



HIV and Pregnancy

If you are pregnant and are infected with **human immunodeficiency virus (HIV)**, the virus can be passed to your **fetus**. The good news is that there are steps you can take that can greatly reduce the chance of this happening. Treatment during pregnancy also can help you stay healthy.

This pamphlet explains

- HIV and **acquired immunodeficiency syndrome (AIDS)**
- how HIV can be passed
- the importance of prenatal care
- ways to reduce the risk to your baby during labor and delivery and after the baby is born
- how to feed your baby
- staying healthy after the baby is born

HIV and AIDS

The human immunodeficiency virus (HIV) causes acquired immunodeficiency syndrome (AIDS). HIV enters the bloodstream by way of body fluids, such as blood or semen. Once in the blood, the virus invades and kills CD4 cells. CD4 cells are key cells of the **immune system**. When these cells are destroyed, the body is less able to fight disease. AIDS occurs when the number of CD4 cells goes below a certain level and the person gets sick with diseases that the immune system would normally fight. These diseases include pneumonia, certain types of cancer, and harmful infections.

It can take months or years before HIV infection might develop into AIDS. Unless a woman gets tested,

she may never know she is infected with HIV until she gets sick. Taking anti-HIV drugs can help people with HIV infection stay healthy for a long time and can decrease the chance of passing the virus to others. There is no vaccine to prevent HIV infection.

How HIV Can Be Passed

During pregnancy, HIV can pass through the **placenta** and infect the fetus. During labor and delivery, the baby may be exposed to the virus in the mother's blood and other fluids. Breastfeeding also can transmit the virus to the baby.

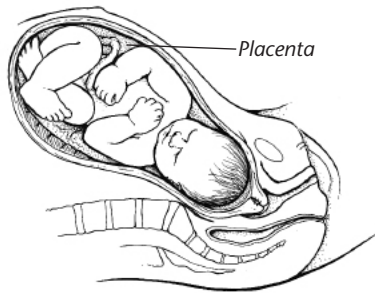
If you are infected with HIV and are pregnant, you and your health care professional will discuss things

you can do to reduce the risk of passing HIV to your fetus. They include the following:

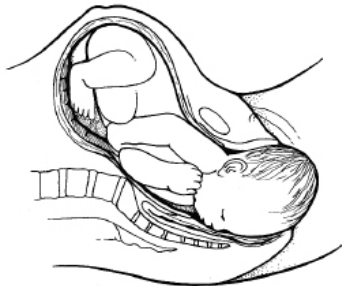
- Take a combination of anti-HIV drugs during your pregnancy as prescribed.
- Have a **cesarean delivery** if laboratory tests show that your level of HIV is high.
- Take anti-HIV drugs during labor and delivery as needed.
- Give an anti-HIV drug to your baby after birth.
- Do not breastfeed.

By following these guidelines, 99% of HIV-infected women will not pass HIV to their babies.

How HIV Can Be Passed



Through the placenta



During labor and delivery



Through breastfeeding

Treating HIV During Pregnancy

Treatment is recommended for pregnant women infected with HIV. Many combinations of drugs are used to manage HIV infection. This is called a “drug regimen.” Anti-HIV drugs decrease the amount of HIV in the body.

Treatment during pregnancy has two goals: 1) to protect your own health, and 2) to help prevent passing HIV to your fetus. If you are already taking medications to treat your HIV infection, you should continue treatment during pregnancy. Your health care professional may recommend a change in your drug regimen while you are pregnant. If you have not been taking medications, when to start depends on several factors, such as your current health. You may need to start right away or you may be able to wait until after the first **trimester**. You and your health care professional will discuss the best time for you to start treatment.

It is important that you take your medication regularly as prescribed. If you do not take the medication regularly, the virus may become resistant to it. If this happens, the drug will no longer work.

Drugs used to treat HIV may cause side effects. Common side effects include nausea, diarrhea, headaches, and muscle aches. Less common side effects include **anemia**, liver damage, and bone problems such as **osteoporosis**. However, not taking medication greatly increases the chances of passing the virus to your fetus. Your health care professional can tell you about the information that is available for each drug you are taking.

Prenatal Care

Throughout your pregnancy, your health will be checked closely. Your viral load—the amount of HIV that you have in your body—and your CD4 cell count will be watched carefully during pregnancy. Both a high viral load and a low number of CD4 cells mean there is a greater risk of passing HIV to your fetus and a greater risk of you becoming sick. However, even if you have a low viral load, it is still possible to pass HIV to the fetus.

Early in your pregnancy, your health care professional will review which immunizations you have had. You may have tests to monitor your liver function. You may be tested for other infections, such as other **sexually transmitted infections (STIs)**. If you have other infections, they will be treated.

As with all pregnant women, you may be offered tests such as **amniocentesis** or **chorionic villus sampling**. These tests are used to find certain genetic problems or other conditions that may affect the fetus. You are no more likely than other women of your age and background to have a baby with a genetic condition. The risk of passing on the virus during these tests is not increased as long as your drug regimen is working well.

Remember that even though you are pregnant, it is important to use condoms. If your partner also is infected with HIV, condoms help protect you and your

partner from other infections. If your partner is not infected with HIV, in addition to using condoms, there are some drugs that partners can take that may decrease their risk of becoming infected. You may want to talk with your health care professional about these drugs.

Labor and Delivery

Most babies who get HIV from their mothers become infected around the time of delivery. During labor and delivery, babies are exposed to their mother's body fluids that can spread the virus. When a woman goes into labor, the **amniotic sac** breaks (her water breaks). Once this occurs, the risk of transmitting HIV to the baby increases. To prevent this, intravenous (IV) anti-HIV medications may be given during labor and delivery to women with HIV.

