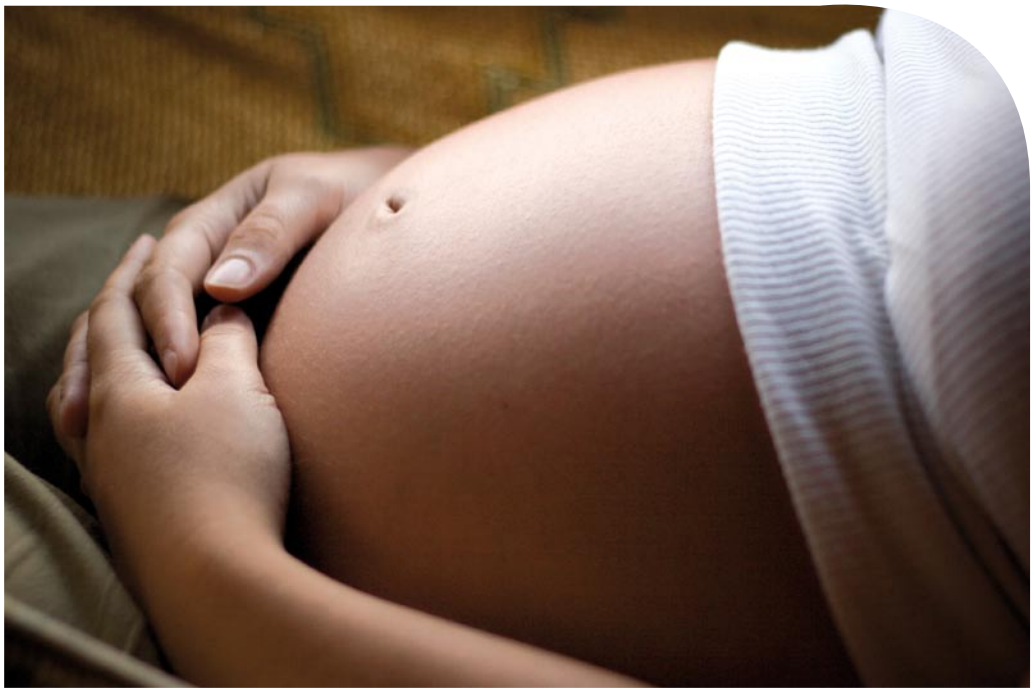
Positive Women

HIV, PREGNANCY AND WOMEN'S HEALTH

Version 2



INTRODUCTION • MOTHER'S HEALTH IS BEST FOR BABY • PLANNING A PREGNANCY • PRENATAL CARE • HIV TREATMENT • CHOICES FOR DELIVERY • AFTER BABY IS BORN

Positive Women

ABOUT POSITIVE WOMEN INC.

POSITIVE WOMEN INC. IS A SUPPORT ORGANISATION FOR WOMEN AND FAMILIES LIVING WITH HIV AND AIDS.

Women represent the invisible face of the HIV and AIDS epidemic. These are Women who lead the very usual life of the average New Zealander. Women who run households, cook dinner, have jobs, raise families and have grandchildren. Often these women look after sick partners and keep everything together.

Our Aim

- To provide a support network for women and families living with HIV or AIDS
- To raise awareness of HIV and AIDS in the community through educational programmes with a focus on prevention and de-stigmatisation.

What We Do

- Provide a drop in centre in Auckland open from 9.00-5.00pm, Monday to Friday
- Access to a free-phone number for information and support
- A bi-monthly newsletter mailed to HIV+ and affiliated members. We also aim to include copies on this site once the site is completed
- Run a FREE annual retreat for HIV+ Women.

The retreat is dedicated to rest and relaxation with many complimentary therapies available. There are also discussion groups as well as educational and informational breakout sessions

- Coordinate social events for HIV+ Women to get together throughout the year.
- Operate an advice/referral service to assist with any queries you may have
- Advocates to eliminate the stigma and isolation of living with HIV or AIDS.

CONTENTS

Adapted from UK HIV i-Base booklet on 'HIV pregnancy and Women's health', with input from the New Zealand National Antenatal HIV Screening Advisory Group and Positive Women Incorporated (NZ).

This booklet is intended to provide basic information and is not necessarily the views of Positive Women Inc. or the New Zealand National Antenatal HIV Screening Advisory Board. Decisions relating to treatment should always be made in consultation with a doctor or other qualified healthcare workers.

INTRODUCTION

We hope that the information in this booklet will be useful at all stages—before, during and after pregnancy. It should help whether you are already on HIV drug treatments or not. It includes information for your own health and for the health of your baby.

Remember that you do have choices and the better informed you are the better able you will be to make the right choice for you.

BACKGROUND AND GENERAL QUESTIONS

If you have just received and HIV+ diagnoses...

You may be reading this booklet at a very confusing and hard time in your life. Finding out either that you are pregnant or that you are HIV-positive can be overwhelming on its own. It can be even more difficult if you find out both at the same time.

Before reading this booklet, you may have never before known or read anything about HIV. As you will see, both pregnancy and HIV care involve many new words and terms. We try our best to be clear about what these terms really mean and how they might affect your life.

On an optimistic note, it is likely that no matter how difficult things seem now, they will get better and easier. It is very important and reassuring to understand the great progress made in treating HIV. This is especially true for treatment in pregnancy.

With HIV drug therapy the risk of mother- to child transmission decreases from 31.5% to less than 2% (New Zealand National Health Committee, 2004).

There are lots of people, services and other sources of information to help you.

The advice that you receive from these sources and others may be different than that given to pregnant women generally. This includes information on medication, safe delivery methods and infant feeding advice.

Most people with HIV have a lot of time to come to terms with their diagnosis before deciding about treatment. This may not be the case if you were diagnosed during your pregnancy. Whilst pregnancy means that you may need to make some difficult decisions more quickly regarding treatment, as long as you are diagnosed early in pregnancy you will usually have time to ask questions before having to make decisions about your care.

Whatever you decide to do, make sure that you understand the advice you receive. Here are some tips if you are confused or concerned as you consider your options:

- Ask lots of questions
- Take your partner, a member of your family/Whanau or a friend with you to your appointments
- Try to talk to other women who have been in your situation

The decisions that you make about your pregnancy are very personal. Having as much information as possible will help you make informed choices.

The only “correct” decisions are those that you make yourself. You can only make these after learning all you can about HIV and pregnancy.

CAN HIV-POSITIVE WOMEN BECOME MOTHERS?

YES

Treatment has had an enormous effect on the health of HIV-positive mothers and their children. It has encouraged many women to think about having children (or having children again).

Your HIV treatment will protect your baby

The benefits of treatment are not just to your own health. Treating your own HIV will reduce the risk of your baby becoming infected.

How is HIV transmitted to a baby?

