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Patient information: Chlamydia (Beyond the Basics)

INTRODUCTION

Chlamydia (pronounced klah-MID-dee-uh) is the most common sexually transmitted infection in the United States [1]. There are about four million cases of chlamydia in the United States every year.

Chlamydia and gonorrhea (another sexually transmitted infection) cause similar signs and symptoms, including discharge from the penis or vagina and pain with urination. However, chlamydia usually causes no symptoms. In addition, chlamydia can cause serious long-term complications in women who are not treated. Fortunately, chlamydia is curable with antibiotic treatment. (See <u>"Patient information: Gonorrhea (Beyond the Basics)"</u>.)

More detailed information about chlamydia is available separately. (See <u>"Genital Chlamydia</u> trachomatis infections in men" and <u>"Genital Chlamydia trachomatis infections in women"</u>.)

CHLAMYDIA CAUSES

Chlamydia infections are caused by a bacterium, Chlamydia trachomatis. The infection is usually spread during sex. A man does not have to ejaculate to spread the infection. It is not possible to become infected with chlamydia by touching an object like a toilet seat.

Your risk of getting chlamydia is greater if you have a new sexual partner, more than one sexual partner, or if you have had chlamydia before.

CHLAMYDIA SYMPTOMS

Chlamydia infections can cause mild to severe symptoms. However, some people have no symptoms at all. This means that it is easy to spread the infection without ever knowing you are infected.

Women — Up to 90 percent of women with chlamydia have no symptoms at all. Of those who do, the most common symptoms include:

• Vaginal discharge

- Abnormal vaginal bleeding
- Abdominal pain
- Pain during sex
- Burning or pain with urination

Men — Up to 70 percent of men with chlamydia have no symptoms at all. The most common symptoms of chlamydia in men include:

- Burning or pain with urination
- Discharge from the penis
- Pain or tenderness of the testicles
- Swelling in the scrotum (<u>figure 1</u>)

Men who have sex with men can develop a chlamydia infection in the rectum or anus.

Related disorders — Uncommonly, people with chlamydia develop a form of arthritis, called reactive arthritis. It can cause a cluster of seemingly unrelated features, including joint pain (arthritis) and uveitis (an inflammation of the inner part of the eye). (See <u>"Patient information:</u> Reactive arthritis (formerly Reiter syndrome) (Beyond the Basics)".)

Chlamydia can also cause an inflammation of the conjunctiva (conjunctivitis). This can be caused by exposure to genital fluids, such as semen or vaginal discharge, from a person infected with the bacteria.

CHLAMYDIA DIAGNOSIS

Testing for chlamydia is done in a doctor or nurse's office with a sample or urine or with a swab of fluid from the vagina or from the cervix (in women) or urethra (in men). Results are usually available within 24 hours.

CHLAMYDIA SCREENING

Once-yearly testing for chlamydia is recommended for all sexually active women who are younger than 25 years old, even in the absence of symptoms. This is because chlamydia is common in this age group and infection usually does not cause symptoms.

TESTING FOR OTHER SEXUALLY TRANSMITTED INFECTIONS

If you or your sexual partner are diagnosed with a sexually transmitted infection like chlamydia, you should have testing for other infections, including HIV, gonorrhea, trichomoniasis, and syphilis. (See <u>"Patient information: Testing for HIV (Beyond the Basics)"</u> and <u>"Patient information: Gonorrhea (Beyond the Basics)"</u>.)

CHLAMYDIA COMPLICATIONS

Chlamydia in women can lead to a serious infection called pelvic inflammatory disease (PID). If chlamydia is not treated, up to 30 percent of women may develop PID. PID can cause scarring of the fallopian tubes, which can lead to infertility and an increased risk of ectopic pregnancy (a pregnancy that develops in the fallopian tube rather than the uterus). (See <u>"Patient information:</u> Ectopic (tubal) pregnancy (Beyond the Basics)".)

CHLAMYDIA TREATMENT

Treatment of chlamydia is the same for women and men. For most infections, experts recommend a one-time antibiotic treatment that is taken by mouth, azithromycin. Azithromycin is safe to take during pregnancy.

Anyone who is allergic to azithromycin (or erythromycin) can take another antibiotic, doxycycline, but this must be taken twice daily for 7 days. Doxycycline is not used in pregnant women because of the risk of harm to developing teeth and bones in the fetus.

Some people who are infected with chlamydia may also be infected with gonorrhea. Thus, testing for gonorrhea is done at the same time as chlamydia testing. If the patient has both infections, additional treatment will be needed. (See <u>"Patient information: Gonorrhea (Beyond the Basics)"</u>.)

Sexual partner treatment — Treatment is important for you and anyone you have had sex with recently (the last 60 days, or the last person you had sex with), whether or not he or she has symptoms or has a negative test for chlamydia. Your doctor or nurse might ask you to tell your sexual partner(s) to be treated. In some cases, your doctor or nurse will give you a prescription for both you and your partner.

