Fertility Options and Prevention of Vertical Transmission

Key Points

- Pregnancy planning and fertility options are allowing many HIV-positive people in Canada to conceive while reducing the risk of HIV transmission to their partners.
- The rate of transmission of HIV from parent to child is exceedingly low in Canada.
- If HIV is diagnosed before or early in pregnancy, HIV treatment is effective in preventing transmission to the newborn infant.
- Because HIV can be transmitted through breast milk, it is recommended that HIV-positive mothers in Canada not breastfeed/chestfeed.

With advances in HIV treatment, increasing numbers of HIV-positive people in Canada are considering having children. Transmission to partners (horizontal transmission) and transmission to the child (vertical transmission) are two significant concerns when considering HIV and conception.

Canadian HIV pregnancy planning guidelines, developed in 2012, provide guidance on options to reduce horizontal transmission when a couple tries to conceive. Updated guidelines are expected in early 2018. Options include timed natural conception (taking into account HIV viral load in the HIV-positive partner and other factors), home insemination, sperm washing and more advanced techniques such as intra-uterine insemination, in vitro insemination and intra-cytoplasmic sperm injection.

HIV can be passed from parent to child before birth, during labour and delivery, and through breastfeeding. In the absence of HIV treatment, between 15% and 30% of infants born to HIV-positive women will acquire HIV during pregnancy and delivery; a further 5% to 20% would be at risk for getting HIV if breastfed.

HIV treatment is most effective in preventing HIV transmission when started before and used throughout pregnancy. However, this is only possible if the mother is diagnosed before or during prenatal care. A shorter course of HIV treatment before delivery, although not as effective, can also help reduce the risk of transmission. In both cases, HIV treatment is also given to the infant after birth. Women are advised to not breastfeed but rather to use formula. Finally, if a woman is receiving optimal HIV treatment with complete viral load suppression, she may deliver vaginally (with the option of a Cesarean section). For women who are not receiving optimal HIV treatment, an elective Cesarean section is offered. It should be noted that under Canadian law a woman has the legal right to make all therapeutic decisions on behalf of the child until it is born.

Almost all pregnant women in Canada access prenatal care, making this an opportune time to provide counselling regarding HIV testing. However, some groups of women, such as women who inject drugs, immigrants and refugees may not receive adequate prenatal care. To decrease the number of HIV-positive babies born to mothers who are unaware that they themselves are HIV positive, all Canadian provinces and territories have developed universal testing policies for pregnant women. These are designed to increase the likelihood that physicians will offer HIV testing to pregnant women. Some provinces offer opt-in approaches, whereby women must consent specifically to an HIV test. Other provinces offer opt-out approaches, whereby women are notified that an HIV test will be included in the routine prenatal tests and that they may refuse testing.

Between 1984 and 2015, 4,532 infants born in Canada were perinatally exposed to HIV. In 2015, 232 infants were exposed to HIV perinatally. The number of infants confirmed to be HIV positive has decreased in Canada since the advent of HIV treatment. In 2015, only 1.3% of infants (three) exposed to HIV perinatally were confirmed to be HIV positive. Among the three infants confirmed HIV positive, only one of these mothers had received any HIV treatment during pregnancy.

Barriers to preventing mother-to-child transmission include lack of antenatal care, lack of HIV testing in pregnancy,
undiagnosed seroconversion (new HIV infection) in pregnancy, and lack of HIV treatment or suboptimal therapy in pregnancy (e.g., poor adherence, late start of HIV treatment).

Resources

Canadian HIV pregnancy planning guidelines - Society of Obstetricians and Gynaecologists of Canada
You can have a healthy pregnancy if you are HIV positive - CATIE
Pregnancy Planning Information for HIV+ Women and Their Partners - Women's College Hospital
Information for Women who are Diagnosed with HIV during Pregnancy - Women's College Hospital
Information for HIV+ New Moms - Women's College Hospital
Pregnancy Planning Information for HIV+ Men and Their Partners - Women's College Hospital

Sources


1. Chestfeeding refers to nursing an infant using one’s chest. It is a term sometimes used by people on the trans masculine spectrum who feel more comfortable with this language.
Disclaimer

Decisions about particular medical treatments should always be made in consultation with a qualified medical practitioner knowledgeable about HIV- and hepatitis C-related illness and the treatments in question.

CATIE provides information resources to help people living with HIV and/or hepatitis C who wish to manage their own health care in partnership with their care providers. Information accessed through or published or provided by CATIE, however, is not to be considered medical advice. We do not recommend or advocate particular treatments and we urge users to consult as broad a range of sources as possible. We strongly urge users to consult with a qualified medical practitioner prior to undertaking any decision, use or action of a medical nature.

CATIE endeavours to provide the most up-to-date and accurate information at the time of publication. However, information changes and users are encouraged to ensure they have the most current information. Users relying solely on this information do so entirely at their own risk. Neither CATIE nor any of its partners or funders, nor any of their employees, directors, officers or volunteers may be held liable for damages of any kind that may result from the use or misuse of any such information. Any opinions expressed herein or in any article or publication accessed or published or provided by CATIE may not reflect the policies or opinions of CATIE or any partners or funders.

Information on safer drug use is presented as a public health service to help people make healthier choices to reduce the spread of HIV, viral hepatitis and other infections. It is not intended to encourage or promote the use or possession of illegal drugs.

Permission to Reproduce

This document is copyrighted. It may be reprinted and distributed in its entirety for non-commercial purposes without prior permission, but permission must be obtained to edit its content. The following credit must appear on any reprint: This information was provided by CATIE (the Canadian AIDS Treatment Information Exchange). For more information, contact CATIE at 1.800.263.1638.

© CATIE

Production of this content has been made possible through a financial contribution from the Public Health Agency of Canada.

Available online at: