# Reproductive Options When One or Both Partners Have HIV

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| Panel's Recommendations |
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| **When Pregnancy Is Desired and One or Both Partners Have HIV**<br>• When trying to conceive with HIV, viral suppression should be sustained (e.g., two recorded measurements of plasma viral loads that are below the limits of detection and that have been taken at least 3 months apart) before attempting conception to maximize personal health, prevent HIV sexual transmission **(AI),** and minimize the risk of HIV transmission to infants once conception occurs **(AI).**<br>• Both partners should be screened and treated for genital tract infections before attempting to conceive **(AII).** Rescreening for genital tract infections while attempting to conceive may be considered based on individual risk and duration of the preconception period **(AII).**<br>For partners with different HIV status when the person with HIV is on antiretroviral therapy and has achieved sustained viral suppression, sexual intercourse without a condom allows conception without sexual HIV transmission to the person without HIV **(BII).**<br>• Expert consultation is recommended to tailor guidance to the specific needs of the person or people planning for pregnancy when indicated (e.g., infertility) **(AIII).**<br>• Health care providers should discuss pre-exposure prophylaxis (PrEP) with all sexually active people without HIV, including when trying to conceive, to prevent HIV acquisition **(AII);** counseling should include the benefits of PrEP to prevent HIV acquisition and perinatal transmission **(AI)** and potential adverse effects of PrEP during periconception, pregnancy, postpartum, and breastfeeding periods **(AII).** Health care providers should offer PrEP to those who desire PrEP or have specific indications for PrEP **(AII)** (see PrEP to Prevent HIV During Periconception, Antepartum, and Postpartum Periods).<br>o When partners with different HIV status attempt conception, the partner without HIV can choose to take PrEP as an additional method of HIV prevention even if the partner with HIV has achieved viral suppression **(CIII).** |
| ***Rating of Recommendations:*** *A = Strong; B = Moderate; C = Optional*<br>***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* |

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 variety of parenting desires within people whose sexual orientations or self-expression are less common, as well as the importance of promoting family building while minimizing HIV transmission opportunities for people with HIV. Strategies for achieving pregnancy without penile–vaginal intercourse include gamete donation and 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 with all varieties of sexual orientation and self-expression may seek options to build families, including adoption, and should be supported to do so.[3]

When conception is desired and one or both partners have HIV, expert consultation (e.g., with an HIV specialist, maternal/fetal medicine specialist, infertility expert when indicated) is recommended so that approaches for safer conception can be tailored to their specific needs.

People with HIV who take antiretroviral therapy (ART) as prescribed and maintain a viral load below 200 copies/mL will not transmit HIV to their sex partners.[4,5] If one or both partners have HIV, they should be informed that condomless sex to achieve conception is associated with no risk of HIV sexual transmission once people with HIV initiate ART and maintain HIV viral suppression.[6-9] 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. Rescreening for genital tract infections while attempting to conceive may be considered based on individual risk and duration of the preconception period. 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. However, STI screening and treatment is important for the health of both partners and prevention of pregnancy complications.[10-12]

If conception does not occur within 12 months (or a shorter duration of time, if indicated, based on age or other obstetric indications), providers should pursue a workup for infertility, including a semen analysis.[13] 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, high rate of abnormal forms, and low semen volume. In some cases, earlier evaluation may be indicated because of concerns about higher rates of infertility with HIV.[14,15]

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 achieve sustained viral suppression. The implications of initiating therapy before conception, the selection of ART when 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 status (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 virologically suppressed (defined as <400 copies/mL for HPTN 052 and <200 copies/mL for the PARTNER study). HPTN 052 was a randomized clinical trial designed to evaluate whether immediately initiating ART in people with CD4 T lymphocyte cell counts of 350 to 550 cells/mm$^3$ could prevent sexual transmission of HIV between couples with differing HIV statuses more effectively than delaying ART. Most participants were from Africa (54%), 30% were from Asia, and 16% were from North and South America combined. This study showed that initiating ART earlier led to a 93% reduction in the rate of sexual transmission of HIV. No linked infections occurred between partners when the partner with HIV had a viral load that was suppressed 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.[16] 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.[17]

A prospective cohort study evaluated couples with differing HIV status 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.[18]

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 is a method of conception that will not result in 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 or Unknown Viral Suppression

Health care providers should discuss PrEP with all sexually active people without HIV, including when trying to conceive, to prevent HIV acquisition. PrEP is the use of ARV drugs by a person without HIV to maintain blood and genital drug levels sufficient to prevent HIV acquisition. Counseling should include the benefits of PrEP to prevent HIV acquisition and perinatal transmission and the potential adverse effects of PrEP during periconception, pregnancy, postpartum, and breastfeeding periods. Health care providers should offer PrEP to those who desire PrEP or have specific indications for PrEP.

