

Reproductive Options When One or Both Partners Have HIV

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Panel's Recommendations
<p>For People Who Want to Conceive When One or Both Partners Have HIV</p> <ul style="list-style-type: none">• Expert consultation is recommended to tailor guidance to an individual's specific needs (AIII).• People with HIV should achieve sustained viral suppression (e.g., two recorded measurements of plasma viral loads that are below the limits of detection at least 3 months apart) before attempting conception to maximize their health, prevent HIV sexual transmission (AI), and—for pregnant people with HIV—minimize the risk of HIV transmission to their infants (AI).• Both persons should be screened and treated for genital tract infections before attempting to conceive (AII).• When people have different HIV status, sexual intercourse without a condom allows conception without sexual HIV transmission to the person without HIV if the person with HIV is on antiretroviral therapy (ART) and has achieved sustained viral suppression (BII).• Administration of antiretroviral pre-exposure prophylaxis (PrEP) to the partner without HIV reduces the risk of sexual acquisition of HIV (AI) (see PrEP to Prevent HIV During Periconception, Antepartum, and Postpartum Periods):<ul style="list-style-type: none">○ When partners with different HIV statuses attempt conception, the partner without HIV can choose to take PrEP even if the partner with HIV has achieved viral suppression (CIII).○ PrEP for the person without HIV is an option that reduces the risk of sexual acquisition of HIV when the partner with HIV has not achieved sustained viral suppression, their HIV viral suppression status is unknown, and/or concerns are present that the person with HIV might be inconsistently adherent to ART during the periconception period. In these situations, additional guidance for safer conception may be required if the person without HIV declines PrEP.
<p>Rating of Recommendations: A = Strong; B = Moderate; C = Optional</p> <p>Rating of Evidence: I = One or more randomized trials with clinical outcomes and/or validated laboratory endpoints; II = One or more well-designed, nonrandomized trials or observational cohort studies with long-term clinical outcomes; III = Expert opinion</p>

The objective of this section is to provide guidance for safer conception and pregnancy while maximizing efforts to prevent HIV transmission to partners and infants. The section focuses on HIV prevention in the context of penile-vaginal intercourse to achieve pregnancy. The Panel on the Treatment of HIV During Pregnancy and Prevention of Perinatal Transmission (the Panel) also appreciates the diversity of parenting desires within lesbian, gay, bisexual, transgender, queer, intersex, asexual, and gender nonconforming communities, as well as the importance of promoting family building while minimizing HIV transmission opportunities for people with HIV. Some of the strategies for achieving pregnancy without penile-vaginal intercourse include gamete donation or surrogacy. When gamete donation and surrogacy occur through health care channels, HIV testing and viral load monitoring should be included within protocols.¹ When conducted informally, the same tenets for prevention outlined below should apply.² Clinicians also must consider that people of all gender identities may seek options to build families, including adoption, and should be supported to do so.³

For people who want to conceive when one or both partners have HIV, expert consultation is recommended so that approaches for safer conception can be tailored to their specific needs.

According to the Centers for Disease Control and Prevention (CDC), people with HIV who take antiretroviral therapy (ART) as prescribed and who maintain an undetectable viral load will not transmit HIV through sex.⁴ When one or both partners have HIV, they should be counseled that once people with HIV initiate ART and maintain HIV viral suppression, condomless sex to achieve conception is associated with no risk of HIV sexual transmission.⁵⁻⁸ HIV viral suppression can be demonstrated with two recorded measurements of plasma viral loads that are below the limits of detection and that were taken at least 3 months apart.

Before attempting to conceive, both partners should be screened for genital tract infections. With ART and sustained undetectable plasma viral load and/or pre-exposure prophylaxis (PrEP), sexually transmitted infections (STIs) do not increase the risk of HIV transmission. STI screening and treatment is important for the health of both partners and prevention of pregnancy complications.⁹⁻¹¹

If conception does not occur within 12 months, providers should pursue a [workup for infertility, including a semen analysis](#).¹² HIV, and possibly the use of antiretroviral (ARV) drugs, can be associated with a greater prevalence of semen abnormalities, such as low sperm count, low motility, a higher rate of abnormal forms, and low semen volume. In some cases, earlier evaluation may be indicated because of concerns about higher rates of infertility among people with HIV.^{13,14}

Coordination of care across multiple disciplines—including HIV primary care, obstetrics and gynecology (specifically, reproductive endocrinology and infertility), case management, and peer and social support—is advised.

