Screening Adolescents for Sexually Transmitted Infections

NATIONWIDE CHILDREN'S®
When your child needs a hospital, everything matters.

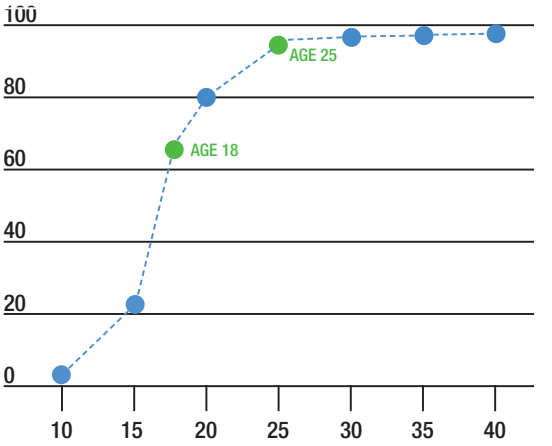
Sexual Activity in Adolescents

The likelihood of sexual activity increases rapidly as adolescents move through their high school years. By the time they are seniors, 57% state that they have had sexual intercourse and 18% report having had four or more sexual partners. Although sexual activity among high school students has declined slightly in the past few years, condom use has declined as well. Among those who are sexually experienced, only 54% state they used a condom the last time they had sex.[1]

SEXUAL INTERCOURSE AMONG YOUNG PEOPLE IN THE U.S.

Sex is a natural part of being human, and 65% of 18-year-olds and 93% of 25-years-olds have had sexual intercourse

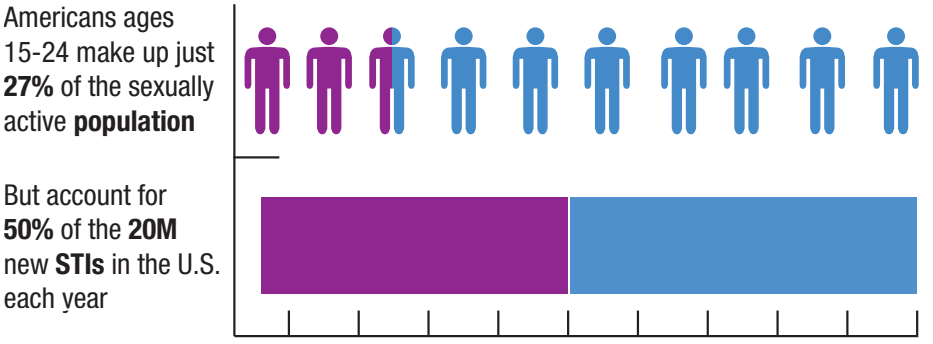
% of individuals who have had sexual intercourse, by age



Adolescent Susceptibility to Sexually Transmitted Infections

All sexually active adolescents are at risk for STIs. Both biological and behavioral factors place young people at elevated risk. The majority of these infections are asymptomatic, but they may lead to cervicitis, pelvic inflammatory disease, urethritis, epididymitis, tubal scarring and infertility, ectopic pregnancy, and cervical cancer later in life.

Youth bear disproportionate share of STIs



Consent and Confidentiality

All 50 states explicitly allow minors to consent to STI testing and treatment without parental consent. They may consent for HIV testing as well. The provider is obligated to maintain confidentiality on these issues unless withholding the information could endanger the life of the patient or another individual. Parents are not financially liable for payment for services rendered without their consent. Be aware that private payors may provide an Explanation of Benefits (EOB) to the parents that includes STI testing charges.

OFFICE TIPS FOR SUPPORTING PATIENT CONFIDENTIALITY
Explicitly ask and document whether test results may be communicated to a parent
Document the patient's mobile phone number
Educate entire office staff on minor consent laws and office policy
Provide information on options for STI testing without accessing insurance (e.g., Columbus Public Health Department; Planned Parenthood)

Screening Recommendations: Who Should be Screened?

Providers should be advised that a large percentage of infections will not present with symptoms and can persist for months to years while remaining asymptomatic.

All sexually active female adolescents should be screened at least annually for *Neisseria gonorrhoeae* and *Chlamydia trachomatis.* Screening for *Trichomonas vaginalis* may be considered for females at high risk for this common infection. Screening for these organisms may be considered every three to six months for high-risk individuals.

Adolescent males who have male sexual partners should be screened for gonorrhea, chlamydia, HIV, and syphilis at least annually – more often if multiple risk factors are present. Evidence does not support the routine screening of heterosexual adolescent males for STIs, yet it is reasonable to offer testing for gonorrhea and chlamydia to males felt to be at increased risk for these infections.[2]

HIV testing is recommended for all adolescents. Adolescents at increased risk for syphilis may be screened with rapid plasma reagin (RPR) or venereal disease research laboratory (VDRL). Screening for human papillomavirus (HPV) should start at 21 years of age for immunocompetent women, using a Pap smear. Routine screening for herpes simplex virus (HSV) is not recommended. Adolescents who believe they have been exposed to an STI should be tested for all STIs and HIV.