The exact way that transmission from mother to baby happens is still unknown. However, the majority of transmissions occur near the time of, or during, labour and delivery (when the baby is being born). It can also occur through breastfeeding.

Certain risk factors seem to make transmission during labour much more likely. The strongest of these is the extent of the mother's viral load. (see box on next page).

So, as with treatment for anyone with HIV, one important goal of therapy is to reach an undetectable viral load. This is particularly important at the time of delivery. The time between when your waters break and the actual delivery is possibly a risk factor for transmission. This period is called "duration of ruptured membranes".

Other risk factors include premature birth and lack of antenatal HIV care. Some key points to remember:

- The mother's health directly relates to the HIV status of the baby.
- Whether the baby's father is HIV-positive will not affect whether the baby is born HIV-positive.
- The HIV status of your new baby does not relate to the status of your other children.

Transmission of HIV is when the virus passes from one person to another. When this is from mother to baby it is called mother-to- child (MTCT), perinatal or vertical transmission

REGARDLESS OF PREGNANCY, WOMEN SHOULD RECEIVE OPTIMAL TREATMENT FOR THEIR HIV

Viral load tests measure the amount of virus in your blood. The measurements are in copies per milliliter—for example 20,000 copies/ml.

- Viral load is one measurement of the progression of HIV. The goal of treatment is to get your viral load to be undetectable - below 40 copies/ml.
- If a mother's viral load is undetectable when her baby is born, the chance of mother-to-child transmission is practically zero

Are pregnant women automatically offered HIV testing?

This has not been routine practice in New Zealand but has been discussed for some time as it is routine in other developed countries such as America and the UK.

In June 2005, the New Zealand Ministry of Health (MOH) announced its move to routinely offer antenatal HIV testing as part of routine antenatal care. This approach has begun in the Waikato District Health Board (DHB) region and will soon move into other DHB's in New Zealand. See www.nsu.govt.nz for further information about this.

Antenatal refers to the period before a baby's birth, the time in which the fetus (developing baby) grows in the uterus.

How do HIV drugs protect the baby?

Reducing the risk of a baby becoming HIV- positive was an early benefit of anti-HIV therapy.

PACTG 076 is the name of a famous joint American and French trial whose results were announced in 1994. This was the first study to show that using the drug AZT could protect the baby. Mothers took AZT before and during labour, and the baby received AZT for six weeks after birth. This reduced the risk of the baby becoming HIV positive from 25% to 8%.

After 1994, this strategy was recommended for all HIV positive pregnant women. Even further advances have been made over the last few years, especially since combination therapy became more common in the late 1990s. Transmission rates with combination therapy are now less than 2%.

AZT is still the only drug licensed for use in pregnancy. For this reason most doctors still prefer to include it in a woman's combination if she is pregnant. However, if you have resistance to AZT, you should not use this drug. Other reasons some women do not use AZT might be that they find the drug's side effects very difficult to manage or that they are already on an effective, stable combination that does not contain AZT.

In these cases, it may be OK to use a combination without AZT. Transmission rates of mothers using combinations without AZT are similar to those that contain AZT. A general rule of thumb is "What's best for mum is best for baby".

It is important to remember though that despite huge advances and successes, using combination therapy for pregnant women is still at a relatively early stage. Many aspects of its use are still unproven. You will need to discuss the benefits and risks of treatment with your healthcare team. This will include known and unknown short- and long-term factors.

Is it really safe to take HIV medicines during pregnancy?

In many cases, pregnant women are advised to avoid taking any medications. However, this is not the case when considering the use of HIV treatment during pregnancy. This difference can seem confusing. No one can tell you that it is completely safe to use HIV drugs while you are pregnant. Some HIV medicines, for instance, should not be used during that period. At the same time, however, many thousands of women have taken therapy during pregnancy without any complications to their baby. This has resulted in many HIV-negative babies being born.

During your antenatal discussions, you and your doctor or midwife will weigh up the benefits and risks of using treatment to you and your baby.

Your healthcare team also has access to an international birth defect registry. This has tracked birth defects in babies exposed to antiretroviral drugs since 1989. The

registry can be found at the following website: http://www.apregistry.com

So far, the registry has not seen a significant increase in the type or rate of birth defects compared to the babies born to mums not using HIV drugs.

Will being pregnant make my HIV worse?

Pregnancy does not make a woman's own health get any worse in terms of HIV. It will not make HIV progress any faster.

However, being pregnant may cause a drop in your CD4 count. This drop is only temporary. Your CD4 count will generally return to your pre-pregnancy level soon after the baby is born.

The drop may be a concern; however, if your CD4 falls below 200 cells/ X106/litre. Below this level, you are at a higher risk from opportunistic infections. These infections could affect both you and the baby, and you will need to be treated for them immediately if they occur. In general, pregnant women need the same treatment to prevent opportunistic infections (OIs) as people who are not pregnant (see page 18 for OI prevention and treatment during pregnancy). HIV does not affect the course of pregnancy in women who are receiving treatment. The virus also does not affect the health of the baby during pregnancy, unless the mother develops an OI.

CD 4 Cells

- CD4 cells are a type of white blood cell that helps our bodies fight infection. These cells are also the ones that HIV infects and uses to make copies of itself, and then to spread further.
- Your CD4 count is the number of CD4 cells in one litre of blood. Your CD4 count is one measurement of the stage of your HIV.
- CD4 counts vary from person to person, but an HIV-negative adult would expect to have a CD4 count within the range of 400-1,400 cells/ x106/litre. Some factors, such as being tired, ill or pregnant, can cause temporary drops in a person's CD4 count.
- A CD4 count below 200 cells/x106/litre is considered to be low, and nearly all treatment guidelines recommend starting treatment before the count reaches that level. You are more vulnerable to infection if you have a CD4 count below 200 cells/ x106/litre.

Opportunistic infections (OIs) are infections that can cause serious illnesses in people with low CD4 counts, as is the case with many HIV-positive people. OIs usually do not occur in people with healthy immune systems.
Examples of OIs that occur in HIV-positive people (generally when they are not using combination therapy) are PCP, CMV and MAC (see page 19).

PROTECTING AND ENSURING THE MOTHER'S HEALTH

Your own health and your own treatment are the most important things to consider to ensure a healthy baby. This cannot be stressed enough.

Overall, your treatment should be largely the same as if you were not pregnant. Circumstances where this is not the case are mentioned later on in this booklet.

Prevention of transmission and the health of your baby have a direct link to your own care. Antenatal counseling for HIV-positive woman should always include:

- Advice and discussion about how to prevent mother to child transmission;
- Information about treating the mother's own HIV now; and
- Information about treating the mother's HIV in the future.

Your child is certainly going to want you to be well and healthy as he or she grows up. And you will want to be able to watch him or her go to school and become an adult

A UK doctor who has successfully been using combination therapy to treat HIV-positive women during their pregnancy follows what she calls her "principles of care".