Women with high viral loads may be offered the option of having a cesarean delivery. A cesarean delivery decreases the risk of passing HIV to the baby during labor and delivery. In these cases, the cesarean delivery is done a little before the due date (at 38 weeks) to reduce the chance that the mother will go into labor before the cesarean delivery can be done. For women with lower viral loads (less than 1,000 copies of the virus at the time near delivery), it is not clear whether a cesarean delivery helps reduce the risk of passing HIV to the baby. All women should talk with their health care professionals about the best option for them.

Having a cesarean delivery may carry extra risks for a woman who is HIV positive. Women with low CD4 cell counts have weak immune systems, so they are at greater risk of infection after surgery. The incision may heal more slowly in HIV-positive women. Drugs to prevent infection are given during cesarean delivery. It is important to understand all of these risks as well as the benefits for you and your baby. Talk to your health care professional if you have questions.

If you were scheduled to have a cesarean delivery and you go into labor early or your water breaks, you should go to the hospital immediately. The decision about how your baby will be born will be based on several factors. These include how long you have been in labor or when your water broke, your viral load, your anti-HIV drug regimen, and your general health.

After the Baby Is Born

Babies who are born to HIV-positive mothers are tested for HIV several times in the first few months. The test looks for the presence of the virus in the baby's blood. The baby has HIV infection if two of these test results are positive. The baby does not have HIV infection if two of these test results are negative.

All babies born to HIV-positive mothers also are given liquid medication after birth to further decrease their chances of becoming infected. The first dose is given within 6–12 hours after delivery. Treatment continues for 6 weeks. Another type of HIV test is done when the baby is 12–18 months old. The most common side effect of this treatment is anemia. The baby's health care professional will monitor the baby for this condition and give treatment if necessary.

Feeding Your Baby

Breast milk can contain HIV, which can be passed to the baby during breastfeeding. There are certain things that increase the risk of this happening, such as how long a woman breastfeeds and the health of her immune system. Because women in the United States have the option of safely feeding their babies with infant formula, women infected with HIV should not breastfeed. This recommendation does not apply to women who live in other countries where formula is not readily available or is not safe.

Women who do not breastfeed may have sore breasts for a few days after birth. The box gives tips for how to manage this discomfort.

Staying Healthy

Staying healthy is the best thing you can do for your baby. Discuss your medication with your health care professional after the baby is born. The decision to continue taking medication is based on your health, your CD4 cell count, and other factors. You should have your CD4 cell count and viral load checked regularly. There are health care professionals and clinics that focus on treating people who have HIV infection. If your baby is HIV positive, he or she also will need specialized care. Your health care professional can tell you more about this special HIV care.

Having a baby can be a happy time, but it also can be stressful. Some women find it hard to take care of themselves after their babies are born. If you are having difficulty taking your medications as directed, or just need some help coping, talk to your partner, family members, friends, or health care professional about getting help.

It is possible to get pregnant as early as 4 weeks after giving birth. It is a good idea while you are still pregnant to choose the birth control method you will use after the baby is born. It is important to give yourself enough time between pregnancies. This gives your body a chance to heal. Before becoming pregnant again, see your health care professional for a preconception care checkup. You also should discuss the anti-HIV medicines you are taking.

Tips for Women Who Are Not Breastfeeding

Because women who are HIV positive do not breastfeed, their breasts will hurt for a few days after their babies are born. The following tips can help relieve the pain:

- Support the breasts with a snug bra or by binding them with an elastic bandage.
- Apply ice.
- Take medicines like acetaminophen or ibuprofen to help with the pain.
- Do not use heat or massage. This will cause the breasts to make more milk.

Finally...

HIV infection is a serious health issue that has long-term consequences for your health and the health of your baby. If you are pregnant and are infected with HIV, it can be passed to your fetus. There are now ways to help prevent your fetus from getting the infection. Most women with HIV do not pass the infection on to their fetuses. Treating your own HIV infection after your baby is born also is important. With treatment, people with HIV are now living longer and healthier lives.

Glossary

Acquired Immunodeficiency Syndrome (AIDS): A group of signs and symptoms, usually of severe infections, occurring in a person whose immune system has been damaged by infection with human immunodeficiency virus (HIV).

Amniocentesis: A procedure in which a needle is used to withdraw and test a small amount of amniotic fluid and cells from the sac surrounding the fetus.

Amniotic Sac: Fluid-filled sac in the mother's uterus in which the fetus develops.

Anemia: Abnormally low levels of blood or red blood cells in the bloodstream. Most cases are caused by iron deficiency, or lack of iron.

Cesarean Delivery: Delivery of a baby through an incision made in the mother's abdomen and uterus.

Chorionic Villus Sampling: A procedure in which a small sample of cells is taken from the placenta and tested.

Fetus: The stage of prenatal development that starts 8 weeks after fertilization and lasts until the end of pregnancy.

Human Immunodeficiency Virus (HIV): A virus that attacks certain cells of the body's immune system and causes acquired immunodeficiency syndrome (AIDS).

Immune System: The body's natural defense system against foreign substances and invading organisms, such as bacteria that cause disease.

Osteoporosis: A condition in which the bones become so fragile that they break more easily.

Placenta: Tissue that provides nourishment to and takes waste away from the fetus.

Sexually Transmitted Infections (STIs): Infections that are spread by sexual contact, including chlamydia, gonorrhea, human papillomavirus (HPV), herpes, syphilis, and human immunodeficiency virus (HIV, the cause of acquired immunodeficiency syndrome [AIDS]).

Trimester: Any of the three 3-month periods into which pregnancy is divided.

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