

Spotlight on Health

Testing for Common, Curable Sexually Transmitted Infections

Sexually transmitted infections (STIs) are among the most common infections in the United States. An estimated 20 million new STIs occur annually, with young people (15 to 24 years of age) disproportionately affected.¹

In the United States:

- Chlamydia is the most commonly reported notifiable infection: 1.5 million cases were reported in 2015.^{1,2}
- Gonorrhea is the second-most commonly reported notifiable infection: 395,000 cases in 2015.^{1,2}
- Trichomoniasis is the most common curable STI. It currently affects an estimated 3.7 million people, with about 1.1 million new cases each year.^{3,4}

Why Screening and Detection Matter

STIs are often asymptomatic: People with chlamydia, gonorrhea, and trichomoniasis infections may have mild genitourinary symptoms such as cervicitis, epididymitis, urethritis, and vaginitis. However, most have no symptoms at all.^{3,5,6}

Screening is important to reduce STI-related complications, transmission to sexual partners, and transmission to unborn children.^{3,6}

Complications of common untreated STIs include^{1-3,5,6}:

- Pelvic inflammatory disease (PID) and its sequelae (eg, infertility, ectopic pregnancy, chronic pelvic pain)
- Disseminated gonococcal infection
- Pharyngeal infection
- Preterm birth and/or neonatal transmission

PID incidence can be decreased by screening sexually active young women for chlamydia.⁶

Improved Detection of *C trachomatis*, *N gonorrhoeae*, and *T vaginalis*

The CDC recommends that nucleic acid amplification tests (NAATs) should replace culture and microscopy for the detection of *C trachomatis* and *N gonorrhoeae* infection in symptomatic and asymptomatic individuals. NAATs are also recommended to detect *T vaginalis* infection in symptomatic women and men.^{3,7}



General Screening and Testing Recommendations

Chlamydia and Gonorrhea

- Annual screening is recommended for:
 - Sexually active women <25 years old, and older women at increased risk* of infection.^{3,7}
 - Men who have sex with men^{3,7}
- Pregnant women <25, and older women at increased risk,* should be screened; indications vary by organism and risk.³
- Sexually active people with HIV should be screened at the first visit, then annually.
- People with symptoms, and sex partners of infected individuals, should be tested.³

Trichomoniasis

- People with symptoms should be tested; screening should be considered for asymptomatic people at higher risk.*³
- Women with HIV infection should be screened routinely.³

*Factors that increase risk may include: new or multiple sex partners; partner with an STI; inconsistent condom use; previous or coexisting STI; exchanging sex for drugs/money; living in a high-risk setting.^{3,7}

- **Superior Overall Performance.** NAATs have higher sensitivity and similar specificity for infection than culture and other nonculture methods.^{3,7}
- **Effective.** NAATs typically detect 20% to 50% more chlamydial infections than culture or other nonculture tests.⁷ NAATs have also been shown to be cost-effective in preventing sequelae associated with *C trachomatis* and *N gonorrhoeae*.⁷
- **Less Invasive Collection.** The ability to use urine as a sample type in some cases, in place of traditional clinician-obtained sites (eg, endocervical, male urethral), facilitates ease of screening.⁸ The sensitivity and specificity of NAATs for self-collected vaginal swab specimens are equivalent to those collected by clinicians.^{3,7}
- **Easier to Transport.** The transportation requirements for NAATs are simpler than those required for culture specimens and allow for temporary storage at the point of collection.⁷

How the Laboratory Can Help

Quest Diagnostics offers a variety of tests for detection of STIs in men and women. These options include highly sensitive, specific NAATs for the diagnosis of urogenital and extragenital *C trachomatis* and *N gonorrhoeae* infections, and urogenital *T vaginalis* infections.

Additional Information

Quest Diagnostics Web site. Why it's best to test.
questdiagnostics.com/home/physicians/testing-services/condition/womens-health/best-to-test/why-best-to-test.html

American Congress of Obstetricians and Gynecologists: Sexually Transmitted Infections Resource Overview.
acog.org/Womens-Health/Sexually-Transmitted-Infections

National Network of STD Clinical Prevention: STD Clinical Consultation Network.
stdccn.org

U.S. Preventive Services Task Force: Recommendations for STI Screening.
uspreventiveservicestaskforce.org/Page/Name/uspstf-recommendations-for-sti-screening

Centers for Disease Control and Prevention: Sexually Transmitted Diseases (STDs).
cdc.gov/sTd/

References

1. CDC Fact Sheet: Reported STDs in the United States. 2015 National Data for Chlamydia, Gonorrhea, and Syphilis. cdc.gov/nchhstp/newsroom/docs/factsheets/std-trends-508.pdf. Accessed January 11, 2017.
2. Centers for Disease Control and Prevention. *Sexually Transmitted Disease Surveillance: STDs 2015*. Atlanta, GA: CDC; 2016. cdc.gov/std/stats15/std-surveillance-2015-print.pdf. Accessed October 15, 2016.
3. Workowski KA, Bolan GA, Centers for Disease Control and Prevention. Sexually transmitted diseases treatment guidelines, 2015. *MMWR Recomm Rep*. 2015;64(RR-03):1-137.
4. Vaginitis. Trichomoniasis—Epidemiology. cdc.gov/stdtraining/self-study/vaginitis/trichomoniasis_trichomoniasis_epidemiology_vaginosis_self_study_from_cdc.html. Updated July, 2013. Accessed March 21, 2017.
5. Gonorrhea - CDC Fact Sheet (Detailed Version). cdc.gov/std/gonorrhea/stdfact-gonorrhea-detailed.htm. Updated October 28, 2016. Accessed March 21, 2017.
6. Chlamydia - CDC Fact Sheet (Detailed). cdc.gov/std/chlamydia/stdfact-chlamydia-detailed.htm. Updated October 17, 2016. Accessed March 21, 2017.
7. Centers for Disease Control and Prevention. Recommendations for the laboratory-based detection of *Chlamydia trachomatis* and *Neisseria gonorrhoeae*—2014. *MMWR Recomm Rep*. 2014;63(RR-02):1-19.