CONDITION

Chlamydia

Learn how chlamydia spreads, which symptoms can occur, how testing and treatment work, and when follow-up or urgent care is needed.

WHAT IT IS
Common sexually transmitted bacterial infection

BODY SYSTEM
Reproductive and urinary systems

MAIN SYMPTOMS
Often none, unusual discharge, burning urination, pelvic pain

WHAT CAUSES IT
Bacterial infection

HOW IT IS DIAGNOSED
Nucleic acid amplification test on urine or swab

MAIN TREATMENT
Antibiotics

CAN IT BE CURED?
Yes, antibiotics cure the current infection

IS IT AN EMERGENCY?
Sometimes, severe pelvic or abdominal pain

LONG-TERM OUTLOOK
Most treated promptly recover without long-term problems

Overview

Chlamydia is a common sexually transmitted infection caused by the bacterium Chlamydia trachomatis . It can infect the cervix, urethra, rectum, or throat. The cervix is the opening between the vagina and uterus, while the urethra is the tube that carries urine out of the body.

The infection spreads mainly through vaginal, anal, or oral sex. A pregnant person can also pass it to a baby during childbirth. Chlamydia does not spread through casual contact such as hugging, sharing food, or using the same toilet.

Many people with chlamydia have no symptoms. This makes testing important because someone can pass the infection without knowing they have it. When chlamydia is identified, antibiotics like amoxicillin or doxycycline can cure it.

Untreated infection can sometimes spread into nearby reproductive organs. This may cause pelvic inflammatory disease, or PID, in people with a uterus. PID can increase the risk of long-term pelvic pain, difficulty becoming pregnant, and pregnancy outside the uterus. In people with testicles, chlamydia can cause inflammation near a testicle.

Having chlamydia once does not create reliable immunity. Reinfection is common when a current or recent sexual partner has not been treated or when there is a new exposure.

Symptoms

Symptoms may begin several weeks after exposure, but many infections never cause noticeable problems. A lack of symptoms does not mean the infection cannot be transmitted or cause complications.

Possible symptoms of infection involving the cervix or urethra include:

In people with a penis, symptoms may include discharge from the penis, burning during urination, or irritation near the urethral opening. Pain or swelling in one or both testicles can occur if the infection affects the epididymis, a coiled tube behind each testicle.

Rectal chlamydia may cause rectal pain, discharge, bleeding, or discomfort during bowel movements. It often causes no symptoms. Throat infection is also commonly symptom-free, although a sore throat can occur.

Some strains of C. trachomatis cause lymphogranuloma venereum, usually called LGV. This less common form can cause a small genital or rectal sore, swollen lymph nodes, or significant rectal pain, discharge, bleeding, and inflammation. It needs medical evaluation because treatment differs from that of uncomplicated chlamydia.

A newborn exposed during delivery may develop eye redness, swelling, or discharge. Chlamydia can also cause pneumonia in young infants, with symptoms such as cough or rapid breathing. These symptoms need prompt pediatric assessment.

- Unusual vaginal discharge
- Bleeding between periods or after sex
- Pain or burning during urination
- Pain during sex
- Lower abdominal or pelvic discomfort

Causes and risk factors

Chlamydia is transmitted when infected sexual fluids or tissues come into contact with the genital area, rectum, or throat. Ejaculation does not need to occur for transmission. Shared sex toys may also spread the infection if they are not cleaned or covered with a new condom between users.

The chance of infection is higher when a person has a new sexual partner, multiple partners, or a partner who has an STI. Inconsistent use of condoms or other barriers also increases exposure. A previous STI can be a sign that future exposure is possible, but chlamydia can affect anyone who has sexual contact with an infected person.

The infection may be present at more than one body site. For example, a urine test may not find a rectal or throat infection. A clinician can recommend testing based on the types of sexual contact a person has had.

Condoms lower the chance of transmission when used correctly for the entire sexual activity. Barriers used during oral sex and condoms placed on shared sex toys can also reduce exposure. These methods lower risk but do not make it zero.

Routine screening helps find infections before symptoms or complications develop. In the United States, screening recommendations consider age, pregnancy, anatomy, sexual practices, and exposure risk. The Centers for Disease Control and Prevention recommends annual screening for sexually active women younger than 25 and for older women with increased risk. It also provides specific screening recommendations for pregnant people, men who have sex with men, and others based on exposure. A clinician can explain which tests and schedule fit an individual situation.

Diagnosis

Chlamydia cannot be diagnosed reliably from symptoms alone. Gonorrhea, urinary tract infections, yeast infections, and other conditions can cause similar symptoms. Laboratory testing is needed.

The preferred tests are nucleic acid amplification tests, often shortened to NAATs. These tests detect genetic material from the bacteria. They are usually performed on a vaginal swab, urine sample, or swab from the cervix. Depending on sexual exposure, a rectal or throat swab may also be appropriate.

