

HIV PRE-EXPOSURE PROPHYLAXIS (PrEP)

WHAT IS HIV PRE-EXPOSURE PROPHYLAXIS (PrEP)?

HIV PrEP is medication used to help prevent human immunodeficiency virus (HIV) infection. It is used for people who are HIV negative and who have risk of acquiring an HIV infection. PrEP involves taking prescribed antiretroviral (anti-HIV) medication daily on an ongoing basis to lower the chance of getting HIV. PrEP is intended for regular use as an ongoing HIV prevention method.

HOW IT WORKS

For HIV to cause infection, the virus must enter the body, infect certain immune cells, make copies of itself, (multiply) within these immune cells, then spread throughout the body. HIV PrEP interferes with this process by preventing the (HIV) from multiplying. As a result, if you are exposed to HIV, PrEP makes it extremely difficult for the virus to infect your body.

EFFECTIVENESS

When taken consistently and as prescribed, PrEP reduces the risk of acquiring sexually transmitted HIV by 99 per cent.

PREP IS SHOULD BE CONSIDERED FOR PEOPLE AT HIGH RISK OF HIV INFECTION

PrEP should be considered by people who are HIV negative and at high risk for HIV infection. Canadian guidelines define this as:

- Men, or transgender women, who report condomless sex with men, and have any of the following:
 - Infectious syphilis or rectal bacterial STI in the last year
 - Use of post-exposure prophylaxis (PEP) more than once
 - A high score on a valid HIV risk assessment tool
- Any person who has condomless anal or vaginal sex with a partner with HIV who is not on treatment and virally suppressed
- People who share injection drug use equipment

WHEN YOU SHOULD NOT USE PrEP

- You have had a probable recent exposure to HIV in the last 72 hours. Go to an emergency department and speak to a healthcare provider about HIV PEP (post-exposure prophylaxis)
- If your renal function is impaired
- You are having signs or symptoms of acute HIV infection
- You have an allergy or contraindication to any medicine in the PrEP regimen

ADVANTAGES

When PrEP is taken consistently and as prescribed, the antiretroviral medications get into the bloodstream and genital and rectal tissues. The medications work to help prevent HIV from multiplying within the body's immune cells, this helps to prevent a permanent infection.

DISADVANTAGES

To stop HIV replication from happening, medication levels in the body must stay high. If pills are not taken consistently as prescribed there may not be enough medication in the body to reduce the risk of HIV infection.

There is some evidence PrEP medications take longer to reach maximum levels in vaginal tissues compared with rectal tissues, and that drug levels are lower in vaginal tissues. This indicates that daily dosing of PrEP may be more important for cisgender women or transgender men, potentially exposed to HIV through vaginal or frontal sex, to maintain sufficient drug levels to help prevent HIV infection.

Side effects caused by PrEP may negatively affect a person's quality of life and ability to adhere to their medication schedule.

HIV PrEP medications can be expensive without drug benefit coverage. There are ways to receive HIV PrEP at reduced cost if needed.

SIDE EFFECTS

Side effects are generally mild and temporary. Some of the possible side effects include nausea, vomiting, diarrhea, headache, and dizziness.

The use of PrEP has been associated with some toxicities in a slight number of people, such as small decreases in kidney, bone, and rarely, liver health. In these circumstances the changes were reversed, and function returned to normal after stopping PrEP.

DRUG RESISTANCE

A person can develop resistance to HIV PrEP medications if they are HIV positive (and unaware of their positive status) when they start PrEP. Drug resistance can limit a person's future HIV treatment options; it is important people are HIV negative before starting PrEP.

A person can develop drug resistance if they become HIV positive while taking PrEP. The risk of developing drug resistance is low for people who were HIV negative when they started taking PrEP.

Regular HIV testing is necessary while taking PrEP. If a person using PrEP gets HIV, PrEP must be discontinued as soon as possible, to reduce the risk of developing drug resistance. If a person's HIV becomes resistant to the drugs in PrEP, those same drugs may not work to treat HIV.

IMPORTANT INFORMATION WHEN CONSIDERING PrEP

- PrEP must only be used by people who are HIV negative
- PrEP must only be accessed through a healthcare provider by prescription
- PrEP requires people to be highly adherent to PrEP medications
- People who want to start PrEP must first be tested for kidney function and screened for STIs and hepatitis A, B and C
- People taking PrEP must have regular clinic visits with a healthcare provider, typically every three months or as recommended. During these visits they will be tested for HIV and STIs, monitored for side effects and toxicity
- PrEP does not protect people against other STI's

ADDITIONAL RESOURCES

- York Region Public Health Sexual Health Clinics **1-800-361-5653, # 1**
- [CATIE: Pre-exposure prophylaxis \(PrEP\)](#)