

Post-Exposure Prophylaxis (PEP)

(updated April 2021)



Post-Exposure Prophylaxis (PEP)

This educational packet is a curated compilation of resources on post-exposure prophylaxis (PEP).

The contents of this packet are listed below:

- Post-Exposure Prophylaxis – PEP (HIVinfo)
- Profilaxis Posexposición – PEP (HIVinfo)
- PEP 101 (CDC fact sheet with first page in English, second page in Spanish)
- PrEP vs. PEP (HIVinfo infographic with first page in English, second page in Spanish)
- Prescribe PEP (Post-Exposure Prophylaxis) FAQs (CDC)

You may wish to customize this packet to meet the needs or interests of particular groups, such as event participants, providers, patients, clients, or the general public. So please feel free to distribute all or part of this document as either a printout or PDF.

Post-Exposure Prophylaxis (PEP)

 hivinfo.nih.gov/index.php/understanding-hiv/fact-sheets/post-exposure-prophylaxis-pep

HIV Prevention

Last Reviewed: September 24, 2020

Key Points

- Post-exposure prophylaxis (PEP) means taking HIV medicines within 72 hours after a possible exposure to HIV to prevent HIV infection.
- PEP should be used only in emergency situations. It is not meant for regular use by people who may be exposed to HIV frequently.
- PEP must be started within 72 hours (3 days) after a possible exposure to HIV. The sooner PEP is started after a possible HIV exposure, the better.
- If you are prescribed PEP, you will take HIV medicines every day for 28 days.

What is PEP?

PEP stands for post-exposure prophylaxis. The word “prophylaxis” means to prevent or control the spread of an infection or disease. PEP means taking HIV medicines within 72 hours after a possible exposure to HIV to prevent HIV infection.

PEP should be used only in emergency situations. It is not meant for regular use by people who may be exposed to HIV frequently. PEP is not intended to replace regular use of other HIV prevention methods, such as consistent use of condoms during sex or pre-exposure prophylaxis (PrEP). PrEP is when people at risk for HIV take a specific HIV medicine daily to prevent getting HIV. For more information, see the ClinicalInfo fact sheets on [The Basics of HIV Prevention](#) and [Pre-Exposure Prophylaxis \(PrEP\)](#).

Who should consider taking PEP?

PEP may be prescribed for people who are HIV negative or don't know their HIV status, and in the last 72 hours:

- May have been exposed to HIV during sex
- Shared needles or other equipment (works) to inject drugs
- Were sexually assaulted

If you think you were recently exposed to HIV, talk to your health care provider or an emergency room doctor about PEP right away.

In addition, PEP may be prescribed for a health care worker following a possible exposure to HIV at work, for example, from a needlestick injury. A health care worker who has a possible exposure to HIV should seek medical attention immediately.

When should PEP be started?

PEP must be started within 72 hours (3 days) after a possible exposure to HIV. The sooner PEP is started after a possible HIV exposure, the better. According to research, PEP will most likely not prevent HIV infection if it is started more than 72 hours after a person is exposed to HIV.

If you are prescribed PEP, you will need to take the HIV medicines every day for 28 days.

What HIV medicines are used for PEP?

The Centers for Disease Control and Prevention (CDC) provides guidelines on recommended HIV medicines for PEP. The CDC guidelines include recommendations for specific groups of people, including adults and adolescents, children, pregnant women, and people with kidney problems. The most recent PEP recommendations can be found on CDC's [PEP resources webpage](#).

Your health care provider or emergency room doctor will work with you to determine which medicines to take for PEP.

How well does PEP work?

PEP is effective in preventing HIV infection when it's taken correctly, but it's not 100% effective. The sooner PEP is started after a possible HIV exposure, the better. While taking PEP, it's important to keep using other HIV prevention methods, such as using condoms with sex partners and using only new, sterile needles when injecting drugs.

Does PEP cause side effects?

The HIV medicines used for PEP may cause side effects in some people. The side effects can be treated and aren't life-threatening. If you are taking PEP, talk to your health care provider if you have any side effect that bothers you or that does not go away.

Provided in collaboration with NIH's Office of Aids Research.

Profilaxis posexposición (PEP)

 hivinfo.nih.gov/index.php/es/understanding-hiv/fact-sheets/profilaxis-posexposicion-pep

Prevención del VIH

Última revisión: October 6, 2020

Puntos importantes

- La profilaxis posexposición (PEP) significa tomar medicamentos contra el VIH dentro de las 72 horas posteriores a una posible exposición al VIH para prevenir la infección por VIH.
- La PEP debe usarse solo en situaciones de emergencia. No se destina como uso regular por las personas que pueden estar expuestas al VIH con frecuencia.
- La PEP debe iniciarse dentro de las primeras 72 horas (los primeros 3 días) después de una posible exposición al VIH. Cuanto antes se inicie la PEP después de una posible exposición al VIH, mejor.
- Si se le receta PEP, usted tomará medicamentos contra el VIH a diario durante 28 días.

