# Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>3</td>
</tr>
<tr>
<td>Conditions</td>
<td>4</td>
</tr>
<tr>
<td>References</td>
<td>8</td>
</tr>
<tr>
<td>Disclaimer</td>
<td>9</td>
</tr>
</tbody>
</table>
Introduction

The term sexually transmitted infections (STIs), also known as sexually transmitted diseases (STDs), includes a range of clinical syndromes that can be acquired and transmitted through sexual activity and may be caused by various types of pathogens, including bacteria, fungi, viruses, and parasites. Early detection and treatment of STIs reduces the spread of infection and may avoid or delay serious complications and consequences.
Conditions

◊ Genital tract chlamydia infection

» see our comprehensive coverage of Genital tract chlamydia infection

Chlamydial genital infection is the most frequently reported STI in the US.[1] Infection is usually asymptomatic in both men and women. Nonculture diagnostic techniques such as nucleic acid amplification tests (NAATs) are recommended.[2] Lack of or inadequate treatment risks possible ascending infection and further complications, as well as possible spread of the infection to sexual partners.

◊ Gonorrhea infection

» see our comprehensive coverage of Gonorrhea infection

The most commonly reported STI after chlamydial infection. Classic presentation is a man with a urethral discharge; women are often asymptomatic but may have vaginal discharge. If left untreated, Neisseria gonorrhoeae can disseminate to cause skin and synovial infections. Rarer complications include meningitis, endocarditis, and perihepatic abscesses. High rates of antimicrobial resistance have been reported, and antibiotic treatment should be guided by local and national guidelines.

◊ Syphilis infection

» see our comprehensive coverage of Syphilis infection

A common sexually transmitted infection caused by a spirochetal bacterium. Clinical presentation is often asymptomatic but can manifest in a number of ways. Diagnosis is usually straightforward after clinical exam and serologic testing; treatment is with penicillin. Untreated syphilis facilitates HIV transmission and causes considerable morbidity, such as cardiovascular and neurologic disease.

◊ Lymphogranuloma venereum

» see our comprehensive coverage of Lymphogranuloma venereum

Lymphogranuloma venereum is caused by Chlamydia trachomatis serovars L1, L2, or L3. The primary manifestation of infection is a painless penile or vulvar inflammation and genital or anal ulceration, often unnoticed by the patient.[3] Chronic inflammation can lead to scarring and fibrosis causing lymphedema of the genitals, or formation of strictures and fistulae if anorectal involvement. Identification of LGV serovars of Chlamydia trachomatis from the swab of a genital ulcer or aspiration of a bubo provides definitive diagnosis.

◊ Chancroid

» see our comprehensive coverage of Chancroid

A sexually transmitted infection caused by the fastidious, gram-negative coccobacillus Haemophilus ducreyi that is common in Africa, Asia, and South America. Classically presents with the acute onset of a painful genital ulcer with fluctuant lymphadenitis (bubo formation). Chancroid is an important cofactor in HIV transmission, and HIV status must be assessed. Most cases resolve with antibiotic therapy, and recurrence is rare.
Pelvic inflammatory disease

An acute ascending polymicrobial infection of the female upper genital tract that is frequently associated with *Neisseria gonorrhoeae* or *Chlamydia trachomatis*. Pelvic inflammatory disease includes endometritis, salpingitis, tubo-ovarian abscess, and pelvic peritonitis. May be asymptomatic or present with fever, vomiting, back pain, dyspareunia, lower abdominal pain/discomfort, abnormal vaginal odor, itching, bleeding, or discharge. Antibiotic therapy generally targets gonorrhea, chlamydia, and anaerobic bacteria.

Urethritis

*Neisseria gonorrhoeae* and *Chlamydia trachomatis* are the most common causes; *Mycoplasma genitalium* and *Trichomonas vaginalis* are less common. Diagnostic tests include Gram stain and culture of the urethral discharge and nucleic acid amplification tests (NAATs).

Cervicitis

Common and often asymptomatic, but if left undiagnosed or untreated can result in pelvic inflammatory disease (PID), which can in turn lead to substantial long-term effects such as infertility and chronic pelvic pain. While *Neisseria gonorrhoeae* and *Chlamydia trachomatis* are the most commonly isolated organisms, in most cases no etiological organism is identified.

Vaginitis

May be caused by bacterial vaginosis, trichomoniasis, or candidal infections.

Acute epididymitis

In sexually active men (aged <35 years), epididymitis is most commonly caused by *Neisseria gonorrhoeae* or *Chlamydia trachomatis*. In older men, the causative organisms are usually enteric pathogens, and epididymitis may be associated with bladder outlet obstruction, recent instrumentation of the urinary tract, or systemic illness. Treatment relies on supportive measures in conjunction with appropriate antibiotics.

