



Women and HIV: Questions Answered



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Basic Facts About HIV

How do people get HIV infections?

Most adult women and men with HIV become infected through unprotected vaginal intercourse. Women and men also can get HIV during anal sex and, very rarely, oral sex. The virus also can be passed in infected blood that enters another person's body. This could happen through sharing injection needles used for taking intravenous drugs, for example. Infected mothers can transmit HIV to their infants during pregnancy and childbirth and through breastfeeding (see "Mother-to-Child Transmission of HIV," p. 6). HIV cannot be passed by ordinary day-to-day contact such as shaking hands, hugging, or using public toilets.

Are women more likely to get HIV than men?

Yes. Because of physical differences between women and men, women are generally more likely to acquire HIV infection than men if they come into contact with HIV through unprotected penile-vaginal intercourse. Women have a greater area of exposed tissue (the cervix and the vagina) than men. Also, small tears may occur in the vaginal tissue during sex. These tears are an easy pathway for infection (44, 69).

If a person already has an infection of the reproductive tract, is contact with HIV more likely to lead to infection?

Yes. HIV infection is more likely to occur if a woman or man has another sexually transmitted infection (STI) when she or he is exposed to the virus. Infection with the herpes simplex virus (HSV) (even without sores) is especially risky. Also, for women, bacterial vaginosis and candidiasis (yeast infection) can increase a woman's chances of getting HIV infection if she comes into contact with the virus. Vaginosis and candidiasis are two common infections of the vagina that are not usually sexually transmitted (37, 45, 92).





Is a woman more likely to develop HIV infection while she is pregnant?

It is not certain. The scientific evidence conflicts. A large study in Uganda found that women who were pregnant were more than twice as likely to become infected with HIV as women who were not pregnant. Another large study, in Uganda and Zimbabwe, did not find any difference. All women, including those who are pregnant, need to protect themselves if they might be exposed to HIV (29, 55).

Is a woman able to get pregnant if she has HIV?

Yes. In general, a woman with HIV is able to become pregnant. Her ability to become pregnant and carry a pregnancy to term is somewhat reduced, however. Women who have the most difficulty getting pregnant are women who have more advanced HIV disease. Also, some HIV-related infections (called opportunistic infections) can reduce fertility. Having certain other STIs, along with HIV, also can reduce fertility. Still, any woman with HIV who wants to avoid pregnancy needs to use contraception. If there is a risk of transmitting STIs or infecting an uninfected partner with HIV, she needs to use condoms or else condoms and another contraceptive method (5, 16, 30, 60, 62, 75, 78).

Can a man get a woman pregnant if he has HIV?

Yes. A man with HIV can get a woman pregnant. A man's ability to cause pregnancy may be somewhat reduced if he has HIV. Still, a couple that wants to avoid pregnancy needs to use family planning. If there is a risk of transmitting STIs or infecting an uninfected partner with HIV, they need to use condoms or else condoms and another contraceptive method (18, 61).

When a man has HIV and his partner does not, can a couple safely have a child without risk of the woman becoming infected with HIV?

No, not usually. Usually, she will risk HIV infection while trying to become pregnant. The couple can limit her contact with HIV by having sex without condoms only on a woman's most fertile days—between days 8 and 15 for a woman with a 28-day cycle. Also, antiretroviral (ARV) treatment of either partner reduces the risk that the man will infect his partner (4, 76).

How to Use This Tool

This tool offers family planning and HIV care providers a quick reference to answer common questions about HIV that women and their partners have. Specifically, it provides information on some basic facts of HIV acquisition, on family planning use for women with HIV, on the health of pregnant women with HIV and their infants, and on mother-to-child transmission of HIV. Information is presented in a simple question and answer format. It is a companion tool to the "Family Planning Choices for Women With HIV" *Population Reports* issue.

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In the opposite situation—if the woman has HIV and her partner does not—this same approach can be used. Alternatively, a couple could try artificial insemination instead of having unprotected sexual intercourse. Artificial insemination involves using a simple tool such as a syringe to place a man’s fresh semen into the woman’s vagina. Using this approach would protect the man from exposure to HIV. The success of artificial insemination at home has not been studied, however.

Family Planning and HIV

Can women with HIV safely use family planning?

