What is syphilis?

Syphilis is a sexually transmitted infection (STI) caused by the bacterium *Treponema pallidum*. It has often been called “the great imitator” because so many of the signs and symptoms are indistinguishable from those of other diseases.

How does syphilis spread?

Syphilis is passed from person to person through direct contact with a syphilis sore (called a chancre). Sores occur mainly on the external genitals, vagina, anus, or in the rectum. Sores also can occur on the lips and in the mouth. Transmission of the organism occurs during vaginal, anal, or oral sex. Pregnant women with the disease can pass it to the babies they are carrying. Syphilis cannot be spread through contact with toilet seats, doorknobs, swimming pools, hot tubs, bathtubs, shared clothing, or eating utensils.

What are the symptoms of syphilis in adults?

Many people infected with syphilis do not have any symptoms for years, yet remain at risk for late complications if they are not treated. Although transmission occurs from persons with sores who are in the primary or secondary stage, these sores are often painless, often go unrecognized, and will resolve on their own without any treatment. Thus, transmission may occur from persons who are unaware of their infection. During the secondary stage of syphilis, symptoms can include a non-itching rash often on palms of the hands or bottoms of the feet.

How is syphilis diagnosed?

Some health care providers can diagnose syphilis by examining material from a chancre (infectious sore) using a special microscope called a dark-field microscope. If syphilis bacteria are present in the sore, they will show up when observed through the microscope.

A blood test is another way to determine whether someone has syphilis. Shortly after infection occurs, the body produces syphilis antibodies that can be detected by an accurate, safe, and inexpensive blood test.
There are two types of blood tests, nontreponemal (VDRL and RPR) and treponemal (FTA-ABS and TP-PA). The use of only one type of blood test is insufficient for diagnosis because false-positive nontreponemal test results can be associated with other medical conditions unrelated to syphilis. Nontreponemal tests usually become nonreactive with time after treatment, but in some patients nontreponemal antibodies can persist at a low level for a long period of time, sometimes for the life of the patient. Treponemal test antibody titers do not correlate with disease activity and should not be used to assess treatment responses. The majority of people who have reactive treponemal tests will have reactive tests for the rest of their lives, regardless of treatment or disease activity.

Because untreated syphilis in a pregnant woman can infect and possibly kill her developing baby, every pregnant woman should have a blood test for syphilis during the early stages of her pregnancy and no infant should leave the hospital without the maternal status having been determined at least once during pregnancy.

**What is the link between syphilis and HIV infection?**

Genital sores (chancres) caused by syphilis make it easier to transmit and acquire HIV infection sexually. There is an estimated 2- to 5-fold increased risk of acquiring HIV if exposed to that infection when syphilis is present.

Ulcerative STIs that cause sores, ulcers, or breaks in the skin or mucous membranes, such as syphilis, disrupt barriers that provide protection against infections. The genital ulcers caused by syphilis can bleed easily, and when they come into contact with oral and rectal mucosa during sex, increase the infectiousness of and susceptibility to HIV. Having other STIs is also an important predictor for becoming HIV infected because STIs are a marker for behaviors associated with HIV transmission.

**What is the treatment for syphilis?**

Syphilis is easy to cure in its early stages. A single intramuscular injection of penicillin, an antibiotic, will cure a person who has had syphilis for less than a year. Additional doses are needed to treat someone who has had syphilis for longer than a year. For people who are allergic to penicillin, other antibiotics are available to treat syphilis. There are no home remedies or over-the-counter drugs that will cure syphilis. Treatment will kill the syphilis bacterium and prevent further damage, but it will not repair damage already done.

Because effective treatment is available, it is important that persons be screened for syphilis on an on-going basis if their sexual behaviors put them at risk for STIs.

Persons who receive syphilis treatment must abstain from sexual contact with new partners until the syphilis sores are completely healed. Persons with syphilis must notify their sex partners so that they also can be tested and receive treatment if necessary.

**Will syphilis recur?**
Having syphilis once does not protect a person from getting it again. Following successful treatment, people can still be susceptible to re-infection. Only laboratory tests can confirm whether someone has syphilis. Because syphilis sores can be hidden in the vagina, rectum, or mouth, it may not be obvious that a sex partner has syphilis. Talking with a health-care provider will help to determine the need to be re-tested for syphilis after being treated.

**How can syphilis be prevented?**

The surest way to avoid transmission of sexually transmitted diseases, including syphilis, is to abstain from sexual contact or to be in a long-term mutually monogamous relationship with a partner who has been tested and is known to be uninfected.

Avoiding alcohol and drug use may also help prevent transmission of syphilis because these activities may lead to risky sexual behavior. It is important that sex partners talk to each other about their HIV status and history of other STIs so that preventive action can be taken.

Genital ulcer diseases, like syphilis, can occur in both male and female genital areas that are covered or protected by a latex condom, as well as in areas that are not covered. Correct and consistent use of latex condoms can reduce the risk of syphilis, as well as genital herpes and chancroid, only when the infected area or site of potential exposure is protected.

Condoms lubricated with spermicides (especially Nonoxynol-9 or N-9) are no more effective than other lubricated condoms in protecting against the transmission of STIs. Use of condoms lubricated with N-9 is not recommended for STI/HIV prevention. Transmission of an STI, including syphilis, cannot be prevented by washing the genitals, urinating, and/or douching after sex. Any unusual discharge, sore, or rash, particularly in the groin area, should be a signal to refrain from having sex and to see a doctor immediately.