¿Qué es la PEP?

Las siglas PEP significan “profilaxis posexposición”. La palabra “profilaxis” significa prevención o control de la propagación de una infección o una enfermedad. PEP significa tomar medicamentos contra el VIH dentro de las 72 horas después de una posible exposición al VIH para prevenir la infección por este virus.

La PEP debe emplearse solamente en situaciones de emergencia. No es para uso regular por personas que pueden estar expuestas al VIH con frecuencia. No tiene por objetivo reemplazar el uso regular de otros métodos de prevención de la infección por el VIH, como el uso continuo de condones durante las relaciones sexuales o la profilaxis preexposición (PrEP). La PrEP significa que las personas en riesgo de contraer el VIH toman diariamente un medicamento específico contra el VIH para evitar contraer el virus. Para más información, consulte las hojas informativas de ClinicalInfo tituladas [Conceptos básicos sobre la prevención de la infección por el VIH](#) y [Profilaxis preexposición \(PrEP\)](#).

¿Quién debe considerar la posibilidad de recibir la PEP?

La PEP se podría recetar a personas que son VIH negativas o que desconocen su estado del VIH, y en las últimas 72 horas:

- Podrían haber estado expuestas al VIH durante las relaciones sexuales
- Compartieron agujas u otros dispositivos para inyectarse drogas
- Fueron agredidas sexualmente

Si cree que estuvo expuesto recientemente al VIH, hable de inmediato con su proveedor de atención médica o con un médico de la sala de emergencias acerca de la PEP.

Además, la PEP puede recetársele a un trabajador de salud después de una posible exposición ocupacional, por ejemplo, después de sufrir una lesión causada por un pinchazo con una aguja. Un trabajador de la salud que tenga una posible exposición al VIH debe buscar atención médica de inmediato.

¿Cuándo se debe empezar la PEP?

La PEP debe iniciarse dentro de las primeras 72 horas (los primeros 3 días) después de una posible exposición al VIH. Cuanto más pronto comience a tomarla después de una posible exposición al VIH, mejor será. Según las investigaciones, es muy probable que la PEP no prevenga la infección por el VIH si comienza a administrarse después de que hayan transcurrido más de 72 horas desde el momento de la exposición de una persona al virus.

Si le recetan PEP, deberá tomar los medicamentos contra el VIH todos los días durante 28 días.

¿Qué medicamentos contra el VIH se usan para la PEP?

Los Centros para el Control y la Prevención de Enfermedades (Centers for Disease Control and Prevention, CDC) proporcionan guías clínicas sobre los medicamentos contra el VIH recomendados para la PEP. Las guías clínicas de los CDC incluyen recomendaciones sobre la PEP para grupos específicos, tales como adultos y adolescentes, niños, mujeres embarazadas y personas con afecciones de los riñones. Las recomendaciones más recientes se pueden encontrar en la página web de los [Recursos sobre la PEP](#) de los CDC (disponible solamente en inglés).

Su proveedor de atención de salud o el médico de la sala de emergencia conversarán con usted para determinar qué medicamentos debe tomar para la PEP.

¿Qué tan bien obra la PEP?

La PEP es eficaz para prevenir la infección por el VIH cuando se toma correctamente, pero no tiene una eficacia de 100%. Cuanto más pronto comience a tomarla después de una posible exposición al VIH, mejor será. Mientras tome la PEP, es importante seguir usando

otros métodos de prevención del VIH, como usar condones con parejas sexuales y usar solo agujas nuevas y estériles al inyectarse drogas.

¿La PEP causa efectos secundarios?

Los medicamentos contra el VIH que se usan en la profilaxis posexposición pueden causar efectos secundarios en algunas personas. Estos últimos pueden tratarse y no son potencialmente mortales. Si recibe PEP, hable con su proveedor de atención de salud si tiene algún efecto secundario molesto o que no desaparezca.

La hoja informativa precedente se basa en la correspondiente [en inglés](#).

Proporcionado en colaboración con la Oficina de Investigación del SIDA de los NIH

PEP 101

If you may have been exposed to HIV* in the last 72 hours, talk to your health care provider, an emergency room doctor, or an urgent care provider about PEP right away. PEP can reduce your chance of getting HIV after a possible exposure.

WHAT IS PEP?

- PEP, or post-exposure prophylaxis, means taking medicine to prevent getting HIV after a possible exposure.
- **PEP must be started within 72 hours (3 days) after you may have been exposed to HIV.** But the sooner you start PEP, the better. Every hour counts!
- If your health care provider prescribes PEP, you'll need to take it daily for 28 days.
- PEP is effective in preventing HIV, but not 100%. Always use condoms with sex partners and use safe injection practices.



