

## SYPHILIS STAGES

**Primary Stage:** During the primary stage, a sore (chancre) that is usually painless develops at the site where the bacteria entered the body. This commonly occurs within 3 weeks of exposure but can range from 10 to 90 days. A person is highly contagious during the primary stage. If a clinician receives a negative syphilis laboratory result and early primary stage syphilis is suspected, retest in 2 - 4 weeks.

**Secondary Stage:** Secondary syphilis is characterized by a rash that appears from 2 to 8 weeks after the chancre develops and sometimes before it heals. Rash often develops over the body and commonly includes the palms of the hands and the soles of the feet. The skin rash usually heals without scarring in 2 to 12 weeks.

Other symptoms of secondary syphilis include:

- A fever usually less than 101 F.
- A sore throat.
- A vague feeling of weakness or discomfort throughout the body.
- Weight loss.
- Patchy hair loss, especially in the eyebrows, eyelashes, and scalp hair.
- Swelling of the lymph nodes.
- Nervous system symptoms of secondary syphilis, which can include neck stiffness, headaches, irritability, paralysis, unequal reflexes, and irregular pupils.

A person is highly contagious during the secondary stage.

**Latent Stage:** After the secondary-stage rash goes away, the person will not have any symptoms for a time (latent period). The latent period may be as brief as 1 year or range from 5 to 20 years. About 30% of people with syphilis have a relapse of the secondary stage of syphilis during the latent stage.

A person is contagious during the early part of the latent stage. When relapses no longer occur, a person is not contagious through contact, but a woman in the latent stage of syphilis may still pass the disease to her unborn baby and may have a miscarriage, a stillbirth, or give birth to a baby infected with congenital syphilis.

**Tertiary (Late) Stage:** If untreated, the tertiary stage may begin as early as 1 year after infection or at any time during a person's lifetime. A person may, however, never experience this stage of the illness.

Complications of tertiary (late) syphilis include:

- Gummata, which are large sores inside the body or on the skin.
- Cardiovascular syphilis, which affects the heart and blood vessels.
- Neurosyphilis, which affects the brain or the lining that covers the brain.

## Syphilis Serology w/ RPR Reflex



- In 2008, the CDC recommended a new syphilis screening approach in which an automated immunoassay Treponemal test was used as the first-line screening for syphilis, and if positive, reflexes to the RPR test were performed as confirmation to identify active syphilis.
- The syphilis IgG test is searching for antibodies against Treponema pallidum, the spirochete that causes syphilis.
- All positive Treponema palladium tests results will be reflexed to RPR.
- A positive TP and positive RPR demonstrate an active syphilis.
- A positive TP and negative RPR demonstrate a previously treated syphilis. In this case, repeat testing is recommended in 2-4 weeks for confirmation.

Med Health Services Laboratory is pleased to introduce **Syphilis Serology with RPR Reflex**, an enzyme immunoassay (EIA) method which will detect IgG antibodies against Treponema pallidum, the spirochete which causes Syphilis. This new automated test has greater sensitivity and greater specificity for T. pallidum than RPR which detects anticardiolipin antibodies and has a high false positive rate. As the syphilis IgG test is searching for antibodies against Treponema Pallidum, the test remains positive for many years after eradication of the disease. Therefore, the RPR is used as a confirmation test to demonstrate active disease, to monitor therapy, detect treatment failure, and or re-infection. Med Health Services syphilis serology with RPR reflex can greatly assist the clinician with a more accurate and early diagnosis of syphilis, regardless if the patient is in the primary, secondary, latent or tertiary stages of the disease.

Med Health Services immunoassay for Treponema pallidum antibodies has been proven scientifically to be among the most accurate blood assays in detecting syphilis with 99% specificity in both positive and negative results. It should be noted however, that since the assay is detecting antibodies for Treponema pallidum, a negative test result should be retested in 2 – 4 weeks if the clinician suspects early primary stage syphilis, as the body needs time to produce these antibodies. For all positive Treponema pallidum results, an RPR test will be performed. A positive Treponema pallidum and positive RPR demonstrate an active syphilis. If the Treponema palladium is positive and RPR negative, re-peat testing in 2-4 weeks is recommended to differentiate between an early versus previously treated syphilis.