Principles of Care

- The mother should be able to make her own choices about how to manage the pregnancy. She should be able to choose her own treatment during the pregnancy.
- Healthcare workers should provide information, education and counseling that is impartial, supportive and non-judgmental.
- HIV should be intensively monitored during pregnancy. This is particularly important as time of delivery approaches.
- Opportunistic infections should be treated appropriately.
- Anti-HIV drugs should be used to reduce viral load to undetectable levels.
- Mothers should be treated in the best way to protect them from developing resistance to HIV drugs.
- Mothers should be able to make informed choices regarding how and when their babies will be born.

PLANNING YOUR PREGNANCY

Pre-conception; Planned pregnancy, and your rights to have a baby

Many HIV-positive women become pregnant when they already know their HIV status. Many women are also already taking anti-HIV drugs when they become pregnant.

If you already know that you are HIV-positive, you may have discussed the possibility of becoming pregnant as part of your routine HIV care—whether this pregnancy was planned or not.

If you are planning to get pregnant, your healthcare provider will advise you to:

- Consider your general health;
- Have appropriate check ups; and
- Treat any sexually transmitted infections.

You should also make sure you are receiving appropriate care and treatment for your HIV. Some discrimination still exists against HIV- positive people who decide to have children.

However, things are much more positive now than they were a few years ago. To avoid any problems related to this sort of discrimination, you should follow these steps:

- Choose a healthcare team and maternity hospital that supports and respects your decision to have a baby.
- If you are not supported in this decision, then you should arrange to see a doctor and healthcare team with more experience in dealing with HIV.
- You may not be able to travel to a centre with this expertise. In this case, you should contact them for advice, support and to find out your rights.

What to do when one partner is HIV positive and the other is HIV- negative

There is still controversy over the best advice to give to sero-different couples. (When one partner is HIV positive and the other HIV- negative.)

It is usually unwise for sero-different couples to have unsafe sex. Even when politely called a “conception attempt”, there is always a risk to the HIV-negative partner of contracting HIV.

For an HIV-negative woman, for example, the chance of becoming HIV-positive from having unprotected sex will depend on many things, including the viral load in the semen of her male partner. (It is important to remember that an undetectable viral load result from a blood test does not mean that viral load is undetectable in semen.

For an HIV-negative man, transmission risk depends on the level of viral load in the genital fluids of his female partner. Again, an undetectable viral load in blood does not always mean the same as in genital fluid.

Other factors are also important. An uncircumcised man may be more at risk of contracting HIV and having sex with an uncircumcised HIV-positive man is of greater risk to an HIV-negative woman than sex with a circumcised man.

Infections of the genital tract also increase the risk of sexual transmission of HIV. Regardless of the method of conception, both members of a sero-different couple should check for such infections. This should include screening and treatment for other sexually transmitted infections.

The man should have a semen analysis. This can rule out any infection and also to ensure that his sperm count is fit and healthy.

All these risk factors aside, HIV is actually quite a difficult virus to transmit. Statistically it is much harder to transmit HIV than to get pregnant. Therefore, limited conception attempts made during ovulation (a woman’s fertile period) may carry a low risk if the positive partner has undetectable levels of viral load. But there is still a risk involved for both male and female negative partners from any single unprotected exposure. After all, people can conceive from one attempt and also become HIV-positive from one exposure.

Overall since the beginning of the HIV epidemic in New Zealand, 13.4% of HIV cases have been women infected heterosexually (17th Quarterly Report of the AIDS Epidemiology Group August 2006). Most would consider this an unacceptable risk.

Although a low number of conception attempts can be relatively safe, some couples do not return to safer sex afterwards. This may result in the negative partner then becoming HIV-positive.

HIV is still a disease that can affect the rest of your life. If one of you has stayed HIV- negative until now, you don’t

want to change this over a decision to have a baby. For those who wish to conceive, there are other options that involve almost no risk to the negative partner. These options are discussed below.

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

When the man is HIV-positive and the woman is HIV negative, it may be possible to use a process called sperm washing.

This involves the man giving a semen sample to a clinic. A special machine then spins this sample to separate the sperm cells from the seminal fluid. (Only the seminal fluid contains HIV-infected white blood cells; sperm cells themselves do not contain infectious HIV.).

The washed sperm is then tested for HIV. Finally, a catheter is used to inject the sperm into the woman's uterus. In vitro fertilisation (IVF) may also be used, especially if the man has a low sperm count.

An Italian doctor first developed the sperm washing process. His clinic alone has used the process for over 3,000 samples of sperm washing. There have been no cases of HIV transmission to women from sperm washing. It has also led to the birth of over 600 HIV-negative babies. Currently, this appears to be the safest way for an HIV-negative woman to become pregnant from an HIV-positive man. For more information, ask to be referred to your local fertility clinic, who can advise you regarding the availability of this treatment.

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

The options are usually much simpler in this situation.

Do-it-yourself artificial insemination or "self insemination" using a plastic syringe carries no risk to the man. This is the safest way to protect the man from HIV.

Around the time of ovulation, you need to put the sperm of your partner as high as possible into your vagina. Ovulation takes place in the middle of your cycle, about 14 days before your period.

Different clinics may recommend different methods. One way is to have protected intercourse with a spermicide-free condom. Another is for your partner to ejaculate into a container. In both cases, you then insert the sperm into your vagina with a syringe.

Your HIV team can provide the container and syringe. They can also give detailed instructions on how to do this, including advice on timing the process to coincide with your ovulation.

When both partners are HIV- positive

For couples in which both partners are HIV- positive, some doctors still recommend safer sex. This is to limit the possibility of re- infection with a different strain of HIV.

It is likely that this risk is very low, but it is possible. This risk of re-infection is even less likely if you only have unprotected sex a few times in order to conceive a baby. Here are some other things to consider about the risk of re-infection:

- The risk between HIV-positive couples is also likely to relate to viral load levels.
- This risk is likely to be higher if one partner is doing well on treatment while the other partner is untreated and/or has a high viral load.
- The risk is more serious if one partner is resistant to HIV treatment.

If you routinely practice safer sex, you may be advised to limit unprotected sex to the fertile period. You could also follow the advice for sero-different couples. For HIV-positive couples who do not practice safer sex now, continuing to do so to conceive a baby will carry no additional risk.

All these options involve very personal decisions. Knowing and judging the level of risk is also very individual.

All methods of becoming pregnant carry varying degrees of risk, cost and chance of success. These increase with every exposure.

If you are planning a pregnancy, take the time to talk about these options with your partner. This way you can make decisions that you both are happy with.

Can I get help if I am having difficulty conceiving?

All couples could experience some fertility difficulties, regardless of who is HIV-positive or if both are.

There are things you can do, though, which have all had some success. But sometimes they are not as easy as they sound.

If you have fertility problems, ask your doctor about assisted reproduction. Ask about the possibility of referral to a fertility clinic with experience of HIV.