IS PEP RIGHT FOR YOU?

If you're HIV-negative or don't know your HIV status, and in the last 72 hours you:



- May have been exposed to HIV during sex (for example, if the condom broke),
- Shared needles, syringes, or other equipment to inject drugs, or
- Were sexually assaulted,



Talk to your health care provider, an emergency room doctor, or an urgent care provider about PEP right away.

CAN I TAKE A ROUND OF PEP EVERY TIME I HAVE SEX WITHOUT A CONDOM?



- No. PEP should be used only in emergency situations.
- If you're at ongoing risk for HIV, ask your health care provider about medicine to prevent HIV, called pre-exposure prophylaxis (PrEP).

* People are exposed to HIV by coming into contact with certain body fluids of a person with HIV, including blood, semen, and vaginal fluids. This usually happens through vaginal or anal sex or by sharing needles.



INFORMACIÓN BÁSICA SOBRE LA PEP

Si es posible que haya estado expuesto al VIH* en las últimas 72 horas, hable inmediatamente con su proveedor de atención médica, un médico de la sala de emergencias o un proveedor de atención médica urgente acerca de la profilaxis posexposición (PEP).

¿QUÉ ES LA PEP?

- PEP, o profilaxis posexposición, significa tomar medicamentos después de una posible exposición al VIH para prevenir infectarse.
- **La PEP se debe comenzar dentro de las 72 horas (3 días) después de la posible exposición al VIH.** Pero, cuanto antes comience la PEP, mejor. ¡Cada hora cuenta!
- Si su proveedor de atención médica le receta la PEP, deberá tomar estos medicamentos a diario por 28 días.
- La PEP es eficaz para la prevención del VIH, pero no en un 100 %. Siempre use condones con sus parejas sexuales y practique hábitos de inyección seguros.



¿ES LA PEP ADECUADA PARA USTED?

Si usted es VIH negativo o si no sabe si tiene el VIH, y en las últimas 72 horas



- estuvo posiblemente expuesto al VIH a través de una relación sexual (por ejemplo, si se rompió el condón),
- compartió con otras personas las agujas, jeringas, u otros equipos para inyectarse drogas, o
- ha sido víctima de una agresión sexual,



Hable inmediatamente con su proveedor de atención médica, un médico de la sala de emergencias o un proveedor de atención médica de urgencia acerca de la PEP.

¿PUEDO TOMAR UNA TANDA DE PEP CADA VEZ QUE TENGA RELACIONES SEXUALES SIN USAR CONDÓN?



- No. Los medicamentos de la PEP se deben tomar solamente en situaciones de emergencia.
- Si está en riesgo continuo de contraer el VIH, pregúntele a su proveedor de atención médica acerca de la profilaxis preposición (PrEP), que son medicamentos para prevenir infectarse.



*Las personas se exponen al VIH cuando tienen contacto con determinados líquidos corporales de una persona que tenga el VIH; estos líquidos incluyen la sangre, el semen y el flujo vaginal. Esto generalmente ocurre a través del sexo vaginal o anal, o al compartir agujas.

PrEP vs. PEP

PrEP and PEP are methods for preventing HIV that involve taking HIV medicines. When you take steps to protect yourself against a disease, like HIV, it's called prophylaxis.

PrEP and PEP are for people who don't have HIV, but are at risk of getting it.

PrEP stands for pre-exposure prophylaxis.

What's it called?

PEP stands for post-exposure prophylaxis.

Before HIV exposure.

PrEP is taken every day, before possible exposure.

When is it taken?

After HIV exposure.

In emergency situations, PEP is taken within 72 hours (3 days) after possible exposure.

PrEP is for people who don't have HIV and:

- are at risk of getting HIV from sex
- are at risk of getting HIV from injection drug use

Who's it for?

PEP is for people who don't have HIV but may have been exposed:

- during sex
- by sharing injection drug equipment
- during a sexual assault
- at work through a needlestick or other injury

Consistent use of **PrEP** can reduce the risk of getting HIV from sex by about 99% and from injection drug use by at least 74%.

How effective is it?

PEP can prevent HIV when taken correctly, but it is not always effective.

Start PEP as soon as possible to give it the best chance of working.

Ask your health care provider about a prescription for **PrEP**, or use PrEPLocator.org to find a health care provider in your area who can prescribe PrEP.

How do you get it?

Within 72 hours of a potential exposure to HIV, talk to your health care provider or an emergency room doctor about a prescription for **PEP**.

PrEP frente a PEP

La PrEP y la PEP son métodos para prevenir el VIH que consisten en tomar medicamentos contra ese virus. Cuando usted toma medidas para protegerse contra una enfermedad, como la causada por el VIH, eso se llama profilaxis.

La PrEP y la PEP son para personas que no tienen la infección por el VIH pero que están expuestas al riesgo de contraerla.

