

HOT Study – Oral Transmission of HIV

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Project Description: The HOT Study is investigating whether oral health, oral hygiene practices, different oral sex practices and/or drug use influences whether a person can acquire HIV virus orally. The HOT study is being conducted over a five-year period, which includes four years of data collection. The study will be conducted in the San Francisco Bay area in collaboration with the AIDS Health Project. Subject recruitment will consist of 80 Case Individuals (those individuals who acquired HIV via oral transmission) and 320 Control Individuals (corresponding in gender and location, with similar risk factors but who have not acquired HIV). Each respondent will receive free HIV testing, oral exams by an oral health professional and behavioral/clinical questionnaires. Specific project aims:

- To evaluate if host oral environment including signs and symptoms or periodontal disease, and/or health practices are associated with increased odds of oral acquisition of HIV infection.
- To evaluate which specific orogenital sexual practices and oral exposure to ejaculatory fluids (including swallowing and not swallowing semen) are associated with increased or decreased odds of oral acquisition of HIV.
- To evaluate if documented comorbid conditions within the seroconversion period (for instance- sexually transmitted disease such as gonorrhea, chlamydia and other viral infections like HSV-1 or 2) are associated with increased or decreased odds of oral acquisition of HIV.
- To evaluate whether non-injecting substance use, which may modify the oral or naso-pharyngeal mucosa and or sexual behavior is associated with increased or decreased odds of oral acquisition of HIV.

Significance: The design and methods are aimed at really giving us the information we want to establish how someone might get HIV infection from performing oral sex. The case-control method cannot estimate infectivity or the rate of oral HIV infection, but it is the only feasible way to study factors, which may influence the risk of oral infection. Identification of the cofactors possibly associated with orogenital HIV acquisition will provide the kind of data that can be used by AIDS prevention programs and members of AIDS risk groups in order to reduce the risk of HIV infection.

Project Web Site: <http://www.caps.ucsf.edu/hotstudy/>