Herpes simplex virus infection

Infection with HSV-1 or HSV-2 can cause oral, genital, or ocular ulcers. First episodes may present with fever and lymphadenopathy. HSV establishes latency and periodically reactivates. Most reactivations are asymptomatic but can result in transmission of the virus.
### Conditions

| Condition | See our comprehensive coverage of...
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Genital warts</td>
<td>The most prevalent form of viral genital mucosal lesions, caused by infection with several types of human papillomavirus (HPV).[6] Lesions are usually 1 to 3 mm, flesh-colored, whitish, or hyperpigmented, discrete, sessile, smooth-surfaced exophytic papillomas, or they may coalesce into larger plaques. Diagnosis is based on clinical presentation.[6]</td>
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<td>HIV infection</td>
<td>Caused by a retrovirus that infects and replicates in human lymphocytes and macrophages, eroding the integrity of the human immune system over a number of years. Diagnosis is established using an initial HIV antibody or combination antibody/antigen test and confirmed using a more specific test. Patients should be clinically staged according to WHO or CDC criteria.</td>
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<td>Post-exposure HIV prophylaxis</td>
<td>Post-exposure prophylaxis (PEP) reduces the probability of HIV transmission by 80% when taken within 72 hours following exposure, and for a full 28-day course as prescribed.[7] [8] [9] The efficacy of PEP and the potential toxicities and adverse effects of the treatment need to be fully explained to the patient; counseling is an important step in patient management.</td>
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<td>Cervical cancer</td>
<td>A human papilloma virus (HPV)-related malignancy, preventable by HPV vaccination, screening, and treatment of high-grade dysplasia. Pap smear screening followed by colposcopy may diagnose preinvasive disease. Locally advanced disease may present with bleeding, discharge, pain, or obstructive uropathy.</td>
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<td>Reactive arthritis</td>
<td>Reactive arthritis (ReA) is an inflammatory arthritis that occurs after exposure to certain gastrointestinal and genitourinary infections.[10] The classic triad of postinfectious arthritis, nongonococcal urethritis, and conjunctivitis is frequently described but found in only a minority of cases and not required for diagnosis.[10] There is no specific test for diagnosing ReA. Rather, a group of tests is used to confirm the suspicion in someone who has clinical symptoms suggestive of an inflammatory arthritis in the postvenereal or postdysentery period. Treatment is aimed at symptomatic relief and preventing or halting further joint damage.</td>
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<tr>
<td>Sexual abuse and assault</td>
<td>Sexual assault is common and can affect adults of any age, as well as children.</td>
</tr>
</tbody>
</table>
◊ **Hepatitis B**

» see our comprehensive coverage of Hepatitis B

Most people with hepatitis B are asymptomatic, although some will present with complications such as cirrhosis, hepatocellular carcinoma, or liver failure. People from endemic areas, injection drug users, and those with high-risk sexual behaviors are at an increased risk. Serologic markers are essential in making the diagnosis and evaluating disease activity, including differentiating between people with acute and chronic infection and chronic asymptomatic carriers. Therapy for chronic infection includes nucleoside/nucleotide analogs, interferon-alfa, and pegylated interferon-alfa.

◊ **Hepatitis C**

» see our comprehensive coverage of Hepatitis C

Most common routes of transmission are through illicit injection drug use (sharing used needles) and transfusion of contaminated blood products. Most infections are asymptomatic; however, hepatic inflammation is often present and can lead to progressive hepatic fibrosis. The goal of treatment is to eradicate the virus and achieve a sustained virologic response. Therapy has shifted away from the use of pegylated interferon toward oral antiviral therapies. Long-term complications include cirrhosis or hepatocellular carcinoma.

◊ **Evaluation of vaginal discharge**

» see our comprehensive coverage of Evaluation of vaginal discharge

Vaginal discharge is one of the most common reasons for gynecological visits. The true prevalence of this condition is uncertain because vaginitis, which encompasses the symptom vaginal discharge, is often asymptomatic, self-diagnosed, and self-treated. Etiologies include infectious and noninfectious causes.

◊ **Evaluation of dyspareunia**

» see our comprehensive coverage of Evaluation of dyspareunia

Dyspareunia, or painful sexual intercourse, is a common complaint among women. It may result from various causes, including inflammatory/infectious, mucosal, and musculoskeletal conditions.

◊ **Evaluation of dysuria**

» see our comprehensive coverage of Evaluation of dysuria

Dysuria is a common condition but can be challenging to diagnose, as it is often present in conjunction with other lower urinary tract symptoms. Although urinary tract infection is the most common cause, any infectious or inflammatory condition affecting the genitourinary system may cause dysuria.
Key articles


References


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DISCLOSURES: This overview has been compiled using the information in existing sub-topics.