

Neisseria gonorrhoea and Sexual Abuse

A Fact Sheet for Non-Medical Readers

INTRODUCTION

When a young child is found to have an infection caused by *Neisseria gonorrhoea*, sexual abuse should be assumed until proven otherwise. A medical child abuse expert should be consulted immediately to exclude an error in the diagnosis, exclude the possibility of non-sexual transmission, attempt to identify the timing of sexual contact and assist in the identification of possible perpetrators.

WHAT IS GONORRHEA?

- *Neisseria gonorrhoea* is a bacterium that lives in human body fluids.
- *Neisseria gonorrhoea* is often referred to as GC, *N. gonorrhoea* or gonorrhea.
- *Neisseria gonorrhoea* most commonly infects the human genital tract, rectum, pharynx and eye. Infection of the blood and joints also occurs.

HOW COMMON IS GONORRHEA?

- Over 600,000 cases of Gonorrhea are reported to the Center for Disease Control every year.
- 80% of Gonorrhea infections occur in people aged 15-29 years old.
- 1% - 3% of pre-teen sexually abused children have Gonorrhea infections.

HOW IS GONORRHEA TRANSMITTED?

- Gonorrhea is transmitted primarily during anal or vaginal sex and occasionally through oral sex. Gonorrhea can be transmitted even when the penis or tongue does not completely enter the vagina, mouth or rectum.
- Only a small amount of body fluid needs to be exchanged to transmit *Neisseria gonorrhoea*.
- Eye infections may result when discharge transmits the disease into the eye during sex or hand-to-eye contact.
- *Neisseria gonorrhoea* can be passed from mother to newborn as the baby passes through the infected birth canal. This may result in eye or throat infections and occasionally vaginal, urethral or rectal infections.

HOW IS GONORRHEA NOT TRANSMITTED?

- Non-sexual transmission is theoretically possible but has **NEVER** been documented to occur.
- Non-sexual transmission is extremely unlikely because *N. gonorrhoea* only grows in warm, moist, oxygen deficient parts of the body. *N. gonorrhoea* dies quickly when it is dried or cooled or exposed to oxygen. It cannot survive on exposed skin (e.g. hands or fingers) or on dry surfaces (e.g. countertops, bathtub surfaces or toilet seats.)
- *Neisseria gonorrhoea* is not transmitted to humans by animals.

WHAT ARE THE SIGNS AND SYMPTOMS OF GONORRHEA INFECTION?

- Most infected teenage and adult men experience genital itching and burning with urination or discharge.
- Many infected teenage and adult women have no symptoms, but do transmit the infection to sexual partners.
- After exposure, symptoms usually develop within 2-5 days in men, and 2-10 days in women who become symptomatic.
- Most pre-teen children have symptoms at the time of diagnosis, and many will have a discharge on exam.

HOW IS GONORRHEA DIAGNOSED?

- Almost no medical test is 100% specific, that is, not all positive tests are correct.
- When testing populations with a low prevalence of infection, there is an increased likelihood that a specific test will be a FALSE positive, i.e. the test will be positive even though the disease is not present.
- Many of the tests that work accurately in adult populations are unreliable when children are tested.
- A **CULTURE** for *Neisseria gonorrhoea*, **when performed properly**, is virtually 100% accurate. However:
 - A child's gonorrhea culture must be processed differently than an adult's culture.
 - A positive culture must be tested by two additional methods to exclude false positive tests.
- A culture is not 100% sensitive, that is, sometimes the culture will be negative even when infection exists.
- Nucleic acid amplification tests are more sensitive than culture but the specificity of these tests in children is not known (i.e. these tests will miss fewer infections compared to culture, but might also report infection when none exists).
- Nucleic acid amplification tests will be positive for a short period of time even after an individual has been treated.
- Accurate diagnosis of gonorrhea in children requires an experienced laboratory and knowledgeable physician.

WHY ARE GONORRHEA INFECTIONS IN CHILDREN THOUGHT TO INDICATE SEXUAL ABUSE?

- Infections caused by *Neisseria gonorrhoea* are highly indicative of sexual abuse in individuals who are not sexually active because transmission by non-sexual contact is so difficult.
 - *Neisseria gonorrhoea* will only survive in moist, warm environments with low oxygen concentrations.

- *Neisseria gonorrhoea* quickly dies when subjected to drying, to cold temperatures, or to oxygen.