



HIV INFECTION IN WOMEN

HIV or human immunodeficiency virus is a virus that destroys a particular kind of white blood cell (CD4 T-cell) in the body. These cells are a vital part of the immune system and protect the body against various 'germs'.

AIDS, or acquired immunodeficiency syndrome, is a group of illnesses and infections, which result from a weakened immune system, caused by HIV.

WHAT ARE HIV AND AIDS?

HIV (or human immunodeficiency virus) is an infection that slowly impairs and weakens the body's system of protection (the immune system) against other infections and some tumors.

AIDS (or acquired immunodeficiency syndrome) is the name given to a group of illnesses and infections which eventually result from this weakening of the body's natural system of protection (i.e. the immune system).

When you are first infected with HIV you do not have AIDS. There is usually a time lag of several years between first being infected with HIV, and then developing infections and other AIDS-related problems. This is because it usually takes several years for the HIV virus to reduce the body's protection to a level where these problems occur.

How can you be infected with HIV?

- **Sexual transmission:** Sexual intercourse is the most common way of catching HIV. You can become infected if you have sex with an infected person (vaginal, anal or oral sex). This is because semen, vaginal secretions and blood from an infected person contain the HIV virus. The virus can enter the body through the lining of the vagina, vulva, rectum, penis, or mouth during sex. This does not mean to say that you always become infected if you have sexual contact with a person carrying HIV, but there is always a significant risk that you will. Anal sex seems to carry the highest risk but any of the other forms listed above may also lead to infection. (You can also even become infected if you use 'sex toys' previously used by an infected person which have not been washed properly.)
- **Needle sharing:** HIV (and other viruses such as hepatitis B and C virus) can very often be transmitted by drug users who share their needles, syringes and other injecting

equipment. This is because the needles easily become contaminated with infected blood from the previous user.

- **Infected blood:** HIV can be transmitted when infected blood is transfused during medical procedures – so screening methods are put in place to try and prevent this.
- **From mother to child:** About 1 in 3 untreated pregnant women with HIV pass the infection on to their babies during pregnancy or childbirth. We now have strategies to prevent almost all mother-to-child-transmission, if a woman knows she is HIV-positive.
- **Other causes:** Accidental needle stick injuries and organ or tissue transplant can also cause HIV infection.

Can you protect yourself against contracting the HIV virus? What is 'safe sex'?

The best way to prevent getting sexually transmitted infections (STI), including HIV is to always use a condom during sex, including oral and anal sex. Avoid using an oil-based lubricant, such as Vaseline or baby oil, because this can weaken the condom and increase the chances of it splitting. Water-based lubricants such as K-Y Jelly are preferable, and can be bought at most supermarkets, or pharmacists. A dental dam – which is a rectangular piece of latex that fits in your mouth – can also be used during oral sex to prevent the spread of infection. You should always clean sex toys after each use, and also after using them on different parts of the body. They should also be cleaned in between being used by one partner and the other.

It is important to continue to practice safe sex even if you, and your sexual partner, both have HIV. This is because it is possible to expose yourself to a new strain of the virus that your anti-HIV medicine will not be able to control.

**Is it important to have a regular sexual health check-up?**

Yes. A regular sexual health check is recommended, at least once a year. This will help diagnose and treat other sexually transmitted diseases like gonorrhoea, bacterial vaginosis and chlamydial infection. An annual cervical smear test is recommended. Colposcopy (examination of the neck of the womb) is essential if the smear detects abnormal cells from the neck of the womb.

Can HIV infection be cured?

There is no cure, or vaccine, for HIV, and researchers believe it will be many years, if not decades, before either is found. However, the combination of medicines that are used in what is known as highly active antiretroviral therapy (HAART) has proved remarkably successful in slowing the progression of the condition, and prolonging life.

Researchers are confident that continuing improvements in therapy will mean that a person with HIV may have the same life-span as somebody who does not have the condition.

What is the normal form of treatment?