Generally, yes. Women with HIV/AIDS, including those who are taking ARVs, can start and use almost all family planning methods safely and effectively.

How well do condoms protect against HIV infection?

When used consistently and correctly, male condoms prevent 80% to 95% of HIV infections that would have occurred without condoms. Evidence on female condoms is not as extensive as male condoms, and it is not clear whether they provide the same level of protection against HIV as male condoms (51, 88, 93).

How well do condoms prevent pregnancy?

The effectiveness of condoms depends on the user. Risk of pregnancy is greatest when condoms are not used with every act of sex. As commonly used, about 15 per 100 women whose partners use male condoms become pregnant over the first year of condom use. This means that 85 in every 100 women whose partners use male condoms will not become pregnant. When used correctly with every act of sex, about 2 per 100 women whose partners use male condoms become pregnant over the first year.

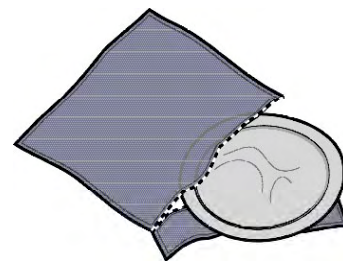
As the female condom is commonly used, about 21 per 100 women become pregnant over the first year. This means that 79 of every 100 women using female condoms will not become pregnant. When used correctly with every act of sex, about 5 per 100 women using female condoms become pregnant over the first year (85).

What is meant by consistent and correct use of condoms?

Consistent condom use means using a new condom for every act of intercourse. For STI protection, this includes using condoms for anal intercourse.

Correct use means:

- Putting on a condom before beginning intercourse,
- Leaving the condom on until after intercourse is finished,
- Not flipping the rolled-up condom over after it has touched the tip of the penis,
- Not taking actions that could make a condom break, such as making a hole in it by opening the package with a knife or sharp fingernails, and
- Not taking actions that would make a condom slip, such as putting lubricant on the penis before putting on the condom (66).



Does a woman with HIV who is taking antiretroviral (ARV) medications need to keep using condoms?

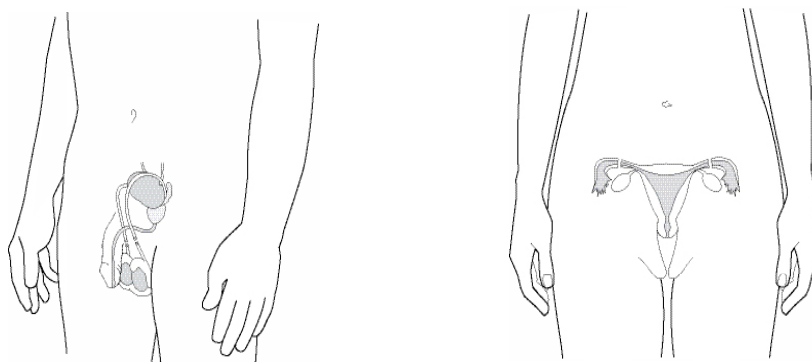
Women and men can still transmit HIV even if they are taking ARVs. If one partner in a couple is uninfected or if his or her status is not known, the couple should continue to use condoms (8, 33, 68, 70, 87).





Are female sterilization and vasectomy safe for couples with HIV?

Yes. Women and men with HIV/AIDS, including those who are taking ARVs, can safely undergo female sterilization or vasectomy. For those with AIDS, special arrangements are needed. The procedures should be undertaken in settings with experienced staff and the necessary equipment and support. The procedure may need to be delayed if the client is currently ill with AIDS-related illness. If one partner does not have HIV, the couple does not have a strong preference, and both female sterilization and vasectomy are available, it is usually better for the partner who does not have HIV to have the procedure (34, 97).



Are intrauterine devices (IUDs) safe for women with HIV?

In most cases, yes. Most women with HIV can have a copper-bearing IUD or a hormonal IUD inserted. A woman who has been diagnosed with AIDS can start and continue using an IUD, but only if she is on ARV treatment and clinically well. If a woman becomes infected with HIV or develops AIDS while using an IUD, her IUD does not need to be taken out (73, 97).



Will using hormonal family planning methods make HIV disease progress more quickly?