Is fertility treatment available to HIV-positive people?

Yes. Fertility is as important when trying for a baby whether or not you are HIV-positive. The same fertility support services should be provided for HIV-positive people as for HIV- negative people. There will also be the same levels (which can be quite strict) of screening given to you as any couple accessing fertility treatment.

You may encounter resistance to this help because you are HIV-positive. If you do, then you can and should complain about this. You may want to choose a clinic that is more sympathetic, or perhaps a clinic that has more experience with HIV-positive parents.

Fertility Plus, the clinic associated with Auckland District Health Board, has developed protocols for treating couples where one or both partners are HIV positive which have been approved by the national ethics committee.

If you are living outside Auckland it may be helpful for you to ask your doctor to refer you to the local clinic, the staff there can contact Fertility Plus on (09) 630-9810 to discuss providing the service.

The Swiss Statement

The "Swiss Statement" was issued in January 2008 by the Swiss Federal Commission on AIDS Related Issues (and expert group of doctors and researchers). This group was concerned about the legal situation to HIV positive people in Switzerland and for serodifferent couples (when one person in HIV+ and the other is not) who wanted to have a baby.

They were worried about the accuracy of public and private information about the risk of HIV transmission for people in on antiretroviral treatment.

One of the reasons that they issued the statement was to give doctors guidance to help serodiscordant couples wishing to conceive a child. Many couples are unable or unwilling to use sperm washing or other methods of assisted reproduction and need to be able to make informed decisions about the level of risk involved with having sex when using antiretrovirals.

The statement described the transmission risk for someone on stable therapy as "negligible" and "similar to risk of daily life". It explains that, for example, even condom use is not 100% safe.

The statement makes it very clear that this description of someone at a very low risk of transmission only applies to someone who:

- Is in a monogamous relationship
- Is on antiretroviral treatment and has excellent adherence
- Has an undetectable viral load for at least 6 months
- Has not other sexually transmitted infections

The Swill doctors calculated that conceiving naturally under these circumstance would be unlikely to lead to HIV infection in the HIV negative partner. They were not recommending that condoms should now be abandoned forever – just that the risks during limited conception attempts were so small compared to the importance for many couples to have children.

If you want to read more about the Swiss Statement go to: **http://www.aids.ch/e/fragen/pdf/swissguidelinesART.pdf**

ANTENATAL CARE AND HIV TREATMENT

New Zealand guidelines for treatment are currently being developed. For the purpose of this booklet, British guidelines have been published.

Antenatal care covers all the care that you receive during your pregnancy in preparation for your baby's birth.

Antenatal care is not only about medicine and about tests. It includes counseling and providing information like this booklet. It also includes advice on your general health such as taking exercise and stopping smoking.

While it is beneficial that members of your healthcare team have some experience working with HIV-positive women (i.e. your obstetrician, midwife, paediatrician and other support staff). What really matters however is that you are able to select a team that you trust and feel safe with and that are competently able to offer choices based on well researched information.

It is also important that the people responsible for providing your care understand the most recent developments in preventing mother-to-child transmission and in HIV care.

Does every HIV-positive woman need to use treatment in pregnancy?

Every pregnant woman with HIV should strongly consider treatment during pregnancy, even if it is only used for a short time or just at the end of the pregnancy and stopped after the baby is born. This is regardless of the mother's CD4 or viral load counts.

"Treat as non-pregnant adult" is advice generally given when caring for HIV-positive pregnant women. However, treatment recommendations for pregnant women are slightly different than those for other HIV- positive adults.

Many people think that once you start HIV treatment, you have to continue for the rest of your life. This is not true.

Sometimes people use treatment just for a period; then they stop. This is especially common after pregnancy.

"Treat as non-pregnant adult'

- This is a very commonly used phrase in HIV and pregnancy. This means that generally your HIV is treated as if you were not pregnant.
- There are some exceptions—particularly when you do not need treatment for your own HIV and concerning some of the commonly used HIV drugs.

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

Current UK guidelines recommend starting treatment while your CD4 count is about 200 cells. Treatment is not usually recommended at much higher CD4 levels unless you have HIV related health problems.

However, studies show that HIV treatment can reduce the risk of transmission even with mothers who had low viral loads that are less than 1,000 copies/ml before they started treatment, (Transmission dropped from almost 10% in untreated women to less than 1% in women treated with anti-HIV drugs.)

As a result, it may be appropriate to offer treatment to all HIV-positive pregnant women, even those with CD4 counts over 200 cells who have never been on treatment before.

Resistance

- If you just take one drug (monotherapy) or a combination of drugs that are not strong enough to get your viral load undetectable, then HIV can become resistant to the drugs.
- If you are resistant to a drug it will no longer work as well—or it may not work at all.
- To avoid resistance, you need to take a combination of at least three antiretroviral drugs.
- It is important to avoid resistance in pregnancy.

What treatments might be offered to me?

Currently, most women are offered Short Term Antiretroviral Therapy (START) after the second trimester at 24 – 28 weeks. This involves taking a combination of three drugs.

Very occasionally monotherapy (a single drug) is offered, however this is not used often as it carries a low risk of developing resistance to the drug and to other drugs in the same family.

Treatment options will be discussed and tailored to your individual needs.

Benefits of START:

- Using three drugs can reduce your viral load to undetectable, which has shown the lowest transmission risk to date.
- Using three drugs can lessen the possibility of developing resistance, which can protect your options for future treatment. For more information on this see page 20.
- You will have a choice over mode of delivery

Risks of START:

- Your baby will be exposed to a greater number of drugs.

What if I'm HIV-positive and need treatment for my own HIV?

You may only find out that you are HIV- positive when you are already pregnant. As mentioned earlier, this can be a very difficult time practically and emotionally.

Guidelines currently recommend that all HIV- positive people with CD4 counts under 200 cells consider being on treatment, including pregnant women. Treatment will also depend on when in your pregnancy you are diagnosed with HIV.

If you are diagnosed early on in your pregnancy, you may wish to delay starting treatment until the end of the first trimester. This is the first 12 to 14 weeks from your last missed period. You may also want to delay treatment over this period if you already know your HIV status but have not yet started treatment.

There are two main reasons for delaying treatment:

The first is that the baby's main organs develop in the first 12 weeks in the womb. During this time the baby may therefore be vulnerable to negative effects from any medicines, including anti-HIV drugs. Studies have not shown any increased risk to babies whose mothers have used HIV treatment during the first trimester, compared to those who did not use treatment in this period. But some women and their doctors may still prefer to delay treatment.

A second reason to delay treatment is that some women may experience nausea or "morning sickness" in the early stage of pregnancy. This is very normal. But symptoms of morning sickness are very similar to the nausea that can occur when starting HIV treatment. You do not want (or need) to have both at the same time.

