Pregnancy, Birth, and HIV

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Good News

Due to advances in HIV care and treatment, many women living with HIV are living longer, healthier lives. As women living with HIV think about their futures, some are deciding to have the babies they always wanted.

The good news is that advances in HIV treatment have also greatly lowered the chances that a birthing parent will pass HIV on to their baby (also known as perinatal HIV transmission, or vertical transmission; also sometimes called "mother-to-child" transmission).

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The World Health Organization (WHO) reports that when birthing parents are not taking HIV drugs, HIV can be perinatally transmitted as much as 45 percent of the time. However, with HIV treatment, the chances of perinatal transmission can be less than five in 100 births. According to the US Centers for Disease Control and Prevention (CDC), if the birthing parent takes HIV drugs and is virally suppressed (amount of virus in their blood, known as their viral load, is undetectable with standard tests), the chance of transmission can be less than one in 100. It is also important to note that studies have shown that being pregnant will not make HIV progression any faster in the birthing parent.

One way we learn about how HIV drugs affect pregnancy is through the Antiretroviral Pregnancy Registry. Pregnant people living with HIV are encouraged to register (through their healthcare providers) at http://www.APRegistry.com. This registry tracks all women in the US who are pregnant and taking HIV drugs to see if these medications are harmful to the developing baby.

Pregnancy and HIV: In this powerful episode of A Girl Like Me LIVE, host Ci Ci Covin welcomes The Well Project CAB member and Lady BurgAndy founder Masonia Traylor. The two advocates get personal about their pregnancies while living with HIV (including Ci Ci’s pregnancy at the time!) and dispel myths and misinformation that continue today despite decades of science and evidence.

View other episodes in the A Girl Like Me LIVE series

Before You Get Pregnant

If possible, it is important to plan carefully before getting pregnant:

If possible, it is important to plan carefully before getting pregnant.
Discuss your plans with your HIV healthcare provider to make sure you are on the right treatment plan for your own health and to reduce the risk of perinatal transmission (more about this in the next sections). For more information on getting pregnant and options for safer conception, see our fact sheet on Getting Pregnant and HIV.

Find an obstetrician (OB) or midwife who is familiar with HIV care. They can explain your options for getting pregnant as safely as possible. If you live in the US, please check our growing list of HIV-friendly reproductive services and providers for support in finding a provider in your area, if needed.

Ask your HIV healthcare provider and your OB or midwife to talk with each other and coordinate your care before and during your pregnancy.

Get screened for sexually transmitted infections or diseases (STIs or STDs), hepatitis B and C, and tuberculosis.

Do your best to give up smoking, drinking, and drugs – all of these can have negative effects on your health and the health of your baby. Researchers have found that smoking dramatically increases the risk of pregnancy loss – miscarriage and stillbirth – in women living with HIV.

Start taking pregnancy vitamins ("prenatal" vitamins) that contain folic acid while you are trying to become pregnant. This can reduce the rates of some birth defects.

If friends and family do not support your decision to have a child, put together a support network of people who are caring, non-judgmental, and well educated about HIV and pregnancy. Your network can include medical providers, counselors, and other women living with HIV who are considering pregnancy or who have had children.

If you are living with HIV or partnered with someone who is, and you want more information about having a child, please see our fact sheet on Getting Pregnant and HIV.

The Pregnancy Guidelines

Several groups of experts on pregnancy in women living with HIV have developed guidelines that provide information about appropriate care and treatment for women living with HIV who are, or may become, pregnant.

As a first step, the pregnancy guidelines issued by the US Department of Health and Human Services (HHS) recommend a thorough check up, including a number of blood tests, to find out about your health and the status of your HIV. A resistance test (see our fact sheet on resistance for information about this test) should be included if you:

- Have just been diagnosed with HIV
- Are starting HIV drugs
- Are switching HIV treatments and your viral load is over 1,000 copies
- Have a viral load over 1,000 copies

The results of a resistance test can help you and your healthcare provider choose the best drugs for you to take.

