

Gonorrhea Fact Sheet

Definition – Gonorrhea is a sexually transmitted infection (STI) caused by the *Neisseria gonorrhoeae* bacteria. Gonorrhea infects the mucous membranes of the reproductive tract, including the cervix, uterus, and fallopian tubes in women, and the urethra in women and men. Gonorrhea can also infect the mucous membranes of the mouth, throat, eyes, and rectum ([CDC](#)¹).



CDC Testing Recommendations

- Annual screening for gonorrhea infection is recommended for all sexually active women aged <25 years and for older women at increased risk for infection (e.g., those 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](#)²).

Health Complications

- In women, untreated gonorrhea can cause pelvic inflammatory disease (PID). Some of the complications of PID are ([CDC](#)³, [Sexually Transmitted Diseases](#)⁴):
 - Formation of scar tissue that blocks fallopian tubes
 - Ectopic pregnancy (pregnancy outside the womb)
 - Infertility (inability to get pregnant)
 - Approximately 50% of women who have experienced three episodes of PID are infertile
 - Long-term pelvic/abdominal pain.
- Among women, gonococcal infections are commonly asymptomatic or might not produce recognizable symptoms until complications (e.g., PID) have occurred ([CDC](#)²).
- If left untreated, the infection can spread beyond the mucosal tissue and become systemic, spreading to the bloodstream and causing disseminated gonococcal infection (DGI) ([CDC](#)¹, [Sexually Transmitted Diseases](#)⁴).
 - Although DGI will generally resolve on its own, it can cause septic arthritis and joint destruction, and in some cases, even death.
- Gonorrhea infection also increases the possibility of contracting or spreading HIV, the virus that causes AIDS ([Planned Parenthood](#)⁵).

Prevalence

- In 2020, a total of 677,769 cases of gonorrhea were reported to the CDC, making it the second most common notifiable sexually transmitted infection in the United States for that year. ([CDC](#)⁶).
- Rates of reported gonorrhea have increased 111.0% since the historic low in 2009. During 2019–2020, the overall rate of reported gonorrhea increased 5.7%. During 2019–2020, rates increased among both men and women, but increases were greater among women (15%) compared to men (6.6%). ([CDC](#)⁶).
 - During the initial shelter-in-place orders in March and April of 2020, the weekly number of cases of reported gonorrhea was lower compared to counts in 2019; however, later in the year, the number of reported gonorrhea cases increased.
- Gonorrhea is a very common infection, and prevalence is highest among young people ages 15–24 years ([CDC](#)³).
- 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](#)⁷).

Diagnosis/Treatment

- The undertreatment or lack of treatment for STIs can result in many detrimental effects, including ([Sexually Transmitted Diseases](#)⁸, [Archives of Pathology & Laboratory Medicine](#)⁹, [The Lancet Infectious Diseases](#)¹⁰):
 - Serious medical complications, especially in women
 - Ongoing community spread or transmission of STIs
 - Increased transmission of other STIs, including HIV
- There is a global surge in antibiotic resistance among bacterial STIs, especially gonorrhea, resulting in limited effective treatment options. In fact, over time, gonorrhea has developed resistance to almost all antibiotics that have been used to treat it ([WHO](#)¹¹, [Current Epidemiology Reports](#)¹²).
- Antibiotics, like all medications, come with side effects, including rash, dizziness, nausea, diarrhea, and increased risks of yeast and *Clostridioides difficile* (*C. diff.*) infections. According to the Center for Disease Control and Prevention (CDC), adverse reactions associated with antibiotic use account for 1 out of 5 medication related visits to the emergency room ([CDC](#)¹³).
- Antibiotic use has been shown to alter the vaginal flora, especially resulting in the loss of the protective *Lactobacillus* strains. Normally, lactobacilli help maintain an acidic environment to promote their own growth and also help to ward off harmful microbes and viruses by releasing antimicrobial- and viricidal- like compounds. The loss of *Lactobacillus* strains following antibiotic treatment can result in a less acidic environment that is increasingly susceptible to infections like BV, VVC, and UTIs ([American Journal of Therapeutics](#)¹⁴, [Antibiotics](#)¹⁵, [MedlinePlus](#)¹⁶).
- There are costs associate with medication and treating any subsequent bacterial infections that develop resistance to current recommended therapies (e.g., medical care to address comorbidities and receive additional treatments). Also, there are costs related to the research and development needed to produce novel antibiotic therapies to address the surge in resistance ([WHO](#)¹¹).
- Patients treated for or diagnosed with an STI may experience shame, embarrassment, negative stigma, and loss of self-worth ([Sexually Transmitted Diseases](#)⁸, [WHO](#)¹¹).
- Diagnostics: Polymerase chain reaction (PCR) tests are a type of nucleic acid amplification tests (NAATs) and POC NAATs allow for the widest variety of FDA-cleared specimen types, including endocervical and vaginal swabs for women ([CDC](#)²).
- Point of Care (POC) tests for gonorrhea among asymptomatic persons help to expedite^A treatment of infected persons and their sex partners. POC tests for gonorrhea can optimize treatment by minimizing unnecessary presumptive^B 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 gonorrhea infection ([CDC](#)³).
- As a bacterial infection, gonorrhea can be cured with the appropriate antibiotic therapy; however, it is becoming harder to treat some gonorrhea, as drug-resistant strains of gonorrhea are increasing ([CDC](#)¹⁷, [CDC](#)³)
 - Although medication will stop the infection, it will not repair any permanent damage done by the disease.

Terms:

1. 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](#)¹⁰, [CDC](#)¹¹).
- A. 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](#)¹²).

Citations:

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