This can also make taking medication harder. If you feel rough because of morning sickness, you are unlikely to want to take any treatments that increase this nausea. And if you do get bad morning sickness or are being sick, this could cause problems with missed doses.

If morning sickness continues after the first trimester, you and your doctor should take this seriously as it could signal other problems.

If you want to begin treatment immediately, or your need to start is urgent because you have a low CD4 count, this is something your doctor and/or midwife will discuss with you.

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.

Even treatment for one week with combination therapy can reduce your viral load very quickly by a large amount.

What if I am already using HIV treatment when I become pregnant?

Many women decide to have a baby when they are already on therapy. This speaks volumes about the tremendous advances made with HIV drugs.

Women feel well. They are healthy. They are thinking about long-term relationships. They are thinking about a future and possibly a family.

Some women who conceive while already on combination therapy may wish to stop their therapy during the first trimester. It is very important that you discuss any medication changes with your doctor first.

It still may be a reasonable option for you. It is an easier option if you are on stable therapy and have had a good CD4 count from when you began your treatment. But it will not be a safe choice for everyone, and careful monitoring is essential throughout.

Sometimes it is difficult to get an undetectable viral load again after a break in treatment. There can also be a risk of resistance from stopping.

It is now increasingly common for women who conceive while they are on treatment to continue on treatment throughout their pregnancy.

Studies have not shown any increased risk to the mother or baby from using continuous treatment throughout the pregnancy.

HIV DRUGS DURING PREGNANCY

Which drugs should I use?

Like all decisions relating to HIV treatment, there are no hard and fast rules. Your treatment should be individual. It should suit your own health and your own situation.

Using triple combinations

It is likely you will be recommended to use AZT as part of your combination. This is because AZT is still the only HIV drug licensed for use in pregnancy.

If you do not need to use treatment for your own health, you may decide to use "START" (see page 12-13). You will probably be recommended to use AZT plus 3TC as two of the drugs as there is a lot of data on them regarding pregnancy.

However, because 3TC resistance develops very easily, it might be suggested that you don't use these two drugs alone. You could use them with another HIV drug in a triple combination. This third drug will probably be a protease inhibitor

The protease inhibitor is likely to be lopinavir boosted with ritonavir (called Kaletra and in one pill) or nelfinavir. However with the increased advances in HIV drug treatments you could be offered something else. If you plan to stop treatment straight after your baby is born a protease inhibitor has another advantage in that your body processes protease inhibitors relatively quickly. If you are taking it with AZT and 3TC, you can stop all your treatments at the same time with a low risk of resistance.

Another drug that is often used is an NNRTI called nevirapine, which is a drug that has been widely used in pregnancy:

There is however a caution against the use of nevirapine for women with CD4 counts above 250 cells because of a risk of liver (hepatic) toxicity. Pregnant women are perhaps more likely to match this description than non- pregnant women, especially if choosing short course therapy. In this case they should use an alternative drug where there is a choice. It appears to be safe for women with lower CD4 counts (below 250 cells). There is no concern with people who have used nevirapine successfully in their combination and gained a higher CD4 count on treatment.

Nevirapine quickly reaches the HIV in every part of your body. However, it also has a long "half life", which means it stays in your body for some time after you have taken it.

When you stop taking a combination that includes nevirapine or another NNRTI, you will need to discontinue this drug about a week earlier than other drugs. This will reduce the risk of developing nevirapine resistance.

If you are already using combination therapy, you are likely to remain on the same combination. If you are using Efavirenz or ddI and d4T together, you may need to stop or switch those drugs. This will also depend on what other choices are available to you.

See the section about which drugs are not recommended for pregnancy, on page 16.

If you have side effects, or your viral load is detectable, your doctor will also look for a possible switch in therapy.

Combination therapy or highly active antiretroviral therapy (HAART) are terms used to describe a strategy of using three or more drugs to treat HIV.

- Anti-HIV drugs are not effective for treating HIV individually (monotherapy), but they can be very effective in combination.

Finally, if you only find out that you are HIV- positive very late into your pregnancy or in labour you will have specific treatment. Depending on your CD4 count you are likely to be offered nevirapine. This drug is absorbed very rapidly and is the most effective drug for reducing mother-to-child transmission in this situation.

As resistance to nevirapine develops easily, you need to use it with two other drugs. These are often AZT and 3TC (called Combivir, when together in one pill).

It is best to continue with this triple combination until your viral load is below 40 copies/ml. This will reduce the risk of resistance.

If you choose to stop treatment after this, you will need to stop the nevirapine before the other two drugs. It may also be a good idea though to stay on treatment until you and your doctor have a clearer picture of your own health and treatment needs.

You should only continue treatment if you are strictly taking every dose as prescribed. In some circumstances, depending on the drugs you are using and your birth plan, you may also receive AZT intravenously (IV) during labour or prior to caesarean section.

Are any drugs not recommended in pregnancy?

Safety data means that a drug has been used safely in a certain number of people. Generally the more information we have on use of a drug in a large number of people, the more confidant we can be that it is safe to use in that population.

Efavirenz is not recommended in pregnancy. This drug caused neural tube defects (brain damage) in the developing foetus in a single animal study. So far there are no reports of increased risk of neural tube damage in human babies. But, if other treatment options are available, there is a strong caution against its use. This is most important during the first 12 weeks of pregnancy when the neural tube is developing.

If you are already 12 or more weeks pregnant and have been taking Efavirenz during this time you will need two tests. Firstly, it is important that you receive early ultrasound evaluation. You will also have another test called maternal alpha fetoprotein test. This is a screening test for neural tube defects. After the first trimester, there may be no point in stopping Efavirenz if you are doing well on it. Sometimes it may even be a good option to use after a late diagnosis if you have a higher CD4 and nevirapine is not recommended.

There is a strong warning to avoid using the drugs ddI and d4T together in pregnancy. There have been several reports of fatal side effects in pregnant women using both these drugs together. d4T is no longer recommended for first-line therapy .

Should I expect more side effects when I am pregnant?

Approximately 80% of all pregnant women using HAART 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.

Most side effects are minor and usually resolve quickly. They include nausea, headache, feeling tired and diarrhoea. Sometimes, but more rarely, they can be very serious.

One big advantage of being pregnant is the thorough monitoring at regular clinic visits. This will make it easier to discuss any side effects with your doctor.

Non-nucleoside reverse transmission inhibitors (NNRTIs) and protease inhibitors (PIs) are both types (or classes or families) of antiretrovirals that control the virus in different ways, both to each other and to NRTIs. So in addition to two NRTIs. Triple therapy will generally contain either an NNRTI or a PI.

Nucleoside analogues (NRTIs or nukes) are one type of HIV drug and include AZT, ddI, 3TC, abacavir and tenofovir (a nucleotide). Usually a first HIV combination will include two of these drugs and either a non-nucleoside reverse transcriptase inhibitor (NNRTI) or a protease inhibitor (PI).