PrEP significa profilaxis preexposición.

¿Cómo se llama?

PEP significa profilaxis posexposición.

Antes de la exposición al VIH.

La PrEP se toma todos los días antes de la posible exposición.

¿Cuándo se toma?

Después de la exposición al VIH.

En situaciones de emergencia, la PEP se toma dentro de las 72 horas (los 3 días) siguientes a la posible exposición.

La **PrEP** es para personas que no tienen el VIH y que:

- corren el riesgo de contraerlo por medio de las relaciones sexuales.
- corren el riesgo de contraerlo por el uso de drogas inyectables.

¿Para quién es?

La **PEP** es para las personas que no tienen el VIH pero que pueden haber estado expuestas:

- Durante las relaciones sexuales.
- Por compartir equipo de inyección de drogas.
- Durante una agresión sexual.
- En el trabajo por medio del pinchazo de una aguja o de otra lesión.

El uso constante de la **PrEP** puede reducir el riesgo de contraer el VIH por medio de las relaciones sexuales en proporción aproximada del 99% y del uso de drogas inyectables al menos un 74%.

¿Qué tan eficaz es?

La **PEP** puede prevenir el VIH cuando se toma correctamente, pero no siempre es eficaz.

Comience la PEP lo más pronto posible para darle la mayor posibilidad de surtir efecto.

Pídale a su proveedor de atención de salud una receta para la **PrEP** o busque en PrEPLocator.org uno en su localidad que pueda recetársela.

¿Cómo se obtiene?

Dentro de las 72 horas siguientes a la posible exposición, hable con su proveedor de atención de salud o el médico de la sala de emergencia sobre la **PEP**.

PRESCRIBE PEP

POST-EXPOSURE PROPHYLAXIS

FAQs



FOR THE HEALTH CARE PROFESSIONAL

1. What is PEP?

Post-exposure prophylaxis (PEP) is the use of antiretroviral medication to prevent HIV infection in an HIV-negative person who has had a specific high-risk exposure to HIV. Such an exposure typically occurs through sex or sharing syringes (or other injection equipment) with someone who has or might have HIV. **Nonoccupational post-exposure prophylaxis (nPEP) can be used to clarify exposure type.**

Exposure to HIV is a medical emergency, because HIV establishes infection very quickly, often within 24 to 36 hours after exposure^{1,2,3}. Health care providers should evaluate persons rapidly for PEP when care is sought ≤72 hours after a potential exposure. HIV status should be determined in persons being considered for PEP using rapid combined antigen/antibody (Ag/Ab) or antibody blood tests.

If rapid HIV blood test results are unavailable, and PEP is indicated, administration of the first dose of PEP should be started without delay. PEP can be discontinued later if the person is later determined to already have HIV infection, or if the source of the exposure is determined not to have HIV infection.⁴

PEP is not recommended when care is sought >72 hours after exposure.

2. What are the guidelines for prescribing PEP?

National Guidelines from the Centers for Disease Control (CDC) published in 2005 were updated in April of 2016⁴. The update incorporates additional evidence about the use of PEP from animal studies and human observational studies, as well as consideration of new antiretroviral agents introduced after the publications of the last guidelines. One key change from the 2005 recommendations is a new, more effective preferred drug regimen that has fewer side effects.

The new PEP recommendations also include considerations and resources for specific groups, such as pregnant women, victims of sexual assault (including children), and patients without health insurance, as well as a suggested procedure for transitioning patients between PEP and HIV pre-exposure prophylaxis (PrEP) as appropriate.⁴