Recent studies have shown that starting HIV treatment as early as possible, even when someone feels well and has a high CD4 count (a strong immune system), is the best way to stay healthy while living with HIV. Also, starting HIV treatment and having an undetectable viral load before getting pregnant is healthier not only for the birthing parent, but also for the baby. As a result, the WHO recommends that all pregnant and breastfeeding people living with HIV, regardless of their CD4 count, begin HIV treatment as soon as possible and continue it for the rest of their lives. This is important for the health of the parent as well as for their baby, since HIV drugs can reduce the risk of perinatal transmission.

HIV drugs need to be taken just as they are prescribed to have the best chance of working (see our fact sheet on adherence for more information). Also, if a person living with HIV takes HIV drugs and gets
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HIV Drugs and Pregnancy

Most HIV drugs are safe when taken during pregnancy, and studies have shown that the developing baby is healthier when the birthing parent begins HIV treatment before getting pregnant. In general, pregnant people living with HIV can take the same HIV treatment as people who are not pregnant.

However, certain drugs should be avoided or used with caution because of possible side effects in the birthing parent or the developing baby. Some examples are the combination of Videx (didanosine, ddI) and Zerit ( stavudine, d4T), or the combination of Zerit and Retrovir ( zidovudine or AZT). Viramune ( nevirapine) should not be started in people living with HIV who have CD4 cell counts over 250.

Drugs that contain dolutegravir ( Tivicay, Juluca, Triumeq) were originally believed to cause birth defects in very rare cases if they were taken when getting pregnant or early in pregnancy. Because the benefits of the drugs were found to be greater than the extremely small risk of birth defects, the HHS guidelines recently changed to recommend dolutegravir as a preferred HIV drug throughout pregnancy, as well as for people trying to become pregnant.

Though there used to be some debate about the safety of taking efavirenz ( brand name Sustiva; also found in Atripla and Symfi Lo) during early pregnancy, the HHS guidelines are now consistent with the guidelines of the WHO and the British HIV Association. All organizations suggest that efavirenz can be taken throughout pregnancy, including during the first trimester (12 weeks). In addition, women who are on a treatment regimen containing efavirenz that is working well and who become pregnant should continue on efavirenz throughout pregnancy.

Discuss the risks and benefits of the HIV drugs you are taking with your healthcare provider so that you can decide which treatments are best for you and your baby. In the US, your healthcare provider can call the National Perinatal HIV Hotline for free advice from experts about caring for pregnant women living with HIV.

The HHS's pregnancy guidelines recommend the following:

For People Living with HIV and Not Taking HIV Drugs

It is important for a pregnant person to take a combination of HIV drugs for their own health as well as to reduce the chances of passing HIV to their baby. HIV treatment should start as soon as possible. Many HIV drugs are safe when taken during pregnancy.

It is important that HIV treatment continue during labor and delivery. Birthing people with viral loads of 1,000 copies or more should also receive intravenous (IV) administration of Retrovir, regardless of their HIV drug regimens during pregnancy or their modes of delivery. Those with a viral load of less than 1,000 copies do not need to receive intravenous Retrovir.
After delivery, the baby should receive liquid Retrovir for six weeks. If the person has received HIV drugs during pregnancy and remained virally suppressed, healthcare providers may consider giving the baby four weeks of liquid Retrovir.

After the birth of the baby, it is important for the birthing parent to talk with their healthcare provider about the risks and benefits of continuing their own HIV treatment. The HHS recommends that all adults, including new parents, receive HIV drugs regardless of CD4 count.

For People Living with HIV Who Are Already Taking HIV Drugs

People in this situation should continue taking their current HIV drugs if they are working well to control the virus and do not pose a risk to the developing baby. Unnecessary switching of HIV drugs can cause the viral load to increase beyond the undetectable level and thus increase the risk of transmitting HIV to the developing baby.

If a viral load test shows that the drugs are not working, switch to a more effective combination. The drugs should be continued during labor and delivery; at that time, intravenous (IV) Retrovir should also be given to the birthing parent, if they have a viral load of 1,000 copies or more. Birthing parents with a viral load of less than 1,000 copies can continue to take their current regimen and do not need the addition of IV Retrovir. After delivery, the baby should receive liquid Retrovir for four or six weeks.