People With Differing HIV Status

Before attempting conception, people with HIV should be on ART and should have achieved sustained viral suppression. The implications of initiating therapy before conception, the selection of ART for the person trying to conceive, and the need for adherence to achieve durable plasma viral loads below the limits of detection should be discussed with both partners. Consultation with an expert in HIV care **is strongly recommended**.

In two large studies that included heterosexual couples with differing HIV statuses (HPTN 052 [HIV Prevention Trials Network trial 052] and PARTNER [Partners of People on ART-A New Evaluation of the Risks] study), no genetically linked HIV transmissions occurred while the partner with HIV was virally suppressed. HPTN 052 was a randomized clinical trial designed to evaluate whether immediately initiating ART in people with CD4 T lymphocyte (CD4) cell counts of 350 to 550 cells/mm³ could prevent sexual transmission of HIV between couples with differing HIV statuses more effectively than delaying ART. Most participants were from Africa (54%), with 30% from Asia and 16% from North and South America. This study showed that initiating ART earlier led to a 93% reduction in the rate of sexual transmission of HIV to the partner. During the study, 877 participants with HIV delayed initiation of ART until their CD4 counts fell below 250 cells/mm³, and 886 participants with HIV began ART immediately. Forty-six cases of HIV infection were genetically linked to the partner with HIV during the study; 43 of these cases occurred in couples where one partner delayed initiation of ART, and three cases occurred in couples where one partner began immediate ART. No linked infections occurred between partners when the partner with HIV had a viral load that was suppressed stably by ART. Thus, this randomized trial clearly demonstrated that providing treatment to people with HIV can reduce the risk of HIV transmission to their sexual partners.¹⁵ In addition, the PARTNER study—which studied 1,166 couples of differing HIV statuses (mainly heterosexual couples and men who have sex with men) in which the partner

with HIV was on suppressive ART with a plasma viral load <200 copies/mL and had sex without using a condom—reported no cases of transmission after a median follow up of 1.3 years and approximately 58,000 condomless sex acts.¹⁶

A prospective cohort study evaluated couples with differing HIV statuses who were planning to conceive. Among 161 couples (133 couples included a male partner with HIV) in which the partner with HIV received suppressive ART for at least the previous 6 months and the couple opted for natural conception, a total of 144 natural pregnancies occurred and 107 babies were born. No cases of sexual (to partner) or vertical (to infant) transmission occurred.¹⁷

For partners with differing HIV status in which the partner with HIV is on ART and has achieved sustained viral suppression, sexual intercourse without a condom allows conception without sexual transmission to the partner without HIV. It is not known how frequently viral load testing should be conducted when a patient is relying on ART and viral suppression as a prevention strategy.⁴ Consider monitoring the viral load more frequently in these individuals than the current treatment guidelines recommend.

PrEP and Other Options for Partners With Differing HIV Status and Inconsistent and Unknown Viral Suppression

For people with differing HIV status who attempt conception through sexual intercourse without a condom when the partner with HIV has not been able to achieve viral suppression or when viral suppression status is not known, administering PrEP to the partner without HIV is recommended to reduce the risk of sexual transmission of HIV (see [Pre-Exposure Prophylaxis \(PrEP\) to Prevent HIV During Periconception, Antepartum, and Postpartum Periods](#)). PrEP is the use of ARV medications by a person without HIV to maintain blood and genital drug levels sufficient to prevent acquisition of HIV. Only daily dosing of a combination of tenofovir disoproxil fumarate and emtricitabine (FTC) currently is approved by the Food and Drug Administration for use as PrEP. Tenofovir alafenamide and FTC as a combination drug also has been approved for PrEP in men but not in women.

Adherence is critical.

When a person with HIV wants to conceive and is in a relationship with inseminating person who does not have HIV, assisted insemination during the periovulatory period at home or in a provider's office with semen from the male partner is an option for conception. This eliminates the risk of HIV transmission to the male partner.