The therapy involves using a combination of medicines. This is because HIV can quickly adapt and become resistant to one single medicine. Therefore, a combination of different medicines is required.

It is recommended you begin HAART once your CD4 count drops below 350 or earlier if you have certain complications related to HIV and/or a high viral load. There are many different types of medicine that can be used as part of your therapy. They include:

- nucleoside reverse transcriptase inhibitors (NRTIs or 'nukes');
- non-nucleoside reverse transcriptase inhibitors (NNRTIs or 'non-nukes');
- protease inhibitors;
- fusion inhibitors;
- integrase inhibitors;
- CCR5 entry inhibitors.

These medicines work in different ways, but they are all designed to interrupt the reproductive cycle of the virus in order to slow down its spread, and protect your immune system.

Most people with HIV are recommended to take two types of medication from the NRTIs class, plus a medicine from another class.

The goal of treatment is to find the best combination of medicines, while minimizing any side effects.

Are there any other things I can do to reduce the effect of HIV infection (i.e. lifestyle changes)?

If you have HIV, you should take extra precautions to prevent exposure to infection. You should also take steps to boost your immune system. The advice below explains what steps you can take.

- Avoid smoking – this will weaken your immune system.
- Do not use illegal drugs – these also weaken your immune system and could make your anti-HIV medicines less effective.
- Make sure that your immunizations are up to date – your GP, or HIV clinic, will be able to advise you.
- Eat a healthy diet – this will boost your immune system.
- Take regular exercise – this will boost both your immune system and your mood.
- Be careful around animals – as they can be a source of parasitic infection. You should avoid coming into contact with cat litter, or animal feces. Wear latex gloves if you need to clean your pet, or dispose of their droppings.
- Wash your hands regularly – particularly after going to the toilet, before and after preparing food, and after spending time in crowded places.

Can HIV-positive women become mothers?

Yes. Women around the world have successfully used antiretroviral drugs in pregnancy now for over 10 years. Currently this usually involves taking at least three anti-HIV drugs in combination. (But you should be aware of the cautionary note about the safety of drugs in pregnancy which appears later in this leaflet.)

Will HIV treatment protect my baby?

Treating your own HIV infection will reduce the risk of your baby carrying the HIV infection to almost zero. Without treatment, about 25% of babies born to women with the HIV infection will be born with the HIV infection too (which is described as being 'HIV positive').

PLANNING YOUR PREGNANCY

If you already know that you are HIV-positive, you should discuss the possibility of becoming pregnant with your doctor as part of your routine HIV care. If you are planning to get pregnant, your doctor will advise you to consider your general health, have appropriate check-ups and treat any sexually transmitted infections.

**When planning a pregnancy, what should you do when one partner is HIV-positive and the other is HIV-negative?**

It is usually unwise for couples to have unsafe sex (i.e. sexual intercourse without using a condom), since there is always a risk that the partner who does not have HIV will contract it from the partner who does. The risk, however, is much lower if the HIV-infected partner is on HAART and has an undetectable viral load.

When the man is HIV-positive and the woman is HIV-negative

When the man is HIV-positive and the woman is HIV-negative, it is possible to use a process called sperm washing. This is quite a detailed process that can only be done by a clinic that has the necessary equipment and skills. (*In vitro* fertilization (IVF) may also be used, especially if the man has a low sperm count.) There is some evidence now that if the man is on HAART and has an undetectable viral load the risk of transmission is low.

When the woman is HIV-positive and the man is HIV-negative

'Do-it-yourself artificial insemination' or 'self insemination' using a plastic syringe carries no risk to the man. You should seek advice as to the best way of attempting this.

When both partners are HIV-positive

For couples where both partners are HIV-positive, most doctors still recommend that they should practice safe sex. This is to limit the possibility of infecting each other with different types of HIV. However, the risk of transmission is low if both are on therapy and in presence of an undetectable viral load.

N.B. All methods of becoming pregnant carry varying degrees of risk and chances of success. If you are planning a pregnancy, take time to talk about these options with your partner.