Some side effects of HIV medicines are very similar to the changes in your body during pregnancy, such as morning sickness. This can make it harder to tell whether treatment or pregnancy is the cause. Many HIV medicines can cause nausea and vomiting. This is more common when you first begin taking them. If you are pregnant, though, such side effects can present extra problems with morning sickness and adherence. Some tips to reduce nausea, and to help with adherence, are included on page 25.

You may feel more tired than usual. Again, this is to be expected, especially if you are starting HIV treatment and pregnant at the same time. Anaemia (low red blood cells) can cause tiredness. It is a very common side effect of both AZT and pregnancy. A simple blood test checks for this. If you have anaemia you may need to take iron supplements.

All pregnant women are at risk of developing diabetes during pregnancy. In theory, women taking protease inhibitors in pregnancy have a higher risk of this common complication. So, you should be sure to have your glucose levels monitored and be screened for diabetes during pregnancy. This is routine for all pregnant women.

Outside of pregnancy, protease inhibitors have been associated with increased levels of bilirubin. This is a measure of the health of your liver.

Indinavir is the protease inhibitor mostly associated with raised levels of bilirubin Your healthcare team will follow you and your baby's bilirubin levels very carefully. This is because extremely high levels of neonatal bilirubin levels may damage a baby's developing brain.

To date, though, there are no reports of seriously high bilirubin levels in mothers using protease inhibitors in pregnancy, or in their babies.

Pregnancy may be an additional risk factor for raised levels of lactic acid. Your liver normally regulates this.

Lactic acidosis is a rare but dangerous and potentially fatal side effect of nucleoside analogues. Using d4T and ddI together in pregnancy appears to be particularly risky.

This combination is now not recommended in pregnancy.

Preclinical testing. Before any drugs are tested on humans they will be tested in the laboratory and on animals. This will not always show what will happen when people use the drugs, but it can provide a guide to serious problems that could occur.

RESISTANCE, MONITORING AND OTHER TESTS

What about resistance?

Drug resistance is an important issue during pregnancy. Some strategies to reduce mother- to-child transmission can also easily lead to resistance.

Using only one drug (monotherapy) or two drugs (dual therapy) are not good options as the minimum treatment for an HIV-positive person. Therefore, neither of these should be used for HIV-positive woman who are pregnant and require treatment for their own HIV. Of strategies for pregnant women who do not require treatment, AZT used alone is less likely to induce resistance than AZT plus 3TC or nevirapine alone.

If you are already using combination therapy and your viral load is not undetectable, it is important that you look at why this is occurring with an expert. This is very important for your own and your baby's health.

Resistance can develop when your viral load is detectable. This will affect your long-term health. Viral load at time of delivery is also strongly linked with risk of transmission to your baby.

Taking a treatment break, if not managed properly, can lead to resistance. Not taking all your pills at the right time can also lead to resistance.

It is also possible to transmit resistant virus. A baby born with drug resistant HIV virus is much harder to treat.

Mono and dual therapy

Monotherapy is using only one HIV drug and dual therapy uses two drugs. Neither strategy has been as effective as using three drugs for treating HIV. In some circumstances though, these strategies are still recommended for reducing mother-to- baby transmission.

Will I need extra tests and monitoring?

Both pregnancy and HIV require good monitoring. For HIV you will have your viral load and CD4 carefully monitored. You may also need a resistance test.

In addition to your HIV care you will be screened for hepatitis, syphilis and other sexually transmitted diseases and anaemia. Sexually transmitted diseases and vaginal infections can increase HIV transmission.

You may also need to be screened for toxoplasmosis, human herpes simplex virus and cytomegalovirus (CMV). These are common infections that can be transmitted to your baby. The tests should be performed as early as possible in your pregnancy. You should be treated for these if necessary. Your clinic will provide a thorough gynecological check up. This will include a cervical smear, which is particularly important if your CD4 is below 200 cells. Otherwise, tests will be fairly routine, and may vary slightly from doctor to doctor. Routine tests include blood pressure, weight and blood and urine tests.

Unless you need extra care you will probably visit your clinic monthly for most of your pregnancy and every week after the eighth month.

Are there any tests I should avoid?

Some tests and procedures commonly used to evaluate mothers and developing babies carry a theoretical risk of increased HIV transmission. However, this risk has not been clearly demonstrated in a study of women taking combination therapy.

HIV-positive pregnant women are generally advised to avoid the following tests unless they are essential:

- Amniocentesis
- Chorionicvillus sampling
- Fetal scalp sampling
- Cordocentis
- Percutaneous umbilical cord sampling
- Internal fetal labour monitoring (external ultrasound and fetal monitoring are perfectly OK)

Your healthcare team can explain what these tests are and why it is not recommended to have them. Alternative,

noninvasive antenatal screening tests are available. You should discuss this with the Obstetrician/Midwife caring for your pregnancy.

Opportunistic Infection (OI) prevention and treatment during pregnancy

Treatment and prevention for most OIs during pregnancy is broadly similar to that for non-pregnant adults. Only a few drugs are not recommended.

Your healthcare provider should regularly check for OIs as part of your ongoing HIV care, and as your immune systems recovers using HAART. You may need to be treated for other infections, especially if you are diagnosed with HIV during pregnancy.

Prevention and treatment of Pneumocystis carinii pneumonia (PCP), Mycobacterium avium complex (MAC) and tuberculosis (TB) infections are recommended if necessary during pregnancy.

Prevention against cytomegalovirus (CMV), candida infections, and invasive fungal infections is not routinely recommended because of drug toxicity. Treatment of very serious infections should not be avoided because of pregnancy.

Vaccine use while pregnant

Hepatitis B, flu and pneumococcal vaccines may be used during pregnancy. They should only be used after your viral load has become undetectable with combination therapy, however, because there is a temporary increase in viral load after vaccination. You may prefer to wait until after your pregnancy to have these vaccinations if necessary.

Live vaccines including measles, mumps and rubella should not be used during pregnancy.

Treating recurrent genital herpes during pregnancy

A large number (about 75%) of women with HIV also have genital herpes. HIV-positive mothers are far more likely to experience an outbreak of herpes during labour than negative mothers. To reduce this risk, preventative treatment for herpes with acyclovir is often recommended. This is safe to use during pregnancy.

Herpes is very easily transmitted from mother to child. Even if someone is below detection on combination therapy, herpes sores contain high levels of HIV. The herpes virus can also be released from the sores during labour. This will put the baby at risk from neonatal herpes and at increased risk of HIV. Delivery by caesarean section may be recommended if there is concern about active genital herpes infection.

HIV and hepatitis co-infection

How easy is it to transmit hepatitis C from mother to baby?

If you are co-infected with hepatitis C virus (HCV) and HIV—you may discover this through routine screening in pregnancy— there is a risk of transmission of HCV of between 15% to 18% when the mother also has HIV.

