



CONGENITAL SYPHILIS is the transplacental transfer of syphilis from an infected mother to her child during pregnancy. Congenital syphilis infections result in a wide spectrum of symptom severity in newborns, and only severe cases are clinically apparent at birth.

In the absence of effective treatment:

- 25% of pregnancies will result in 2nd trimester miscarriage or stillbirth (especially women diagnosed with primary or secondary syphilis) ¹
- 11% will result in neonatal death at term ¹
- 13% will result in a preterm or low birth weight infant ¹
- 20% will have clinical signs of congenital syphilis. ¹ Infected babies *may* present with jaundice, anemia, snuffles, rash and pseudo-paralysis. ¹

At delivery, infected babies may not exhibit clear signs or symptoms of congenital syphilis infection. Without treatment, they may develop symptoms such as dermatologic lesions, swollen lymph nodes and failure to thrive during the first few months of life (early congenital syphilis) or they may not develop symptoms until after two years of age (late congenital syphilis) resulting in neurological, musculoskeletal and developmental problems. ¹

Syphilis Testing and Indiana Code

Indiana code (IC 16-41-15-10) requires physicians to test women when they initially become pregnant and again at third trimester if the woman belongs to a high risk population. ²

Indiana’s Communicable Disease Reporting Rule for Physicians, Hospitals and Laboratories (410 IAC 1-2.3) requires cases of syphilis (and other communicable diseases) to be reported within **72 hours**. For confirmed or suspected syphilis cases, please call your local Sexually Transmitted Disease (STD) district office for immediate assistance. ³ **For more information**, visit www.in.gov/isdh/17440.htm. A Disease Intervention Specialist’s follow-up will include contact and treatment of partners, which is important to reduce the risk of re-infection of the mother once she is treated. ³

Indiana’s Goal for Congenital Syphilis

The goal is to identify syphilis early during pregnancy and provide adequate treatment before the syphilis spirochetes can cross the placenta, preventing possible miscarriage, stillbirth and children born with syphilis. The devastating outcomes of congenital syphilis are entirely avoidable.

Testing for Syphilis

Syphilis is diagnosed with a blood test. People who have been adequately treated for syphilis can still have positive test results, so it is important to ask your patients if they have ever been diagnosed with or treated for syphilis. Because interpreting syphilis test results can be complicated, Indiana Disease Intervention Specialists are trained to work with clinicians to accurately diagnose, appropriately treat and follow patients with syphilis.

To make a positive syphilis diagnosis, you must have **BOTH** a positive screening test, including titer, and a positive confirmatory test. ⁴

Screening <i>Nontreponemal test</i>	&	Confirmatory <i>Treponemal test</i>
Quantitative RPR Rapid Plasma Reagin		FTA-ABS Fluorescent treponemal antibody absorbed -OR- TP-PA T. Pallidum passive particle agglutination -OR- Syphilis EIA Enzyme immunoassay testing for syphilis

Please note: Alternate tests for syphilis are available, but please refer to the Centers for Disease Control & Prevention (CDC) treatment guidelines for other approved testing.



Treatment for Syphilis

Preferred treatment for a pregnant woman is dependent on the stage of her infection. To lessen the risk of loss to follow up care, physicians should treat patients as soon as possible.⁶

Early Syphilis Treatment (determined with Disease Intervention Specialist to *be less than one year's duration*)

2.4 mu Benzathine penicillin G IM in a single dose

OR

Latent Syphilis Treatment (unknown duration)

2.4 mu Benzathine penicillin G IM once a week for 3 weeks (7.2 million units total)

*For allergies, please review the CDC STD treatment guidelines. Desensitization is recommended.⁴

Treating a pregnant woman infected with syphilis also effectively treats her fetus.⁷ To prevent adverse pregnancy outcomes, pregnant women must be screened early, and, if positive, treated immediately, but at least 28 days before delivery. Treatment in early pregnancy reduces the potential for fetal complications.⁸ Because sex with an untreated partner can cause re-infection, it is especially important to inform pregnant women who have been treated of the risk to their infants should they have sex with an untreated partner.

For infants with confirmed congenital syphilis, or at high risk for having the infection, please refer to the CDC treatment guidelines at www.cdc.gov/std/treatment/2010/toc.htm.⁴

Most Common Mistakes

- Not running a **quantitative** RPR test or confirmatory test.
- Testing the umbilical cord blood for syphilis.
- Ordering invasive procedures on infants not indicated by CDC for assessment.
- Patient's risks are not properly evaluated for follow-up testing in the third trimester.

References

1. Centers for Disease Control and Prevention <http://wwwn.cdc.gov/nndss/script/casedef.aspx?CondYrID=861&DatePub=1/1/1996> accessed 10/20/2014
2. Indiana State Code <http://www.in.gov/legislative/ic/2010/title16/ar41/ch15.html> accessed 10/20/2014.
3. ISDH http://www.in.gov/isdh/files/13-STD_Reporting_Brochure_webFINAL.pdf accessed 10/24/14.
4. Centers for Disease Control and Prevention. www.cdc.gov/std/treatment/2010/toc.htm accessed 10/20/2014
5. Centers for Disease Control and Prevention. <http://www.cdc.gov/std/stats12/womenandinf.htm> accessed 10/20/2014.
6. Texas State Department of Health <http://dshs.state.tx.us/hivstd/info/syphilis/> accessed 10/17/2014.
7. De Santis, M., De Luca, C., Mappa, I., Spagnuolo, T., Licameli, A., Straface, G., & Scambia, G. (2012). Syphilis infection during pregnancy: Fetal risks and clinical management. *Infectious Diseases in Obstetrics and Gynecology*, 2012.
8. Blencowe, H., Cousens, S., Kamb, M., Berman, S., & Lawn, J. E. (2011). Lives Saved Tool supplement detection and treatment of syphilis in pregnancy to reduce syphilis related stillbirths and neonatal mortality. *BMC Public Health*, 11(Suppl 3), S9.

Women who would benefit from additional syphilis testing in the third trimester of pregnancy include:

- Women who received late or limited prenatal care.
- Women with limited access to quality care and screening due to socioeconomic factors.
- Women whose providers did not test them in the first or second trimester.
- Women who have low-levels of power in their relationship and cannot negotiate safe sex practices with their partner.
- Women whose partners have multiple, concurrent relationships which may increase the women's risk for syphilis.
- Women who are involved with substance abuse or exchanging sex for money, housing or other resources.
- Women who had a previous pregnancy loss or stillborn infant after 20 weeks gestation.⁵

Fast Facts

- Syphilis is **curable**.
- Congenital syphilis is **preventable**.
- All pregnant women should be tested.
- Women who are trying to become pregnant should be tested.
- According to the CDC, the rate of congenital syphilis in the U.S. in 2012 was 7.8 cases per 100,000 live births.
- Local reporting authorities can be found at www.in.gov/isdh/17440.htm.
- CDC STD Treatment guidelines are found at www.cdc.gov/std/treatment/2010/toc.htm.