Can I get help if I am having difficulty conceiving?

All couples could experience some fertility difficulties, regardless of whether one is HIV-positive or both are. If you have fertility problems, ask your doctor about assisted reproduction.

PRENATAL CARE AND HIV TREATMENT**Does every HIV-positive woman need to use treatment in pregnancy?**

Every pregnant woman with HIV is strongly recommended to take HAART during pregnancy, even if it is only used for a short time or just at the end of the pregnancy and is stopped after the baby is born. This is regardless of how far the mother's HIV infection has developed.

What if I do not need treatment for my own HIV?

To reduce the risk of HIV transmission to the baby, treatment is always recommended for all HIV-positive pregnant women, even for those whose infection has not developed far and who have never been on treatment before.

What if I discover I am HIV-positive late in pregnancy?

Even late in pregnancy, there is still a benefit to using treatment. Even after 36 weeks, it can reduce your viral load to very low levels.

HIV DRUGS DURING PREGNANCY

Your treatment should be individual and should suit your own health and your own situation.

Are any drugs not recommended in pregnancy?

Efavirenz is not recommended in pregnancy. This drug caused neural tube defects (brain damage) in the developing fetus in a single animal study. So far there are no reports of increased risk of neural tube damage in human babies. But, if other options are available, there is a strong caution against its use.

Should I expect more side effects when I am pregnant?

Approximately 80% of all pregnant women receiving combination treatment for HIV will experience some sort of side effects with these drugs. This is similar to the percentage of people using HIV treatment who are not pregnant.

HIV drugs and the baby's health

Some mothers and doctors have been reluctant to use or to prescribe anti-HIV drugs during pregnancy. This is out of concern about unknown effects to the baby.

Will HIV drugs affect the baby?

This is a good question and it is reasonable to be concerned about it. Unfortunately there are no definite answers. Although based on the information currently available, in general terms, the drugs normally used do seem to be reasonably safe, it is too soon to be certain that this is the case.

CHOICE FOR DELIVERY**Should I have a pre-labor cesarean section?**

If you do not need treatment for your own health and choose to use AZT alone, a pre-labor cesarean section will be necessary to reduce transmission risk to minimal levels.

What strategy is recommended?

Mode of delivery should be discussed with you and your wishes taken into account. A choice of either cesarean section or vaginal



birth is offered when a mother's viral load is below detection on combination therapy, with many women now opting for a vaginal birth.

AFTER THE BABY IS BORN

What will I need to consider for my own health

Adherence! This means taking your drugs exactly as prescribed. Your own adherence to your HIV treatment after the baby is born is critical. Many women have excellent adherence during their pregnancy. After the baby is born, however, it is easy to forget your own health.

How and when will I know that my baby is HIV-negative?

Babies born to HIV-positive mothers will always test HIV antibody-positive at first. This is because they have their mother's immune system. If your baby is not infected with HIV the signs of it that are seen in initial laboratory tests will gradually disappear. This can sometimes take as long as 18 months. However, babies are monitored with a polymerase chain reaction (PCR) test and if this is negative at 3 months, the baby is presumed uninfected.

Will my baby need to take HIV drugs after he/she is born?

Your baby will need to take HIV drugs for probably 4–6 weeks following his or her birth.

Will I need to use contraception after the baby is born?

You will be given advice on contraception after your baby is born. It is possible that resuming or beginning oral contraception will not be recommended if you began using anti-HIV drugs in pregnancy. This is because some HIV drugs can reduce the levels of some oral contraceptives, which means they might not provide totally reliable birth control. Please make sure your doctor knows about this and can advise you.

BREAST FEEDING

There is also a risk of transmitting HIV from mother-to-baby via breast milk. HIV-positive mothers can easily avoid this risk by using bottles and formula milk. Occasional breast feeding is not recommended as a study has shown that 'mixed feeding' may carry an even higher transmission risk than if you breastfeed exclusively.