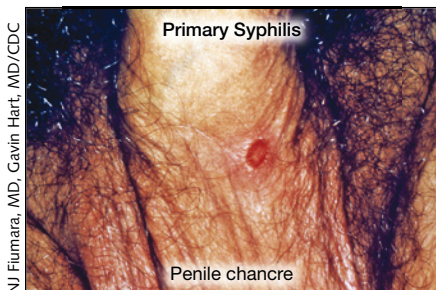


# Syphilis

**Syphilis**, a disease caused by the *Treponema pallidum* bacterium continues to be an important public health problem. Syphilis is a **sexually transmitted infection (STI)** and can be transmitted by all types of intimate contact including genital, oral, and anal sex. Use of a condom during all sexual activity can reduce the risk of infection. Individuals who are infected with the **human immunodeficiency virus (HIV)** are particularly susceptible to contracting and spreading syphilis and are often unaware of either diagnosis. Treatment at any stage is important because untreated syphilis can result in life-threatening illness. The February 18, 2009, issue of *JAMA* includes an article about treatment of syphilis.

## SIGNS AND SYMPTOMS



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A **chancre** is a painless sore or ulcer that occurs in **primary syphilis**, the first stage of syphilis. It can appear anywhere on the body but usually appears on the genitals, rectal area, or mouth. A chancre may appear from 10 days to 3 months after the infection begins and occurs at the place where the infection entered the body. The chancre usually disappears within 6 weeks, even without treatment. However, the affected person continues to be infected.

Skin rashes characterize **secondary syphilis**, which may occur while the chancre is healing or several weeks after. The rash may occur anywhere on the body (including the palms of the hands and bottoms of the feet) as rough red or brown spots. The rash usually does not cause itching but may be associated with fever, swollen lymph nodes, sore throat, headache, muscle aches, and fatigue.

Late-stage or **tertiary syphilis** can cause abnormalities of both the heart and brain, including strokes, loss of vision and hearing, dementia, and death if untreated. Tertiary syphilis can cause areas of tissue destruction called **gummas** in affected organs and tissues.

At all stages, infected persons may have no signs or symptoms of infection, a condition known as **latent syphilis**. Transmission can occur from a pregnant woman to her fetus. This **congenital syphilis** can cause serious illness, including death of the fetus.

## DIAGNOSIS

- Identification of the *T pallidum* bacterium using a special microscope called a **dark-field microscope**, by examining a tissue sample taken from a chancre
- Blood tests to determine if **antibodies** (specific proteins produced by the body to protect against invasion by foreign substances) to the *T pallidum* bacterium are present

## TREATMENT

- Penicillin is the treatment of choice for all stages of syphilis.
- Other antibiotic regimens can be used for individuals with penicillin allergy.
- All sexual partners of an infected person should be notified and encouraged to seek treatment.

Source: Centers for Disease Control and Prevention

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## FOR MORE INFORMATION

Centers for Disease Control and Prevention  
[www.cdc.gov/std/syphilis](http://www.cdc.gov/std/syphilis)

## INFORM YOURSELF

To find this and other JAMA Patient Pages, go to the Patient Page link on JAMA's Web site at [www.jama.com](http://www.jama.com). Many are available in English and Spanish. A Patient Page on syphilis was published in the July 26, 2000, issue.