It is not certain. Some studies, but not others, suggest that some hormonal contraceptives could speed the progression of HIV disease. More studies are needed. At this point there has been no change in the guidance that women with HIV can safely use hormonal methods (3, 9, 28, 39, 48, 54, 63, 81).

Do women with HIV experience different side effects or more side effects from contraceptives than uninfected women?

No. Contraceptive side effects such as bleeding changes with hormonal methods or IUDs appear to be similar in women with HIV and in uninfected women (31, 41, 42, 82, 83, 91).

Are women more likely to transmit HIV if they use hormonal contraception?

This is not known. The most important advice for women with HIV and their uninfected partners is to continue using condoms, whether or not they also are using hormonal contraceptives. Used consistently and correctly, condoms greatly reduce the risk of passing HIV.

Do hormonal contraceptives reduce the effectiveness of antiretroviral (ARV) medications?

This is not known. There are not many studies of this, but it appears that hormonal contraceptives do not reduce the effectiveness of currently available ARVs (11, 46, 49).

Do ARVs reduce the effectiveness of hormonal contraceptives?

This is not known. Two small studies have reported that the ARVs nevirapine and ritonavir could lower blood levels of hormones from oral contraceptives (OCs). It is not clear, however, whether this change is enough to lower their effectiveness. Consistent condom use would help to make up for any decrease in the effectiveness of OCs and also would help to protect an uninfected sexual partner from HIV. Also, women who are using both OCs and ARVs should take extra care to start their next pack on time and avoid missing pills. There is less concern about hormonal methods that do not involve pills—for example, combined and progestin-only injectable contraceptives (49, 58, 64, 80, 97).



Do hormonal contraceptives or the IUD increase a woman's chances of getting HIV?

No, not for most women. The largest and most carefully conducted studies among women who are not at high risk for HIV infection find that women who use hormonal methods or copper-bearing IUDs are no more likely to get HIV than women who do not use these methods (40, 53, 54, 57).

Is emergency contraception safe and effective for women with HIV, including women using ARVs?

Yes. Emergency contraceptive pills (ECPs) are safe for women with HIV. As for effectiveness, ECPs contain higher doses of hormones than daily oral contraceptives. Therefore, it is thought that ARVs would not reduce the effectiveness of ECPs. There is no evidence that finds it is necessary to increase the ECP dosage for women taking ARVs (98).

Health of Mother and Infant

If a woman has HIV, does pregnancy make her infection worse?

No. Evidence suggests that pregnancy does not speed up the course of HIV infection. Still, it is best to avoid pregnancy if the woman's health is poor. If her health is worsening, she should be advised to delay pregnancy until she can get treatment and her health has improved (24, 50, 72, 77, 86).

If a woman with HIV gets pregnant, how can HIV affect her and her baby?

Compared with uninfected women, a woman with HIV is more likely to develop fever after giving birth (puerperal fever). Also, miscarriage is three to six times more likely. Infants born to mothers with HIV are more than twice as likely to be low birth weight and about twice as likely to be born too early, compared with infants of uninfected women. Infants born to mothers with HIV may get HIV from their mothers (see "Mother-to-Child Transmission of HIV," p. 6) (7, 12, 15, 23, 47, 74, 75).

If a pregnant woman with HIV also has another infection, what are the effects?

Other illnesses in the presence of HIV infection can complicate pregnancy. Women with both HIV and malaria, when compared with women who have HIV but not malaria, face two to three times more risk of delivering too early, that her fetus will not grow enough during gestation, and that the newborn will die. Women with HIV and tuberculosis also are more likely to have these complications as well as maternal anemia (low iron levels in the blood) and to have babies of low birth weight (47, 67, 89).



Why is good nutrition particularly important for pregnant women with HIV?

Maintaining good nutrition helps reduce the chances of passing HIV to babies and helps reduce poor birth outcomes such as low weight at birth and delivering too early. Women can get good nutrition by eating adequate amounts of appropriate food containing vitamins and minerals and by gaining an adequate amount of weight (2, 26, 36, 84, 94).

Pregnant women with HIV have the same needs for calories, protein, vitamins, and minerals as pregnant women without HIV. Health care providers can advise all pregnant women, including those with HIV, to eat at least one extra serving per day, if possible, of the local staple food (an inexpensive food high in energy, such as rice or cornmeal) (1, 65, 71).

