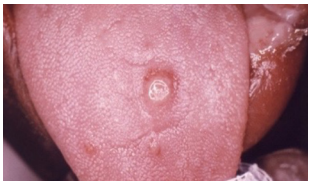
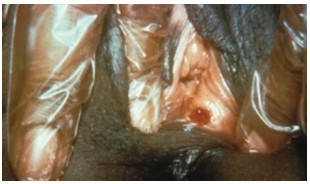
Signs of syphilis

Primary syphilis: active chancre at site of exposure



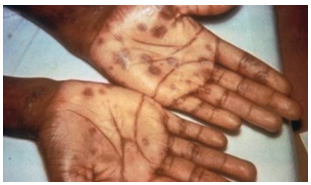
Tongue

Penis

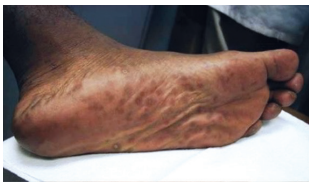


Vaginal opening

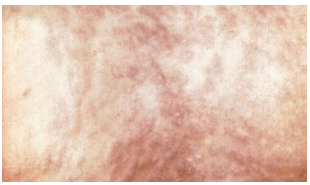
Secondary syphilis: characteristic body rash, condyloma lata, mucous patches, alopecia (hair loss)



Palmar lesions



Plantar lesions



Rash on back

Complicated syphilis/systemic[1,2]

- **Neurosyphilis:** headache, dizziness, gait changes, altered mental status, cranial neuropathies, motor and sensory deficits, meningitis, or stroke
- **Otosyphilis:** hearing loss, vertigo, or tinnitus
- **Ocular syphilis:** vision changes due to uveitis, retinitis, vitritis, keratitis, chorioretinitis, retinal vasculitis, and optic neuritis

For complicated or systemic syphilis, refer to infectious disease, ophthalmology, or send for inpatient evaluation.

Diagnosing latent syphilis

Early latent (< 1 year duration): Patients reports or medical history can support *any one* of the following in the 12 months prior to diagnosis/treatment:

- Prior negative treponemal or nontreponemal test result
- First sexual exposure to a partner with syphilis within prior 12 months
- Currently asymptomatic but reports history of symptoms consistent with primary or secondary syphilis
- Sexual debut within prior twelve months

Late latent/unknown: only if the above did not occur in prior year

(1) Centers for Disease Control and Prevention. Sexually Transmitted Infections Treatment Guidelines, 2021: *Syphilis.* Jan 16, 2024; https://www.cdc.gov/std/treatment-guidelines/syphilis.htm Accessed Aug 15, 2024. **(2)** Jones-Vanderleest JG. Neurosyphilis, Ocular Syphilis, and Otosyphilis: Detection and Treatment. *Am Fam Physician.* 2022;106(2):122-123.

These are general recommendations only; specific clinical decisions should be made by the treating clinician based on an individual patient's clinical condition.

This program is made possible by the Indian Health Service.

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Screening frequency

All sexually active patients	• At least annually	**Risk factors** • Substance use • History of incarceration or transactional sex work • Geography • Male < 29 years of age • Pregnant person with multiple sex partners, new partner, or partner with STIs
Pregnant person	• At the first prenatal visit • 28 weeks gestation • At the time of delivery	
Men who have sex with men	• At least annually for sexually active • Every 3-6 months if at increased risk	
Transgender or gender diverse	• At least annually based on reported sexual behaviors and exposure	

Tips for testing[3,4]

Treponemal tests remain reactive in most patients who have had a syphilis infection.

- Useful to determine a **first-time infection**
- Cannot be used to determine if patient with previously diagnosed infection has a new or untreated syphilis infection

Nontreponemal tests (RPR or VDRL) change over time and with treatment.

- **Titers cannot be used to stage disease.**
- Recent infection (within first 4 weeks) may not be reactive yet.
- RPR may not be reactive in old infections (with or without treatment).
- Look for **4-fold or greater change in titers** in patients with prior syphilis.
  - **INCREASE in titers:** active infection or reinfection, if previously treated
  - **DECREASE in titers:** treated infection
- Use the same type of nontreponemal test when comparing treatment results.

Both tests are required to diagnose a new or untreated syphilis infection. Labs perform both in patients with reactive tests. The traditional algorithm starts with nontreponemal, the reverse algorithm starts with treponemal (preferred).

Treatment of syphilis

Duration	Stage	Treatment	# of doses	Interval
< 12 mo	primary	Penicillin G benzathine 2.4 million units (Bicillin L-A) intramuscularly	**1**	n/a
	secondary			
	early latent			
≥ 12 mo or unknown	late latent		**3**	7 days

Ocular, otic, and neurosyphilis can occur at any stage or duration of infection and requires IV aqueous penicillin treatment.

(3) Indian Health Service. Standing Orders for Nurses STD Protocol Syphilis & Gonorrhea. 2017; www.ihs.gov/sites/nptc/themes/responsive2017/display_objects/documents/sti/Appendix-Standing-Order-PCN-Syphilis.pdf. Accessed Aug 29, 2024. **(4)** Papp JR, et al. CDC Laboratory Recommendations for Syphilis Testing, United States, 2024. *MMWR Recomm Rep.* 2024;73(1):1-32.

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