According to CDC recommendations, providers might consider opt-out chlamydia and gonorrhea screening (i.e., the patient is notified that testing will be performed unless the patient declines, regardless of reported sexual activity) for adolescent and young adult females during clinical encounters. Cost-effectiveness analyses indicate that opt-out chlamydia screening among adolescent and young adult females might substantially increase screening, be cost saving and identify infections among patients who do not disclose sexual behavior.[5]

Nationwide Children's has provided sample opt-out letters that providers may download and use for patient communication. Visit **NationwideChildrens.org/STI-Testing-Letters.**

How to Screen

Chlamydia trachomatis and Neisseria gonorrhea

Chlamydia and gonorrhea are the most common reportable infections in the US, and rates are increasing.[3] Infections may be asymptomatic, or may lead to cervicitis, PID, chronic pelvic pain, ectopic pregnancy, and tubal infertility. Males may experience urethritis, epididymitis, and rectal infections.

Specimens:

- Vaginal swabs are preferred for females, with higher sensitivity than urine.[2,5]
  These may be clinician-collected or self-collected, using the appropriate collection kit supplied by the manufacturer.
- First catch urine is appropriate for screening asymptomatic females, and for all testing in males.
- Urethral and endocervical specimens are also acceptable, using the appropriate collection kit.
- Pharyngeal/rectal specimens may be sent for adolescents who engage in receptive oral/anal intercourse, using the Viral Transport Media (M5) collection kit (NCH), or the appropriate collection kit.

FIRST-CATCH URINE COLLECTION
At least one hour since last void
Females should NOT clean perineum prior to voiding
Collect first 10-15 ml of urine stream into sterile specimen cup; remainder of void into toilet
May be left at room temperature for 24 hours

Tests:

- Nucleic acid amplification tests (NAAT) are the gold standard. Nationwide Children's Laboratory Services uses Hologic's Aptima Combo 2® assay, ordered as "Chlamydia and GC by amplified detection."

Trichomonas vaginalis (TV)

T. vaginalis infection is a common cause of vaginal discharge, though it may be asymptomatic. In fact, the CDC's Sexually Transmitted Infections Treatment Guidelines, 2021, states that the majority of persons who have trichomoniasis (70 to 85%) either have minimal or no genital symptoms, and untreated infections might last from months to years.[5] Because trichomoniasis is associated with adverse pregnancy outcomes and an increased risk of HIV transmission, screening of asymptomatic women at increased risk is therefore permissible. Screening asymptomatic males is not advised, but testing may be considered in males with persistent urethritis symptoms.

Specimens:

- Vaginal swab (clinician-collected)
- First-catch urine (FDA-approved for females; validated at Nationwide Children's for use in males)
- May send a single specimen for testing for gonorrhea, chlamydia, and trichomonas

Tests:

- NAATs are the gold standard. Nationwide Children's Laboratory Services uses Hologic's Aptima® T. vaginalis assay, ordered as "Trichomonas vaginalis amplified probe" or "Chlamydia/GC/Trichomonas amplified probe panel".
- Visualization of motile trichomonads on microscopic evaluation of a vaginal specimen provides immediate results but has low sensitivity.
- The BD Affirm vaginal panel, used for diagnosis of vaginal candidiasis and bacterial vaginosis, has very low sensitivity for diagnosing trichomoniasis.

Human Immunodeficiency Virus (HIV)

It is estimated that over 50,000 adolescents and young adults in the US have HIV, but only about half are aware of their infection.[6] AAP recommends screening all adolescents at least once by 16-18 years-old. Sexually active adolescents should be tested sooner.[2] Testing should be considered routine and does not require written consent. Patients have a right to "opt out" of testing.

Specimens and Testing:

- HIV 1 and HIV 2 Ag/Ab Screen (venipuncture)

Additional Resources

- CDC STD Treatment Guidelines (www.cdc.gov/std/treatment). Comprehensive, user-friendly information on testing and treatment. App available.
- Columbus Public Health (240 Parsons Ave, Columbus, OH)
  - o Sexual Health Clinic (Comprehensive STI services)
  - o "Take Care Down There" Clinic (Free STI testing)
    Online: Columbus.gov/Publichealth/Programs/Sexual-Health/
- Nationwide Children's Family AIDS Clinic and Educational Services Program (FACES). FACES provides HIV Outreach Testing/Free Testing Clinic. (614) 722-6060, Option 5.
  Online: NationwideChildrens.org/Specialties/Family-Aids-Clinic-And-Educational-Services-Faces

Resources
1) 2017 CDC YRBS-https://www.cdc.gov/nchhstp/dear_colleague/2018/dcl-061418-YRBS.html 2) AAP Policy Statement: Screening for nonviral STI in adolescents and young adults. Pediatrics 2014;134:e302 3) 2018 CDC STDs in Adolescents and Young Adults-https://www.cdc.gov/std/stats18/adolescents.htm. 4) CDC. Sexually Transmitted Disease Surveillance 2018. Atlanta: U.S. Department of Health and Human Services; 2019. 5) CDC. Sexually Transmitted Diseases Treatment Guidelines, 2021. MMWR Recomm Rep 2021 Jul 23;70(4):1-187. 6) CDC HIV and Youth- https://www.cdc.gov/hiv/group/age/youth/index.html.

Referrals and Consultations

Online: **NationwideChildrens.org/Adolescent-Medicine**
Phone: **(614) 722-2450** or **(614) 355-8610**
Physician Direct Connect Line for 24-hour urgent physician consultations: **(614) 355-0221** or **(877) 355-0221**.

Laboratory Testing and Pathology Consultations

Online: **NationwideChildrens.org/Lab**
Phone: **(614) 722-5477** or **(800) 934-6575**

W599167