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 for the partner without HIV is an option that reduces their risk of sexual acquisition of HIV when the partner with HIV has not achieved sustained viral suppression, has an unknown HIV viral suppression status, and/or has potential for inconsistent ART adherence during the periconception period. In these situations, additional guidance for safer conception may be required if the person without HIV declines PrEP.

Combination of tenofovir disoproxil fumarate (TDF) and emtricitabine (FTC) currently is approved by the U.S. Food and Drug Administration for use as PrEP for all populations. Tenofovir alafenamide and FTC as a combination drug also has been approved for PrEP; however, this combination is not approved for preventing HIV transmission through receptive vaginal sex. The use of long-acting injectable cabotegravir (CAB-LA) for PrEP was approved in 2021 for men and women. When planning to become pregnant, there are limited safety data or pharmacokinetic data to inform efficacy or safety of CAB-LA for personal or fetal health. If cabotegravir (CAB) PrEP is used when pregnancy occurs, the limited available safety data and long half-life of CAB should be discussed with the patient with shared decision-making about whether to continue CAB-LA or switch to TDF/FTC. When PrEP is indicated and there are plans become pregnant, the Panel recommends TDF/FTC whenever possible. Adherence is critical.

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

When an inseminating partner with HIV and their a partner without HIV want 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 an inseminating partner with HIV and their partner without HIV want 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, *in vitro* fertilization, 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 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 gestational surrogate.

Males in a same-sex partnership who have serodiscordant HIV test results may consider adoption or a gestational surrogate. Female partners in a same-sex relationship who have serodiscordant HIV test results may wish to consider adoption or choosing a partner without HIV to be the gestational partner.

In addition to reducing the risk of HIV transmission between partners, starting ART before pregnancy occurs also can further reduce the risk of perinatal transmission (see Antiretroviral Therapy When Trying to Conceive).[19] Evidence suggests that early and sustained control of HIV can decrease the risk of perinatal transmission.[20,21] 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.[22-26] For more information, see Antiretroviral Drug Regimens and Pregnancy Outcomes.

## Monitoring Pregnancy Without HIV When Partners Have HIV

In instances of pregnancy without HIV, when partners have HIV, providers should notify patients that HIV screening is recommended during all pregnancies and that an HIV test will be provided as part of the routine panel of prenatal tests unless declined (this is the opt-out strategy; see Pregnancy and Postpartum HIV Testing and Identification of Perinatal and Postnatal HIV Exposure). In instances of HIV seronegative tests during pregnancy, 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 for their partners to achieve sustained virologic suppression to reduce the risk of sexual transmission of HIV. For pregnancy without HIV, PrEP may be considered under several conditions as previously discussed in PrEP and Other Options for Partners with Differing HIV Status and Inconsistent or Unknown Viral Suppression above (see PrEP to Prevent HIV During Periconception, Antepartum, and Postpartum Periods). For cases of pregnancy without HIV, counseling should be provided 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 such symptoms develop. Acute HIV infection during pregnancy or lactation involves high risk of transmitting HIV to infants. When acute HIV infection is suspected in pregnancy, testing should include an HIV RNA polymerase chain reaction assay[27-29] (see Early [Acute and Recent] HIV Infection). Repeat HIV testing in the third trimester is recommended for pregnancy when initial HIV testing was negative but there is an increased risk of acquiring HIV (see Pregnancy and Postpartum HIV Testing and Identification of Perinatal and Postnatal HIV Exposure). More frequent testing is indicated during pregnancy when a partner has HIV; testing should be performed every trimester during these pregnancies.

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

People 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 as a personal choice. The Centers for Disease Control and Prevention recommends HIV testing every 3 months for the partner who does not have HIV while the partners are attempting to conceive via condomless sex. 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 to optimize the health of the parents and reduce perinatal transmission. 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.[30]

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