

Syphilis is a sexually transmissible infection that can be treated and cured with antibiotics. If not treated it can affect the brain, spinal cord and other organs. The use of condoms and dams can prevent transmission.

Syphilis

Last updated: 20 March 2019

What is syphilis?

Syphilis is a highly infectious sexually transmissible infection caused by *Treponema pallidum* bacteria. If it is not treated syphilis can cause serious health problems. Syphilis can infect both men and women. In NSW, syphilis is most often seen in men who have sex with men.

What are the symptoms?

The symptoms of syphilis depend on the stage of infection; primary, secondary, latent and tertiary.

Primary syphilis

- The first sign of syphilis is a sore or ulcer (called a chancre) which appears at the site of infection. This may be on the penis or other genital area, or in the mouth, vagina, anus or cervix. It is usually painless and may be hidden from view, and so may not be noticed. It feels firm and round. The chancre usually appears about three weeks after infection, but this can range from 10 days to three months. The chancre lasts three to six weeks and heals spontaneously with or without treatment.

Secondary syphilis

- If primary syphilis is not treated, it progresses to the secondary stage, with rashes, skin lesions, swollen lymph glands, fever, patchy hair loss, muscle and joint aches, headaches and tiredness. These symptoms appear while the chancre is healing or several weeks after it has healed. Characteristically the rash is on one or more areas of the body; red or reddish brown spots may appear on the palms of the hands and soles of the feet. Sometimes the rash is on other parts of the body. Large, raised, gray or white warty lumps may develop in warm, moist areas such as the groin, anal area, underarm or corner of the mouth.
- The symptoms of secondary syphilis usually last 3-12 weeks. The symptoms disappear with or without treatment. However, without treatment, the person remains infectious for up to two years and the infection progresses to the latent stage.

Latent syphilis

- When the symptoms of secondary syphilis disappear, the disease enters the latent, or hidden, stage. There are no symptoms, but the person is still infected. If syphilis is not treated at this stage it may remain latent for life, or it can develop into tertiary syphilis.

Tertiary syphilis

- Tertiary syphilis develops in about one-third of people who have not been treated for syphilis, and can appear up to 30 years after infection was first acquired. In this stage, the disease may involve the brain, nerves, eyes, heart, blood vessels, spinal cord, liver, bones, and joints and can be fatal. Symptoms of tertiary syphilis vary depending on the organ system affected. People are not usually infectious at this stage.

Neurosyphilis and ocular syphilis

Syphilis can invade the nervous system at any stage of infection, including soon after infection and causes a wide range of symptoms, including headache, altered behavior, difficulty coordinating muscle movements, paralysis, numbness and dementia. This invasion of the nervous system is called neurosyphilis.

Like neurosyphilis, syphilis can invade eye structures at any stage of infection, including soon after infection. Symptoms may include vision loss, blurry vision, eye pain, eye redness or even permanent blindness. This invasion of the eye structures is called ocular syphilis.

Syphilis in pregnancy

If a pregnant woman has syphilis, the unborn baby is likely to become infected. An infected foetus may die in the womb (stillbirth), or the baby may be born early with or without birth abnormalities caused by the infection. Babies born with congenital syphilis may have deformed bones, a low blood count, enlarged liver or spleen, yellowing of the skin or eyes (jaundice), brain and nerve problems such as blindness and deafness, infection of the covering of the brain (meningitis) or skin rashes. If these babies are not treated, they may become developmentally delayed, have seizures, or die.

How is it spread?

Syphilis is spread during unprotected vaginal, anal or oral sex or through skin-to-skin contact. Syphilis is highly contagious in the first two years after infection, particularly during the primary and secondary stages but also in the early part of the latent stage. Syphilis can be transmitted during pregnancy from a mother to her unborn baby.

Who is at risk?

Everyone is susceptible to infection. In Australia, groups at particular risk of syphilis include:

- men who have sex with men
- female sexual partners of men who have sex with men
- Aboriginal and Torres Strait Islander people
- babies of mothers who have not had proper syphilis testing and treatment during pregnancy

How is it prevented?

Spread of syphilis can be prevented by:

- consistent use of condoms, dental dams and water based lubricant. Condoms and dams are the best way of protecting against syphilis and some other sexually transmissible infections (STIs)
- avoiding sex with someone who has an ulcer or sore on their genitals
- limiting the number of sexual partners to reduce the risk of having sex with someone who has syphilis
- regular STI check-ups.

A person with syphilis should not have sex until five days after their treatment is completed or until symptoms have completely resolved (whichever is longer). Sexual partners of someone diagnosed with syphilis should be informed, treated and tested (see treatment below).

All women should have a syphilis test in the first 12 weeks of pregnancy or at the first antenatal visit. In NSW, all pregnant Aboriginal women and other pregnant women whose baby will be identified as Aboriginal should have another syphilis test at 24-28 weeks. Treatment of syphilis early in pregnancy, is very effective in preventing syphilis in the unborn baby. The earlier the infection is treated, the lower the risk that the baby will be affected by syphilis.

There is no vaccine for syphilis.

How is it diagnosed?

Blood tests are used to diagnose syphilis. There is a short period soon after a person is infected with syphilis when the blood tests may not pick up the infection and repeat tests may be necessary. At this stage, if an ulcer is present, a swab (using a sterile cotton bud) of the ulcer (chancre) can be tested and may detect syphilis. A person with syphilis will have a positive blood test by three months after infection, and usually much sooner.

How is it treated?

Syphilis is usually treated with penicillin injections. The number of injections will vary depending on the stage of infection. Follow-up blood tests are required to check that the treatment has worked.

People with syphilis should not have sex until five days after completing the course of treatment or until symptoms have completely resolved (whichever is longer).

People who have had syphilis will always test positive on some of the blood tests used to diagnose syphilis. People can get re-infected with syphilis after successful treatment. Blood tests can tell the difference between a new infection and one that has been previously treated. Treatment of sexual partners is important to prevent re-infection and to prevent the infection spreading to others.

Doctors should assist a newly diagnosed person to identify and inform all their sexual partners, dating back to the time of infection. Doctors or newly diagnosed people can inform sexual partners. On-line notification

websites such as "[Let Them Know](#)" (for all people), "[The Drama Downunder](#)" (for gay men); and "[Better to Know](#)" (for Aboriginal and Torres Strait Islander people) provide advice and assist with informing partners.

What is the public health response?

Laboratories are required to notify cases of syphilis to the local public health unit. This information is confidential. Public health staff use this data to better understand who is at risk and help plan activities to prevent new infections in the future. Patients and their doctors should ensure that sexual partners who may have been exposed to syphilis are contacted for assessment, counseling and treatment.

Further information is available from:

- the NSW Health Play Safe website: <https://playsafe.health.nsw.gov.au/sti/syphilis>
- [Sexual Health Infoline \(SHIL\)](#), a confidential telephone help line: 1800 451 624
- for Aboriginal women and men, <http://www.bettertoknow.org.au>
- for HIV-positive and HIV negative gay men, <http://www.thedramadownunder.info>
- your local Public Health Unit: 1300 066 055 or visit the New Wales Health website www.health.nsw.gov.au