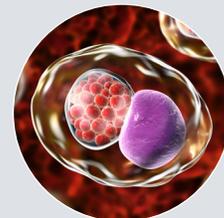


# Chlamydia Fact Sheet

**Definition** – Chlamydia is the most common bacterial sexually transmitted infection (STI) found in both men and women, caused by the *bacterium C. trachomatis*. It can cause serious, permanent damage to a woman’s reproductive system, and can be acquired through vaginal, anal, or oral sex with someone who has chlamydia ([CDC](#)<sup>1</sup>).



## Health Complications

---

- As many as 80% of women with chlamydia have an asymptomatic infection ([NIH](#)<sup>2</sup>).
- Untreated chlamydia can cause serious, permanent damage to a woman’s reproductive system and significant long-term health issues, including pelvic inflammatory disease (PID), ectopic pregnancy, miscarriage, and infertility ([CDC](#)<sup>3</sup>).
- The risk of infertility increases with repeat infections or episodes and severity of inflammation ([Sexually Transmitted Diseases: A Practical Guide for Primary Care](#)<sup>4</sup>).
- Pregnant women with chlamydia can pass the infection to their baby during delivery. This could cause an eye infection or pneumonia in newborns. Chlamydia increases the risk of pre-term labor ([CDC](#)<sup>1</sup>).

## Prevalence

---

- Chlamydial infection is the most frequently reported bacterial infectious disease in the United States, and prevalence is highest among persons aged ≤24 years. Rates are consistently higher among women than among men: In 2019, the rate in women was 1.75 times higher than in men ([CDC](#)<sup>3</sup>, [National STD Curriculum](#)<sup>13</sup>).
- In 2020, a total of 1,579,885 cases of chlamydia were reported in the US, making it the most common notifiable condition in the United States for that year. During 2019–2020, rates of reported chlamydia decreased among both males and females, in all regions of the United States. ([CDC](#)<sup>5</sup>).
  - Decreases in rates of reported chlamydia in 2020 are unlikely due to a reduction in new infections as chlamydial infections are usually asymptomatic, case rates are heavily influenced by screening coverage.
  - During the COVID-19 pandemic, many health care clinics limited in-person visits to patients with symptoms or closed entirely, and it is likely that preventive health care visits where STD screening usually happens, such as annual reproductive health visits for young women, decreased.
- Rates of reported chlamydia are highest among adolescents and young adults. In 2020, almost two-thirds (61.0%) of all reported chlamydia cases were among persons aged 15–24 years. ([CDC](#)<sup>5</sup>).
- A woman has an estimated 42.9% risk for at least one initial chlamydia infection by the age of 44 years old ([NIH](#)<sup>6</sup>).
- The COVID-19 pandemic impacted routine STI services. Chlamydia and gonorrhea testing reached a nadir in early April 2020, with decreases (relative to the baseline level) of 59% for female patients and 63% for male patients. Declines in testing were strongly associated with increases in weekly positivity rates for chlamydia ( $R^2=0.96$ ) and gonorrhea ( $R^2=0.85$ ). From March 2020 through June 2020, an expected 27,659 (26.4%) chlamydia and 5,577 (16.5%) gonorrhea cases were potentially missed ([NIH](#)<sup>6</sup>).

## Diagnosis/Treatment

---

- To detect chlamydia, patient specimens are traditionally sent to a central lab for PCR testing, which typically takes up to several days ([Sexually Transmitted Diseases<sup>8</sup>](#)).
- While waiting for test results, clinicians often treat presumptively<sup>B</sup> which multiple studies have shown up to 87% overtreatment and 43% undertreatment ([Sexually Transmitted Diseases<sup>8</sup>](#), [Annals of Emergency Medicine<sup>9</sup>](#)).
  - Consequences of overtreatment include unnecessary exposure of the patient to a medication leading to possible adverse effects, and selection of antibiotic-resistant microorganisms contributing to the further emergence of antibiotic-resistant infections([Sexually Transmitted Diseases<sup>8</sup>](#)).
  - Consequences of undertreatment include onward transmission of chlamydia pathogen: epidemic propagation, and complications of an untreated progressive infection pelvic inflammatory disease, infertility, ectopic pregnancy and chronic pelvic pain ([Annals of Emergency Medicine<sup>9</sup>](#)).
- Annual screening of all sexually active women aged <25 years is recommended, as is screening of older women at increased risk for infection, such as women aged ≥25 years who have a new sex partner, more than one sex partner, a sex partner with concurrent partners, or a sex partner who has an STI ([CDC<sup>3</sup>](#)).
- Point of Care (POC) tests for chlamydia among asymptomatic persons help to expedite<sup>A</sup> treatment of infected persons and their sex partners. POC tests for chlamydia can optimize treatment by minimizing unnecessary presumptive<sup>B</sup> treatment at the time of clinical decision-making and improve antimicrobial stewardship. Thus, using a POC test will likely be a cost-effective diagnostic strategy for chlamydia infection ([CDC<sup>3</sup>](#)).
- Chlamydia can be easily cured with antibiotics. Although medication will stop the infection, it will not repair any permanent damage done by the disease ([CDC<sup>7</sup>](#)).