BHIVA guidelines recommend a planned C- section delivery for those who are co- infected, but there have been no studies to show benefit of C-section over vaginal delivery for HIV/HCV co-infected mothers.

What about hepatitis B?

It is very likely that mothers with active hepatitis B virus (HBV) will transmit to their babies (90%). However, transmission can be prevented by immunising the baby against HBV shortly after he or she is born. This is standard practice in the New Zealand.

It may be appropriate for the mother's combination to include HIV drugs that also work against HBV, in particular 3TC and tenofovir.

Women with hepatitis co infections will also be seen by a liver specialist as well as their HIV medical team.

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.

Some studies show a trend towards prematurity and low birth rate for babies born to mothers taking treatment with three or more drugs, an effect that may be associated with protease inhibitors. Other studies do not show this, however. It is difficult to know if there are any long-term effects. Today, even children who were first exposed to AZT monotherapy during their mothers' pregnancy are not older than sixteen. Children first exposed to combination therapy are not more than eight years old now.

Careful follow-up of children exposed to AZT has not shown any differences compared with other children in tests and research conducted do far.

All children born to HIV-positive women in the UK (and other countries including New Zealand) are also being monitored. This close monitoring will provide important safety information in the future.

Will HIV drugs affect the baby?

These concerns are justifiable. Unfortunately there are no definite answers, although overall the drugs do seem reasonably safer. Some reports have looked at the risk of prematurity, birth defects and mitochondrial toxicity in babies.

How have combination therapy and protease inhibitors been linked to prematurity?

There was initial caution over the use of protease inhibitors. This was over possible links to prematurity (delivery before 37 weeks) and low birth rate. As we noted earlier some studies show a link and others do not.

Can anti-HIV drugs cause birth defects?

No particular abnormality in children has so far been linked to exposure to HIV treatments.

There are also no differences between mothers who started therapy in the first trimester or who began later in their pregnancy—although the numbers of women in these studies is still fairly low.

So far no adverse effects on these children's development have been reported either.

What about mitochondrial toxicity?

Mitochondria are the "energy producing factories" that lives within our cells. There have been a small number of reports that the use of 3TC and AZT in pregnancy may be linked to mitochondrial damage in children.

In a large study from America, medical records of over 20,000 HIV-negative children born to HIV-positive mothers were searched for abnormalities associated with mitochondrial damage. The study was designed after reports from France of two deaths of infants exposed to AZT and 3TC and six other cases of mitochondrial toxicity.

This large study failed to show evidence of fatal mitochondrial damage in children exposed to these drugs during their mothers' pregnancy. This was very reassuring.

In a rare number of cases though, short-term mitochondrial toxicity can be a problem in newborn babies. A very small number of babies have been reported with severe lactic acidosis and anaemia believed to be linked to anti-HIV drugs. All have recovered with appropriate care.

What about anaemia?

Anaemia has been reported in babies born to mothers on HIV medications but this passes quickly and rarely requires a transfusion.

Will my baby be monitored for these symptoms?

Yes. Babies born to HIV-positive mothers on treatment will be monitored very carefully.

CHOICES FOR DELIVERY AND USE OF C-SECTION

The way your baby is born—whether you choose to have a vaginal birth or Caesarean section (C-section)—is controversial for HIV- positive women. The operation must be carried out before the onset of labour and ruptured membranes. This is called "elective" C-section.

Several early studies showed that elective C- section significantly reduced mother-to-child transmission compared to vaginal birth.

But these studies were before combination therapy and viral load testing were routinely used. Whether or not elective Caesarean delivery offers any additional benefit to babies born to mothers using combination therapy with an undetectable viral load is unknown.

Should I have an elective C- section?

If you do not need treatment for your own health and choose to use AZT alone, an elective C- section is recommended to reduce transmission risk to minimal levels.

As mentioned above, studies showing a reduced risk of transmission from using C- section do not account for the benefits from combination therapy.

If a woman's viral load is undetectable, there is such a low risk of transmission associated with either mode of delivery that it may never be possible to show an advantage in transmission risk either way. Interestingly, HIV transmission to the baby is rare among mothers who are taking HAART, even when their viral load is greater than 40 copies/ml.

What strategy is recommended?

As you are the woman giving birth, the options for delivery can be discussed by you and your health care team and your wishes must be taken into account.

A choice of either C-section or vaginal birth is offered when a mother's viral load is below detection on combination therapy.

What is the likelihood of complications?

As mentioned earlier, C-section is major surgery. Therefore, complications— particularly infections—are more common in women having C-sections than women having vaginal delivery.

C-sections appear to carry a slightly greater risk of complications among HIV-positive women compared to HIV-negative women. The difference is most notable in women with more advanced disease.

Caesarean or C-section is a procedure to deliver a baby that involves making a cut through the abdominal wall to surgically remove the infant from the uterus. The advice in this booklet concerning C-section may be different than the advice that you receive in your clinic from your healthcare team.

Some countries still prefer to deliver babies by C –section if the mother is HIV positive, however as new research comes out this is changing.

It is therefore important to understand that if your HIV is well managed and your viral load is below detection, then your baby is at no greater risk from a vaginal birth than a C-section.

Babies delivered by elective C-section at 37 to 39 weeks are more likely to receive breathing support for respiratory disease than those born naturally at 39- 41 weeks.

An elective C-section will also not offer protection to your baby if you go into labour earlier than expected.

There is also no benefit if your waters break before your C-section.

Will a C-section now stop me having a natural birth in the future?

This is a very important consideration. If you use a C-section now, an HIV positive woman with a previous section is more likely to be recommended a repeat section, however, if she had a fully suppressed viral load, the option of "vaginal birth after caesarean section" VBAC) would be discussed.

This is important to know if you plan to have more children in a country where elective C- section is not possible, safe or easily available.

How do I make a decision?

The first thing to remember is that you have the right to choose how you deliver your baby. Your doctor and other caregivers must respect and support your decision.

Before making a choice, though, it is important that you are informed of the risks and possible benefits associated with Caesarean delivery. You should spend time discussing any concerns that you have with either mode of delivery with your healthcare team.

It is also important that you and your doctor make sure that your HIV is well managed and that your viral load is below 40 copies/ml. This is not only for the risk of transmission but for your own health.

Is there anything else that I should remember for the birth?

Many books on pregnancy recommend that you pack a bag or small suitcase in advance. This is especially important if you choose a natural, unscheduled delivery. Include pyjamas or something to wear in hospital, a toothbrush, and wash bag—and of course your anti-HIV drugs.

It is very important that you remember to take all your drugs on time as usual. This is a critically important time to make sure that you don't miss any doses. Remembering to do so can be difficult with everything going on, particularly if you are waiting for a long time.

