

# Sex and Gender Differences

## SYPHILIS



**Syphilis is a sexually transmitted infection (STI) caused by the bacteria *Treponema pallidum* that can cause severe symptoms and health problems.**

Prevalence Risk Factors

### FEMALE

### ALL

### MALE

	<ul style="list-style-type: none"> <li>Multiple sexual partners</li> <li>Previous STI(s)</li> <li>HIV+</li> <li>Illicit drug use</li> <li>Unprotected anal intercourse</li> </ul>	
• Rate of 2.3 infected per 100,000 people		• Men who have sex with men
<ul style="list-style-type: none"> <li>Pregnancy: <ul style="list-style-type: none"> <li><b>Increased risk of:</b> miscarriage, stillbirth, neonatal death, fetal growth restriction</li> <li><b>Congenital syphilis:</b> May be transmitted vertically to fetus <ul style="list-style-type: none"> <li>Early (birth-4 years): palmar and solar rash, bulging forehead, rhinitis, facial/cranial nerve deficits, seizures, long bone lesions</li> <li>Late: dental abnormalities, nasal cartilage destruction, lower leg bowing, morbilliform rash, sterile joint effusion, prominent forehead, deafness, keratitis</li> </ul> </li> </ul> </li> </ul>	<p>“Great imitator”: wide range of symptoms common to other diseases</p> <ul style="list-style-type: none"> <li>Primary syphilis: painless ulcer, enlarged lymph nodes</li> <li>Secondary syphilis: flu-like symptoms, hepatitis, nephritis, ocular and optic impairments, palmar and solar non-itchy rashes, and condyloma lata</li> <li>Tertiary syphilis: cardiovascular involvement. Nodulo-ulcerative lesions (or gummas) can destroy organs, sometimes leading to death</li> <li>Neurosyphilis <ul style="list-style-type: none"> <li>Early: cranial nerve dysfunction, meningitis, seizures, strokes</li> <li>Late: general paralysis, mental status alteration, cognitive and emotional impairments, sensory and movement dysfunction (tabes dorsalis)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Rate of 16.9 infected per 100,000 people</li> <li><b>More common</b> to have a co-infection with HIV: <ul style="list-style-type: none"> <li>More severe symptoms</li> <li>Increased risk of neurosyphilis</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>Additional transmission mode: <b>placenta</b> <ul style="list-style-type: none"> <li>Rarely: <b>artificial insemination</b></li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Transmission modes: blood, skin-to-skin contact, and sexual contact <ul style="list-style-type: none"> <li>Rare transmission modes: unscreened organ/bone transplants</li> </ul> </li> <li>Contagion occurs early, bacteria may stay dormant 3-90 days (the average is 21 days) <ul style="list-style-type: none"> <li>Primary and secondary syphilis rashes are highly contagious</li> </ul> </li> <li>Primary syphilis appears up to 3 months post-infection; <ul style="list-style-type: none"> <li>If untreated: Secondary syphilis develops within 2-12 weeks, or to an asymptomatic, infectious, latent phase <ul style="list-style-type: none"> <li>If untreated: Tertiary syphilis develops months to years after initial infection</li> </ul> </li> </ul> </li> <li>Neurosyphilis can occur at any stage</li> </ul>	
<ul style="list-style-type: none"> <li>Pregnancy: CDC - screen at first prenatal visit and in third trimester <ul style="list-style-type: none"> <li>High risk mothers: screen at delivery (engaged in risk factor(s) listed above)</li> </ul> </li> <li><b>7.4%</b> of females are screened in the emergency department</li> <li>Females <b>less likely</b> to be diagnosed due to vaginal/cervical location of lesions</li> </ul>	<ul style="list-style-type: none"> <li>Screen every 3-6 months <ul style="list-style-type: none"> <li>Those engaged with risk factor(s) (listed above)</li> <li>HIV positive patients</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Men who have sex with men: Annual screening</li> <li><b>48.9%</b> of males are screened in the emergency department</li> <li>Males diagnosed <b>more frequently and faster</b> due to visibility of penile lesions</li> </ul>
<ul style="list-style-type: none"> <li>Pregnancy: Penicillin is the only option</li> <li>2,349 female deaths attributed to syphilis (1968-2015)</li> </ul>	<ul style="list-style-type: none"> <li>Penicillin: Preferred for all stages <ul style="list-style-type: none"> <li>If allergic, CDC recommends desensitization followed by penicillin</li> </ul> </li> <li>Lower death rates in adults due to improved screening and treatment</li> </ul>	<ul style="list-style-type: none"> <li><b>More likely to be treated</b> due to higher screening and diagnosis rates</li> <li>Men who have sex with men: doxycycline can prevent infection</li> <li>4,149 male deaths attributed to syphilis (1968-2015)</li> </ul>

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Definitions & Disclaimers References

