# TREATING FOR SYPHILIS DURING PREGNANCY

AMERICAN COLLEGE of NURSE-MIDWIVES

## POSITIVE TEST FOR SYPHILIS

### 1 HAS THE PATIENT BEEN TREATED FOR SYPHILIS BEFORE?

**No**
Proceed

**Yes** within the last 8 weeks
Gather more information via medical records and/or the health department about treatment and make a plan for assessing treatment effectiveness and counsel patient about preventing reinfection

**Yes** more than 8 weeks ago
Proceed and gather information via medical records and/or the health department about past titers and treatment
Proceed

### 2 PENICILLIN ALLERGY?

**No**
Proceed

**Yes/ Maybe**
Refer to allergist for skin test to confirm or proceed with desensitization
Proceed

**Yes/ Definitely**
Pregnant people with syphilis at any stage who report penicillin allergy should be desensitized and treated with penicillin
Proceed

### 3 IS IT BEFORE OR AFTER 20 WEEKS OF PREGNANCY?

**Before**
Proceed to treatment

**After**
Proceed to treatment and order a level II sonographic fetal evaluation when syphilis is diagnosed in the second half of pregnancy to assess for signs of congenital syphilis (e.g., hepatomegaly, ascites, hydrops, fetal anemia, or a thickened placenta)
Proceed

### 4 SONGRAM SUGGESTS CONGENITAL SYPHILIS?

**Yes**
Follow standard protocols for abnormal fetal findings and consult with a maternal fetal medicine doctor as needed

**No**
Continue to monitor pregnant person with serologic titers.

## RESOURCE CORNER

**The CDC offers multiple tools and resources to support access to testing and treatment guidelines:**

- Download the STI Treatment (Tx) Guide Mobile App
- Summary of CDC STI Treatment Guidelines, 2021 Wall Chart
- Summary of CDC STI Treatment Guidelines, 2021 Pocket Guide
- Sexually Transmitted Infections Treatment Guidelines, 2021
- CDC Laboratory Recommendations for Syphilis Testing, United States, 2024

## TREAT SYPHILIS

| Stage of Syphilis | Recommended Regimen | Alternative Considerations |
|---|---|---|
| Primary, secondary, and early latent | Benzathine penicillin G 2.4 million units IM in a single dose | A second dose of benzathine penicillin G 2.4 million units IM can be administered 1 week after the initial dose |
| Late latent or unknown | Benzathine penicillin G 7.2 million units total, administered as 3 doses of 2.4 million units IM each at 1-week intervals | Second and third doses can be spaced up to 9 days apart. More than 9 days between doses requires restarting treatment. |
| Neurosyphilis, ocular syphilis, and otosyphilis | Aqueous crystalline penicillin G 18-24 million units per day, administered as 3-4 million units by IV every 4 hours or continuous infusion, for 10-14 days | Procaine penicillin G 2.4 million units IM 1x/day PLUS probenecid 500 mg orally 4x/day, both for 10-14 days |

## AFTER TREATMENT

**1 TREATMENT COMPLETED AS PRESCRIBED?**

- **Yes** → Proceed
- **No** → Counsel patient on importance of treatment adherence for their and their baby's safety. Start treatment again.

**2 TREATMENT COMPLETED AT OR BEFORE 24 WEEKS?**

- **Yes** → Repeat titers 8 weeks after treatment (not earlier) and again at birth. (Alternative: Titers should be repeated sooner if reinfection or treatment failure is suspected)
- **No** → Repeat titers at birth

**3 TITER RESULT SHOWS INCREASE OR DECREASE?**

- **Fourfold decrease** → (e.g.,1:16 to 1:4) -> Indicates treatment response
- **No Meaningful Change** → Less than a fourfold change (1.2 to 1.4 or 1.2 or 1.1) is not considered a meaningful change. Repeat serologic titer in 8 weeks or at birth to monitor change. A majority of pregnant people will not achieve a fourfold decrease in titers before delivery, although this does not indicate a treatment failure.
- **Fourfold increase** → (e.g., from 1:8 to 1:32) -> Concerning for reinfection; consult infectious disease specialist

**4 HAS A CURRENT SEXUAL PARTNER?**

- **Yes** → Offer and recommend testing for current sexual partner(s). Option: offer partner presumptive treatment (benzathine penicillin G 2.4 million units IM) and do RPR test.
- **No** → Option: counsel patient on reinfection risks and prevention.

