

# Chlamydia

## Summary

Chlamydia is a sexually transmitted infection (STI) caused by a bacteria. It can be passed on through sexual contact. All people who are sexually active may be at risk for chlamydia.

Chlamydia can infect the urethra (the tube that allows urine and semen to pass out of the body), cervix, rectum, throat and eyes. Many people with chlamydia do not have any symptoms. If symptoms do occur, they usually appear two to six weeks after infection. Symptoms can include vaginal pain and bleeding, painful urination, and an abnormal discharge from the vagina, urethra or rectum.

To test for chlamydia, samples are taken from the sites of suspected infection and tested for the presence of the bacteria. Chlamydia can be cured using antibiotics.

Chlamydia can increase the risk of sexual transmission of HIV. However, people living with HIV who are on effective HIV treatment do not pass on HIV sexually, even when they or their partners have an STI, including chlamydia.

Correct and consistent condom use reduces the risk of getting chlamydia or passing it on to someone else.

Key messages on chlamydia for clients are available at the end of this fact sheet.

**The words we use here** – CATIE is committed to using language that is relevant to everyone. People use different terms to describe their genitals. This text uses medical terms, such as vagina and penis, to describe genitals. Cisgender<sup>i</sup> people can often identify with these terms. Some trans people<sup>ii</sup> may use other terms, such as front hole and strapless. CATIE acknowledges and respects that people use words that they are most comfortable with.

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## What is chlamydia?

Chlamydia is a sexually transmitted infection (STI) caused by the bacterium *Chlamydia trachomatis*. The bacterium infects the “wet” linings (mucous membranes) of the body. Chlamydia can infect the genital tract, including the cervix, uterus, fallopian tubes, urethra (the tube that allows urine and semen to pass out of the body) and epididymis (a tube in the testicle that stores and carries sperm). It can also infect the mouth, throat (pharynx), anus and rectum. It can also infect the eye. This is uncommon in adults. However, newborns of pregnant people with chlamydia are at risk of acquiring chlamydia in the eye.<sup>1-4</sup>

## How is chlamydia transmitted?

Chlamydia can be passed from one person to another person through sexual contact.

Condomless insertive vaginal sex and anal sex are the activities that carry the highest risk for the transmission of chlamydia.

Chlamydia can be passed on when a person who has chlamydia in their mouth or throat gives oral sex to another person or when a person gives oral sex to someone who has chlamydia in their genitals or anus. Chlamydia is easily passed during condomless oral-penile contact (mouth on penis). Though less common, chlamydia can also be passed through oral-vaginal contact and oral-anal contact (rimming) when an oral dam is not used.

Chlamydia can also be passed when sharing sex toys, particularly if a new condom is not used and the toy is not washed between uses. It is possible to pass chlamydia through a hand job or fingering if semen or vaginal fluids are transferred.

Chlamydia can be passed to a newborn during childbirth (delivery).<sup>1,3-5</sup>

## Who is at risk?

Chlamydia is the most common bacterial STI in Canada. Anyone who is sexually active, including people who experience sexual violence, can get chlamydia.

Some activities, more than others, increase the chances of a person getting chlamydia or passing it on to someone else:

- condomless sex with a person who has chlamydia
- condomless sex with a resident of an area where chlamydia is common
- condomless sex with a new partner
- sex with more than two sexual partners in a 12-month period

Some groups carry a higher burden of chlamydia (it is more common). These include:

- cisgender women
- gay, bisexual and other men who have sex with men (gbMSM)
- Indigenous people
- sexually active young people
- children born to a pregnant person with chlamydia
- people who do sex work
- people who use injection drugs
- people who are incarcerated
- street involved youth
- people who have had other STIs

In Canada, the gbMSM community carries the highest burden of a particularly serious form of chlamydia called LGV (lymphogranuloma venereum).<sup>1,2,6-9</sup>

## Symptoms

Most people with chlamydia have no symptoms. If symptoms do occur, they usually appear two to three weeks after infection (the incubation period) but it can take as long as six weeks. Untreated chlamydia can persist for many months. The symptoms of chlamydia are similar to, and sometimes confused with, the symptoms of other STIs such as gonorrhoea.

