

Medications to Prevent HIV Infection

Human immunodeficiency virus (HIV) prevention (or prophylaxis) includes both safe sex practices and medications.

Preventing the Spread of HIV

HIV can be spread through blood, semen, vaginal fluid, or breast milk. It is most often spread through sexual contact. Therefore, an important part of HIV prevention is practicing "safe sex." This involves using condoms and asking about (or being tested for) HIV and other sexually transmitted infections before any type of sex with a new partner.

In some specific situations, medications can also be used to prevent HIV. These medications are **antiretroviral** (anti-HIV) pills. These pills are taken by people who do *not* have HIV infection but are at high risk of becoming infected. There are 2 types of HIV prophylaxis that involve the use of medications: **preexposure prophylaxis** and **postexposure prophylaxis**.

Preexposure Prophylaxis

In preexposure prophylaxis, someone who does not have HIV infection takes 1 anti-HIV pill every day (a combination of 2 antiretroviral medications) as long as he or she is at high risk of getting infected with HIV. The medication can be taken for months or years. Those who may benefit from preexposure prophylaxis include

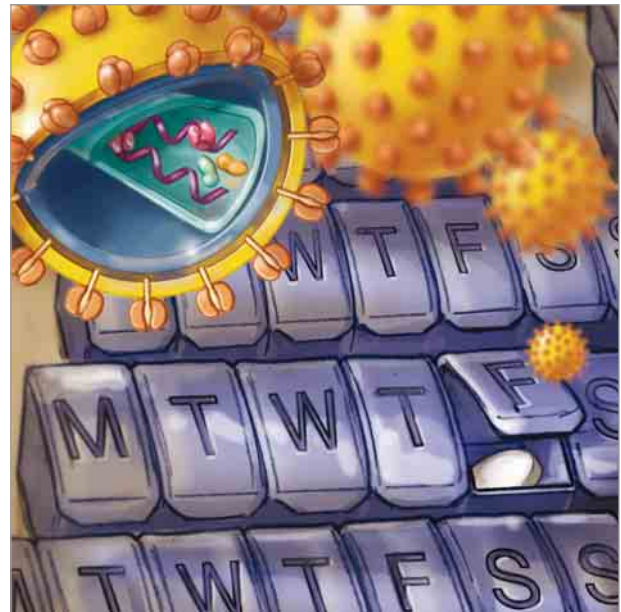
- People who are in a relationship with a partner who has HIV infection.
- People who have many sexual partners and do not regularly use condoms. This can include men and women and heterosexual, gay, or bisexual people.
- People who inject drugs.

Individuals who take preexposure prophylaxis still need to be regularly tested for HIV. The use of preexposure prophylaxis is still fairly new in the United States. The Centers for Disease Control and Prevention recently released its first set of full guidelines for preexposure prophylaxis use in May 2014.

Postexposure Prophylaxis

Postexposure prophylaxis is used when someone who does not have HIV infection experiences a specific event during which HIV exposure might have happened. Examples include when health care workers accidentally come into contact with blood or body fluids of a patient who may be infected with HIV (eg, from a needlestick injury); cases of sexual assault; and cases of unplanned, unprotected sex with someone who might have HIV infection.

Postexposure prophylaxis involves taking 2 or 3 anti-HIV pills every day for 4 weeks after the exposure event. Postexposure prophylaxis should be started as soon as possible and within 3 days of the exposure. Because there are more medications included in postexposure prophylaxis than in preexposure prophylaxis, it can have more side effects than preexposure prophylaxis. Unlike preexposure prophylaxis, postexpo-



sure prophylaxis is meant to be used in rare situations and not to be used repeatedly or for longer than 4 weeks.

How Well Do These Medications Work?

Both preexposure and postexposure prophylaxis significantly lower the chance of HIV infection. But neither is 100% effective at preventing HIV infection. Smart prevention behaviors such as always using condoms and never sharing needles are still extremely important. Preexposure and postexposure HIV prophylaxis will not protect against other sexually transmitted infections.

FOR MORE INFORMATION

- AIDS.gov
aids.gov/hiv-aids-basics/prevention/reduce-your-risk/pre-exposure-prophylaxis/index.html
aids.gov/hiv-aids-basics/prevention/reduce-your-risk/post-exposure-prophylaxis/index.html

✚ To find this and previous JAMA Patient Pages, go to the Patient Page link on JAMA's website at jama.com. Many are available in English and Spanish.

Author: Jill Jin, MD, MPH

The JAMA Patient Page is a public service of JAMA. The information and recommendations appearing on this page are appropriate in most instances, but they are not a substitute for medical diagnosis. For specific information concerning your personal medical condition, JAMA suggests that you consult your physician. This page may be photocopied noncommercially by physicians and other health care professionals to share with patients. To purchase bulk reprints, call 312/464-0776.