Find the updated guidelines on www.cdc.gov/hiv/guidelines/index.html

3. Which types of exposure warrant PEP?

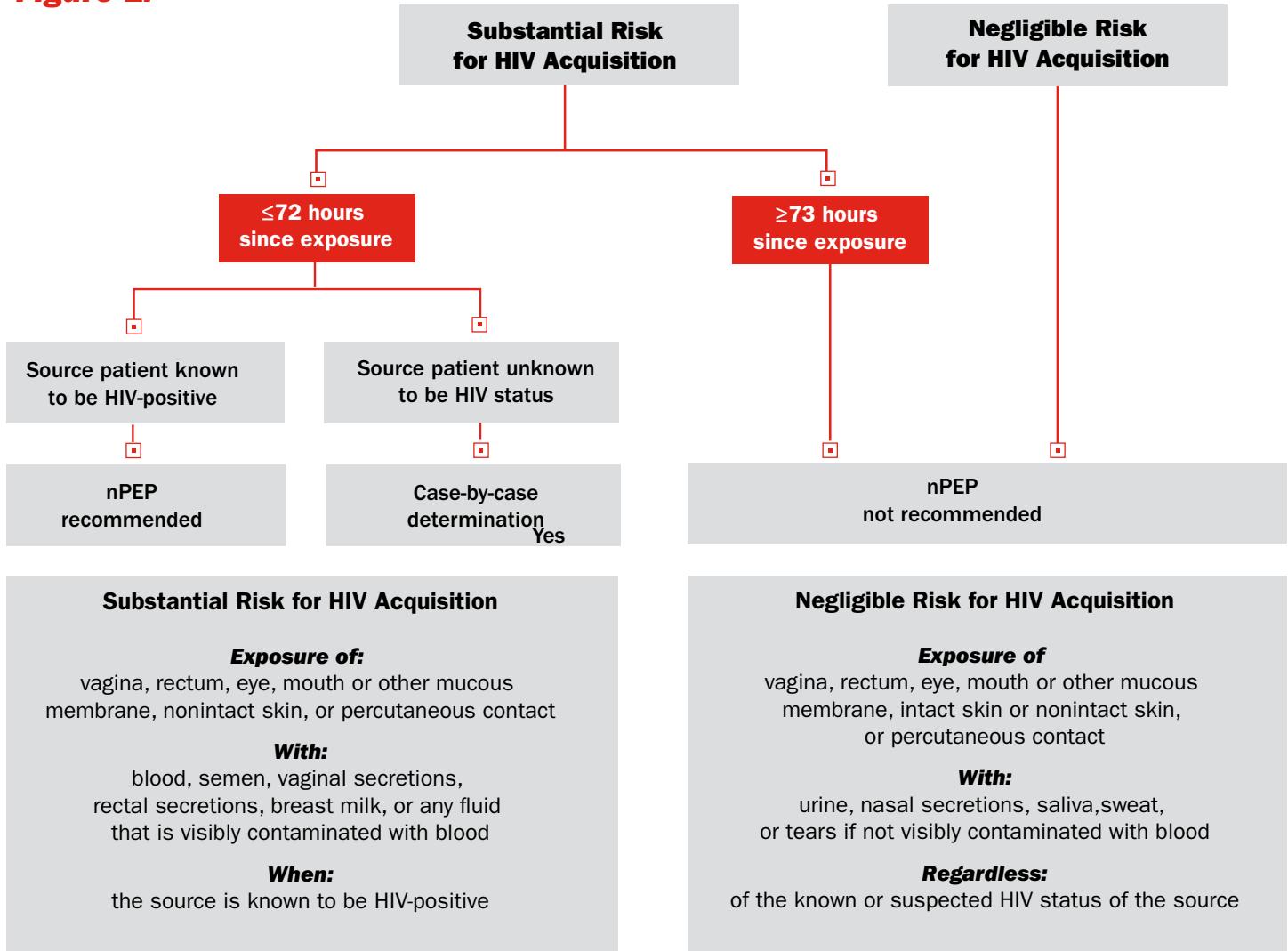
PEP initiation should be considered in people whose vagina, rectum, eye, mouth or other mucous membrane, non-intact skin, or perforated skin (eg, needle stick) come into contact with potentially contaminated body fluids from an HIV-infected source, as long as exposure has occurred within a 72-hour window. If the source is of unknown HIV status, a case-by-case determination can be made.⁴

PEP is not recommended for use in people whose exposure occurred 73 hours or more before they sought treatment, or in people who are considered to have a negligible risk for HIV exposure because of exposure to non-blood contaminated secretions such as urine, saliva, sweat, tears, or nasal secretions.⁴

Additionally, people who are already adhering to a daily PrEP regimen under the care of their health care practitioner are not in need of PEP if they experience a potential HIV exposure while they are on PrEP.⁴

Algorithm for evaluation and treatment of possible nonoccupational HIV exposures

Figure 1.



4. Who can prescribe PEP?

Any licensed prescriber can prescribe PEP. Emergency medicine physicians are among the most frequent prescribers of PEP, given the need for immediate treatment after exposure. Clinicians working in ambulatory care practices can also ensure that their non-HIV-infected patients who report risk behavior are aware of PEP and know how to access it after-hours.

When health care providers are inexperienced with prescribing or managing patients on antiretroviral medication, or when information from persons who were the exposure source indicates the possibility of

antiretroviral resistance, consultation with an infectious disease or other HIV-care specialist is warranted before prescribing PEP to determine the correct regimen—***but only if these specialists are immediately available.***

Similarly, consulting with specialists who have experience using antiretroviral drugs is advisable when considering prescribing PEP for certain people, e.g., pregnant women, children, or persons with renal dysfunction. However, ***if such consultation is not available, PEP should be initiated promptly, and if necessary, revised after consultation is obtained.***

If questions arise or if prescribing assistance is needed, expert consultation can be obtained by calling the PEPline at the National Clinicians Consultation at 1-888-448-4911. Additional information is available at <http://nccc.ucsf.edu/clinician-consultation/pep-post-exposure-prophylaxis/>.

