



PREGNANCY AND HIV

HOW DO BABIES GET AIDS?

The virus that causes AIDS can be transmitted from an infected mother to her newborn child. Without treatment, about 20% of babies of infected mothers get HIV.

Mothers with higher viral loads are more likely to infect their babies. However, no viral load is low enough to be "safe". Infection can occur any time during pregnancy, but usually happens just before or during delivery. The baby is more likely to be infected if the delivery takes a long time. During delivery, the newborn is exposed to the mother's blood. Drinking breast milk from an infected woman can also infect babies. Mothers who are HIV-infected **should generally not breast-feed their babies**. To reduce the risk of HIV infection when the father is HIV-positive, some couples have used sperm washing and artificial insemination.

HOW CAN WE PREVENT INFECTION OF NEWBORNS?

What if the father is infected with HIV? Recent studies have shown that it is possible to "wash" the sperm of an HIV-infected man so that it can be used to fertilize a woman and produce a healthy baby. These procedures are effective but very expensive.

Use antiretroviral medications: The risk of transmitting HIV is extremely low if antiretroviral medications are used. Transmission rates are only 1% to 2% if the mother takes combination antiretroviral therapy (ART.) The rate is about 4% when the mother takes AZT during the last six months of her pregnancy, and the newborn takes AZT for six weeks after birth. See Fact Sheet 411 for more information on AZT.

Even if the mother does not take antiretroviral medications until she is in labor, two methods cut transmission by almost half.

- AZT and 3TC (See Fact Sheet 415) during labor, and for both mother and child for one week after the birth.
- One dose of nevirapine (See Fact Sheet 431) during labor, and one dose for the newborn, 2 to 3 days after birth.

Combining nevirapine and AZT during labor and delivery cuts transmission to only 2%. However, resistance to nevirapine can develop in up to 40% of women who take the single dose. This reduces the success of later ART for the mother. Resistance to nevirapine can also be transmitted to newborns through breast feeding. However, the shorter regimens are more affordable for developing countries.

Keep delivery time short: The risk of transmission increases with longer delivery times. If the mother uses AZT and has a viral

load (see Fact Sheet 125) under 1,000, the risk is almost zero. Mothers with a high viral load might reduce their risk if they deliver their baby by cesarean (C-) section.

Feeding the Newborn

Up to 14% of babies may get HIV infection from infected breast milk. Breast feeding is controversial, especially in the developing world. Most transmission from breast feeding occurs within the first two months after birth. On the other hand, replacement feeding can create additional risks for infant mortality from various diseases.

A recent study showed that it is possible for a newborn to become infected by eating food that is chewed for it by an infected mother. This practice should be avoided.

HOW DO WE KNOW IF A NEWBORN IS INFECTED?

Most babies born to infected mothers test positive for HIV. Testing positive means you have HIV antibodies in your blood. Fact Sheet 102 has more information on HIV tests. Babies get HIV antibodies from their mother even if they aren't infected.

Another test, similar to the HIV viral load test (See Fact Sheet 125, Viral Load Tests), can be used to find out if the baby is infected with HIV. Instead of antibodies, these tests detect HIV in the blood. This is the only reliable way to determine if a newborn is infected with HIV.

If babies **are** infected with HIV, their own immune systems will start to make antibodies. They will continue to test positive. If they **are not** infected, the mother's antibodies will eventually disappear. The babies will test negative after about 12 to 18 months.

WHAT ABOUT THE MOTHER'S HEALTH?

Recent studies show that HIV-positive women who get pregnant do not get any sicker than those who are not pregnant. Becoming pregnant is not dangerous to the health of an HIV-infected woman. This is true even if the mother breast-feeds her newborn for a full term (2 years). In fact, a study in 2007 showed that becoming pregnant was good for a woman's health.

However, "short-course" treatments to prevent infection of a newborn are not the best choice for the mother's health. If a pregnant woman takes ART only during labor and delivery, HIV might develop resistance to them. This can reduce the future treatment options for the mother. See Fact Sheet 126 for more information on resistance.

A pregnant woman should consider all of the possible problems with antiretroviral medications.

- Pregnant women should not to use both ddI (Videx, see Fact Sheet 413) and d4T (Zerit, see Fact Sheet 414) in their ART due to a high rate of a dangerous side effect called lactic acidosis.
- Do not use efavirenz (Sustiva) during the first 3 months of pregnancy.
- If your CD4 count is more than 250, do not start using nevirapine (Viramune).

Some doctors suggest that women interrupt their treatment during the first 3 months of pregnancy for three reasons:

- The risk of missing doses due to nausea and vomiting during early pregnancy, giving HIV a chance to develop resistance
- The risk of birth defects, which is highest during the first 3 months. There is almost no evidence of this, except with efavirenz.
- ART might increase the risk of premature or low birth weight babies
- **However, current guidelines do not support treatment interruption for pregnant women.**

If you have HIV and you are pregnant, or if you want to become pregnant, talk with your health care provider about your options for taking care of yourself and reducing the risk of HIV infection or birth defects for your new child.

THE BOTTOM LINE

An HIV-infected woman who becomes pregnant needs to think about her own health and the health of her new child. Pregnancy does not seem to make the mother's HIV disease any worse.

The risk of transmitting HIV to a newborn can be virtually eliminated with "short course" treatments taken only during labor and delivery. But short treatments increase the risk of resistance to the drugs used. This can reduce the success of future treatment for both mother and child.

The risk of birth defects caused by ART is greatest during the first 3 months of pregnancy. If a mother chooses to stop taking some medications during pregnancy, her HIV disease could get worse. Any woman with HIV who is thinking about getting pregnant should carefully discuss treatment options with her health care provider.

Revised January 15, 2009