When the inseminating person with HIV is in a relationship with a partner without HIV who wants to conceive, the use of sperm from a donor without HIV is an option for conception that eliminates the risk of HIV transmission to the partner without HIV. When the inseminating person with HIV is in a relationship with a partner without HIV who wants to conceive, the use of sperm preparation techniques (e.g., “sperm washing” followed by testing the sample for HIV RNA), coupled with either intrauterine insemination or *in vitro* fertilization with intracytoplasmic sperm injection, is no longer routinely recommended. The appropriate role of semen preparation techniques in the current context is unclear, particularly given their expense and technical requirements. These sperm preparation techniques largely were developed before studies had demonstrated the efficacy of ART and PrEP in decreasing the risk of HIV transmission to sexual partners without HIV. Assisted reproductive technologies might be useful in cases of infertility or for couples who are using donor sperm or a surrogate parent.

Men who have sex with men who have a partner with HIV may consider adoption or surrogacy. Women who have sex with women and have a partner with HIV may consider adoption or donor insemination.

In addition to reducing the risk of HIV transmission between partners, starting ART before people with HIV become pregnant also can further reduce the risk of perinatal transmission.¹⁸ Evidence suggests that early and sustained control of HIV can decrease the risk of perinatal transmission.^{19,20} In addition, reports are mixed on the possible effects of ART on prematurity and low birthweight, with some data suggesting that such outcomes might be more frequent among women who are on ART at conception.²¹⁻²⁵

Monitoring of Pregnant People Without HIV Who Have Partners With HIV

People without HIV who present during pregnancy and indicate that their partners have HIV should be notified that HIV screening is recommended for all people who are pregnant and that they will receive an HIV test as part of the routine panel of prenatal tests unless they decline (this is the opt-out strategy; see [Maternal HIV Testing and Identification of Perinatal HIV Exposure](#)). Pregnant people who test HIV seronegative and have partners with HIV should continue to be counseled regularly regarding consistent condom use and the option for PrEP to decrease their risk of sexual acquisition of HIV if the partner with HIV has not achieved sustained virologic suppression. They also should be counseled on the importance of their partners' adherence to ART and the need to achieve sustained virologic suppression to reduce the risk of sexual transmission of HIV. The pregnant person without HIV may consider PrEP under several conditions as previously discussed (see [PrEP to Prevent HIV During Periconception, Antepartum, and Postpartum Periods](#)). Pregnant people without HIV also should be counseled regarding the symptoms of acute retroviral syndrome (i.e., fever, pharyngitis, rash, myalgia, arthralgia, diarrhea, headache) and the importance of seeking medical care and testing if they experience such symptoms. People with acute HIV infection during pregnancy or lactation are at high risk of transmitting HIV to their infants. When acute HIV infection is suspected in pregnancy, testing should include an HIV RNA polymerase chain reaction assay²⁶⁻²⁸ (see [Early \(Recent and Acute\) HIV Infection](#)). Repeat HIV testing in the third trimester is recommended for pregnant people who initially test HIV negative but who are at increased risk of acquiring HIV (see [Maternal HIV Testing and Identification of Perinatal HIV Exposure](#)). More frequent testing is indicated when a person's partner has HIV; these persons should be tested every trimester.

Monitoring of People Without HIV Who Have Partners With HIV Who Are Trying to Conceive

Men without HIV who are attempting pregnancy with partners who have HIV should continue to be counseled regularly on methods to prevent acquisition of HIV, including suppressive ART for the partner with HIV and PrEP for the one without HIV. The CDC recommends HIV testing every 3 months for the partner who does not have HIV while the partners are attempting to conceive without condoms. The [National Perinatal HIV Hotline](#) (888-448-8765) is a resource for a list of institutions that offer reproductive services when one or both partners have HIV.

Considerations When Both Partners Have HIV

When both partners have HIV, both should be on ART with sustained viral suppression before attempting conception. The risk of HIV superinfection or infection with a resistant virus is negligible when both partners are on ART and have fully suppressed plasma viral loads.²⁹

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