Mother-to-Child Transmission of HIV

What are “MTCT” and “PMTCT”?

MTCT stands for mother-to-child transmission of HIV. It is the term that programs and researchers use to describe HIV transmission from mothers to their infants during pregnancy, childbirth, or breastfeeding. Efforts to reduce this form of HIV transmission are referred to as preventing mother-to-child transmission of HIV, or PMTCT.

What are the chances of mother-to-child transmission (MTCT) of HIV?

If not receiving care, women infected with HIV have a 15% to 30% chance of passing the virus to their infants during pregnancy, labor, or delivery. If these women breastfeed in typical fashion (giving both breastmilk and other liquids or food before six months), breastfeeding will transmit HIV to another 10% to 20% of infants. In other words, for every 20 births of women with HIV, 3 to 6 would be born infected, and another 2 to 4 would be infected if breastfed. Thus, without special care, as few as 3 or as many as 10 in every 20 babies would be infected. If treatment and proper feeding are possible, however, the risks can be reduced (13, 14, 19, 59).

What increases the chances of mother-to-child transmission (MTCT) of HIV?

Women with a lot of virus in their bodies and weakened immune systems are more likely to pass HIV to their infants. If a woman becomes infected with HIV during pregnancy or breastfeeding, the high HIV levels at this stage of infection would make MTCT more likely (26, 32, 52).

Also, STIs and malaria increase the risk of MTCT between two-fold and more than five-fold, compared with the risk among women who have HIV but none of these other conditions (2, 6, 10, 17, 22, 35, 56).

Breast infection (mastitis), breast abscesses, and nipple lesions increase the risk of HIV transmission through breastfeeding. Women with HIV and women who do not know their HIV status should pay extra care and attention to breast health while nursing (also see *Population Reports*, “Better Breastfeeding, Healthier Lives,” Series 7, Number 14) (20, 35, 79, 95).



Can the chances of mother-to-child transmission (MTCT) be lowered?

Yes. Where available, ARV medications, cesarean-section delivery, and avoidance of breastfeeding, each can reduce MTCT risk. The ARV regimens commonly used in developing countries to reduce MTCT lower the risk by one-third to nearly two-thirds (21, 32, 90, 99).

If a woman with HIV is taking ARVs for her own health, does her regimen need to be changed in any way if she becomes pregnant?

Certain ARV regimens may need to be altered before trying for pregnancy. In particular, there is concern that efavirenz can cause birth defects if taken during pregnancy. Aside from this change, a woman receiving ARVs as ongoing treatment for her own health does not need an additional short course of ARVs during labor, but her infants should be given a single dose of nevirapine plus zidovudine for one week after birth or, at minimum, a single dose of nevirapine soon after birth (25, 96, 99).

What is the safest way for a woman with HIV to breastfeed?

Unless mothers with HIV can get suitable replacement food for the baby, they should exclusively breastfeed their infants for the first six months of life. Exclusive breastfeeding means giving the baby only breastmilk and no other food or liquid. Then, at six months, the baby should be weaned over a period ranging from two days to three weeks. Compared with six months of mixed feeding (giving both breastmilk and other food), exclusive breastfeeding for six months reduces the risk of MTCT by one-fourth to nearly one-half.

Replacement feeding would eliminate all risk of HIV transmission through breastfeeding, but in low-resource settings, adequate replacement feeding is rarely available (13, 100).



Do ARV medications harm the mother or baby?

The ARVs given as prophylaxis (for disease prevention) during pregnancy to reduce HIV transmission do not cause serious or life-threatening conditions. One ARV used to treat people with HIV, efavirenz, has been shown to cause birth defects, and therefore it is not used to reduce MTCT during pregnancy (25, 38, 43, 90).

Are there any ARV regimens that can help reduce HIV transmission through breastfeeding?

The World Health Organization does not currently recommend giving ARV prophylaxis (for disease prevention) regimens to the mother and/or baby solely to prevent HIV transmission through breastfeeding. A number of studies are underway. So far, it appears that certain ARV combinations do lower HIV levels in breastmilk. Women with HIV who require ARV treatment for their own health and are breastfeeding should continue to take the ARVs (27, 99).

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