Many clinics allow patients to collect their own vaginal, rectal, or throat swabs after receiving instructions. Self-collected swabs can be accurate when the laboratory uses an approved method.

Testing soon after a possible exposure may miss an infection because the amount of bacterial material may still be too low. A healthcare professional can advise whether testing should be repeated based on the exposure date and test used.

A positive NAAT usually provides enough information to begin treatment. Routine blood tests do not diagnose uncomplicated genital, rectal, or throat chlamydia. Testing for other infections, including gonorrhea, syphilis, and HIV, is commonly recommended when chlamydia is diagnosed because the same exposure may transmit more than one infection.

Tell the clinician if pregnancy is possible. This affects antibiotic selection and follow-up. It is also helpful to discuss the body sites involved in sexual contact so that the right samples are collected.

Treatment and management

Chlamydia is treated with antibiotics. For most nonpregnant adolescents and adults, CDC guidance recommends doxycycline as the preferred treatment for uncomplicated infection. Other antibiotics may be considered when doxycycline is not appropriate or when completing the course may be difficult. During pregnancy, a different recommended antibiotic is generally used.

The exact medicine and treatment length depend on pregnancy, allergy history, the infected body site, symptoms, and whether complications such as PID or LGV are suspected. Patients should take the medicine exactly as prescribed and finish the full course, even if symptoms improve sooner. Leftover antibiotics or another person's medication may not cure the infection and can delay proper care.

To avoid passing the infection back and forth, sexual activity should pause until treatment is complete. CDC guidance advises waiting seven days after a single-dose treatment or until a seven-day course has been completed. Symptoms should also have resolved, and sexual partners should have received treatment.

Sexual partners from the previous 60 days should generally be evaluated, tested, and treated. If the most recent sexual contact was more than 60 days ago, that most recent partner should still be notified. A clinic or public health department may help with confidential partner notification.

In some locations, a clinician may provide medication or a prescription for a partner without first examining that person. This is called expedited partner therapy. Laws and availability vary. It is not a substitute for medical assessment when a partner has significant symptoms, is pregnant, or may have another infection.

Treatment cures the current infection, but it does not repair all damage from a complication that has already developed. It also does not prevent a future infection. Condoms, recommended screening, and prompt partner treatment help reduce reinfection.

Complications

Most people treated promptly recover without long-term problems. Complications are more likely when infection remains untreated or spreads.

In people with a uterus, chlamydia can move from the cervix into the uterus and fallopian tubes. This can cause PID. Some people with PID have mild symptoms, while others develop pelvic pain, fever, unusual discharge, bleeding, or pain during sex. Scarring from PID may increase the risk of infertility, long-term pelvic pain, or ectopic pregnancy. An ectopic pregnancy develops outside the uterus and cannot continue normally.

In people with testicles, infection can cause epididymitis. This may lead to pain, tenderness, or swelling near a testicle. Fertility problems are possible but uncommon.

Chlamydia can occasionally trigger reactive arthritis. This is joint inflammation that develops after an infection elsewhere in the body. It may occur along with eye irritation or urinary symptoms.

During pregnancy, untreated chlamydia is associated with pregnancy complications and can be passed to a baby during vaginal delivery. An exposed newborn may develop conjunctivitis, which is inflammation of the eye surface, or pneumonia.

Chlamydia can also make HIV transmission more likely during an exposure because inflammation may make tissues more vulnerable. This does not mean that a person with chlamydia has HIV.

Follow up

Most nonpregnant people do not need a test immediately after completing recommended treatment. An early NAAT may remain positive because it can detect genetic material from dead bacteria.

A test of cure, which confirms that treatment cleared the infection, is recommended during pregnancy about four weeks after treatment. It may also be considered when symptoms continue, medication was not taken as directed, or reinfection is suspected.

Because repeat infection is common, people treated for chlamydia should generally be tested

again about three months later. If that is not possible, retesting should occur when the person next receives medical care within the following year. This follow-up is meant to find reinfection, not because the antibiotics usually fail.

Contact a healthcare professional for routine follow-up if symptoms do not improve, return after treatment, or if a partner has not been treated. Arrange prompt assessment for pelvic pain, new testicular discomfort, fever, or worsening rectal symptoms.

Seek urgent medical care for severe or rapidly worsening pelvic or abdominal pain, repeated vomiting, high fever with significant illness, or sudden severe testicular pain or swelling. During pregnancy, pain with vaginal bleeding, shoulder pain, marked weakness, or fainting requires urgent evaluation because these can be signs of an ectopic pregnancy. Call emergency services for fainting, severe weakness, breathing difficulty, or other immediately life-threatening symptoms.

Sources

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