Make sure that your partner or friend and most importantly your healthcare team know your medication schedule, where you keep your medication, and feel comfortable helping you to remember to take your pills on time.

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.

This is hardly surprising. Having a new baby can be a huge shock and is always unsettling. Your routines will change and you are unlikely to get enough sleep.

You will need lots of extra support from your family, friends and healthcare team. You may also find a community group very helpful.

Many mothers find the best way to remember to take their own medication is if they link it to the dosing schedule of their new baby. So if your baby has two doses a day and you have two doses, make sure that they are taken at the same time. On pages 26 and 27 are charts to help you and your baby in the first 6 weeks.

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

Babies born to HIV-positive mothers will always test HIV-positive at first. This is because they have their mum's immune system and share her antibodies. If your baby is not infected with HIV these will gradually disappear. This can sometimes take as long as 18 months.

The best test for HIV in babies is very similar to a viral load test. Called an HIV PCR DNA test, it looks for virus in the baby's blood rather than at immune responses.

Good practice is to test babies the day they are born, and then when they are six weeks and three to four months old. If all these tests are negative, and you are not breastfeeding your baby, then your baby is not HIV-positive.

You will also be told that your baby no longer has your antibodies when he or she is 18 months old. This exciting milestone is called seroreversion.

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

Your baby will need to take HIV drugs for probably four to six weeks following his or her birth. The most likely drug will be AZT taken twice daily in a liquid form. In a few cases your baby may be given another drug or combination therapy if you are resistant to AZT.

As we suggested earlier, try and co-ordinate the baby's prophylaxis treatment with your own treatment schedule.

To check the baby is HIV negative:

HIV PCR DNA – a polymerase chain reaction (PCR) test is a highly sensitive test that detects tiny amounts of HIV DNA in blood plasma. The test will "amplify" or multiply the DNA so that it can be more easily detected.

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 would not be foolproof birth control. Please make sure your doctor knows about this and can advise you.

BREASTFEEDING: OPTIONS AND RISKS

Whether to breast feed or not is an ongoing dilemma. Initial research indicated that the risk of transmitting HIV from mother-to-baby via breast milk is 15-20% (World Health Organisation) and other research determines this risk as high as 28%.

Bottle-feeding or formula milk

HIV-positive mothers living in developed countries are generally recommended to bottle feed their babies with formula milk. We recommend that you discuss this fully with your health care provider.

Can I breastfeed occasionally?

It is very strongly recommended that you do not breastfeed occasionally. In fact, one study showed that "mixed feeding" may carry an even higher transmission risk than if you breastfeed exclusively.

Sometimes people ask me why I do not breastfeed

Sometimes mothers can be worried that being seen to be bottle-feeding will identify them as HIV-positive.

It is up to you whether or not you tell anyone that you are HIV-positive.

If you do not wish to tell anyone that you are breastfeeding because you are positive, your doctor or midwife can help you with reasons to explain why you are bottle feeding.

For example, you can say you have cracked nipples or that the milk didn't come, both of which are common.

You are not a bad mother if you do not breastfeed.

MORE TIPS...

Tips to help drug adherence

First of all, get all the information on what you will need to do before you start treatment:

- How many tablets?
- How often do you need to take them?
- How exact do you have to be with timing?
- Are there food or storage restrictions?
- Are there easier choices?

Additional tips for once you begin treatment:

- Use the charts on pages 26-27 to plan your timetable. Use them to get used to the routine. For the first few weeks mark off each dose and the time that you took it. You can also use this to link your routine to your new baby's.
- Divide up your day's drugs each morning and use a pillbox. Then you can always check whether you have missed a dose.
- Take extra drugs if you go away for a few days.
- Keep a small supply where you may need them in an emergency. For example, in your car, at work or at a friend's.
- Get friends to help you remember difficult dose times or when you go out at night.
- Ask people already on treatment what they do. How well are they managing?
- Most treatment centres can arrange for you to talk to someone who is already taking the same treatment if you think that would help.
- Make sure that you contact your hospital or clinic if you have serious difficulties with side effects. Staff members there can help and discuss switching treatment if necessary.

Tips to help with morning sickness or drug-associated nausea

- Eat smaller meals and snack more frequently rather than eating just a few larger meals.
- Try to eat more bland foods. Avoid foods that are spicy, greasy or strong smelling.
- Leave some dry crackers by your bed. Eat one or two before you get up in the morning.
- Ginger is very helpful. It can be used in capsule or as ginger root powder. Fresh root ginger peeled and steeped in hot water can help.
- If cooking smells bother you, then open the windows while cooking. Keep the room well ventilated. Microwave meals prepare food quickly and with minimum smells. They also help you eat a meal as soon as you feel hungry. Getting someone
- Don't eat in a room that is stuffy or that has lingering cooking odours.
- Eat meals at a table rather than lying down. Don't lie down immediately after eating
- Try not to drink with your meal or straight after. It is better to wait an hour and then sip drinks. It is important for pregnant women not to become dehydrated though so do remember to drink outside mealtimes.
- Try eating cold rather than hot food. Or let hot food cool well before you eat it.
- Peppermint is also useful. It can be taken in tea or in chewing gum.
- Acupressure and acupuncture may help. Anti-nausea acupressure bands are available from most chemists

MOST IMPORTANTLY, TRY TO ENJOY YOUR PREGNANCY AND ENJOY YOUR BABY

ADHERENCE SUPPORT CHARTS

Schedule Planner

Use this chart to plan your pill timetable with your doctor, nurse and pharmacist. Use shading to indicate when you mustn't eat if you are using DDL without Tenofovir or Indinavir without Ritonavir; and meal times for drugs you have to take with food such as Lopinavir/(Kaletra), Nelfinavir, Ritonavir, Saquinavir, Atazanavir and Tenofovir.

Drug Name	AM							PM												AM		
	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3

Adherence Check

Once you have worked out a daily regimen above use the table below to mark off each dose after taking it for the first few weeks. Write the name of the drug and the time you need to take it in the top boxes. Use a different box for each drug. Then tick off the dose and write the time you took the dose in the sections underneath. Use a photocopy, or draw a new version yourself to use for the second and third weeks or if you need a larger table. This will help you know how well you are doing and this will be helpful when you next see your doctor.

Week date: _____

Add drug names + times from the schedule above in these boxes	DRUG NAMES + TIMES: AM			DRUG NAMES + TIMES: PM		
MONDAY						
TUESDAY						
WEDNESDAY						
THURSDAY						
FRIDAY						
SATURDAY						
SUNDAY						

Write the actual time that you took each day when you tick off these boxes

Positive Women

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CONTACTS

New Zealand National Screening Unit
www.nsu.govt.nz

International HIV Pregnancy Drug registry
www.apregistry.com

I-Base British HIV information site
www.i-base.info

New Zealand Fertility Plus
www.adhb.govt.nz/NWHealthInfo/gynaecologyServices/fertility_plus
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