---

### Terms:

- A. Expedited Partner Therapy (EPT) is the clinical practice of treating the sex partners of patients diagnosed with chlamydia or gonorrhea by providing prescriptions or medications to the patient to take to his/her partner without the health care provider first examining the partner. It is permissible in 46 states, potentially allowable in 4 states ([CDC<sup>10</sup>](#), [CDC<sup>11</sup>](#)).
- B. Presumptive treatment is treatment begun on the basis of an educated guess and in the absence of complete or perfect information ([Advances in Point-of-Care Testing to Address the Sexually Transmitted Infection Epidemic<sup>12</sup>](#)).

### Citations:

1. Accessed Jan. 13, 2022: <https://www.cdc.gov/std/chlamydia/stdfact-chlamydia.htm>
2. Accessed Jan. 13, 2022: <https://www.ncbi.nlm.nih.gov/books/NBK547154/>
3. Accessed Jan. 13, 2022: <https://www.cdc.gov/std/treatment-guidelines/chlamydia.htm>
4. Accessed Jan. 13, 2022: <https://link.springer.com/book/10.1007/978-1-62703-499-9>
5. Accessed April 19, 2022: <https://www.cdc.gov/std/statistics/2020/overview.htm>
6. Accessed Jan. 13, 2022: <https://pubmed.ncbi.nlm.nih.gov/27370345/>
7. Accessed Jan. 13, 2022: <https://www.cdc.gov/std/chlamydia/treatment.htm>
8. Dawkins, Megan PA1; Bishop, Lisa DNPI; Walker, Paula MV (DVM)2; Otmaskin, Danielle BS2; Ying, Julia MS2; Schmidt, Ryan MBA2; Harnett, Glenn MD3; Abraham, Teresa PhD2; Gaydos, Charlotte A. MS, MPH, DrPH4; Schoolnik, Gary MD2; DiBenedetto, Kevin MD1 Clinical Integration of a Highly Accurate PCR Point-of-care Test Can Inform Immediate Treatment Decisions for Chlamydia, Gonorrhea and Trichomonas, *Sexually Transmitted Diseases*: November 22, 2021 - Volume - Issue - doi: 10.1097/OLQ.0000000000001586
9. Gaydos et al, *Ann Emerg Med*, 2019 Jul; 74(1):36-44 "Use of a Rapid Diagnostic for Chlamydia trachomatis and Neisseria gonorrhoeae for Women in the Emergency Department Can Improve Clinical Management: Report of a Randomized Clinical Trial"
10. Accessed Jan. 13, 2022: <https://www.cdc.gov/std/ept/default.htm>
11. Accessed Jan. 13, 2022: <https://www.cdc.gov/std/ept/legal/default.htm>
12. Schoolnik, G. (2021). *Advances in Point-of-Care Testing to Address the Sexually Transmitted Infection Epidemic* [PowerPoint slides]. [https://www.whitehatcom.com/Resources\\_Visby/Webinar\\_Whitehat\\_October%205\\_FINAL\\_1b.pdf](https://www.whitehatcom.com/Resources_Visby/Webinar_Whitehat_October%205_FINAL_1b.pdf)
13. Accessed Jan. 13, 2022: <https://www.std.uw.edu/go/comprehensive-study/chlamydial-infections/core-concept/all#introduction>