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HIV Prevention: PrEP and PEP

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What's the Problem?

HIV-negative individuals who have sex or share needles with HIV-positive individuals risk contracting HIV. Health care workers may be exposed to the virus in the course of their employment. For instance, a nurse or doctor who has been accidentally stuck with a needle used to take blood from someone who might be HIV-positive. Traditional efforts promoted by CDC to prevent HIV infections have depended on changing people's behaviors: using condoms for sex, clean needles for injecting drugs, and standard precautions (formally called "universal precautions") to prevent HIV exposures in the workplace. CDC increasingly recommends the use of PrEP and PEP to prevent HIV infection in these kinds of situations.

Pre-exposure prophylaxis or "PrEP" is recommended before exposure and post-exposure prophylaxis or "PEP" is recommended after exposure. The U.S. Food and Drug Administration (FDA) has approved at least one HIV medication for PrEP and CDC recommends the off-label use of certain HIV medications for PEP.

Who's at Risk?

PrEP is for people who are likely to be exposed to HIV repeatedly through ongoing, high risk sex or illicit drug use.

For sexual transmission this includes people who are

- in an ongoing relationship with a partner who has HIV,
- not in a mutually monogamous¹ relationship with a partner who recently tested HIV-negative,
- a gay or bisexual man who has had anal sex without a condom or been diagnosed with an STD in the past six months, or
- a heterosexual man or woman who does not regularly use condoms during sex with partners of unknown HIV status at substantial risk of HIV infection (e.g., people who inject drugs or have bisexual male partners).

For illicit drug use (injection) this includes people who have

- injected illicit drugs in the past six months,

¹ *Mutually monogamous means that you and your partner only have sex with each other and do not have sex outside the relationship.*

- shared injection equipment, or
- been in drug treatment for injection drug use in the past six months.

For heterosexual couples where one partner has HIV and the other does not, PrEP can help protect the uninfected partner during conception and pregnancy.

PrEP is for people who are HIV-negative, but may have been exposed to HIV. For over 20 years, CDC has recommended PEP to protect healthcare workers who have been accidentally exposed to HIV in the workplace. The recommendation to use PEP after non-occupational exposures (such as unprotected sex or illicit drug injection) is more recent.

Can It Be Prevented?

While HIV transmission cannot be 100 percent prevented by any method, the risk can be decreased significantly and substantially with PrEP and PEP.

PrEP: The PrEP pill approved by the FDA for daily use is called Truvada®. Truvada® works by blocking important pathways HIV uses to set up an infection. It takes time for PrEP to become effective after taking it: about seven days for receptive anal sex and about 20 days for insertive anal sex, vaginal sex, and injection drug use. If PrEP is not taken every day, there may not be enough medicine in the bloodstream to block the virus. PrEP can only be prescribed by a healthcare provider. Before beginning PrEP a person must take an HIV test to be sure they don't already have HIV and a repeat HIV test every three months while taking it.

PEP: If an HIV-negative person thinks they were exposed to HIV, they should go to a clinic or emergency room immediately and request PEP. PEP must be started within 72 hours of exposure. The effectiveness decreases the longer treatment is delayed. For healthcare workers exposed to HIV on the job, their workplace health insurance or workers' compensation will usually pay for PEP. Sexual assault victims prescribed PEP after an assault, may qualify for partial or total reimbursement for medicines and clinical care costs through the Office for Victims of Crime, funded by the U.S. Department of Justice.

Medical care providers who want advice on how to administer PrEP and PEP can call and speak to an expert at the Clinical Consultation Center run by the [University of California, San Francisco](#)²

PrEP and PEP will not prevent syphilis, gonorrhea, chlamydia, or other sexually transmitted diseases. Similarly, those taking PrEP for protection from injection drug use risks, PrEP will not protect against hepatitis C or bacterial skin or heart infections.

The Bottom Line

While neither PrEP nor PEP are 100 percent effective in preventing HIV, they can help people who are HIV-negative stay that way. For those who are HIV-positive, PrEP and PEP can help protect their partners.

² See drop-down menu under tab, "Clinical Consultation."

Case Example

Before they got engaged, Sam and Lindsay had been dating for almost five years. Within those five years they broke up twice. During one of the break-ups, Lindsay had been with a partner who was HIV-positive and, after the engagement, learned she was HIV-positive. While Sam wanted to continue his relationship with Lindsay, he was afraid of becoming HIV-positive. After speaking with his healthcare provider, Sam decided to begin taking PrEP to significantly decrease his risk of getting HIV. He also used condoms as an added level of protection. Taking PrEP and using condoms allowed Sam to feel comfortable with continuing his relationship with Lindsay. They got married a year later.

Resources

PrEP resources: <http://www.cdc.gov/hiv/risk/prep/index.html>,
<http://www.cdc.gov/features/stop-hiv-prep/>

PEP resources: <http://www.cdc.gov/hiv/risk/pep/index.html>