*Chlamydia in the cervix:* Symptoms may include a change or increase in vaginal discharge (fluid), unusual vaginal odour, painful vaginal intercourse, and bleeding between menstrual periods. Because these symptoms are often mild and not specific to chlamydia, they may be mistaken for infections of the vagina or bladder. If the chlamydia spreads to the uterus and fallopian tubes, symptoms such as lower abdominal pain, fever and nausea may occur.

*Chlamydia in the urethra:* Symptoms may include a yellow or white watery or milky discharge, a painful burning sensation during urination, urethral itching, and testicular pain and swelling.

Note that the symptoms of chlamydia may vary for trans people if they have had bottom surgery and depending on the type of surgery.

*Chlamydia in the rectum or anus:* Symptoms may include rectal or anal itching, pain, inflammation (proctitis), discharge and/or bleeding.

*Chlamydia in the throat or mouth:* Infections in the mouth or throat often have no symptoms; however, individuals with these infections may experience a sore throat.

*Chlamydia in the eye:* Chlamydia in the eye can cause a condition called conjunctivitis (also known as pink eye). The symptoms include swollen eyelids, itchy red eyes and a green, white or yellow discharge that crusts over the eye. In newborns, this condition is considered a medical emergency.<sup>1,3,4,10</sup>

## Complications

Chlamydia can lead to complex infections, some of them very serious, particularly if it is not detected and treated promptly,

Chlamydia in the cervix can spread to the uterus and fallopian tubes and cause pelvic inflammatory disease (PID). This can result in chronic abdominal pain, infertility and an increased risk of ectopic pregnancy (a potentially serious complication of pregnancy where the embryo implants outside the uterus).

Chlamydia can be passed to a newborn during childbirth. It is the most common cause of eye infection (conjunctivitis) in newborns. Chlamydia in newborns can also occur in the nose, throat, lungs,

vagina, urethra and rectum. Newborns exposed to chlamydia during birth can develop pneumonia.

Chlamydia in the urethra can result in inflammation of the epididymis (called epididymitis). The epididymis is a tube in the testicle that stores and carries sperm. Epididymitis can result in infertility.

Chlamydia in the rectum can lead to proctitis, an inflammation of the lining of the rectum, which can become chronic.

An untreated eye infection (conjunctivitis) caused by chlamydia can cause scarring of the cornea and vision damage.

Untreated chlamydia can also lead to a form of reactive arthritis that causes joint pain and swelling of the fingers and toes. Most cases resolve spontaneously within four to six months. About half of patients have recurrent episodes, with a minority experiencing chronic symptoms.

Certain strains of chlamydia can cause a potentially very serious infection called *Lymphogranuloma venereum* (LGV) which affects the lymph nodes and rectum. If left untreated, LGV can cause long-term damage to the rectum and lymphatic system (the system that carries white blood cells that fight infections and other diseases).<sup>2,6,11-14</sup>

## Testing and diagnosis

The Public Health Agency of Canada (PHAC) recommends annual screening for chlamydia among sexually active people under 25 years old, gbMSM, and trans people. Targeted screening is recommended for people 25 years and older based on risk factors, pregnant people, and newborns born to pregnant people with chlamydia.

To screen for chlamydia, samples are taken from the sites of possible infection and tested for the presence of the bacteria. Testing for infection in the urinary and genital tracts may require a urine sample or a swab of the vagina, cervix or urethra. If there is discharge from the urethra or vagina, a swab may be taken of the discharge. If someone has had oral or anal sex, a swab of the throat or rectum may be taken.

There are two primary methods of testing collected samples for chlamydia: NAATS (nucleic acid amplification tests) and cell cultures.

For chlamydia, NAATs are the most accurate tests and are now preferred unless unavailable. Cell culture tests for chlamydia are no longer routinely available in Canada.

The Public Health Agency of Canada (PHAC) recommends that NAATs be used whenever possible to test urine, urethral, cervical, pharyngeal, rectal and conjunctival (eye) samples.

LGV is diagnosed using genotyping of positive specimens of the bacteria that causes chlamydia. By examining the genetics of the bacteria, a laboratory can determine if it is one of the types that causes LGV.