For People Living With HIV Who Are in Labor and Have Not Taken HIV Drugs

A parent in labor who has not taken HIV drugs can still reduce the risk of passing HIV to their baby by using HIV drugs during labor and delivery and treating the baby for a short time after birth. The HHS guidelines recommend the following:

- For the parent: intravenous (IV) Retrovir during labor
- For the baby: a combination of six weeks of liquid Retrovir plus three doses of Viramune in the first week of life (at birth, 48 hours after birth, and 96 hours after the second dose)

After the baby is born, HHS recommends that the parent start HIV treatment for their own health.

For Babies Born to Parents Living with HIV Who Have Not Taken HIV Drugs Before or During Labor

The baby can still receive treatment to reduce the risk of transmission. The HHS guidelines recommend the following:

- A combination of six weeks of liquid Retrovir plus three doses of Viramune in the first week of life (at birth, 48 hours after birth, and 96 hours after the second dose)

After the baby is born, HHS recommends that the parent start HIV treatment for their own health.

Tests, Procedures, and Delivery

There are a number of invasive prenatal tests, such as amniocentesis, chorionic villus sampling (CVS), and umbilical blood sampling that may increase the risk of HIV transmission to the baby. Talk to your healthcare provider if you need these tests. Certain procedures during delivery, such as invasive monitoring and forceps- or vacuum-assisted delivery, should be avoided if possible.

Viral loads should be checked when first coming into prenatal care, when first starting HIV drugs, and every month thereafter until the birthing parent's viral load is undetectable. At that point, viral loads can
be checked every trimester (every 12 weeks) during pregnancy. The viral load should be checked at 36 weeks of pregnancy before going into labor to determine the type of delivery that is best for the parent and baby.

There are two types of delivery: surgical or cesarean (C-section) delivery and vaginal delivery.

For a woman on combination HIV treatment with a low viral load (less than 1,000 copies), a C-section has not been shown to further reduce her already very low risk of transmitting HIV to her baby.

**C-section**

Pregnant people living with HIV do not need, and it is not recommended that they have, a C-section unless they:

- have a viral load of more than 1,000 copies
- have an unknown viral load, or
- need a C-section for pregnancy-related reasons other than preventing HIV transmission.

If a birthing parent needs an elective (or planned) C-section, it is done before labor begins and before their "water" (sac of fluid that surrounds the baby) breaks. This reduces the baby's contact with the parent's blood and may reduce the risk of transmission in certain cases. Since C-sections require surgery, they carry some risks. People who have C-sections are more likely to get infections than those who give birth vaginally.

**Vaginal delivery**

For someone on combination HIV treatment with a low viral load (less than 1,000 copies), a C-section has not been shown to further reduce their already very low risk of transmitting HIV to their baby.

**After the Baby Is Born**

During the first four to six weeks, the baby will need to take Retrovir (and possibly other HIV drugs). A blood test called a complete blood count (CBC) should be performed on the newborn baby to determine the levels of various components of the baby's blood right from the start (baseline).

The baby will receive a test for their HIV viral load to determine if they have acquired HIV. This test looks for the virus, rather than HIV antibodies. HIV antibody tests, which are commonly used to determine HIV status in adults, should not be used in newborns since babies carry their birthing parent's antibodies for up to 18 months.

The baby should be tested for HIV when they are first born, at one month old, and at four months old. If they have two negative HIV tests by the time they are four months old, the baby is not living with HIV. If the baby has a positive viral load test, then the baby is living with HIV and should start HIV treatment right away. Many healthcare providers do an HIV antibody test when the baby is 12 to 18 months old even if they are not living with HIV, just to be sure that the antibodies from the birthing parent have cleared from the baby's immune system.

It is possible to transmit HIV through breast milk, though the chances are extremely low (though not proven to be zero as in the case of sexual transmission) if you are on HIV drugs and your viral load is undetectable. Breastfeeding while taking HIV drugs is the standard of care for women and other parents living with HIV in resource-limited areas of the world. In addition to the very low likelihood of
HIV transmission, it has been shown to increase survival and well-being of their babies.