5. What is the recommended PEP regimen?

All persons offered PEP should be prescribed a 28-day course of a 3-drug antiretroviral regimen.* Since adherence is critical for PEP efficacy, it is preferable to select regimens that minimize side effects, number of doses per day and the number of pills per dose.⁴

■ The preferred PEP regimen for otherwise healthy adults and adolescents is:

tenofovir disoproxil fumarate (tenofovir DF or TDF)(300 mg) + emtricitabine (FTC)(200 mg) once daily
PLUS

raltegravir (RAL)(400 mg) twice daily or dolutegravir (DTG)(50 mg) once daily

(TDF 300 mg + FTC 200mg is available as a fixed-dose combination called Truvada® from Gilead Sciences.)

■ An alternative regimen for otherwise healthy adults and adolescents is:

tenofovir DF (300 mg) + FTC (200 mg) once daily
PLUS
darunavir (DRV) (800 mg) and ritonavir* (RTV) (100 mg) once daily

Alternative regimens may be used in cases of potential HIV resistance, toxicity risks, clinician preference or constraints on the availability of particular agents. In those cases, health care providers are encouraged to seek consultation with other providers knowledgeable in using antiretroviral medications for similar patients (e.g., children, pregnant women, and those with comorbid conditions.)

Providers should be aware that abacavir sulfate (Ziagen, ViiV Healthcare) should not be prescribed in any PEP regimen, as the prompt initiation of PEP does not allow for genetic testing for the HLA-B*5701 allele, which is associated with a hypersensitivity syndrome that can be fatal.⁴

*Ritonavir, which is used with some drug combinations as a pharmacokinetic enhancer to increase the trough concentration and prolong the half-life of darunavir and other protease inhibitors, is not considered to be part of the drug combination.

6. What is the evidence base for PEP?

PEP was first attempted for HIV prevention in the 1980s among health care workers who experienced occupational exposures (now called “oPEP”). At that time, only AZT (zidovudine) was available.

Anecdotal evidence of success began to accumulate, leading to the first formal study of PEP effectiveness, a case-control study of occupational exposures. This study demonstrated an 81% reduction in HIV infection in those who received AZT alone compared with those who did not receive any treatment⁵. PEP was only proposed for non-occupational exposures (“nPEP”) more recently.

The additional evidence supporting PEP includes:

- Its biologic plausibility (based on animal studies)¹⁻²;
- The efficacy of antiretrovirals post-partum in reduction of mother-to-child transmission³;
- Observational studies (such as data from existing PEP programs)^{4,6}.

In an updated series of studies of PEP initiation in men having sex with men, seroconversion was low, and seemed mostly to be related to continued risky behavior after completing PEP or non-adherence to the regimen.⁴ Studies of children and adolescents evaluated after sexual assault reported that among 672 children or adolescents offered PEP, 472 were known to have initiated the regimen, and 126 were reported to have completed a 28-day PEP course. No new HIV infections were documented among these patients who initiated PEP.⁴ In 15 studies conducted in mixed populations, 2,209 participants completed 28 days of PEP, of whom about 19 individuals seroconverted. However, only 1 seroconversion was attributed to PEP failure. The other 18 seroconversions were attributed, variously, to continued risky behavior after the end of PEP, non-adherence to PEP, and starting PEP after the 72-hour window.⁴

7. Is PEP safe?

The current preferred regimen is generally safe and well tolerated^{7,8}. Patients usually experience only mild side effects on the preferred PEP regimen. Most importantly, PEP is only taken for 28 days. In almost all cases, the benefits of HIV prevention outweigh any other risks posed by the medication. In a meta-analysis of 24 PEP-related studies, including 23 cohort studies and 1 randomized clinical trial, nausea, vomiting, diarrhea and fatigue were the most commonly reported side effects.⁹

8. Who is not eligible for PEP?

- PEP is only indicated for potentially exposed people without HIV infection.
- PEP is unlikely to be effective in people who have been exposed more than 72 hours before seeking medical assistance.
- PEP should be provided only for infrequent exposures. People who engage in behaviors that result in frequent, recurrent exposures to HIV should be considered for intensive sexual or injection risk-reduction interventions and pre-exposure prophylaxis (PrEP) with daily oral doses of combination TDF+FTC (Truvada®). However if the most recent recurring exposure is within the 72-hour window prior to an evaluation, PEP may be indicated with transition of the patient to PrEP after completion of 28 days of PEP medication.⁴

However, there are few absolute contraindications to the recommended PEP regimen. All medications in this regimen have minimal drug-drug interactions. In almost all cases, the first dose of a PEP regimen should be given and then further consultation obtained.