PHAC recommends that anyone with risk factors for STIs and blood-borne infections (STBBIs), be screened and given appropriate treatment at the same time as testing for chlamydia. In particular, additional specimens should be obtained for gonorrhea testing because there are high rates of this infection among people who have chlamydia. PHAC also recommends HIV counselling and testing, serological (blood) testing for syphilis, and vaccination for hepatitis B, hepatitis A and human papillomavirus (HPV).<sup>2,3,15</sup>

## Notification of partners

Chlamydia is a reportable infection in Canada. This means that when an infection is confirmed by a clinic, healthcare provider or laboratory it must be reported to public health authorities. When someone has a confirmed chlamydia diagnosis, they are asked by the healthcare provider to contact or provide contact information for all their sexual partners in the 60 days before they were tested or noticed symptoms. If the client chooses not to contact their sexual partners, the healthcare provider will attempt to contact the partners and encourage them to test for chlamydia and get treated. PHAC recommends that all notified partners be treated without waiting for test results. In an attempt to retain their anonymity, the name of the original client is not given to sexual partners when they are contacted.<sup>1,16</sup>

## Treatment

Chlamydia infections can be cured with treatment using antibiotics.

Recommended treatment for most people is either a single oral (pill) dose of azithromycin or a seven-day oral treatment regimen of doxycycline. Both drugs have high rates of effectiveness. Recommendations differ for pregnant or lactating people because doxycycline should not be used.

For confirmed cases of LGV, a 21-day regimen of doxycycline is the preferred treatment.

If a person has completed treatment and their symptoms (if any) have disappeared and there is no re-exposure to an infected partner, an additional test (called test of cure) is generally not given. Exceptions to this include symptoms persisting after treatment, sub-optimal treatment adherence (missed doses), use of a non-preferred treatment regimen, and cases in prepubescent or pregnant people.

Because reinfection with chlamydia is common, PHAC recommends that all people with chlamydia be retested three months after treatment has been completed.<sup>17</sup>

## What about HIV?

Having chlamydia can cause the amount of HIV in the genital and rectal fluids of a person with HIV to increase. This can increase the risk of passing on or getting HIV. However, evidence shows that people living with HIV who are on effective HIV treatment do not pass on HIV sexually, even when they or their partners have an STI, including chlamydia.<sup>18-21</sup>

## Prevention

Correct and consistent use of condoms reduces the risk of getting or passing on chlamydia during insertive vaginal or anal sex. There are two types of condoms available. The external condom (sometimes called the "male" condom) is a sheath made from polyurethane, latex or polyisoprene that covers the penis during sex. The internal condom (also known as the insertive or "female" condom) is a pouch made of polyurethane or a synthetic latex

material called nitrile that can be inserted into the vagina or rectum.

Some trans men may cut a condom or oral dam to fit their genitals.

The use of condoms or oral dams can reduce the risk of chlamydia during oral sex or rimming.

When sharing a sex toy, cleaning the sex toy and putting a new condom on it between each use can reduce the risk of passing on chlamydia by preventing the exchange of bodily fluids.

Someone who is diagnosed with chlamydia should avoid having sex until they have been treated and all symptoms have gone. The notification, testing and treatment of all sexual partners of an individual with chlamydia help to prevent the spread of chlamydia.

After a person is cured of one chlamydia infection, they cannot pass it on to someone else. But they can get another chlamydia infection in the future, and then pass this on.

Using HIV PrEP (pre-exposure prophylaxis) does not prevent someone from getting or passing on chlamydia.<sup>3-5,22</sup>

## Notes

i Cisgender – someone whose gender identity aligns with the sex they were assigned at birth

ii Transgender – an umbrella term that describes people with diverse gender identities and gender expressions that do not conform to stereotypical ideas about what it means to be a girl/woman or boy/man in society

(Definitions taken from *Creating Authentic Spaces: A gender identity and gender expression toolkit to support the implementation of institutional and social change*, published by The 519, Toronto, Ontario.)

## Resources

Condoms for the prevention of HIV – *fact sheet*

Safer Sex Guide – *client resource*

Oral Sex – *client resource*

Bacterial STI basics – *fact sheet*

Sexually Transmitted Infections – *booklet (Public Health Agency of Canada)*

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# What you need to know about chlamydia

Chlamydia is a sexually transmitted infection (STI) that is most easily passed on during sex without a condom. It can infect the genitals, rectum, throat and eyes. Chlamydia can be cured with antibiotics, and there are ways to reduce the chances of getting or passing on chlamydia, such as using a new condom correctly each time you have sex.

