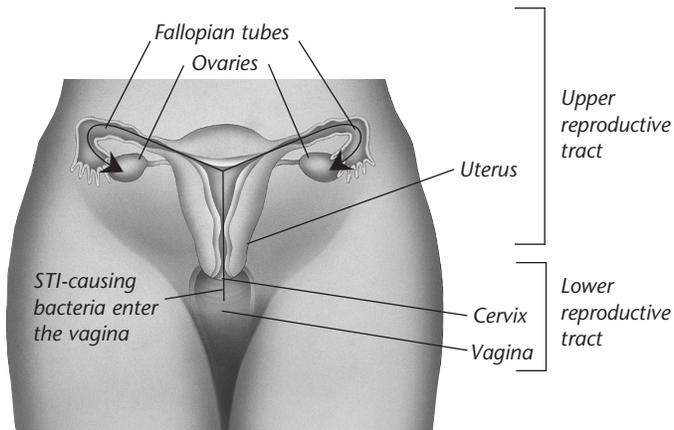
Partner Notification

Telling sex partners that you have an STI and are being treated for it is called partner notification. It is an important step in treatment. Treating partners helps decrease your risk of getting reinfected by an infected partner. It also may decrease the overall rate of STIs.

You can tell your partners yourself, or you can have the health care department in your state do it. If you choose to do so yourself, your ob-gyn can give you information about chlamydia and how it is treated to give to your partners. You can bring your main sex partner with you for your next health care appointment for treatment.

If you choose to have the health department tell your partners, your name will not be used when the partner is told. Some health departments now have an Internet service that tells partners. Not all health departments offer partner notification for chlamydia. Check your state or local health department for more information.

In some states, if your sex partner or partners cannot see a doctor, you may be able to get pills or a prescription from your ob-gyn to give to your partners. Your



Pelvic inflammatory disease (PID) can occur if STI-causing bacteria enter the vagina and cervix and move into the upper reproductive tract. PID may not cause symptoms but can lead to infertility or ectopic pregnancy.

partners do not have to come in for an exam or test. They just take the medicine.

Reinfection and Retesting

Be sure to take all of your medicine as directed. Chlamydia can be passed to sex partners even during treatment. You should avoid sexual contact until you have finished treatment, and your sex partners should as well.

You should be retested for chlamydia 3 months after treatment. Testing again helps find out if you have been reinfected from a new or current sex partner. Reinfection can increase the risk of PID and other complications. If you cannot be retested 3 months after treatment, you should be retested at a health care visit within the next year.

Gonorrhea

Gonorrhea is the second most commonly reported STI in the United States. Gonorrhea and chlamydia often occur together. Gonorrhea also is caused by bacteria that can be passed to a partner during vaginal, anal, or oral sex. If left untreated, it can lead to the same long-term health complications as chlamydia as well as **disseminated gonococcal infection**. This infection, which can be life-threatening, occurs when the gonorrhea bacteria move into parts of the body, particularly the skin and joints. Symptoms include fever, chills, skin sores, and pain in the wrists, fingers, knees, or toes.

Symptoms

Gonorrhea often causes no symptoms or only very mild symptoms. Symptoms include

- yellow vaginal discharge
- painful or frequent urination
- vaginal bleeding between periods
- rectal bleeding, discharge, or pain

Women with gonorrhea may think they have a minor vaginal or **bladder** infection. Often, symptoms do not

appear until a few weeks later, when PID has occurred. Men are more likely to have symptoms that make them seek treatment, including discharge from the penis or pain and burning during urination. But many men who have gonorrhea also may have no symptoms.

Testing

Testing for gonorrhea is similar to testing for chlamydia. A yearly screening test is recommended for women younger than 25 and for women 25 and older with risk factors for gonorrhea. Risk factors include having a new sex partner, having more than one sex partner, having a sex partner who has more than one sex partner, having a sex partner who has an STI, not using condoms consistently when not in a mutually monogamous relationship, having an STI now or in the past, or exchanging sex for money or drugs. In women, tests for gonorrhea can be done on a urine sample or on samples taken with a swab from the vagina, mouth, throat, rectum, or the area around the cervix.

Treatment

Gonorrhea is treated with two kinds of antibiotics. The recommended treatment is an injection of one of the antibiotics followed by a single pill of the other antibiotic. If the injection is not available, you can take two types of antibiotic pills. This treatment also is effective against chlamydia.

Your sex partners need to be tested for gonorrhea and treated. As with chlamydia, you can tell your partners yourself, or, in some states, you can ask the health department to do it. Most states allow you to get the antibiotic pills or a prescription from your ob-gyn to give to your sex partners.

Gonorrhea can be passed to sex partners even during treatment. You should avoid sexual contact until after you finish treatment, and your sex partners should as well. In most cases, you will not need to be retested to be sure the infection is gone.

Syphilis

Syphilis is caused by bacteria. It occurs in stages and is spread more easily in some stages than in others.

The bacteria that cause syphilis enter the body through a cut in the skin or through contact with a partner's syphilis sore. This sore is known as a **chancre**. Because this sore commonly occurs on the **vulva**, vagina, **anus**, or penis, syphilis most often is spread through sexual contact. Syphilis sores also can occur on the mouth and lips. The genital sores caused by syphilis also make it easier to become infected with and transmit HIV. Syphilis also can be spread through contact with the rash that appears in later stages of the disease.

Symptoms

Symptoms of syphilis differ by stage:

- Primary stage—Syphilis first appears as a painless chancre. This sore goes away without treatment in 3 to 6 weeks.