If questions arise or if prescribing assistance is needed, expert consultation can be obtained by calling the PEPline at the National Clinician Consultation Center at 1-888-448-4911. Additional information is available at <http://nccc.ucsf.edu/clinician-consultation/pep-post-exposure-prophylaxis/>.

Because pregnancy has been demonstrated to increase susceptibility to sexual HIV acquisition, PEP can be especially important for women who are pregnant. If the person exposed to HIV is pregnant, expert consultation should be sought. In general, however, PEP is indicated at any time during pregnancy when a significant exposure has occurred, despite a possible risk to the woman and the fetus. The recommended PEP regimen remains the same.

In people with compromised renal function (creatinine clearance <50mL/min), the dose of TDF-FTC must be adjusted.

9. What baseline assessment is required for individuals beginning PEP?

Guidelines recommend the following baseline screening before initiating PEP⁴:

- HIV rapid test at baseline
If baseline rapid test indicates existing HIV infection, PEP should not be started. However, if rapid HIV baseline testing is not available, there should be no delay in starting PEP. Oral HIV tests are not recommended for use among persons being evaluated for PEP.
- Pregnancy test
If a woman is of reproductive age, not using highly effective contraception, eg IUDs or other long-acting reversible contraceptives (LARCs), oral contraceptives, or properly used condoms, and with vaginal exposure to semen.
- Serum Liver Enzyme Testing
- Blood Urea Nitrogen (BUN)/Creatinine Test
- STI screening
Persons being evaluated for PEP because of a sexual encounter should have STI-specific nucleic acid amplification testing (NAAT) for chlamydia and gonorrhea at each site of potential exposure, and a blood test for syphilis.
- Hepatitis B (HBV) testing, including hepatitis B surface antigen, surface antibody, and core antibody
- Hepatitis C (HCV) antibody

[Note: The first dose of PEP should always be expedited; testing can wait until after PEP has been initiated.]

10. What additional support is required for patients on PEP?

Providers should maintain contact with their patients on PEP, either by telephone or in a clinic visit for the entire duration of PEP. This is both to support adherence and to facilitate follow-up HIV testing at 30 and 90 days to determine if HIV infection has occurred. Additionally, people whose sexual or injection-related exposures result in concurrent acquisition of HCV and HIV infection might have delayed HIV seroconversion. See Table 1 for the recommended schedule of laboratory evaluations for exposed persons.

Patients should be counseled to take measures that reduce the risk of transmission during the 12-week follow-up period, such as using condoms consistently, avoiding pregnancy/breastfeeding, avoiding needle-sharing and refraining from donating blood, plasma, organs, tissue or sperm.

Recommended schedule of laboratory evaluations of source and exposed persons for providing nPEP with preferred regimens

Table 2.

EXPOSED PERSONS

Test	Source	Baseline	4–6 weeks after exposure	3 months after exposure	6 months after exposure
	Baseline		For all persons considered for or prescribed nPEP for any exposure		
HIV Ag/Ab testing^a (or antibody testing if Ag/Ab test unavailable)	✓	✓	✓	✓	✓ ^b
Hepatitis B serology, including: hepatitis B surface antigen hepatitis B surface antibody hepatitis B core antibody	✓	✓	—	—	✓ ^c
Hepatitis C antibody test	✓	✓	—	—	✓ ^d
For all persons considered for or prescribed nPEP for sexual exposure					
Syphilis serology^e	✓	✓	✓	—	✓
Gonorrhea^f	✓	✓	✓ ^g	—	—
Chlamydia^f	✓	✓	✓ ^g	—	—
Pregnancy^h	—	✓	✓	—	—
For persons prescribed: tenofovir DF + emtricitabine + raltegravir or tenofovir DF + emtricitabine + dolutegravir					
Serum creatinine (for calculating estimated creatinine clearance ⁱ)		✓	✓	—	—
Alanine transaminase, aspartate aminotransferase		✓	✓	—	—
For all persons with HIV infection confirmed at any visit					
HIV viral load	✓		✓ ^j	—	—
HIV genotypic resistance	✓		✓ ^j	—	—

Abbreviations: Ag/Ab, antigen/antibody combination test; HIV, human immunodeficiency virus; nPEP, nonoccupational post exposure prophylaxis; tenofovir DF, tenofovir disoproxil fumarate.

a Any positive or indeterminate HIV antibody test should undergo confirmatory testing of HIV infection status.

b Only if hepatitis C infection was acquired during the original exposure; delayed HIV seroconversion has been seen in persons who simultaneously acquire HIV and hepatitis C infection.

c If exposed person susceptible to hepatitis B at baseline.

d If exposed person susceptible to hepatitis C at baseline.

e If determined to be infected with syphilis and treated, should undergo serologic syphilis testing 6 months after treatment.

f Testing for chlamydia and gonorrhea should be performed using nucleic acid amplification tests. For patients diagnosed with a chlamydia or gonorrhea infection, retesting 3 months after treatment is recommended.