**The words we use here** – CATIE is committed to using language that is relevant to everyone. People use different terms to describe their bodies. This text uses medical terms, such as vagina and penis, to describe genitals.

Some people may use other terms, such as private parts or dick or front hole. CATIE acknowledges and respects that people use words that they are most comfortable with.

## What is chlamydia?

Chlamydia is a sexually transmitted infection (STI). A person with chlamydia can pass it on to another person during sex. Chlamydia can infect the genitals, rectum, throat and eyes.

Most people with chlamydia have no symptoms, so they don't know they have an infection. When symptoms do occur, they usually take two to three weeks to appear but it can take as long as six weeks.

Common symptoms vary depending on where the infection is.

Some common symptoms are:

- *Chlamydia in the genitals* can cause an unusual fluid (“discharge”) to come out of the vagina or the penis, and pain when urinating (peeing).
- *Chlamydia in the rectum or anus* can cause discharge or bleeding from the anus and pain in the anus.
- *Chlamydia in the throat or mouth* can cause a sore throat.
- *Chlamydia in the eye* can result in eye infections (conjunctivitis) causing itchy, swollen eyelids, bloodshot eyes (“pink eye”), and white, yellow or greenish discharge that may crust over the eye.

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If it is not treated, chlamydia may lead to infertility, abdominal pain or pregnancy complications. Untreated infection of the eye can affect vision.

## Am I at risk of getting chlamydia?

Anyone who is sexually active, including people who experience sexual violence, can get chlamydia.

Chlamydia is most easily passed on during condomless, insertive vaginal or anal sex.

Chlamydia can also be passed on through condomless oral-penile contact (mouth on penis) oral-vaginal contact, oral-anal contact (rimming) and sharing of sex toys.

Chlamydia can be passed from a pregnant parent with chlamydia to a newborn during pregnancy or childbirth.

## Chlamydia and HIV

Chlamydia can cause the amount of HIV in the genital and rectal fluids of a person with HIV to increase. This can increase the risk of sexual transmission of HIV. However, evidence shows that people living with HIV who are on effective HIV treatment do not pass on HIV sexually, even when they or their partners have an STI, including chlamydia.

## What can I do?

### Reduce your chances of getting chlamydia

Use a condom during insertive vaginal and anal sex.

Use a condom or oral dam during oral sex.

When sharing a sex toy, wash the sex toy and put a new condom on it between each use.

There is no vaccine to protect against chlamydia.

HIV PrEP does not prevent the transmission of chlamydia.

### Get tested

The only way to know for sure whether or not you have chlamydia is to get tested. You should get

tested if you experience symptoms of chlamydia or if you have a current or recent sex partner diagnosed with chlamydia.

Consider getting tested if you:

- have condomless oral, anal or vaginal sex
- have had multiple sex partners within the last 12 months
- have had sex with someone from, or who has visited, an area where chlamydia is common
- have, or have had, another STI
- are pregnant or planning to become pregnant

A healthcare provider can do the test. The test involves a swab of the genitals, rectum or throat or a urine (pee) sample. Tell the healthcare provider about all the different kinds of sex you are having so they can test all the right parts of your body.

It is a good idea to get tested for other STIs, including HIV, when you get tested for chlamydia. Other STIs can be passed on in the same way as chlamydia. Talk to your healthcare provider about how often you should get tested for chlamydia and other STIs.

If you are diagnosed with chlamydia, a healthcare provider will talk to you about informing your sex partners that they might have been exposed to chlamydia and encouraging them to get tested. If you aren't comfortable or able to notify your sex partners, a healthcare provider will contact them, and your identity will not be revealed.

### Get treated

Chlamydia can be cured with a single dose or a short course of antibiotics. If you are given a single dose to treat the infection, you should wait for seven days after taking it before having sex again. If you are given pills to take for seven days, you should wait until you have taken all the pills before having sex again. If you have a regular partner or partners, they should also be treated before you have sex with them.

After you are cured of one chlamydia infection, you cannot pass it on to someone else. But you *can* get

another chlamydia infection in the future, and pass this on.

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