**5 PARTNER TESTED POSITIVE FOR SYPHILIS?**

- **Yes** → Check in about partner's treatment status. Counsel patient on reinfection risks and prevention.
- **No** → Share the importance of partner(s) being tested in the next 8 weeks or 3 months to confirm no exposure.

## ASSESSING AND TREATING CONGENITAL SYPHILIS

If someone tests positive for syphilis and is treated during their pregnancy, it is strongly recommended that they get tested for syphilis again at birth to inform the testing and treatment plan for the baby.

**Assessment**

- All babies whose birth parent tested positive and received treatment during their pregnancy should have a complete physical exam to look for signs of congenital syphilis (e.g., a rash, sores, discharge from the nose).
- Syphilis testing for babies includes a blood test or taking a sample from a sore or rash.
- Sometimes babies test positive even though they don't have syphilis due to antibodies passed from their birth parent during pregnancy and birth.

**Treatment**

- Babies who have confirmed or probable congenital syphilis should be treated with penicillin injections for 10 days at the hospital.
- Babies who are less likely to have syphilis should be treated with one penicillin injection.
- Babies who are unlikely to have syphilis do not require treatment but can be given one penicillin injection if follow-up is uncertain and the neonate has a reactive nontreponemal test.

## FOR REFERENCE: TREATMENT SCENARIOS FOR CONGENITAL SYPHILIS

| Scenario | Evaluation | Recommended Treatment Regimens |
|---|---|---|
| Confirmed or Probable Congenital Syphilis | • Neonate has physical signs of congenital syphilis (rash, sores, discharge from nose)<br>• Neonate's serum quantitative nontreponemal serologic titer > fourfold higher than the birth parent's titer at delivery (e.g. maternal titer = 1:2, neonatal titer > 1:8 or maternal titer = 1:8, neonatal titer > 1:32)<br>• Neonate has a positive darkfield test or PCR of placenta, cord, lesions, or body fluids or a positive silver stain of the placenta or cord.<br>• Neonate does not have physical signs of congenital syphilis and the serum quantitative nontreponemal serologic titer is ≤ fourfold of the maternal titer at delivery (e.g. maternal titer = 1:8, neonatal titer < 1:16) and one of the following:<br>▪ The birth parent was not treated, was inadequately treated, or has undocumented treatment<br>▪ The birth parent received treatment but it was initiated within 30 days of delivery | Aqueous crystalline penicillin G 100,000–150,000 units/kg/body weight/day, administered as 50,000 units/kg body weight/dose IV every 12 hours during the first 7 days of life and every 8 hours thereafter for a total of 10 days<br>Or<br>Procaine penicillin G 50,000 units/kg body weight/dose IM in a single daily dose for 10 days<br>If >1 day of therapy is missed, treatment should be restarted. |
| Congenital Syphilis Less Likely | • Neonate has no physical signs of congenital syphilis and a serum quantitative nontreponemal serologic titer < fourfold of the maternal titer at delivery (e.g., maternal titer = 1:8, neonatal titer ≤1:16) and both of the following are true:<br>▪ The birth parent was adequately treated during pregnancy, and the treatment was initiated ≥ 30 days before delivery.<br>▪ The pregnant person shows no evidence of reinfection or relapse. | Benzathine penicillin G 50,000 units/kg body weight/dose IM in a single dose<br>Or<br>If follow up is certain another option is to provide close serologic follow-up every 2–3 months for 6 months for infants whose birthing parent's nontreponemal titers decreased at least fourfold after therapy for early syphilis or remained stable for low titer, latent syphilis (e.g., VDRL <1:2 or RPR <1:4). |
| Congenital Syphilis Unlikely | • Neonate has no physical signs of congenital syphilis and a serum quantitative nontreponemal serologic titer < fourfold of the maternal titer at delivery and both of the following are true:<br>▪ The pregnant person's treatment was adequate before pregnancy.<br>▪ The pregnant person's nontreponemal serologic titer remained low and stable (i.e., serofast) before and during pregnancy and at delivery (e.g., VDRL ≤1:2 or RPR ≤1:4). | No treatment is required.<br>*However, any neonate with reactive nontreponemal tests should be followed serologically to ensure the nontreponemal test returns to negative.<br>*Benzathine penicillin G 50,000 units/kg body weight as a single IM injection might be considered if follow-up is uncertain and the neonate has a reactive nontreponemal test. |

**See CDC congenital syphilis treatment scenarios for more information:**
https://www.cdc.gov/std/treatment-guidelines/congenital-syphilis.htm