- For men reporting insertive vaginal, anal, or oral sex, a urine specimen should be tested for chlamydia and gonorrhea.
 - For women reporting receptive vaginal sex, a vaginal (preferred) or endocervical swab or urine specimen should be tested for chlamydia and gonorrhea.
 - For men and women reporting receptive anal sex, a rectal swab specimen should be tested for chlamydia and gonorrhea.
 - For men and women reporting receptive oral sex, an oropharyngeal swab should be tested for gonorrhea.
- (<http://www.cdc.gov/std/tg2015-print.pdf>)

g If not provided presumptive treatment at baseline, or if symptomatic at follow-up visit.

h If woman of reproductive age, not using effective contraception, and with vaginal exposure to semen.

i eCrCl = estimated creatinine clearance calculated by the Cockcroft-Gault formula; eCrClCG = [(140 – age) x ideal body weight] ÷ (serum creatinine x 72) (x 0.85 for females).

j At first visit where determined to have HIV infection.

11. Will PEP be covered by my patients' health insurance?

In many states, PEP is covered by insurance, including Medicaid. If the patient is not covered under insurance, there are assistance programs run by various manufacturers.

Gilead, the manufacturer of Truvada®(a fixed dose combination of tenofovir 300 mg + emtricitabine 200 mg) and of Stribild®(a fixed dose combination of tenofovir 300 mg + emtricitabine 200 mg + cobicistat 150 mg + elvitegravir 150 mg), has established several programs to help cover the cost of PEP. Merck, the manufacturer of Isentress®(raltegravir), also has a program.

Providers can assist their patients by:

- Applying for assistance with the medication co-pay if the patient is insured; or
- Applying for complete coverage of the medication if the patient does not have insurance or needs financial assistance. The paperwork must be signed and submitted by a licensed clinical provider.
- Application forms for Gilead's patient assistance programs can be found at
<http://www.truvada.com/truvada-patient-assistance> ↗
- Application form for Merck's patient assistance program can be found at
<http://www.merckhelps.com> ↗
- In addition, the Partnership for Prescription Assistance can also help qualified patients get the prescriptions they need at a very low cost. For more information visit
<https://www.pparx.org> ↗

REFERENCES

1. Tsai CC, Follis KE, Sabo A, et al. Prevention of SIV infection in macaques by (R)-9-(2-phosphonylmethoxypropyl) adenine. *Science* 1995 Nov 17;270(5239):1197-9.
2. Otten RA, Smith DK, Adams DR, et al. Efficacy of postexposure prophylaxis after intravaginal exposure of pig-tailed macaques to a human-derived retrovirus (human immunodeficiency virus type 2). *J Virol* 2000 Oct;74(20):9771-5.
3. Wade NA, Birkhead GS, Warren BL, et al. Abbreviated regimens of zidovudine prophylaxis and perinatal transmission of the human immunodeficiency virus. *The New England journal of medicine* 1998 Nov 12;339(20):1409-14.
4. Centers for Disease Control and Prevention (CDC). Updated guidelines for antiretroviral postexposure prophylaxis after sexual, injection-drug use, or other nonoccupational exposure to HIV — United States, 2016. April 18:1-91.
5. Cardo DM, Culver DH, Ciesielski CA, et al. A case-control study of HIV seroconversion in health care workers after percutaneous exposure. Centers for Disease Control and Prevention Needlestick Surveillance Group. *The New England journal of medicine* 1997 Nov 20;337(21):1485-90.
6. Schechter M, do Lago RF, Mendelsohn AB, et al. Praca Onze Study Team. Behavioral impact, acceptability, and HIV incidence among homosexual men with access to post-exposure chemoprophylaxis for HIV. *J Acquir Immun Defic Syndr*. 2004 Apr 15;35(15):519-25.
7. Mayer KH, Mimiaga MJ, Gelman M, Grasso C. Raltegravir, tenofovir DF, and emtricitabine for postexposure prophylaxis to prevent the sexual transmission of HIV: safety, tolerability, and adherence. *J Acquir Immune Defic Syndr* 2012 Apr 1;59(4):354-9.
8. McAllister J, Read P, McNulty A, Tong WW, Ingersoll A, Carr A. Raltegravir-emtricitabine-tenofovir as HIV non-occupatioal post-exposure prophylaxis in men who have sex with men: safety, tolerability and adherence. *HIV medicine* 2014 Jan;15(1):13-22.
9. Chacko L, Ford N, Sbaiti M, Siddiqui R. Adherence to HIV post-exposure prophylaxis in victims of sexual assault: a systematic review and meta-analysis. *Sex Transm Infect*. 2012;88(5):335-341.

For more information go to:

www.cdc.gov/hiv/pdf/programresources/cdc-hiv-nPEP-guidelines.pdf.

