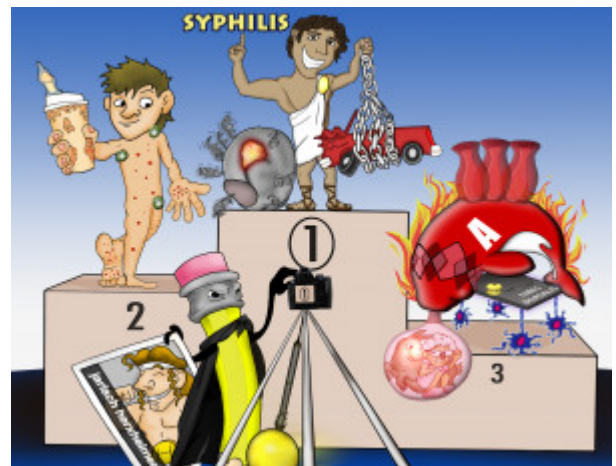


Syphilis

Syphilis is a spirochete bacterial infection caused by *Treponema pallidum*, which is commonly associated with spread by sexual contact. Syphilis has a variety of presentations according to the time since initial contact, systemic spread of disease, and individual susceptibility to infection. Primary syphilis presents as a painless chancre in the genital or groin region. Secondary syphilis presents as an erythematous rash involving the palms and soles or a condyloma lata which is similar to the lesions of primary syphilis in its infectivity but differs in appearance. Lastly tertiary syphilis is a representation of widespread systemic involvement and can present with major vessel changes, such as in the aorta, permanent CNS changes, or even benign mucosal growths called gummas. All manifestations of syphilis are secondary to invasion of the blood vessel walls. Penicillin is the treatment of choice for any syphilis manifestation.



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Characteristics

Treponema pallidum

[Tripod Pendulum](#)

Treponema pallidum is the name of the bacteria that causes syphilis.

Spirochete with characteristic motility

[Spiral-spirochete's in action](#)

A spirochete is a type of bacteria characterized by a long, helical, nearly corkscrew structure. *Treponema pallidum* is a spirochete with characteristic motility when visualized via darkfield microscopy.

Signs and Symptoms

Painless chancre

[Chain-car smashing region normally associated with pain](#)

Painless chancres are skin lesions usually localized to the groin or genital area, and are characterized as ulcerated skin. These are the characteristic sign of primary syphilis, and usually appear 2-4 weeks after exposure to the disease. If present, they can be scraped for spirochete, rather than ordering a blood test for diagnosis. Chancres are painless, as opposed to chancroids that are painful.

Condylomata lata

[Condom Latte-with-warts](#)

Condylomata lata are skin lesions usually localized to the groin or genitals, that are characterized as a warty, painless, mucosal erosion. These are the characteristic lesions of secondary syphilis that are present in about one third of people who had signs of primary syphilis.

Generalized lymphadenopathy

[Lymph-lime-add \(+\)](#)

Generalized lymphadenopathy is characteristic of secondary syphilis. It is presented as lymph node swelling over the entire body, or in several different parts of body.

Rash on palms and soles

Rash on Palms and Soles

A rash on palms and soles is highly characteristic of syphilis. Few rashes present on the palms and soles, so when a clinician sees a rash in this distribution, a refined differential is immediately warranted.

Aortitis

A-orca-on-fire

Aortitis occurs secondary to obliterative endarteritis as *Treponema pallidum* bacteria destroys the vessels walls. This can cause aortitis or aortic dissection in the most severe cases. Aortitis is characteristic of tertiary syphilis and presents after years of untreated illness.

Gummas

Granny-llama in Gum

Gummas are a characteristic lesion of tertiary syphilis and result from obliterative endarteritis. They are granulomatous skin lesions that present as a non-cancerous growth. Gummas can also present on internal organs as well. They reflect coagulative necrosis of the area and are non-infectious.

Neurosyphilis

Neurons

Syphilis can attack both the brain and spinal cord, resulting in permanent, severe disability. Syphilis testing is a regular investigation for patients with atypical dementia.

Argyll Robertson pupils

Argyle-pattern eyes

Individuals with tertiary syphilis can present with Argyll Robertson pupils, which are pupils that constrict to accommodation, but do not react to light.

Vasa vasorum

Vase in Vase

Vasa vasorum refers to the section of the blood vessel which receives its own blood supply. Syphilis commonly infiltrates this location and causes damage.

Tabes dorsalis

Table Door

Tabes dorsalis is a type of neurosyphilis characterized by destruction of the dorsal column in the spinal cord. This is characteristic of many years of untreated disease, and its effects are irreversible. Patients will show changes in proprioception as well as ataxia.

Treatment

Penicillin

Pencil-villain

Penicillin is the treatment for syphilis and other spirochete infections.

Jarisch-Herxheimer reaction

Jewish Hercules

Jarisch-Herxheimer reaction is a severe reaction that occurs after the administration of antibiotics, particularly penicillin. It presents similarly to septic shock, with fever, chills, hypotension, tachycardia and hyperventilation. This reaction is hypothesized to be the result of spirochete toxins released after death by antibiotics.