However, in high-resource settings like the US, Canada, and Western Europe, general HIV and public health guidelines have discouraged breastfeeding among women living with HIV. The information available has often been confusing for those who may want to explore the option of breastfeeding (also called nursing, body feeding, or chestfeeding – a term that is inclusive of those who do not have breasts due to surgery or otherwise, or who may prefer language that is gender neutral). Parents may consider breast/chestfeeding for important emotional, cultural, family, and health reasons, even if they live in an area where formula is easily accessible. Please see our fact sheet Can I Breastfeed While Living with HIV? for more information on benefits and challenges of breast/chestfeeding while living with HIV.

A significant change occurred in the US on January 31, 2023, when the Perinatal HIV Clinical Guidelines – which inform healthcare providers in their engagements specifically related to pregnancy, infant care, and HIV – were rigorously updated to:

- reflect current knowledge about low likelihood of HIV transmission through breast milk when the breastfeeding person is taking HIV drugs and has an undetectable viral load;
- discuss benefits of breast/chestfeeding; and
- encourage informed, shared infant-feeding decision-making for women and other birthing parents living with HIV

In previous years, HIV treatment guidelines for the US, the UK, and other resource-rich countries had begun to include updates acknowledging the desire of some women living with HIV to breastfeed and suggesting ways for providers to support parents considering this option. For more information on this guidance, please see our fact sheet HIV Treatment Guidelines for Pregnant People and Their Infants.

There are also many reasons why parents may choose a method other than breast/chestfeeding. It is true that you can still have a strong bond with your child even if you bottle feed. For more information, see our fact sheet on infant feeding options for birthing parents living with HIV.

The WHO recommends that, if you breastfeed, breast milk should be the only source of food for your baby for the first six months of life. Between months six and 12, it recommends that the baby be introduced slowly to other foods until it is weaned from breast milk at 12 months (assuming the baby is receiving proper nutrition from regular food at that point). While breastfeeding, it is important that the birthing parent continue to take HIV drugs to limit the chances of passing HIV to their baby.

It is also important not to feed your baby food that has been chewed first (pre-masticated) by someone who is living with HIV. Blood in the person’s saliva can transmit HIV to your child.

**In Conclusion**

Deciding to have a baby is a big step for anyone, but for someone living with HIV, it is even more complicated. Talk to your HIV healthcare provider and obstetrician or midwife before you start trying to get pregnant. If you plan ahead, there are many things you can do to protect your health and the health of your new baby.

**Additional Resources**

Select the links below for additional material related to pregnancy and HIV.

- [Pregnancy, Birth, and HIV (Escalice, on A Girl Like Me)](https://www.agsociety.org/evidencetoaction/pregnancy-birth-and-hiv)
- [Quarantine, Anxiety, Pregnancy, and Learning How to Forgive Myself (HEROconnor...)](https://www.agsociety.org/evidencetoaction/quarantine-anxiety-pregnancy-and-learning-how-to-forgive-myself)
• Pregnancy and Birth: Information for People with HIV (aidsmap)
• Prevention of Mother-to-Child Transmission of HIV (PMTCT) (Be in the Know)
• Preventing Perinatal Transmission of HIV (HIV.gov)
• The Antiretroviral Pregnancy Registry: Information for Patients
• Pregnancy and HIV (Office on Women's Health)
• HIV and Pregnancy FAQ (The American College of Obstetricians and Gynecologists)
• 24/7 Illinois Perinatal HIV Hotline
• Perinatal HIV/AIDS (National Clinician Consultation Center)
• Preconception Care & the Elimination of Perinatal Transmission Infographic (AID...
• HIV and Perinatal Transmission (US Centers for Disease Control and Prevention)
• HIV Medicines During Pregnancy and Childbirth (HIVinfo)
• HIV and Family Planning (POZ)
• Can HIV-Positive People Have Babies? - Infographic (TheBody.com)
• Having a Baby When You Are Living with HIV (aidsmap)
• Pregnancy and HIV (New York State Department of Health)
• Testing HIV Positive During Pregnancy (DC Health)