- Secondary stage—If syphilis is not treated, the next stage begins as the chancre is healing or several weeks after the chancre has disappeared, when a rash may appear. The rash usually appears on the soles of the feet and palms of the hands. Flat warts may be seen on the vulva. During this stage, there may be flu-like symptoms.
- Latent infection—In some people, the rash and other symptoms may go away in a few weeks or months, but that does not mean the infection is gone. It still is in the body. This is called latent infection.
- Late stage—If untreated, syphilis may return in its most serious form years later. Late-stage syphilis is a serious illness. Heart problems, *neurological* problems, and tumors may occur, leading to brain damage, blindness, paralysis, and even death. If syphilis is treated early, it will cause less damage.

At any stage, syphilis can affect the brain. This is called neurosyphilis. Neurosyphilis can lead to *meningitis*, problems with hearing and eyesight, and other neurological symptoms.

Testing

Syphilis usually is diagnosed with two blood tests. Routine screening is not recommended for women who are not pregnant.

All pregnant women should be screened for syphilis at their first prenatal visit. Women at high risk of syphilis may be retested at delivery. Also, some states require retesting at delivery even for women who are not at high risk of infection.

Treatment

Syphilis is treated with antibiotics. If it is caught and treated early, long-term problems can be prevented. The length of treatment depends on how long you have had the infection. You may have periodic blood tests to see if the treatment is working. Sexual contact should be avoided during treatment. If you are diagnosed with syphilis, you also should be tested for HIV.

Your sex partners should be treated for syphilis. With syphilis (as well as with HIV), most state and local health departments can help with partner notification.

Prevention

You can take steps to avoid getting chlamydia, gonorrhea, and syphilis. These safeguards also help protect against other STIs, including HIV:

- Use a latex or polyurethane condom every time you have vaginal, oral, or anal sex.
- Know your sex partners. The more partners you or your partners have, the higher your risk of getting an STI.
- Ask about your partner's sexual history. Ask whether he or she has had STIs. Even if your partner has no symptoms, he or she still may be infected.

- Avoid contact with any sores on the *genitals*.
- Get tested every year for chlamydia and gonorrhea if it is recommended for your age group. If your ob-gyn does not offer you this screening, ask to be tested.

Finally...

If you think you may be at risk of chlamydia, gonorrhea, or syphilis, get tested. These infections do the least harm when they are treated early. Prompt treatment and protecting yourself against getting an STI are important ways to take care of your health.

Glossary

Antibiotic: A drug that treats certain types of infections.

Anus: The opening of the digestive tract through which bowel movements leave the body.

Bladder: A hollow, muscular organ in which urine is stored.

Cervix: The lower, narrow end of the uterus at the top of the vagina.

Chancre: A sore caused by syphilis that is found at the place of infection.

Chlamydia: A sexually transmitted infection caused by bacteria. This infection can lead to pelvic inflammatory disease and infertility.

Complications: Diseases or conditions that happen as a result of another disease or condition. An example is pneumonia that occurs as a result of the flu. A complication also can occur as a result of a condition, such as pregnancy. An example of a pregnancy complication is preterm labor.

Congenital: A condition that a person has from birth.

Disseminated Gonococcal Infection: An infection that may result from untreated infection with gonorrhea and can be life-threatening. Symptoms include fever, chills, skin sores, and pain in the wrists, fingers, knees, or toes.

Ectopic Pregnancy: A pregnancy in a place other than the uterus, usually in one of the fallopian tubes.

Fallopian Tubes: Tubes through which an egg travels from the ovary to the uterus.

Fetus: The stage of human development beyond 8 completed weeks after fertilization.

Genitals: The sexual or reproductive organs.

Gonorrhea: A sexually transmitted infection that can lead to pelvic inflammatory disease, infertility, and arthritis.

Human Immunodeficiency Virus (HIV): A virus that attacks certain cells of the body's immune system. If left untreated, HIV can cause acquired immunodeficiency syndrome (AIDS).

Infertility: The inability to get pregnant after 1 year of having regular sexual intercourse without the use of birth control.

Meningitis: Inflammation of the covering of the brain or spinal cord.

Neurological: Related to the nervous system.

Obstetrician–Gynecologist (Ob-Gyn): A doctor with special training and education in women’s health.

Pelvic Exam: A physical examination of a woman’s pelvic organs.

Pelvic Inflammatory Disease: An infection of the upper female genital tract.

Penis: The male sex organ.

Placenta: An organ that provides nutrients to and takes waste away from the fetus.

Prelabor Rupture of Membranes: Rupture of the amniotic membranes that happens before labor begins. Also called premature rupture of membranes (PROM).

Preterm: Less than 37 weeks of pregnancy.

Rectum: The last part of the digestive tract.

Screening Test: Test that looks for possible signs of disease in people who do not have signs or symptoms.

Sexually Transmitted Infections (STIs): Infections that are spread by sexual contact. Infections include chlamydia, gonorrhea, human papillomavirus (HPV), herpes, syphilis, and human immunodeficiency virus (HIV, the cause of acquired immunodeficiency syndrome [AIDS]).

Stillbirth: Birth of a dead fetus.

Syphilis: A sexually transmitted infection (STI) that is caused by an organism called *Treponema pallidum*. This infection may cause major health problems or death in its later stages.

Urethra: A tube-like structure. Urine flows through this tube when it leaves the body.

Uterus: A muscular organ in the female pelvis. During pregnancy, this organ holds and nourishes the fetus.

Vagina: A tube-like structure surrounded by muscles. The vagina leads from the uterus to the outside of the body.

Vulva: The external female genital area.

This information is designed as an educational aid to patients and sets forth current information and opinions related to women’s health. It is not intended as a statement of the standard of care, nor does it comprise all proper treatments or methods of care. It is not a substitute for a treating clinician’s independent professional judgment. For ACOG’s complete disclaimer, visit www.acog.org/WomensHealth-Disclaimer.

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