You should not have sex until one week passes after both you and your partner have been treated. It is possible to be infected with chlamydia more than once.

If you take the recommended treatment, you will not need to be tested in the short term to make sure that the chlamydia is gone unless you continue to have symptoms. If symptoms do recur or occur for the first time after you are treated you should see your doctor or nurse again.

It is recommended that anyone with chlamydia have another test for chlamydia three to six months after their diagnosis, because many people (as many as 25 percent in some studies) are re-infected from untreated sexual partners.

CHLAMYDIA PREVENTION

The most effective way to prevent chlamydia is to avoid sexual intercourse. Because this is not practical for most people, the following tips are recommended:

- Men should use a latex condom every time they have sex.
- Discuss testing for sexually transmitted infections with your doctor or nurse. If you are a woman under 25 years old, ask if you are due for your annual chlamydia screening.

- See your doctor or nurse if you have any symptoms of chlamydia or another infection.
- Do not have sex if you or your sexual partner has abnormal discharge, burning with urination, or a genital rash or sore.

WHERE TO GET MORE INFORMATION

Your healthcare provider is the best source of information for questions and concerns related to your medical problem.

This article will be updated as needed on our web site (<u>www.uptodate.com/patients</u>). Related topics for patients, as well as selected articles written for healthcare professionals, are also available. Some of the most relevant are listed below.

Patient level information — UpToDate offers two types of patient education materials.

The Basics — The Basics patient education pieces answer the four or five key questions a patient might have about a given condition. These articles are best for patients who want a general overview and who prefer short, easy-to-read materials.

Patient information: Avoiding infections in pregnancy (The Basics)
Patient information: Chlamydia and gonorrhea (The Basics)
Patient information: Ectopic pregnancy (The Basics)
Patient information: Genital warts (The Basics)
Patient information: Pelvic inflammatory disease (The Basics)
Patient information: Reactive arthritis (Reiter syndrome) (The Basics)
Patient information: Screening for sexually transmitted infections (The Basics)
Patient information: Syphilis (The Basics)
Patient information: Vaginal discharge in adults (The Basics)
Patient information: Epididymitis (The Basics)
Patient information: Urethritis (The Basics)
Patient information: Newborn conjunctivitis (The Basics)
Patient information: Bartholin's gland cyst (The Basics)

Beyond the Basics — Beyond the Basics patient education pieces are longer, more sophisticated, and more detailed. These articles are best for patients who want in-depth information and are comfortable with some medical jargon.

Patient information: Gonorrhea (Beyond the Basics)Patient information: Reactive arthritis (formerly Reiter syndrome) (Beyond the Basics)Patient information: Testing for HIV (Beyond the Basics)Patient information: Hepatitis B (Beyond the Basics)Patient information: Ectopic (tubal) pregnancy (Beyond the Basics)

Professional level information — Professional level articles are designed to keep doctors and other health professionals up-to-date on the latest medical findings. These articles are thorough, long, and complex, and they contain multiple references to the research on which they are based.

Professional level articles are best for people who are comfortable with a lot of medical terminology and who want to read the same materials their doctors are reading.

Acute cervicitis

Clinical features and diagnosis of pelvic inflammatory disease Long-term complications of pelvic inflammatory disease Genital Chlamydia trachomatis infections in men Genital Chlamydia trachomatis infections in women Lymphogranuloma venereum Pathogenesis of and risk factors for pelvic inflammatory disease Pneumonia caused by Chlamydophila (Chlamydia) pneumoniae in adults Screening for Chlamydia trachomatis Treatment of pelvic inflammatory disease

The following organizations also provide reliable health information.

• National Library of Medicine

(www.nlm.nih.gov/medlineplus/healthtopics.html)

• Centers for Disease Control and Prevention

(www.cdc.gov/std/Chlamydia/STDFact-Chlamydia.htm)

• The American Social Health Association (www.ashastd.org)

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Literature review current through: Oct 2013. | This topic last updated: Aug 19, 2013. Find Print

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- 1. <u>Centers for Disease Control and Prevention, Workowski KA, Berman SM. Sexually</u> <u>transmitted diseases treatment guidelines, 2006. MMWR Recomm Rep 2006; 55:1.</u>
- 2. <u>Workowski KA, Berman S, Centers for Disease Control and Prevention (CDC). Sexually</u> <u>transmitted diseases treatment guidelines, 2010. MMWR Recomm Rep 2010; 59:1.</u>
- 3. <u>Tucker JD, Bien CH, Peeling RW. Point-of-care testing for sexually transmitted</u> <u>infections: recent advances and implications for disease control. Curr Opin Infect Dis</u> <u>2013; 26:73.</u>

4. <u>Hogben M, Kissinger P. A review of partner notification for sex partners of men infected</u> with Chlamydia. Sex Transm Dis 2008; 35:S34.